



Enterprising Women:

TOWARD EQUAL BUSINESS
OPPORTUNITY IN SOUTHEAST ASIA



Acknowledgements

This report was produced by the World Bank's East Asia and Pacific Gender Innovation Lab (EAPGIL). It was prepared by a team led by Hillary C. Johnson and Elizaveta Perova, and including Ervin Dervisevic, Jhon Jair Gonzalez Pulgarin, Forest Jarvis, Yulia Krylova, Sundas Liaqat, Akaravuit Pancharoen, Alexander Spevack, José Daniel Trujillo, and Yue Wu. The team received guidance from Andrew Mason, Aaditya Mattoo, and Sudhir Shetty. Inputs for the box on the impacts of COVID-19 were provided by Leonardo Iacovone, Jesica Torres Coronado, and Trang Thu Tran.

The team gratefully acknowledges the comments and advice of the peer reviewers, who included Francisco Campos, Smita Kuriakose, Amy Lunistra, David McKenzie, and Anna O'Donnell. The team also thanks Keiko Inoue, Jonathan Lain, and Ririn Purnamasari for their helpful comments and suggestions. The team benefitted from the guidance and support of Manuela Ferro and Victoria Kwakwa, Regional Vice Presidents, East Asia and the Pacific. The report was edited by Jennifer McNally and designed and laid out by Samantha DeMott-Anderson, Katie Fielding, Kendra McHugh, and Ben Roberts at Six Half Dozen.

EAPGIL is supported by the Umbrella Facility for Gender Equality (UFGE) in partnership with the Australian Department of Foreign Affairs and Trade. UFGE has received generous contributions from Australia, Canada, Denmark, Finland, Germany, Iceland, Ireland, the Netherlands, Norway, Spain, Sweden, Switzerland, the United Kingdom, the United States, the Bill and Melinda Gates Foundation, and the Wellspring Philanthropic Fund.

Photos used in this report come from the following sources:

Cover photo and photo on page 13: © Kanawa_Studio / Getty Images. Used with the permission of Kanawa_Studio / Getty Images. Further permission required for reuse.

Inside Front Cover and photos on pages 5, 14, 17, 24, 35: © World Bank. Further permission required for reuse.

Photos on pages 5, 7, 9-10, 16, 24, 30, 41, 53, 55, 61, 63, 66, 97, 111, 122: © Pingann Oung / World Bank. Further permission required for reuse.

Table of Contents

Acknowledgements	ii	SECTION 4:	91
List of Figures	iv	Do opportunities, constraints, and needs of male- and female-owned SMEs differ?	
List of Tables	v		
List of Boxes	v	4.1 Perceived constraints	92
Executive Summary	1	4.2 Networks	94
Introduction	25	4.3 Access to finance	96
SECTION 1:	35	SECTION 5:	101
Gender gaps in participation and performance of MSMEs		Toward a targeted, gender-informed entrepreneurship policy	
1.1 Stylized facts	37	5.1 Interventions to enhance skills	104
1.2 Conceptual framework	40	5.1.1 Rationale and targeting	104
SECTION 2:	43	5.1.2 Evidence of promising skills-enhancing interventions	105
To be or not to be an entrepreneur, that is the question		5.1.3 Ensuring gender-inclusive skills-enhancement interventions	110
2.1 What factors are linked with women's engagement in microenterprises?	47	5.2 Interventions to improve access to capital	112
2.1.1 Domestic work	47	5.2.1 Rationale and targeting	112
2.1.2 Availability and relative attractiveness of other labor market opportunities	52	5.2.2 Evidence of promising interventions to improve access to capital	113
2.1.3 Access to capital	56	5.2.3 Ensuring gender-inclusive interventions to improve access to capital	119
2.2 What characteristics are linked with women's entry into SME ownership?	59	5.3 Interventions to support MSMEs as employers	123
SECTION 3:	65	5.3.1 Rationale and targeting	123
What contributes to the gender gap in performance of microenterprises?		5.3.2 Evidence of promising labor-related interventions	124
3.1 Access to labor	67	5.3.3 Ensuring gender-inclusive labor-related interventions	126
3.1.1 Hired labor	67	5.4 Interventions to alleviate time constraints related to domestic work	127
3.1.2 Own labor	71	5.4.1 Rationale and targeting	127
3.2 Skills	75	5.4.2 Evidence of promising interventions to reduce women's domestic workload	128
3.2.1 Formal education	75	5.5 The path forward	131
3.2.2 Business skills	78		
3.2.3 Access to information	78		
3.3 Access to capital	79		

Appendix A: Details of data sources used in the report	136
Appendix B: Methods and econometric specifications used in the report	137
Overview of methods used	137
Methods and specifications used in Section 1	138
Model 1.1: OLS regressions	138
Methods and specifications used in Section 2	142
Model 2.1 Linear probability model with gender interactions	142
Model 2.2 Linear probability model with individual fixed effects	144
Model 2.3 Events study	144
Methods and specifications used in Section 3	145
Model 3.1 OLS regressions with gender interaction terms	145
Model 3.2 OLS regressions with individual fixed effects	146
Model 3.3 Stepwise regressions	147
Model 3.4 Oaxaca-Blinder decompositions	147
Model 3.5 Cobb-Douglas production function	149
Model 3.6 Analysis of female entrepreneurs operating in male-dominated sectors	150
Methods and specifications used in Section 4	151
Model 4.1 OLS regressions with gender interaction terms	151
Model 4.2 Cobb-Douglas production function	151
Appendix C: Distribution of business performance variables for male and female microenterprises and SMEs	152
References	154

List of Figures

Figure 1: Gender gaps in participation exist among SMEs but not microbusinesses	37
Figure 2: Gender gaps in business performance of microenterprises exist, but less evidence of performance gaps among SMEs	39
Figure 3: Framework for understanding gender gaps in entrepreneurial outcomes	40
Figure 4: Women with young children are less likely to work, but the relationship between children and entrepreneurship is more complex	48
Figure 5: After the birth of their first child, women in Indonesia are more likely to be entrepreneurs and less likely to be wagedworkers	49
Figure 6: There is more heterogeneity in the number of hours that female entrepreneurs work than female wagedworkers	51
Figure 7: Higher education levels are associated negatively with entrepreneurship and positively with wage work for both men and women, but the relationship varies by gender and country	54
Figure 8: Access to capital is positively associated with engagement in entrepreneurship	57
Figure 9: Most SMEs had five or more employees at start-up	59
Figure 10: SMEs in Vietnam have different characteristics than microbusinesses	62
Figure 11: Women's microbusinesses have fewer paid employees than men's in all countries, but gender differences in unpaid workers vary by country	68
Figure 12: Women's microbusinesses have increasing returns to labor, whereas men's microbusinesses have decreasing returns to labor in Vietnam	69
Figure 13: Accounting for differences in labor reduces the gender gap in microbusiness performance	70
Figure 14: Time spent on domestic tasks is negatively associated with profits of female microentrepreneurs in Cambodia, and time-saving domestic infrastructure is associated with higher profits in Cambodia and Indonesia	72

Figure 15: Female microentrepreneurs are more likely to operate their businesses from home	74	Figure 29: Only a small percentage of female-owned SMEs report being well-served by financial institutions	96
Figure 16: Operating a microbusiness from residential property is negatively associated with business performance	74	Figure 30: Many female-owned SMEs are not well integrated in the formal financial system; however, there is heterogeneity across countries	98
Figure 17: Female entrepreneurs have lower education levels than male entrepreneurs	76	Figure 31: Female-owned SMEs in Vietnam have larger marginal returns to financial capital and lower marginal returns to capital stock than male-owned SMEs	99
Figure 18: Education levels are positively associated with business performance of female microentrepreneurs	76		
Figure 19: After accounting for differences in education levels, the gender gap in microenterprise performance shrinks in all countries except Vietnam	77	List of Tables	
Figure 20: Women's microbusinesses in Indonesia had lower start-up capital than men's	80	Table 1: Top three constraints for male-owned and female-owned SMEs	93
Figure 21: Female-owned microenterprises in Vietnam have lower assets than men's microenterprises	80	Table 2: Summary of global evidence of programs to improve entrepreneurs' skills	109
Figure 22: Access to capital is positively associated with women's microbusiness performance	82	Table 3: Summary of global evidence of programs to improve entrepreneurs' access to capital	119
Figure 23: Female-owned microbusinesses have higher returns to financial capital and lower returns to capital stock than male-owned microbusinesses in Vietnam	84	Table 4: Summary of global evidence of programs to support MSMEs as employers	120
Figure 24: Female entrepreneurs in male-dominated sectors have higher profits than female entrepreneurs in female-concentrated sectors in all countries except Cambodia	85	Table 5: Summary of global evidence of programs to alleviate women's time constraints related to domestic work	126
Figure 25: COVID-19 lowered growth in sectors with higher concentrations of female entrepreneurs	86	List of Boxes	
Figure 26: Female entrepreneurs had larger declines in their revenues linked with the COVID-19 pandemic than male entrepreneurs	88	Box 1: Existing evidence documents gender inequality in endowments and agency in Southeast Asia	26
Figure 27: Declines in revenues linked with the COVID-19 pandemic were largest for female-owned microenterprises	88	Box 2: The economic structure and regulatory environment vary across the countries included in the report	29
Figure 28: Female SME owners in Vietnam have similar numbers of individuals in their networks as male SME owners but rely more on their networks for support and have a different network composition	95	Box 3: Data sources	31
		Box 4: What to expect (and not to expect) from this report	32
		Box 5: Definitions	36
		Box 6: How norms, preferences, opportunities, and constraints shape entrepreneurial choices	45
		Box 7: How does this report analyze factors associated with women's engagement in entrepreneurship?	46

Box 8: How does this report analyze factors limiting the performance of women's microbusinesses	67
Box 9: What is the role of infrastructure in supporting the productivity of women's businesses?	84
Box 10: How is sector choice linked with the productivity of women's businesses?	85
Box 11: Gendered impacts of COVID-19 on MSMEs in Southeast Asia	86
Box 12: How does this report report gender-specific constraints among SMEs?	92

Executive Summary

This report explores gender differences in entrepreneurship for micro, small, and medium enterprises (MSME) in Southeast Asia. It analyzes data from five Southeast Asian countries: Cambodia, Indonesia, Lao People's Democratic Republic (Lao PDR), Timor-Leste, and Vietnam, and reviews existing evidence from across the region. Using data from household and firm-level surveys, the report establishes stylized facts about gender gaps in participation in entrepreneurship and in business performance for two types of businesses: microbusinesses and small and medium enterprises (SME). Microbusinesses include businesses with less than 5 employees, and SMEs include businesses with between 5 and 100 employees. This study focuses on MSMEs because they account for 97 percent of all enterprises in Asia-Pacific Economic Cooperation countries¹ and because the owner's gender may have a greater influence on the outcomes of MSMEs than large businesses, which are more likely to have multiple owners or be part of a larger corporation. After establishing stylized facts about gender gaps in entrepreneurship, the report employs various econometric

Removing barriers to female entrepreneurship can unleash untapped potential for economic growth and foster equity of opportunity.

techniques to understand better the factors that are associated with these gaps. Finally, the report makes a case for policy action and presents a review of global evidence on how these factors are best addressed.

Understanding how and why female entrepreneurs lag their male counterparts is critical to promote two key development objectives: equity and growth. Gender-based inequalities of opportunity can impede women from making work choices aligned with their goals, interests, and skills. Understanding and addressing the gender-specific challenges that hinder women's entrepreneurship can thus foster equity of opportunity. Removing barriers to female entrepreneurship can also unleash untapped potential for economic growth. When some women are excluded from becoming entrepreneurs, the average talent of entrepreneurs is lower, leading to an estimated per capita income loss of seven percent in East Asia and the Pacific.² Reducing barriers to women's labor market participation and occupational choices has also been shown to make large contributions to economic growth in the United States.³

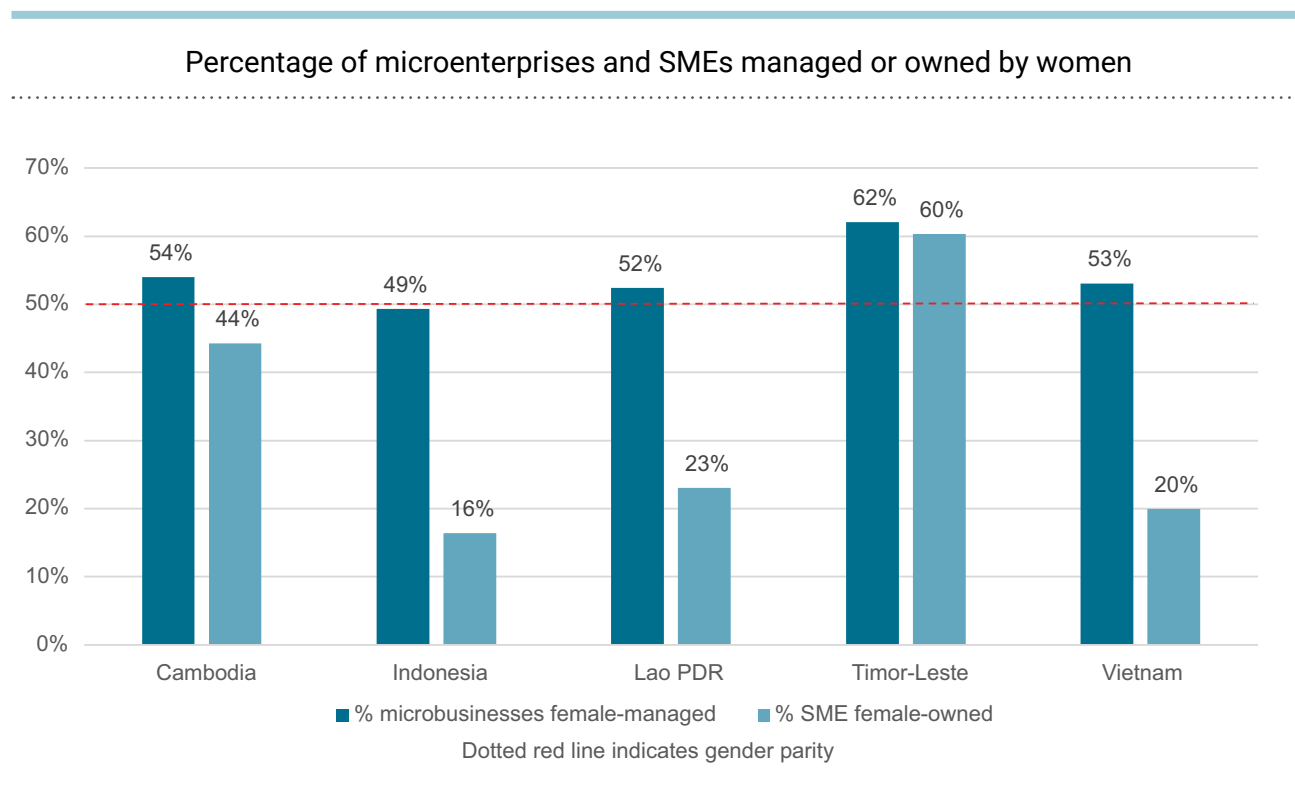
This report finds significant gender gaps in entrepreneurship in Southeast Asia, which differ by the scale of the enterprise. Gender gaps are linked to lower levels of entrepreneurial and other inputs in women-led enterprises due to inhibiting gender norms, legal inequities, and market failures. Women are as likely as men to run *microbusinesses*, but there are gender gaps in microenterprise performance. These gaps are associated with lower levels of key inputs, including hired labor, time for own labor, skills, and capital. Women are less likely than men to own *SMEs*, but gender gaps in SME performance are not statistically significant in most countries. Women's lower levels of skills, access to information, and capital help explain the gender gap in SME ownership, as these inputs are correlated with owning an SME. A comprehensive policy agenda is needed to address the multiple constraints that female entrepreneurs face, and policies need to address the heterogeneous needs of women operating businesses of different sizes.

Gender gaps in entrepreneurial outcomes in Southeast Asia depend on firm size

Although women run about half of microenterprises, women's microenterprises make lower profits and sales than those of men. As shown in Figure 0.1, the share of microbusinesses run by women ranges from 49 percent in Indonesia to 62 percent in Timor-Leste. Nevertheless, there are gender gaps in business performance, and these gaps remain or become wider when comparing men and women operating in the same sector of activity (Figure 02: Panel A). Female microentrepreneurs have profits or sales that are between 11 percent and 41 percent lower than male microentrepreneurs in similar sectors of activity.

Women are less likely than men to own SMEs; however, there are not statistically significant gender gaps in performance among SMEs in most countries. In all countries except Timor-Leste, less than half of SMEs are owned by women, with the largest gaps in SME ownership in Indonesia and Vietnam (Figure 0.1). Gender differences in business performance of SMEs are only statistically significant in Indonesia, and this difference shrinks and loses statistical significance when comparing men and women in the same sector of activity (Figure 02: Panel B). In Lao PDR and Timor-Leste, the gender gap in business performance reverses to favor female-owned SMEs when comparing men and women with similar personal and business characteristics.

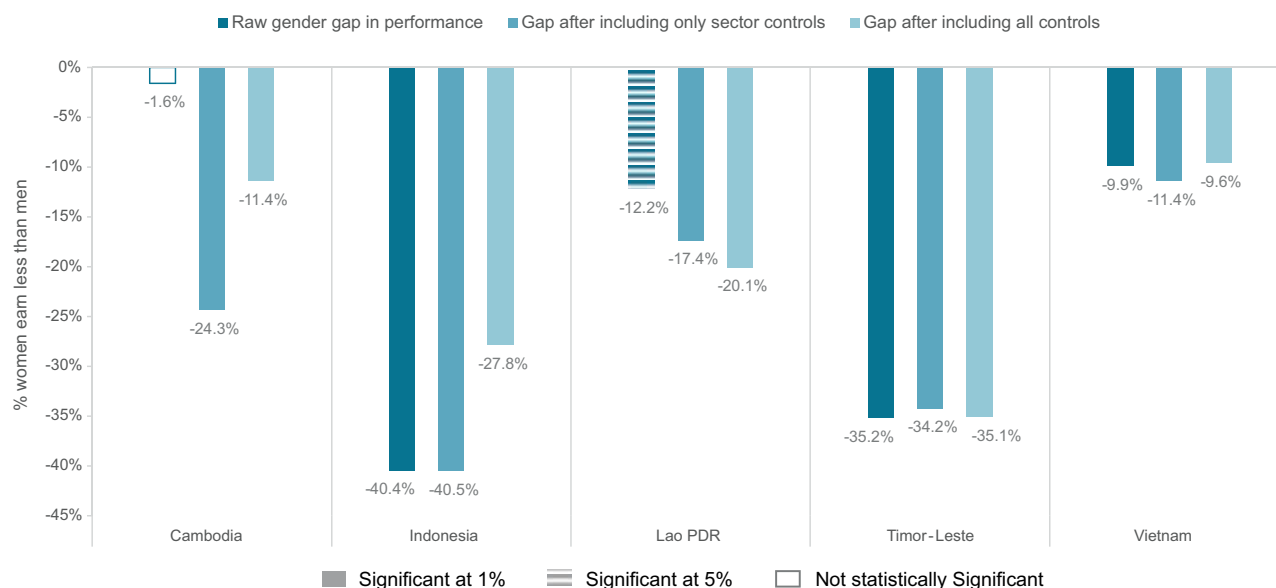
Figure 0.1 Gender gaps in participation exist among SMEs but not microbusinesses



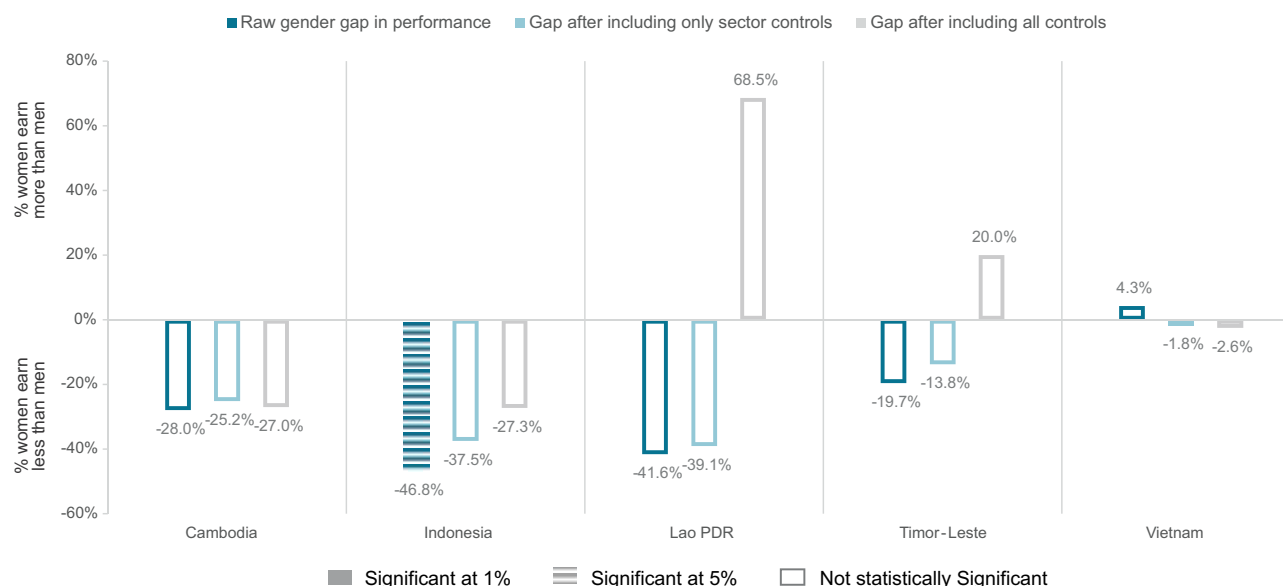
Source: Calculations using CSES, IFLS, LECS, TLSLS, VARHS for microbusinesses and the WBES for SME

Figure O.2 Gender gaps in business performance of microenterprises exist, but there is less evidence of performance gaps among SMEs

Panel A. Percentage difference in business performance between male and female microentrepreneurs



Panel B. Percentage difference in business performance between male and female SMEs



Source: Panel A: Calculations using CSES, IFLS, LECS, TLSLS, VSMES ; Panel B : Calculations using WBES for Cambodia, Indonesia, Lao PDR, Timor-Leste, VSMES

Note: In Panel A, business performance is defined as log profits for Cambodia, Indonesia, Timor-Leste, and Vietnam and log sales for Lao PDR. In Panel B, business performance is defined as log sales for Cambodia, Indonesia, Lao PDR and Timor-Leste, and log profits for Vietnam. See Model 1.1 in Appendix B for technical details and the list of control variables included.

Gender gaps in entrepreneurship are linked to lower levels of inputs in women-led enterprises, which are shaped by gender norms, legal distortions, and market failures.

Existing evidence demonstrates that women-led enterprises have lower levels of key entrepreneurial inputs, including the time and skills of the entrepreneur, hired labor, and capital. Women in Asia and the Pacific spend four times more time on unpaid care work than men,⁴ which limits the amount of time available to them for market activities, like running a business. Although the gender gap in school enrollment has been closing and even reversed in some countries over the past two decades, there are still gender differences in educational attainment and literacy among adults⁵ as well as differences in access to business-specific knowledge.⁶ Women's businesses have fewer workers than men's businesses.⁷ In addition, women have unequal access to inputs like land and credit.⁸



Women in Southeast Asia seem able to open microenterprises with comparable ease to men but face **gendered barriers to SME ownership**.

Female **microentrepreneurs underperform** compared to male microentrepreneurs, but gender gaps in business performance are less salient among SMEs.

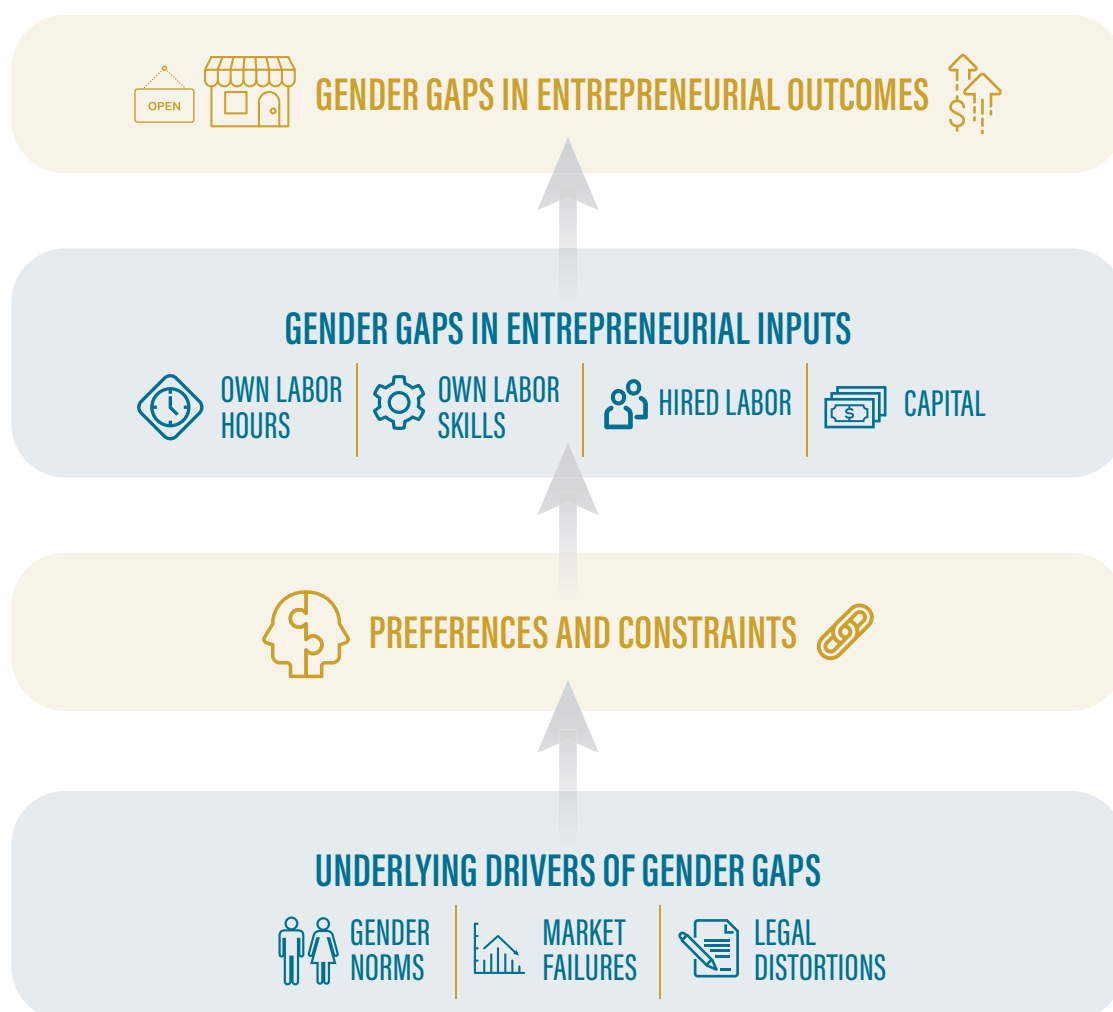


As shown in the conceptual framework developed for this report (Figure O3), gender gaps in entrepreneurial inputs explain the observed gender gaps in SME ownership and microbusiness performance.

New analysis for this report shows that female microentrepreneurs have lower levels of entrepreneurial inputs than male microentrepreneurs, and input levels are associated with the gender gap in microenterprise performance. Opening an SME requires higher levels of inputs than opening

a microbusiness. As such, women's lower levels of entrepreneurial inputs make it more challenging for them to open an SME than for men, contributing to observed gender gaps in SME ownership. Women who succeed in opening an SME have different characteristics and greater access to inputs than women who are unable to open SMEs, and these characteristics and access to inputs enable them to have sales and profits that are on par with those of male-owned SMEs.

Figure O.3 Framework for understanding gender gaps in entrepreneurial outcomes



Women-led enterprises do not have the same entrepreneurial inputs as men due to gender norms, market failures, and legal distortions that constrain their choices and influence their preferences of how to allocate their available time and resources. Gender norms are unwritten rules that define acceptable and appropriate actions for women and men in a group or society.⁹ Gender norms, such as those that emphasize women's role in domestic tasks or that dictate appropriate types of work for men and women, shape women's choices and preferences for entrepreneurship. These norms also affect what entrepreneurial inputs are available to women. For example, female entrepreneurs in Uganda who brought their young children to their retail businesses with them were more likely to experience stock shortages than women who did not have to

simultaneously care for young children, likely due to greater time and mobility constraints.¹⁰ Market failures refer to missing or inefficient provision of goods or services that arise due to issues such as externalities—benefits or costs that are not specific to a producer or consumer—or informational barriers. For example, one reason entrepreneurs under-invest in business training is the lack of information about the potential returns of training and information asymmetries about the quality of training providers.¹¹ Female entrepreneurs' networks are often smaller and less formal than those of men, which can exacerbate these informational barriers. Legal distortions refer to explicit or implicit gender discrimination in laws or policies. For example, gender discrimination in property laws limit women's ability to access capital.¹²



Female microentrepreneurs make lower profits than male microentrepreneurs because they have lower levels of key inputs, including hired labor, time for own labor, skills, and capital.

Hired labor is associated with higher sales and profits, yet women's microbusinesses have fewer paid workers than men's and rely more on unpaid labor. Evidence from Vietnam suggests that women are operating below the optimal size of their firms. Specifically, female microbusinesses in Vietnam have increasing returns to labor—for example, doubling the number of workers would more than double the value of production. A greater proportion of women's workers in Indonesia and Lao PDR are unpaid compared to men, which can affect the quality and reliability of their labor supply. After accounting for women's lower levels of paid and unpaid workers, the gender gap in business performance shrinks by 19 percent, 10 percent, 21 percent and 4 percent in Cambodia, Indonesia, Lao PDR, and Timor-Leste, respectively. Similarly, the size of the labor force explains 15 percent of the gender gap in profits in Vietnam.

Several underlying factors may contribute to women's lower levels of hired labor. Negative stereotypes about women's ability as managers can make it more difficult for women to hire and retain male employees¹³ and can lower their confidence in their own ability to manage personnel effectively. Informational constraints

may also contribute to gender gaps in business size. Women may hire fewer workers if they have less information than men about the potential returns to hiring additional workers,¹⁴ and the size and composition of their networks may make identifying qualified recruits more challenging. Finally, gender norms that emphasize women's role in domestic work can drive women to maintain a smaller scale to better balance their business operations with household responsibilities.¹⁵

Women's greater role in managing domestic and care work limits the amount of time they can dedicate to their businesses, and entrepreneur's own labor is critical for the business performance of microenterprises.

Because most microbusinesses—ranging from 74 percent in Lao PDR to 97 percent in Timor-Leste—do not have any paid workers, the entrepreneur's own labor is an essential input. Women's ability to invest time in their businesses is limited by gender norms that emphasize women's role in domestic and care work and a lack of supportive infrastructure, such as affordable, quality childcare or time-saving domestic appliances. Female entrepreneurs who spend less time collecting fuel and water and those who have time-saving cooking appliances have higher sales and profits than those who spend more time on these activities and do not have appliances. Even if higher sales and profits enable women to invest in better household infrastructure, these investments signal female entrepreneurs' desire to reduce the time they spend on domestic work.



Women may have **difficulties hiring additional labor** if they lack the necessary financing or if negative stereotypes about women's ability as managers make it more difficult for them to hire and retain male employees.



34%

In Lao PDR, **34 percent of female microentrepreneurs identify primarily as homemakers** in at least one month over the past year, and their **revenues are 18 percent lower** than those who were primarily working all year.



Female microenterprise owners in Vietnam who adopt new technology get less of a boost to their businesses compared to men, despite the high dividends for firms using innovative technologies.



Gendered social norms can make it **more challenging for women to build and diversify their networks**, but networks are particularly important for women's business performance in Vietnam.



<50%

Female microentrepreneurs in Indonesia had **less than half the amount of start-up capital** than men, and women's microbusinesses in Vietnam have **18 percent less physical assets** and **39 percent less financial assets** than men.*



Male-owned microbusinesses seem comparatively more constrained in physical capital, while **female-owned microbusinesses seem comparatively more constrained in financial capital**.*

*Physical assets or capital refer to buildings, machinery and equipment. Financial assets or capital refer to cash and receivables, such as money owned by customers.

Gender gaps in knowledge are associated with the gender gap in microbusiness performance: market failures and gender norms can make it challenging for female entrepreneurs to close these knowledge gaps on their own. Formal education can enable entrepreneurs to gain critical literacy and numeracy skills, and formal schooling is positively linked with business performance.¹⁶ Female entrepreneurs in Southeast Asia have lower levels of education than men. Accounting for women's lower levels of education shrinks the gender gap in microenterprise performance by 39 percent in Cambodia, 11 percent in Indonesia, 43 percent in Lao PDR, and 8 percent in Timor-Leste. In Vietnam, female entrepreneurs also have less knowledge of business-related laws and regulations and are less likely to adopt innovative business practices including introducing new product groups. Women's lower levels of business knowledge explain part of the gender gap in profits of microenterprises in Vietnam. Women may face challenges investing in training to address these skill gaps due to a shortage of training programs that are aligned with their needs and a lack of knowledge of the potential of investing in skill development programs. In addition, gender norms that emphasize women's role in the household constrain the time women can invest in skill development programs.



Female microentrepreneurs have lower levels of business assets than male microentrepreneurs and face gender-related challenges in accessing capital. Female entrepreneurs in Indonesia have lower levels of start-up capital than male entrepreneurs. Compared to men's microbusinesses in Vietnam, women's microbusinesses have lower levels of both physical capital—including land, buildings, equipment, and machinery—and financial capital—including cash and receivables. Discriminatory property laws can make it more challenging for women to access credit because they limit women's access to assets that can be used as collateral.¹⁷ Even when laws provide for equal land rights or ban gender discrimination in access to credit, gender norms that dictate men's role in administering assets can lead to gender differences in what is required in practice.¹⁸ Perhaps reflective of these challenges, female microentrepreneurs are less likely to have loans, invest capital in the business, or own the business location than male microentrepreneurs in Southeast Asia. Nevertheless, these three factors are only positively associated with the business performance of female entrepreneurs, and there is no statistically significant relationship for male entrepreneurs.

The COVID-19 pandemic has exacerbated the challenges facing female microentrepreneurs. Microbusinesses, where female entrepreneurs are concentrated, experienced larger declines in their revenues associated with the COVID-19 pandemic than small, medium, or large enterprises. Moreover, the decline in revenues was larger for female microentrepreneurs than male microentrepreneurs in Cambodia and Vietnam. Such challenges may be linked to three pre-existing gender disparities. First, prior to the pandemic, women spent four times more hours on unpaid care work than men.¹⁹ The COVID-19 pandemic increased the amount of domestic work for many households, due to school and daycare closures, the need to care for sick family members, additional cleaning, and more meals being consumed at home. Although both men and women in East Asia and the Pacific have increased the amount of time they spend on caretaking and domestic activities,²⁰ global evidence shows that women have increased their hours more than men.²¹ Second, female entrepreneurs are concentrated in sectors that have been hardest hit by the pandemic. For example, female microentrepreneurs

Without gender-sensitive recovery policies, the COVID-19 pandemic may widen gender gaps in entrepreneurial outcomes.

in Indonesia are concentrated in hotels, restaurants, and light manufacturing, sectors that experienced large declines in sectoral growth in 2020. Third, prior to the pandemic, female microentrepreneurs had less education and lower access to capital, which can limit the coping mechanisms that female entrepreneurs can adopt.

Box O.1 Although there is gender parity in running microenterprises, there are gender differences in factors that orient men and women's choices to open a microenterprise.

Women's greater role in domestic work, including childcare, can both hinder and motivate women to run microbusinesses.

For example, in Cambodia, working-aged women with young children are less likely to be entrepreneurs than those without young children, but considering only women in the labor force, women with young children are more likely to be entrepreneurs than other women. Motherhood can lower the likelihood of entrepreneurship because it lowers the likelihood of participating in the labor force at all. Nevertheless, entrepreneurship offers more flexible hours and location of work than wage work, which makes it an attractive option for working mothers.

The availability and conditions of wage work make entrepreneurship a comparatively more or less attractive labor market choice, but men and women face different wage work opportunities. Men and women tend to sort into different occupations and educational tracks and thus face different wage work opportunities.²² Gender norms influence the type of work that is deemed appropriate for men and women, which can further affect relative access to available jobs. In Southeast Asia, both men

and women with higher levels of education are more likely to engage in wage work and are less likely to be entrepreneurs. However, the strength of the relationship between education and entrepreneurship is different for men and women, and these trends vary by country.

Access to capital is essential for both male and female entrepreneurs to open businesses; however, it appears to matter more for Southeast Asian women. There is a stronger correlation between indicators of access to capital and the likelihood of being a microentrepreneur for women in most countries in Southeast Asia. For example, both women and men in households that have received loans are more likely to engage in entrepreneurship than those who have not received loans; however, this relationship is more than three times stronger for women than men in Timor-Leste. Similarly, having assets that can be used as collateral is more strongly associated with the probability of being a Cambodian entrepreneur for women than men. Savings are also an important source of start-up capital for entrepreneurs, and Indonesian women are more likely than men to rely on savings to start their businesses.

Gender gaps in SME ownership are linked with women's lower levels of skills, access to information, and capital.

It is more common for successful SME owners in Southeast Asia to have opened an SME directly rather than scaling up a microbusiness. More than half of male- and female-owned SMEs had at least five employees at start-up, and many firms that were considered microbusinesses at start-up had at least three or four employees when they began operations. Although both male and female SME owners tend to directly open an SME, men are more likely to own SMEs. This implies that women face obstacles to opening an SME.

SME owners have greater skills, access to information, and access to capital than microentrepreneurs. Both male and female SME owners in Vietnam have greater knowledge of laws and regulations and use better and more formal business practices than their microenterprise counterparts. Although it is possible that larger business owners acquire these business specific skills and information by necessity due to their more advanced operations, basic skills are also correlated with SME

The most common way to become an SME owner is to open an SME directly, rather than growing a microbusiness into an SME.





Networks provide critical information and support for female SME-owners; however, gender norms restrict women's ability to network.

ownership. Vietnamese SME owners—both male and female—are more likely than microentrepreneurs to have completed higher secondary or university level education. Networks provide a critical source of business information and support,²³ and female SME owners have larger networks and more men in their networks than female microentrepreneurs. Female SME owners are also more leveraged and are more likely to have applied for formal credit and to have borrowed informally than female microbusiness owners in Vietnam, suggesting the importance of access to capital for SME ownership.

Gender gaps in skills, access to information, and access to capital thus make it more difficult for women than for men to open SMEs. Women in Southeast Asia have lower levels of educational attainment and literacy than men²⁴ as well as lower access to business-specific knowledge.²⁵ Gender norms restrict the time that women have available for networking and limit the types of social relations and networking activities in which women can engage.²⁶ In addition, women have unequal access to capital inputs including land and credit.²⁷ Because skills, access to information, and access to capital are associated with the likelihood of owning an SME instead of a microenterprise, women's lower levels of these key inputs contribute to observed gender gaps in SME ownership.

Box O.2 Although gender gaps in the performance of SMEs are not statistically significant in most countries, female-SME owners do face unique challenges.

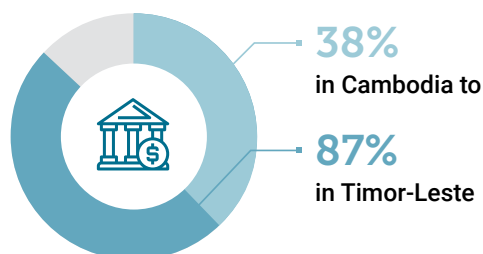
Female entrepreneurs perceive different constraints than male entrepreneurs and are more likely to face regulatory or transport-related challenges. Customs and trade regulations are among the top three cited issues for women-owned SMEs in Indonesia and Lao PDR; however, they are less frequently cited among men-owned SMEs. Similarly, women-owned SMEs in Vietnam cite transport as their main business challenge more frequently than men-owned SMEs. These differences remain after accounting for the fact that men and women often operate in different sectors of activity. Gender norms may shape the experiences that female SME-owners have when interacting with regulators or the transport sector.

Women's networks are less formal than men's networks, yet female SME owners rely more on their networks for support. Female SME owners are less likely than male SME owners to belong to business associations or to pay membership dues for business associations, suggesting women's networks are less formal than those of men. Gender norms about appropriate social relations and time constraints linked to women's greater roles in domestic work may influence the type and composition of their networks.

Nevertheless, female SME owners in Vietnam report receiving assistance from contacts in their networks more frequently than male SME owners. Aligned with this finding, the size of women's networks is more strongly associated with SME profits for women than men.

While neither male- nor female-owned SMEs are well integrated into the formal financial system, female-owned SMEs face greater constraints in land ownership and financial assets than male-owned SMEs. The share of female-owned SMEs with a checking or savings account ranges from 38 percent in Cambodia to 87 percent in Timor-Leste, and the share with an overdraft facility ranges from 2 percent in Lao PDR to 30 percent in Timor-Leste. In all countries studied, less than a quarter of female-owned SMEs have a line of credit or loan from a formal financial institution. In Lao PDR and Vietnam, the share of women's SMEs with a line of credit or loan is 28 and 20 percentage points, respectively, lower than the share of men's SMEs with a line of credit or a loan. In Vietnam, compared to men-owned SMEs, women-owned SMEs have greater marginal returns to land and financial capital, including liquid assets and cash, which signals that women's SMEs are comparatively more constrained in these factors of production.

The share of female-owned SMEs with a checking or savings account ranges from



However, in all countries studied,

less than a third of female-owned SMEs have an overdraft facility, and

less than a quarter have a line of credit or loan from a financial institution.



Table O.1 Summary of barriers to women's microenterprise performance and participation in SMEs

BARRIER	GENDER GAP IN MICROENTERPRISE PERFORMANCE	GENDER GAP IN SME PARTICIPATION	TYPES OF INTERVENTIONS INDICATED
SKILLS, KNOWLEDGE, AND INFORMATION GAPS	✓	✓	Skills-enhancing
LOWER LEVELS OF CAPITAL COMPARED TO MEN	✓	✓	Improving access to capital
LOW, AND IN SOME CASES SUB-OPTIMAL, LEVELS OF HIRED LABOR	✓	?	Supporting hiring and managing of workers
TIME CONSTRAINTS DUE TO DOMESTIC WORK	✓	?	Alleviating time constraints due to domestic work

Note: Check mark indicates evidence that the barrier is associated with the observed gender gap in entrepreneurship. Question mark indicates that the data do not enable testing the relationship between the barrier and the observed gender gap.





A comprehensive policy agenda is needed to address women's multiple constraints and the heterogeneous needs of female entrepreneurs operating at different scales.

This report builds the case for tailored MSME policies that address women's specific needs and are designed to reach both microbusinesses and SMEs. Women have access to lower levels of entrepreneurial inputs than men, which affects their ability to engage and compete in entrepreneurship. These gender differences in inputs are linked to the underperformance of women's microbusinesses compared to those of men and women's lower representation among SME owners. The challenges that female microbusiness and SME owners face relative to men are different. Gender-informed MSME policies can promote both equity and growth objectives and maximize the efficiency of public investment by ensuring that some individuals and businesses are not excluded on the basis of gender.

Two types of policies should be ideally adopted in parallel: policies that directly address input gaps and those that influence the underlying drivers of gender gaps. As described in the conceptual framework, gender gaps in entrepreneurial inputs—including hired labor, time for own labor, skills, and capital—are linked with gender gaps in entrepreneurial outcomes, including participation in entrepreneurship and business performance. Gender norms, market failures, and legal distortions are underlying factors that constrain women's access to inputs and inform their preferences of how to allocate limited resources. Because addressing these underlying drivers is a

Gender-informed MSME policy contributes to equitable, inclusive development and maximizes the effectiveness of limited resources.

slow process, policies that can address gender gaps in inputs in the short term can help. In some cases, policies that directly address current gender gaps in inputs can also help shift underlying drivers of gender gaps, creating a virtuous cycle. For example, programs to facilitate female entrepreneurs' access to bank loans directly boost beneficiaries' input levels and simultaneously enable more bank officers to interact with female entrepreneurs. Such interactions may counteract the influence of gender norms and shift bank officers' perceptions of female entrepreneurs' managerial capacity, ability to repay, and passion for their businesses.

This report reviews global evidence on four types of policies that can support female

entrepreneurs in Southeast Asia: skills interventions, promoting access to capital, supporting hiring and management of workers, and alleviating time constraints related to domestic work. Many of these policies, such as those supporting skills development, improving access to finance, and facilitating hiring and managing workers, could also support male entrepreneurs. Additionally, other types of policies, such as improvements to the business environment, may support both male and female entrepreneurs. This report focuses on policies that have the potential to address the gender gaps identified in this report. Table 0.2 summarizes the global evidence of specific interventions for each of the four types of policies.

4 ways to support female entrepreneurs in Southeast Asia:

1 Promote skill development

2 Improve access to capital

3 Support to hire and manage workers

4 Reduce time women spend on domestic work

Table O.2 Summary of the effectiveness of different policy options based on existing, global evidence

TYPE OF INTERVENTION	INTERVENTION DESCRIPTION	SUMMARY OF EVIDENCE	RELEVANCE		EFFECTIVENESS
			MICRO	SME	
SKILL ENHANCING	Standard business training programs	Standard business training programs can have a positive impact on firm performance. However, alternative training approaches that use heuristics, highly tailored content, or psychological principles have proven more effective on average.			
	Alternative business training programs	Business training that uses basic rules of thumb, content that is highly tailored to the local context, or is based on psychology is more effective than standard business training at boosting business performance.			
	Personalized guidance from business consultants or trained mentors	Business consulting can lead to sustained positive impacts on SME performance. Evidence is somewhat mixed for microenterprises and may be more effective for those with more experience, formal education, or slightly larger businesses.			 Micro  SME
	Peer-to-peer learning and network formation	Social learning interventions have improved the business performance of both SMEs and microenterprises and can be cost-effective solutions.			
IMPROVING ACCESS TO CAPITAL	Microfinance	Microfinance can generate small, positive changes but are unlikely to lead to transformative impacts for female entrepreneurs.			
	Overcoming collateral constraints	Although there is a paucity of rigorous evidence, psychometric testing, cash flow loans, and credit guarantees hold potential to support female entrepreneurs.			
	Subsidized loans, directed lending, and blended finance	While these programs can help credit-constrained firms access credit, design and implementation are critical to ensure proper targeting and avoid distorting the market.			
	Unconditional grants	Cash grants have overall not succeeded in boosting the performance of women's microbusinesses, often due to issues of diversion of funds from their businesses. In-kind grants may hold more potential for female microentrepreneurs, but more evidence is needed.			 Cash  In-Kind
	Business plan competitions	Business plan competitions offering cash prizes have been proven to increase high growth entrepreneurship for both men and women; however, the design should include specific targeting to women, such as female-only competitions.			

TYPE OF INTERVENTION	INTERVENTION DESCRIPTION	SUMMARY OF EVIDENCE	RELEVANCE		EFFECTIVENESS
			MICRO	SME	
IMPROVING ACCESS TO CAPITAL	Savings promotion	Savings interventions have helped increase investment and business performance of women's microbusinesses.			
	Improving knowledge of labor laws and good human resources practices	Limited rigorous evidence is available, but existing evidence seems promising.			
SUPPORTING HIRING AND MANAGING OF WORKERS	Wage subsidies	A few studies show that wage subsidies may have impacts if they are tailored and targeted to specific types of firms; however, more evidence is needed on how they can impact female-owned firms. Combining subsidies with support to identify qualified workers may be more impactful.			
	Improving access to affordable, quality childcare	There is a solid evidence base that childcare can increase women's labor force participation; however, more evidence is needed to understand the impacts on female entrepreneurship. More evidence is also needed on the ideal type of childcare to support female entrepreneurs in different country contexts.			
ALLEVIATING TIME CONSTRAINTS RELATED TO DOMESTIC WORK	Supporting access to time-saving, improved household infrastructure	Evidence shows that improved household infrastructure, such as in-house drinking water, time-saving cooking technologies, and other time-saving appliances reduce time spent on domestic tasks. However, more evidence is needed to understand the impact of these time savings on female entrepreneurs and whether the amount of time saved is sufficient to translate into meaningful impacts for female entrepreneurs.			
	Parental leave policies	Well-designed parental leave policies that include sufficient, highly paid, nontransferable leave to both parents can boost men's involvement in childcare. However, this may not be a policy priority to support female entrepreneurs in contexts where leave protections are not universal to all workers, such as those in the informal sector.			
	Engaging men and shifting intra-household allocation of domestic work	Programs that engage men in discussions related to gender-related issues have shown increases in joint decision-making and an increase in men's involvement in domestic tasks in addition to other development outcomes affecting women. More evidence is needed on how such programs can support female entrepreneurs more specifically.			

RELEVANCE	 Strong relevance	 Somewhat relevant	 Not relevant
	 Demonstrated effectiveness	 Mixed or limited evidence	 Minimally or not effective

In addition to specifically targeting women, broad MSME policies need to be designed with gender-specific constraints in mind to ensure that women can equitably access and benefit from them. Accessing MSME programs may be a challenge for female entrepreneurs as they face greater time and mobility constraints and are at a higher risk of harassment. To ensure that both men and women can equitably access all MSME programs, outreach should target women, enrollment procedures should accommodate women with greater time or mobility constraints, and hours of program operations should be compatible with women's schedules. In addition, programs need to have

clear protocols to mitigate risks of harassment or gender-based violence and a robust grievance redress mechanism to address any concerns. Moreover, programs addressing capital constraints must be designed to account for gender imbalances in intra-household bargaining power and normative pressures for women to divert capital flows toward the needs of their households or other members of their family. For example, financial information should remain confidential and accessible only to the female entrepreneur, and products such as in-kind grants or commitment savings devices may enable women to better shield these inputs from external demands.

Checklist for Ensuring Equitable Access to MSME Policies:

- ✓ Is the program's content relevant for female entrepreneurs and is it tailored to their needs?
- ✓ Do the program's logistical arrangements make it more difficult for women to access or participate in the program?
- ✓ Could social norms or stereotypes lower the likelihood that women participate in the program, and can those risks be mitigated?
- ✓ Are there mitigation measures in place to protect female entrepreneurs from the risk of gender-based violence, harassment, and discrimination?
- ✓ Could gender imbalances in intra-household bargaining affect the effectiveness of the program for female entrepreneurs, and can a gender-smart design overcome such impediments?

A comprehensive strategy and strong coordination among stakeholders can advance more equitable entrepreneurship policies for more equitable outcomes.

A comprehensive, gender-informed, MSME policy agenda is needed because addressing one constraint in isolation may not be effective if others are binding. For example, an entrepreneur who is able to better identify opportunities after a skill intervention will only reap the benefits if they are able to find the financing to implement their idea. Conversely, an entrepreneur who receives funding will make better use of that funding if they have solid managerial and entrepreneurial skills. Indeed, recent evidence shows that intervention packages that address multiple barriers to female entrepreneurship, such as those providing both skills development and financing, are more effective than those that address only one constraint.²⁸ Thus, a multiplier effect from complementary interventions may justify their increased cost. In a resource constrained environment, it may be more impactful to address multiple binding constraints for a smaller group of entrepreneurs than to address one constraint for a larger group of entrepreneurs. Nevertheless, some underlying drivers, such as gender norms, take time to change and may limit the extent to which certain input gaps, such as time for own labor and skills, can be effectively closed in the short term. The design and expected return to costly interventions may need to be conditioned on the extent to which the targeted or complementary inputs can be addressed.

Because action is needed on multiple fronts, strong coordination is essential to achieve the goal of MSME policies that equitably benefit men and women with different sized firms. Interventions that address the varied challenges that women's MSMEs face likely fall under the purview of more than one ministry or institution. Ideally, a high-level champion can push for a comprehensive strategy that convenes the various stakeholders to develop and adhere to a shared vision. Although the path to equitable entrepreneurship is long, the intrinsic value of equitable opportunities and the potential for economic growth make it a worthwhile endeavor.

Endnotes

- 1 Asia-Pacific Economic Cooperation Working Group on Small and Medium Enterprises, <https://www.apec.org/Groups/SOM-Steering-Committee-on-Economic-and-Technical-Cooperation/Working-Groups/Small-and-Medium-Enterprises.aspx>
- 2 Cuberes and Teignier 2016
- 3 Hsieh et al. 2019
- 4 International Labor Organization 2018: 56
- 5 World Bank 2012b
- 6 Ellis, Kirkwood, and Malhotra 2010
- 7 World Bank 2016b; International Finance Corporation 2017
- 8 Ellis, Kirkwood, and Malhotra 2010
- 9 Cislighi and Heise 2020
- 10 Delecourt and Fitzpatrick 2020
- 11 McKenzie 2020
- 12 Demirgüç-Kunt et al. 2008; Goheer 2013
- 13 International Finance Corporation 2008
- 14 Hanna, Mullainathan, and Schwartzstein (2014) demonstrate that entrepreneurs with little experience with an input, such as labor, do not learn that hiring an additional worker could be profitable. Given women have fewer workers than men, they are less likely to have had experience hiring additional workers and may be more likely to underestimate the potential benefits of doing so.
- 15 Asia Foundation 2013b
- 16 Brush and Hisrich 1991; Casson 1982; Schutjens and Wever 2000
- 17 Demirgüç-Kunt et al. 2008; Goheer 2013
- 18 Ellis et al 2010; International Finance Corporation 2017
- 19 International Labor Organization 2018
- 20 UN Women 2020a
- 21 UN Women 2020b
- 22 World Bank 2012
- 23 Ács et al. 2017; Álvarez, Marin, Fonfría 2009; Szarka 1990
- 24 World Bank 2012b
- 25 Ellis, Kirkwood, and Malhotra 2010
- 26 Ellis, Kirkwood, and Malhotra 2010
- 27 Ellis, Kirkwood, and Malhotra 2010
- 28 Revenga and Dooley 2020



Introduction

This report identifies gendered barriers to opening and growing micro, small, and medium enterprises (MSMEs) in Southeast Asia and makes policy recommendations for addressing them. It combines a review of the existing evidence with new analysis from five Southeast Asian countries: Cambodia, Indonesia, Lao People's Democratic Republic (Lao PDR), Timor-Leste, and Vietnam.¹ The report measures gender gaps in entrepreneurial participation and performance for microbusinesses and SMEs. It defines microbusinesses as those with fewer than five employees and SMEs as those with between five and 100 employees. It then identifies factors associated with these gaps for both types of enterprises and finally reviews global evidence of what works to close them.

Not all individuals are equally placed to open and successfully run an MSME, and gender influences one's ability to engage and compete in entrepreneurship. To both open and successfully grow a business, both men and women must have the necessary skills,

finance, and time. However, as shown in Box 1, women in Southeast Asia have lower levels of all three of these endowments, putting them at a disadvantage. It is also critical to have agency—the ability to set goals in line with one’s values and act in a way to achieve these goals—to develop and implement a business plan. Southeast Asian women have lower levels of agency than men, which further impedes their ability to engage in careers aligned with their skills and preferences and to independently conduct business activities.

Addressing gender inequalities that make it harder for women to engage and compete in entrepreneurship has intrinsic value and promotes a human rights agenda. The ability to live the life of one’s choosing and to be spared from deprivation is a basic human right that should be equal for everyone, regardless of gender.² Removing obstacles that leave individuals with little choice or opportunity to exercise their reasoned agency is both the principal means and the primary ends of development.³ Promoting equitable opportunities for women’s entrepreneurship is thus an important development objective in itself.

Box 1 Existing evidence documents gender inequality in endowments and agency in Southeast Asia

Despite progress made, women in Southeast Asia continue to have more limited endowments, including skills, assets, and time, than men. *Although the gender gap in school enrollment has been closing and even reversed in some countries over the past two decades, there are still gender differences in educational attainment and literacy among adults⁴ as well as differences in access to business-specific knowledge.⁵ In addition, women face challenges in accessing credit due to a lack of assets that can be used as collateral, which is linked with discriminatory property laws⁶ and norms that regard husbands as responsible for capital-related transactions or land.⁷ Moreover, women often face more demands on their time, as social norms often dictate that women should be primary caregivers for the family, even when they work outside the home.⁸*

Women continue to lack voice and influence in both public and private spheres, even if East Asia performs better than other regions on many indicators of agency.⁹ *In 2019, women only held 20.5 percent of seats in national parliaments and 11.3 percent of ministerial-level positions in East Asia and the Pacific.¹⁰ In the private sphere, qualitative work reveals that men in several Southeast Asian countries continue to have more influence over household decisions. For example, despite strong social norms and respondent preferences for consultative decision-making in the Philippines, wives often defer to their husbands’ opinions because he is the head of the household or to keep peace in the household.¹¹ Moreover, men in Vietnam reported allowing their wives to decide on small and routine purchases to avoid housework and protect their masculinity but insisted they were always the decision-makers on major investments or important family decisions, even when their wives disagreed.¹²*

Removing barriers to female entrepreneurship can also unleash untapped potential for economic growth.

If innate entrepreneurial talent is evenly distributed across men and women, when women are excluded from managerial positions, the average talent of managers is lower. This in turn leads to lower innovation, slower technology adoption, and eventually to lower output.¹³ Cuberes and Teignier (2016) quantify per capita income losses due to gender gaps in labor force participation and entrepreneurship at between 15 percent and 16 percent in East Asia and the Pacific. Gender gaps in entrepreneurship alone lead to losses in income per capita of 7 percent in the region. Removing barriers that prevent women from entering the occupation of their choice can boost economic growth. Hsieh et al. (2019) find that improved allocation of talent due to a reduction in racial and gendered barriers to labor force participation and occupational choice between 1960 and 2010 in the United States explained between 20 percent and 40 percent of growth in aggregate market output per person. The same study found that the reduction in earnings gaps during this period explained 8 percent of per capita GDP growth. Aligned with these findings, Cavalcanti and Tavares (2015) estimate that a 50 percent increase in the gender wage gap leads to a 35 percent decrease in income per capita. While existing studies on earnings gaps focus on wage workers, gender gaps in entrepreneurial earnings could constrain growth through the same mechanisms.

Policy makers in Southeast Asia need to ensure that MSME policies are meeting the needs of both men and women. Ostensibly gender-neutral policies may have gendered impacts if male and female entrepreneurs have different needs, face different challenges, or encounter gendered barriers to fully taking

Gender-informed MSME policies are critical because gender-neutral policies can have gendered impacts if men and women have different needs, face different challenges, or encounter gendered barriers to fully benefitting from public programs.

advantage of public programs. In some cases, small tweaks may be needed to ensure that both men and women can benefit from general MSME policies and programs. For example, because of women's greater time constraints due to competing domestic responsibilities, offering business training programs during hours when children are typically in school, close to women's place of businesses, and that offer childcare arrangements can facilitate women's participation. In other cases, it may be necessary to offer tailored programs, services, or policies to specifically reach female entrepreneurs and address the unique challenges they face. For example, financial products that do not have strict physical collateral requirements, such as cash flow loans or movable collateral, can help female entrepreneurs, who often lack collateral, to access the finance they need for their businesses.

This report aims to help policy makers design gender-informed MSME policies by filling knowledge gaps about female entrepreneurship in Southeast Asia. Most existing studies of female entrepreneurship in Southeast Asia focus on either microbusinesses or SMEs, include only existing entrepreneurs, and focus on one country. This report examines both microbusinesses

and SMEs and demonstrates that female entrepreneurs running businesses of different sizes have different characteristics, challenges, and needs. Gender-informed MSME policies must not only consider how women's needs may differ from men's but how to tailor programs for female entrepreneurs operating at different scales. Another novelty in this report is the study of both current and potential entrepreneurs, which enables an exploration of factors that facilitate and impede women's engagement in entrepreneurship. Finally, by comparing across several countries with heterogeneous contexts (see Box 2), this report offers perspective on regional versus country-specific trends.

The report focuses on MSMEs because most entrepreneurs are concentrated in this segment, and gendered constraints to entrepreneurship may be particularly binding among MSMEs. MSMEs account for more than 97 percent of all enterprises, employing more than half of the workforce and contributing between 20 percent and 50 percent of GDP in most Asia-Pacific Economic Cooperation countries.¹⁴ Because most enterprises are MSMEs, addressing gendered barriers to MSME ownership and growth will alleviate constraints for most female entrepreneurs. In addition, gendered constraints that MSME owners face may be more binding than for larger firms where co-owners or parent corporations may be able to provide support to overcome barriers. Approximately a quarter of SMEs have more than one owner, compared with more than three-quarters of large enterprises, and MSMEs are much less likely than large firms to have any foreign ownership or to be part of a larger corporation.¹⁵

Southeast Asia provides a unique context for exploring gendered constraints to

entrepreneurship given the high-economic growth that characterizes many Southeast Asian economies. All the countries included in this report with the exception of Timor-Leste have experienced sustained, high economic growth over the past few decades, with growth rates averaging over 5 percent prior to the COVID-19 pandemic. This high growth has been accompanied by substantial poverty reduction prior to the pandemic. Such a context can provide fertile soil for various economic opportunities, including an increase in the availability of wage jobs and entry points for opportunity driven entrepreneurs. Nevertheless, in a context where inequalities have been rising in recent decades, it is necessary to examine the extent to which women have been able to equitably benefit from these new economic opportunities.

This report first demonstrates the existence of gender gaps in entrepreneurial outcomes, then explores drivers of these gaps, and finally provides evidence of how to address them. The first section examines the extent to which gender gaps in entrepreneurial outcomes, including participation and business performance, exist in Southeast Asia. After establishing stylized facts on the existence of gender gaps in participation and performance, the report explores factors that shape women's choices and ability to engage in entrepreneurship in Section 2. The next two sections examine drivers of gender gaps in microenterprise performance and gendered constraints to SME performance, respectively. Finally, section 5 presents recommendations for how MSME policy can better address the diverse needs of different entrepreneurs: effective policies must adopt a gender lens and also be adapted to challenges men and women face when operating businesses of different sizes.

Box 2 The economic structure and regulatory environment vary across the countries included in the report

Cambodia

Cambodia has had sustained average real growth of 7.7 percent per year between 1998 and 2019, making it one of the fastest growing economies in the world. Three sectors, including tourism, manufacturing exports, and construction, accounted for more than 70 percent of growth and almost 40 percent of paid employment in 2019.¹⁶ The economy is largely dependent on a narrow base of manufactured exports, with garments and footwear exports accounting for approximately 80 percent of total merchandise exports.¹⁷

Entrepreneurial activity in Cambodia is relatively recent, with the oldest businesses in Cambodia founded in 1979. Economically, private ownership was banned under the Democratic Kampuchea regime governed by the Khmer Rouge from 1975 to 1979, and entrepreneurship disappeared.¹⁸ Although households could engage in small trade or handicraft activities during the following regime of the People's Republic of Kampuchea from 1979 to 1989, Cambodia did not transition back to a market-based economy until after 1989, and a rise in entrepreneurship only occurred after 1993 when the Kingdom of Cambodia began to more fully liberalize the economy.¹⁹

Indonesia

Indonesia is the world's fourth most populous nation and 10th largest economy in terms of purchasing power parity.²⁰ Prior to the COVID-19 pandemic, Indonesia experienced consistent economic growth, with growth averaging 5 percent per year since 1990. The economy has

a high reliance on commodities, with limited integration in global value chains and moderate exposure to international trade.²¹ Since 2015, on average, there have been approximately 2 million jobs created per year, resulting in relatively low unemployment. However, the majority of jobs created are in agriculture or low-value-added services, with less than a quarter of jobs created in manufacturing or higher-value-added services.²² As a large archipelago nation, there are large differences in opportunities and service delivery across different regions.²³

Lao PDR

Lao PDR has averaged 7.8 percent GDP growth per year over the past decade, making it the 13th fastest growing economy in the world. This growth has been fueled by the use of natural resources, a gradual opening of the economy, and regional integration. However, growth has not fueled job creation, and 82 percent of the labor force work in agriculture or self-employment.²⁴

Timor-Leste

Timor-Leste's economy is highly dependent on petroleum: at the peak of petroleum production, it comprised 95 percent of government revenues. However, Timor-Leste's largest oil and gas field is approaching depletion. Other economic activity is driven by public spending or second round effects of public spending, such as consumption increases from cash transfer programs. Manufacturing is not developed; however, private investment, notably in services, has started to contribute to growth since 2007. Most job creation in recent years has been in the public

sector or linked to businesses with public-sector contracts. Despite progress made since Timor-Leste became an independent nation in 2002, the legacy of long, devastating conflict has left Timor-Leste with weak infrastructure and weak policy and institutional frameworks.²⁵

Vietnam

Vietnam has experienced remarkable growth over the past 30 years, going from one of the world's poorest nations to a thriving middle-income economy. The Doi Moi reforms of the late 1980s and continued reforms have contributed to rapid growth. After the decollectivization of agriculture and creation of individual land usage rights, the agricultural

sector experienced substantial productivity gains in the 1990s. Following the Enterprise Law in 2000, which legalized private firm creation, private sector firm growth increased dramatically. Today, there are over 650,000 registered domestic, private enterprises, compared to only 40,000 in 1999 and virtually none in 1990. Strong job creation and growth in the service sector and export-oriented manufacturing followed trade liberalization and ascension to the WTO in 2007. Manufacturing exports including garments, footwear, and electronics have grown at an extremely fast rate, with higher value products such as phones, computers, and related components growing to almost a third of exports in 2016 from less than 5 percent of exports 10 years prior.²⁶



Box 3 Data sources

This report uses existing panel and cross-sectional data from Indonesia and Vietnam and existing cross-sectional data from Cambodia, Lao PDR, and Timor-Leste, to analyze microenterprises and SMEs. Appendix A describes the data sources used in the report's analysis. Two types of data are used: household surveys and firm-level surveys. Both types of data have advantages and disadvantages. The different datasets used in this report provide complementary information to create a more comprehensive picture of female entrepreneurship in Southeast Asia.

Household surveys include rich data on the characteristics of different types of workers—including entrepreneurs—and their households and are typically nationally representative. This type of data enables an analysis of the factors linked with the choice to engage in entrepreneurship versus other labor market choices. The household business modules of these surveys provide basic information on microbusinesses that can be linked with the rich information on the business owners, their households, and in some cases, their communities. Because household surveys are typically designed to assess household-level outcomes, such as

income and consumption, they mainly contain information on household businesses, which are predominately microbusinesses, and only have basic information about the businesses.

Firm surveys, on the other hand, provide rich information on businesses; however, they typically have limited information on the business owner or manager or their household. Because firm surveys only include information on people who have decided to engage in entrepreneurship, they cannot address issues of selection into entrepreneurship. This report uses two types of firm-level surveys: the World Bank Enterprise Surveys and a panel survey of MSMEs in Vietnam. The World Bank Enterprise Surveys focuses on formal businesses. Although the panel survey of MSMEs in Vietnam is not restricted to formal businesses, over 80 percent of the SMEs in the survey are formal businesses.

Because this report relies upon existing data sources, the available information varies by country. If no results for a topic of interest are mentioned for a specific country, readers should assume that data constraints impeded analysis for that country, unless otherwise indicated. Statistically insignificant results are either noted in the text or in footnotes.

Box 4 What to expect (and not to expect) from this report

This report systematically analyzes factors associated with gender differences in entrepreneurial outcomes in Southeast Asia. It measures gender gaps in participation in entrepreneurship and in business performance for both microenterprises and SMEs in five Southeast Asian countries. It explores factors that are linked with women's decisions to engage in entrepreneurship, the size of businesses they operate, and their business performance. It compares how women's decisions to enter entrepreneurship and factors linked with their productivity are similar or different from men, which can provide suggestive evidence of gender-specific opportunities, preferences, or constraints that may drive gender differences in participation in entrepreneurship or business performance. By conducting similar analysis from several countries, the report can shed light on both convergent and divergent trends across countries in Southeast Asia.

This report does not provide a comprehensive diagnostic of all constraints to entrepreneurship in Southeast Asia. It focuses on how women's experiences with entrepreneurship are different from men's. Aspects of the business environment or resource constraints affecting both men and women can constrain both

male and female entrepreneurs and may play a larger role in determining enterprise performance than gender-specific factors. However, it is outside the scope of this report to conduct a comprehensive diagnostic of factors constraining entrepreneurship in addition to identifying gender-specific factors that affect female entrepreneurs. As such, this report is focused on how women's experience with entrepreneurship differs from men due to the gender-specific constraints they face. This analysis can complement broader diagnostics to ensure that resulting MSME policies are addressing the specific needs that female entrepreneurs face and that female entrepreneurs are able to equally benefit from broader MSME policies.

Because the report relies on existing data sources for the new analysis, there are two main limitations. First, despite efforts to harmonize methodology and the inclusion of different variables in the analysis across countries and firm size, this was not always possible due to the different survey methodologies and questionnaires. Second, the analysis conducted for this report is descriptive in nature. Although the correlations shed light on policy-relevant trends, the analysis cannot identify causal relationships.

Endnotes

- 1 Among Southeast Asian countries, the five focus countries for new analysis were selected due to the availability of data needed to study both microenterprises and SMEs.
- 2 World Bank 2012a
- 3 Sen 1999
- 4 World Bank 2012b
- 5 Ellis, Kirkwood, and Malhotra 2010
- 6 Demirgüç-Kunt et al. 2008; Goheer 2013
- 7 Ellis et al., 2010: 21
- 8 International Labor Organization 2018a
- 9 World Bank 2012b
- 10 World Bank Gender Data Portal: <https://www.worldbank.org/en/data/datatopics/gender/country/East%20Asia%20&%20Pacific>
- 11 Arugay et al. forthcoming
- 12 Ha 2020
- 13 Esteve-Volart 2004
- 14 Asia-Pacific Economic Cooperation Working Group on Small and Medium Enterprises, <https://www.apec.org/Groups/SOM-Steering-Committee-on-Economic-and-Technical-Cooperation/Working-Groups/Small-and-Medium-Enterprises.aspx>
- 15 Calculations using the most recent World Bank Enterprise Surveys for the countries included in this report.
- 16 <https://www.worldbank.org/en/country/cambodia/overview>
- 17 World Bank, 2016
- 18 Chhair and Ung, 2016
- 19 Chhair and Ung, 2016
- 20 <https://www.worldbank.org/en/country/indonesia/overview>
- 21 World Bank, 2020b
- 22 World Bank and International Finance Corporation, 2019
- 23 World Bank, 2020b
- 24 World Bank, 2017
- 25 World Bank, 2018
- 26 Eckardt, Demombynes, and Chandrasekharan Behr, 2016



Section I:

Gender gaps in participation and performance of micro, small, and medium enterprises (MSMEs)

This report examines two important areas of entrepreneurship in which gender gaps can emerge: participation and performance.

If men or women own or manage businesses at a higher rate than individuals of the opposite gender, there is a gender gap in participation in entrepreneurship. This type of gap may signify underlying gender-specific constraints or opportunities that either hinder or motivate individuals of a particular gender to engage in entrepreneurship. Gender-specific constraints and opportunities can also affect the performance of existing businesses and can lead to gender gaps in business performance in terms of profits, turnover, or other indicators of business performance.

Existing evidence from Southeast Asia suggests that the extent to which a gender gap in participation in entrepreneurship exists depends on the size and characteristics of the businesses considered. Generally, trends show that among smaller businesses, men and women participate at roughly similar levels, or women

are more engaged in business ownership and management. However, as the size and sophistication of the businesses increase, women participate at lower levels than men. For example, in Indonesia, more women than men run microenterprises,¹ but only 23 percent of firms with between 10 and 200 employees are owned by women.² In Cambodia, 65 percent of MSMEs are classified as women-led, but women only own one third of registered businesses and less than 1 percent of firms with more than 10 employees.³

Evidence on gender gaps in business performance in Southeast Asia is thinner.

Notable exceptions include analysis from Vietnam and Indonesia. The 2015 enterprise census in Vietnam showed that small and

medium enterprises (SMEs) owned by men and women had similar average annual revenues.⁴ Analysis of rural, non-farm businesses in six kabupaten in Indonesia showed that female-owned firms have lower sales but similar sales per worker compared to male-owned firms.⁵

This report helps fill knowledge gaps concerning gender differences in MSME performance while distinguishing between firms of different sizes. Understanding how gender gaps in performance differ based on the size of the firm is important, as global evidence shows that women's performance relative to men varies not only by region but also by the size of the firm.⁶

Box 5 Definitions

This report defines microenterprises as having less than five employees and SMEs as having between five and 100 employees, which is aligned with the definitions used by the International Finance Corporation and the World Bank Enterprise Surveys. The definition of a woman-owned or led business depends on the dataset structure. For firm-level datasets, the gender of the owner is considered, and for firms with multiple owners, at least 51 percent of ownership must be female. For household surveys, the gender of the primary person responsible for the business is considered.⁷

To explore selection into entrepreneurship, an individual is considered an entrepreneur if

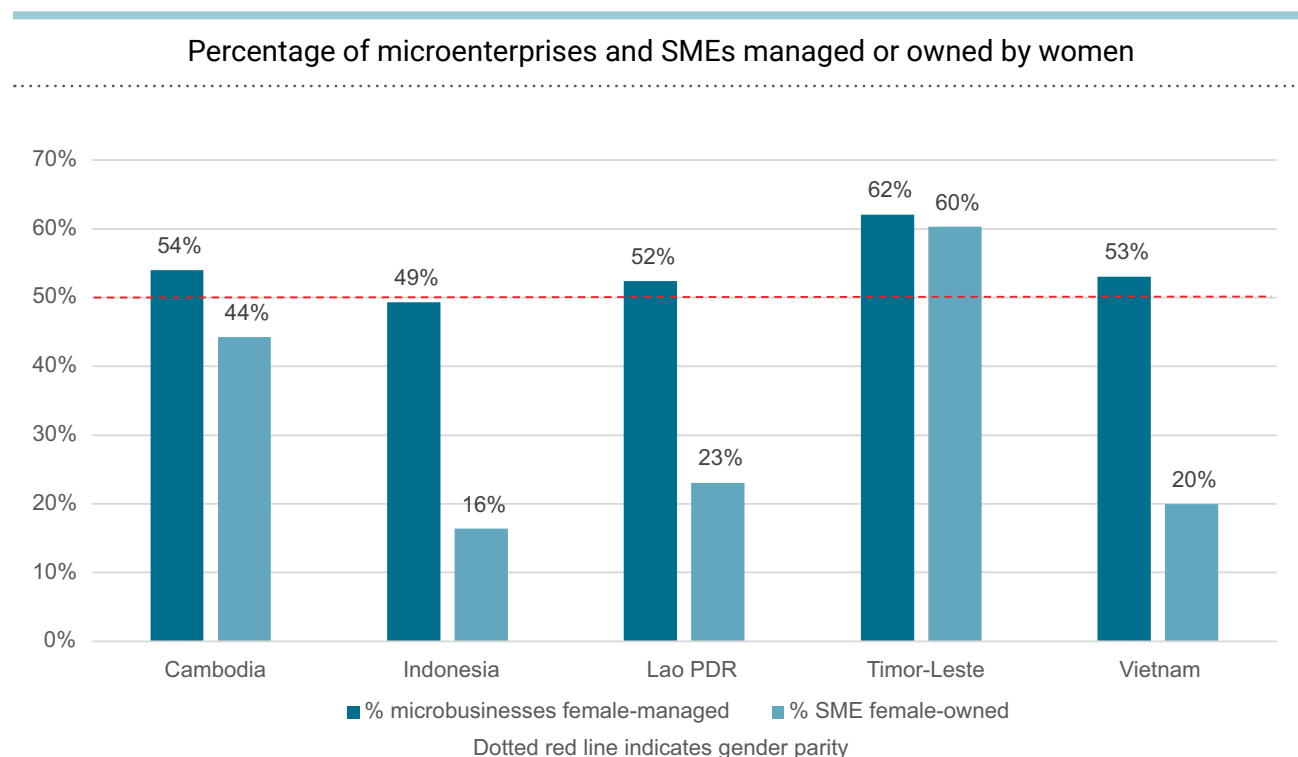
either their primary or secondary job is self-employed or employer. To consider gender gaps in productivity, the logarithm of annual profits is used when available.⁸ In cases in which the annual profits is not available in the data or cannot be reliably calculated, the logarithm of annual revenues is used with controls for sector of activity.⁹ Profits are used for microbusinesses in Cambodia, Indonesia, and Timor-Leste and for both microbusinesses and SMEs in Vietnam. Revenues are used for microbusinesses in Lao PDR and for SMEs in Cambodia, Indonesia, Lao PDR, and Timor-Leste.

1.1 Stylized facts

Consistent with existing evidence, gender gaps in participation in entrepreneurship vary by the size of businesses considered, with women participating at similar levels to men in micro entrepreneurship but being under-represented among SMEs (Figure 1). Among microenterprises, men and women participate at similar levels, with between 49 percent and 54 percent of microenterprises managed by women in Cambodia, Indonesia, Lao PDR, and Vietnam. However, significant gender gaps in participation exist when considering SME in

these countries. The gap is particularly large in Indonesia, Vietnam, and Lao PDR where only 16 percent, 20 percent, and 23 percent of SMEs, respectively, have majority female ownership. In contrast, Timor-Leste has a reverse gender gap in participation in entrepreneurship, with women running 62 percent of microbusinesses and owning 60 percent of SMEs. This difference may be linked with the overall lower levels of entrepreneurial activity in Timor-Leste, the prolonged conflict in recent decades, or the structure of Timor-Leste's economy.

Figure 1 Gender gaps in participation exist among SMEs but not microbusinesses



Source: Author calculation using CSES, IFLS, LECS, TLSLS, VARHS for microenterprises and WBES for SMEs.

Although women are equally or more likely than men to run microenterprises, women's microbusinesses perform worse than men's microbusinesses on average. Figure 2: Panel

A shows that female microentrepreneurs earn less than male entrepreneurs in almost all specifications. The raw gender gap in performance is not statistically significant in Cambodia, but a statistically significant gender gap emerges when comparing men and women operating in the same sector of activity. In other countries, the raw gender gap ranges between 10 percent in Vietnam and 40 percent in Indonesia. Comparing women and men with similar individual, household, and business characteristics, the gender gap in business performance widens in Cambodia and Lao PDR, shrinks somewhat in Indonesia, and remains fairly constant in Timor-Leste and Vietnam. After taking individual, household, and business characteristics into account, female microentrepreneurs earn between 10 percent and 35 percent less than male microentrepreneurs on average, with differences statistically significant at the 1 percent level. It is worth noting that while female microentrepreneurs have lower business performance than male microentrepreneurs on average, not all female microentrepreneurs perform worse than male microbusinesses. Appendix C shows the distribution of business performance for both microenterprises and SMEs by gender.

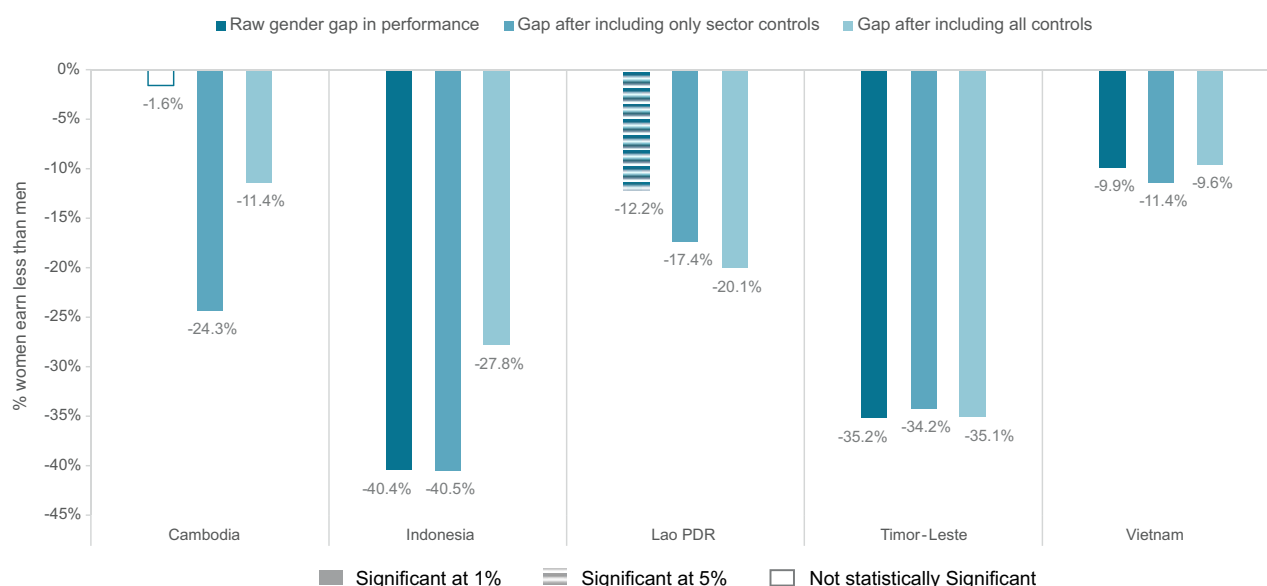
For SMEs, gender gaps in business performance vary by country but in most cases are not statistically significant and do not persist after accounting for business and personal characteristics (Figure 2: Panel B).

Gender gaps in business performance of SMEs are not statistically significant in Cambodia, Lao PDR, Timor-Leste, or Vietnam. In Vietnam, where detailed economic accounts data enable

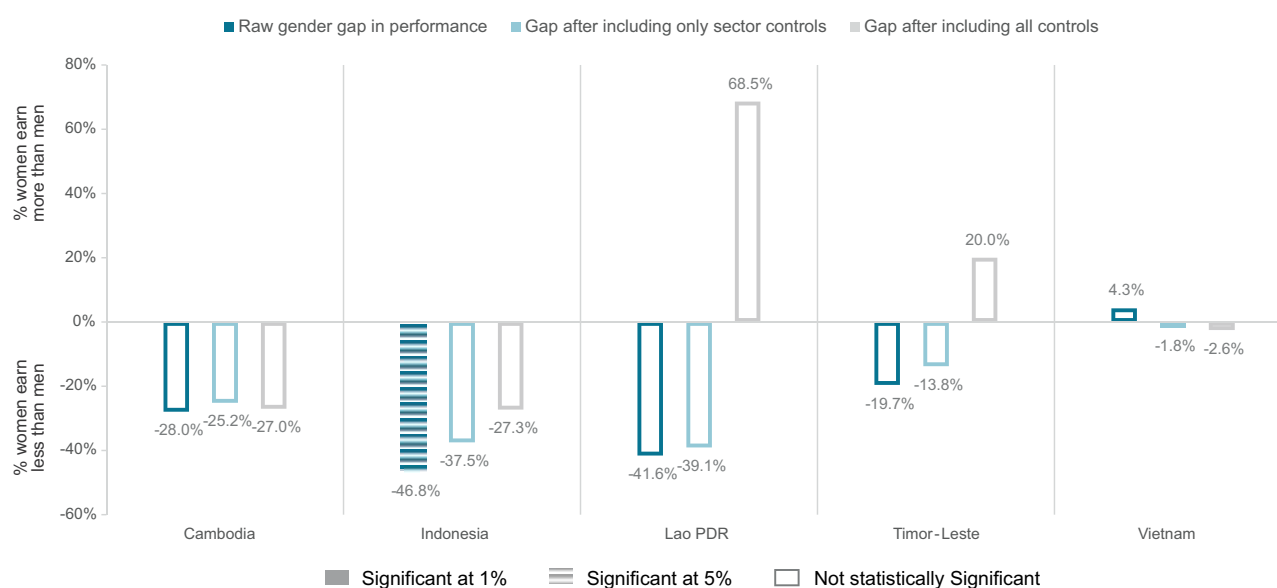
precise and comparable measures of profits for both microenterprises and SMEs, there are statistically significant gender gaps in profits for microbusinesses but the gaps for SMEs are both insignificant and close to zero. In Lao PDR and Timor-Leste, the gender gap in business performance remains statistically insignificant but reverses to favor women when comparing male- and female-owned SMEs with similar owner and business characteristics. Nevertheless, in Indonesia, there is a statistically significant gender gap in revenues of SMEs. Although it loses significance when comparing male- and female-owned SMEs with similar owner and business characteristics, the magnitude of the gap is similar to that of microenterprises.

Figure 2 Gender gaps in business performance of microenterprises exist, but less evidence of performance gaps among SMEs

Panel A. Percentage difference in business performance between male and female microentrepreneurs



Panel B. Percentage difference in business performance between male and female SMEs



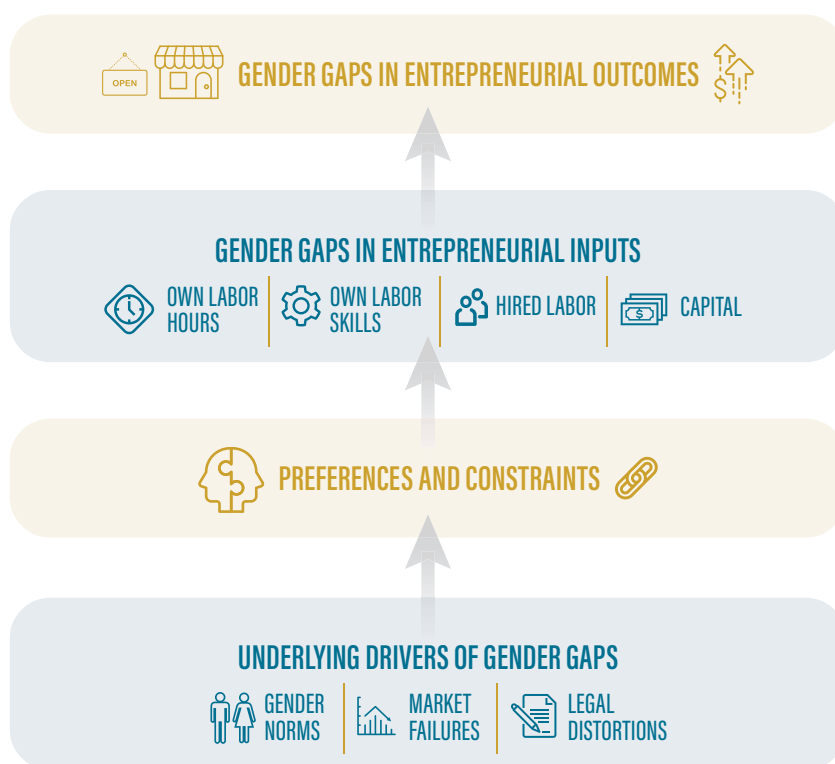
Source: Panel A: CSES, IFLS, LECS, TLSLS, VSMES ; Panel B : WBES for Cambodia, Indonesia, Lao PDR, Timor-Leste, VSMES
 Note: In Panel A, business performance is defined as log profits for Cambodia, Indonesia, Timor-Leste, and Vietnam and log sales for Lao PDR. In Panel B, business performance is defined as log sales for Cambodia, Indonesia, Lao PDR and Timor-Leste and log profits for Vietnam. See Model 1.1 in Appendix B for technical details and the list of control variables included.

1.2 Conceptual framework

The conceptual framework developed for this report (Figure 3) posits that gender gaps in entrepreneurial inputs explain the observed gender gaps in SME ownership and microbusiness performance. As described in Box 1, women in Southeast Asia have lower levels of endowments—including time, skills and capital—and agency than men. These endowments are critical inputs for entrepreneurs, and women’s limited agency can hinder their ability to use their available endowments as they see fit. New analysis for this report described in the following sections also supports the important relationship between entrepreneurial inputs and gender gaps in entrepreneurial outcomes. Female microentrepreneurs

have lower levels of entrepreneurial inputs than male microentrepreneurs, and input levels are associated with the gender gap in microenterprise performance. Opening an SME requires higher levels of inputs than opening a microbusiness. As such, women’s lower levels of entrepreneurial inputs make it more challenging for them to open an SME than for men, contributing to observed gender gaps in SME ownership. Women who succeed in opening an SME have different characteristics and greater access to inputs than women who are unable to open SMEs, and these characteristics and access to inputs enable them to have sales and profits that are on par with those of male-owned SMEs.

Figure 3 Framework for understanding gender gaps in entrepreneurial outcomes



Women-led enterprises do not have the same entrepreneurial inputs as men due to gender norms, market failures, and legal distortions that constrain their choices and influence their preferences of how to allocate their available time and resources. Gender norms are unwritten rules that define acceptable and appropriate actions for women and men in a group or society.¹⁰ Gender norms, such as those that emphasize women's role in domestic tasks or that dictate appropriate types of work for men and women, shape women's choices and preferences for entrepreneurship. These norms also affect what entrepreneurial inputs are available to women. For example, female entrepreneurs in Uganda who brought their young children to their retail businesses with them were more likely to experience stock shortages than women who did not have to simultaneously care for young children, likely

due to greater time and mobility constraints.¹¹ Market failures refer to missing or inefficient provision of goods or services that arise due to issues such as externalities—benefits or costs that are not specific to a producer or consumer—or informational barriers. For example, one reason entrepreneurs under-invest in business training is the lack of information about the potential returns of training and information asymmetries about the quality of training providers.¹² Female entrepreneur's networks are often smaller and less formal than those of men, which can exacerbate these informational barriers. Legal distortions refer to explicit or implicit gender discrimination in laws or policies. For example, gender discrimination in property laws limit women's ability to access capital.¹³



Endnotes

- 1 World Bank, 2016
- 2 Asia Foundation, 2013
- 3 Asia Foundation and Asian Development Bank, 2018
- 4 IFC, 2017
- 5 Costa and Rijkers, 2011
- 6 Bardasi et al., 2011
- 7 In Timor-Leste, the data does not distinguish between primary and secondary person responsible for the business. In this case, businesses with multiple people responsible for them are dropped from the analysis.
- 8 Microbusiness profits are reported directly in the Indonesia dataset and are calculated by subtracting costs from revenues in datasets from Vietnam, Cambodia and Timor-Leste.
- 9 The exception is for microbusinesses in Lao PDR, for which the question pertained to monthly revenues instead of annual revenues.
- 10 Cislighi and Heise 2020
- 11 Delecourt and Fitzpatrick 2020
- 12 McKenzie 2020
- 13 Demirgüç-Kunt et al. 2008; Goheer 2013

Section 2:

To be or not to be an entrepreneur, that is the question

Working-age men and women face several inter-related and simultaneous choices—whether to engage in the labor market, the type of work to do, and the number of jobs to do. For example, one may choose between refraining from the labor market, engaging in wage work, entrepreneurship, supporting a family business as an unpaid worker, or combining any number of these activities. When considering entrepreneurship, individuals can opt into microentrepreneurship or choose to open a larger-scale business that requires more employees. These choices are shaped by the opportunities that individuals perceive are available to them, social norms about the appropriateness of different options, individual preferences, and expected benefits and costs associated with each choice. Gender influences all these factors.

Gender inequalities in endowments and agency determine the availability, feasibility, and relative attractiveness of different labor market options for women and men. These gender inequalities determine the availability, feasibility, and relative attractiveness of

different options for women and men. For example, if opening a small and medium enterprise (SME) requires significant capital investment and women have lower financial endowments than men, starting an SME may not be an option for many women. Alternatively, if women do not have the skill levels that most employers require, wage work may be difficult to find. Agency can also play an important role in choosing economic activities. For example, mobility constraints can make it difficult for women to access wage jobs that are farther from home or to run businesses operations that require greater mobility.

Understanding how gender inequalities influence the decision to engage in entrepreneurship can shed light on the stylized facts of gender gaps in entrepreneurial outcomes presented in Section 1 of this report.

Although women are equally represented among microenterprises, they have lower business performance on average. If different types of women and men select into entrepreneurship due to the way gender influences their choices, these differences in characteristics and/or motivation can contribute to performance gaps. Due to a lack of outside opportunities and a need to earn a living, in many economies, women are more likely than men to engage in necessity entrepreneurship—motivated by a need to earn a living, the scarcity of jobs, and/or the need to balance labor market with domestic and care work.¹ If business ownership is not a passion or if it is seen as secondary to one's role as a caretaker for the family, one may be less driven to seek out new opportunities for business growth and development. Thus, even if there is gender parity in owning a business, if men and women own businesses for different reasons, gender gaps in both monetary and time resources invested in the business may arise

and contribute to gender gaps in performance. Understanding why men and women choose to become entrepreneurs can therefore shed light on factors influencing the gender gap in performance of microenterprises. Section 1 also showed that women are underrepresented among SME owners in almost all countries, suggesting gender-related barriers to opening an SME. Learning which factors seem to be key for women to open SMEs could shed light on potential policies to help women overcome gender-specific obstacles to opening an SME.

Box 6 How norms, preferences, opportunities, and constraints shape entrepreneurial choices

Just as the choice of whether to engage in entrepreneurship is not determined in isolation, the factors influencing this choice cannot be considered in isolation. There is a range of complicated interdependencies between preferences for self-employment, opportunities, and constraints associated with starting, running, and growing a business. Gender norms and aspects of the entrepreneurial ecosystem shape these preferences, opportunities, and constraints.

The term entrepreneurial ecosystem refers to multiple stakeholders (individuals, organizations, and institutions) and their policies that are either conducive to or inhibitive of preferences for self-employment and business choices. For example, Isenberg (2010) identifies six domains within the entrepreneurial ecosystem that encourage individuals to start a business: a conducive culture, enabling policies and leadership, availability of appropriate finance, quality human capital, venture friendly markets for products, and a range of institutional support. The entrepreneurial ecosystem is not gender-neutral, as Terjesen and Lloyd (2015) showed in an analysis of gender-specific conditions of entrepreneurial ecosystems in 77 countries. They found that family-related institutions, equal legal rights, access to education, networks, technology, capital, supportive social norms and values are important determinants of high-potential female entrepreneurship development. On the contrary, gender stereotypes, biases against women in entrepreneurship, limited access to resources, social capital, and infrastructure limit both entrepreneurial opportunities and perceptions of women related to starting and growing their businesses.²

These various aspects of the entrepreneurial ecosystem shape preferences for entrepreneurship as well as opportunities and constraints to engage in it. The extent to which men and women view entrepreneurship as a promising and socially acceptable employment option influences the desire to become an entrepreneur. Moreover, the availability and characteristics of alternative labor market opportunities for men and women influence the relative attractiveness of entrepreneurship compared to other options. In addition to a desire to engage in entrepreneurship, the availability of resources such as financing and human capital can determine how feasible it is to start a business.

Because all these factors are interconnected, it can be challenging to disentangle whether observed gender differences in entrepreneurship are driven by the different opportunities that men and women face, gender-specific constraints, or preferences, all of which may be affected by underlying social norms. However, because these factors are interconnected, shifting one can also help in shaping and changing the others. For example, policies that alleviate gender-specific constraints contribute to a more balanced entrepreneurial environment. This signals that female entrepreneurship is valued in society, which can influence women's preferences. Rather than focusing on whether underlying drivers of gender differences stem from opportunities, constraints, preferences, or norms, this report focuses on policy recommendations that can foster an entrepreneurial ecosystem that is conducive to female entrepreneurship in Southeast Asia.

Box 7 How does this report analyze factors associated with women's engagement in entrepreneurship?

To understand the factors that are associated with women's engagement in microenterprises, we use household survey data that includes information on all working-aged individuals, regardless of their employment status. We run several linear probability models to understand the extent to which individual and household characteristics are associated with different labor market choices, and because these patterns may be different for men and women, we interact the characteristics of interest with the individual's gender.³ The results cannot be considered causal but can reveal interesting patterns about how likely men or women with a certain characteristic of interest are to engage in a specific activity compared to those without that characteristic, while controlling for confounding factors. For example, it compares whether women with a child under age 3 in the household are more or less likely to engage in entrepreneurship than women without a child under age 3 in the household, while taking factors like age or education into account. In Indonesia and Vietnam where panel data is available, we also run these models using individual fixed effects, which compares how changes in these characteristics over time

correlate with one's likelihood of engaging in different labor market activities while controlling for unobservable time-invariant characteristics.⁴

Rich panel data is available for Indonesia, which allows us to conduct event studies to understand how the birth of a woman's first child affects her labor market choices. The event study compares her likelihood of engaging in entrepreneurship in the years after her first child is born to her likelihood of engaging in entrepreneurship in the year prior to the birth of her child.⁵

Household surveys rarely capture SMEs, as they typically ask about household businesses that tend to be smaller operations. Most information on SMEs is only available for existing businesses, which makes it difficult to analyze selection. To still shed light on factors facilitating women's SME ownership, we use simple descriptive statistics to compare the characteristics of male and female SME owners with those of male and female microbusiness owners for the country where we have a dataset that includes a sizeable share of both.

2.1 What factors are linked with women's engagement in microenterprises?

Three main factors seem to influence women's decision to open a microenterprise in Southeast Asia. First, domestic responsibilities influence women's labor market choices, both in terms of whether to engage in labor market activities and the type of work, including entrepreneurship. Second, the enabling environment and other opportunities available in the labor market orient the type of work that women do. Finally, access to capital seems to facilitate women's entry into entrepreneurship.

2.1.1 Domestic work

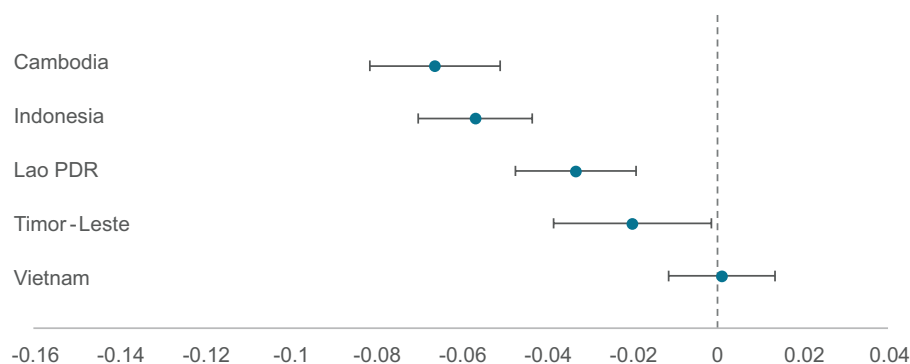
Women in Southeast Asia, as in many parts of the world, are seen as the primary caretakers in the household and do a disproportionate amount of unpaid, domestic work.⁶ According to the 2018 report on Care Work and Care Jobs, women spend 4.1 times more time on unpaid care work than men in Asia and the Pacific.⁷ Gender imbalances in time spent on domestic work is interlinked with cross-cutting gender inequalities. The more time women spend on domestic work, the more time constrained they are for participating in labor market activities. Although time spent on domestic and care work can be aligned with women's goals and values, greater time on domestic and care work may also reflect some women's lack of agency to decide how they spend their time. The hours during which women perform certain domestic activities, such as caring for children outside of school hours, can limit which economic opportunities are available to them.

Women's greater contributions to domestic work may affect women's selection into entrepreneurship in two ways. On one hand, women who spend more time on domestic work may be less likely to engage in labor market activities at all, including entrepreneurship.⁸ On the other hand, women may choose to engage in entrepreneurship because it can afford more flexible working hours and location and can facilitate combining childcare with productive work.⁹ There is evidence supporting both hypotheses for different countries in the region.

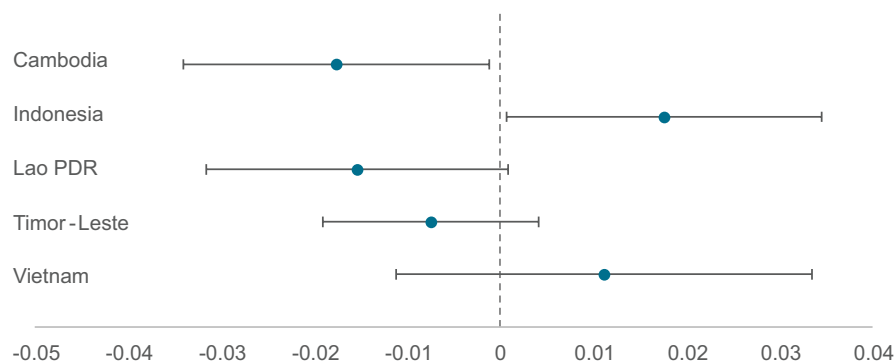
Domestic workload is associated with a lower likelihood of participation in entrepreneurship due to its link with lower labor force participation in Cambodia and Lao PDR, but not in Indonesia, Timor-Leste, or Vietnam. In Cambodia and Lao PDR, women with young children are less likely to engage in the labor force (Figure 4: Panel A) and in entrepreneurship (Figure 4: Panel B). This suggests that in Cambodia and Lao PDR, women who likely spend more time on unpaid care work are less likely to engage in entrepreneurship, since they are less likely to engage in labor market activities at all. However, this trend is not universal in the region. In Timor-Leste and Indonesia, although women with children under age 3 are less likely to be in the labor force (Figure 4: Panel A), they are more likely in Indonesia and just as likely in Timor-Leste to engage in entrepreneurship (Figure 4: Panel B). We do not find any relationship between having young children and labor force participation or entrepreneurship in Vietnam.

Figure 4 Women with young children are less likely to work, but the relationship between children and entrepreneurship is more complex

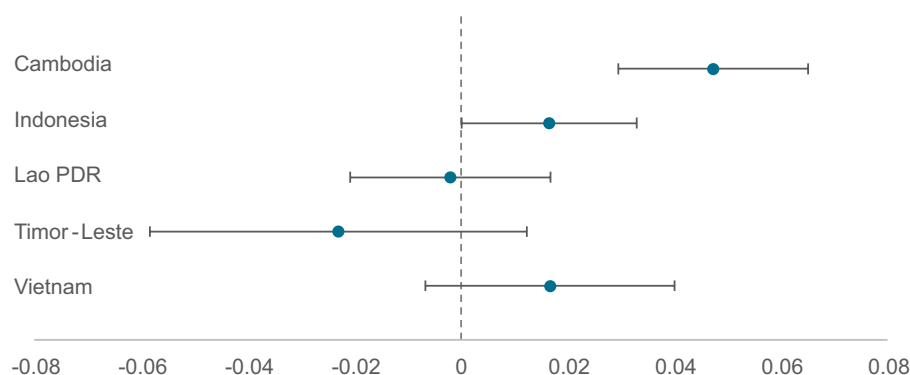
Panel A. Conditional correlation between having children under age 3 and labor force participation for working-age women



Panel B. Conditional correlation between having children under age 3 and engaging in entrepreneurship for working-age women



Panel C. Conditional correlation between having children under age 3 and engaging in entrepreneurship, limited to women in the labor force



Source: Author calculations using CSES, IFLS, LECS, TLSLS, VARHS

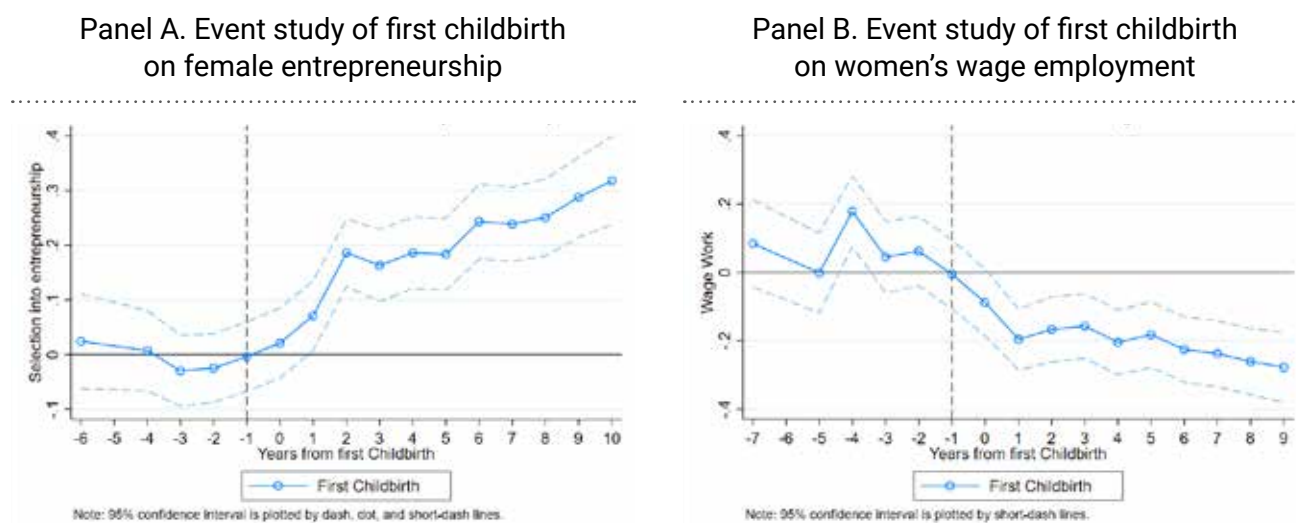
Note: The blue dots show regression coefficients from Model 2.1, as described in Appendix B, and the bars show the 95 percent confidence intervals.

Evidence from Cambodia and Indonesia supports the hypothesis that women who need to balance childcare responsibilities and income generating activities may choose entrepreneurship. As discussed above, women in Cambodia with children under age 3 are less likely to be entrepreneurs because they are less likely to work. However, those who choose to work are more likely to engage in entrepreneurship (Figure 4: Panel C). Women in Indonesia who have young children are also more likely to be entrepreneurs, whether considering the entire working age population or only those who are active in the labor force (Figure 4: Panel B and C).

After Indonesian women give birth to their first child, they are more likely to be engaged in entrepreneurship and less likely to be working in wage employment than before giving birth (Figure 5).¹⁰ Even after their children reach school age, women remain in entrepreneurship and do not switch back to wage work. Nevertheless, working women with young children are not more likely to be entrepreneurs in Lao PDR, Timor-Leste, or Vietnam.

After Indonesian women give birth to their first child, they are more likely to be engaged in entrepreneurship and less likely to be working in wage employment than before giving birth (Figure 5). Even after their children reach school age, women remain in entrepreneurship and do not switch back to wage work.

Figure 5 After the birth of their first child, women in Indonesia are more likely to be entrepreneurs and less likely to be wageworkers

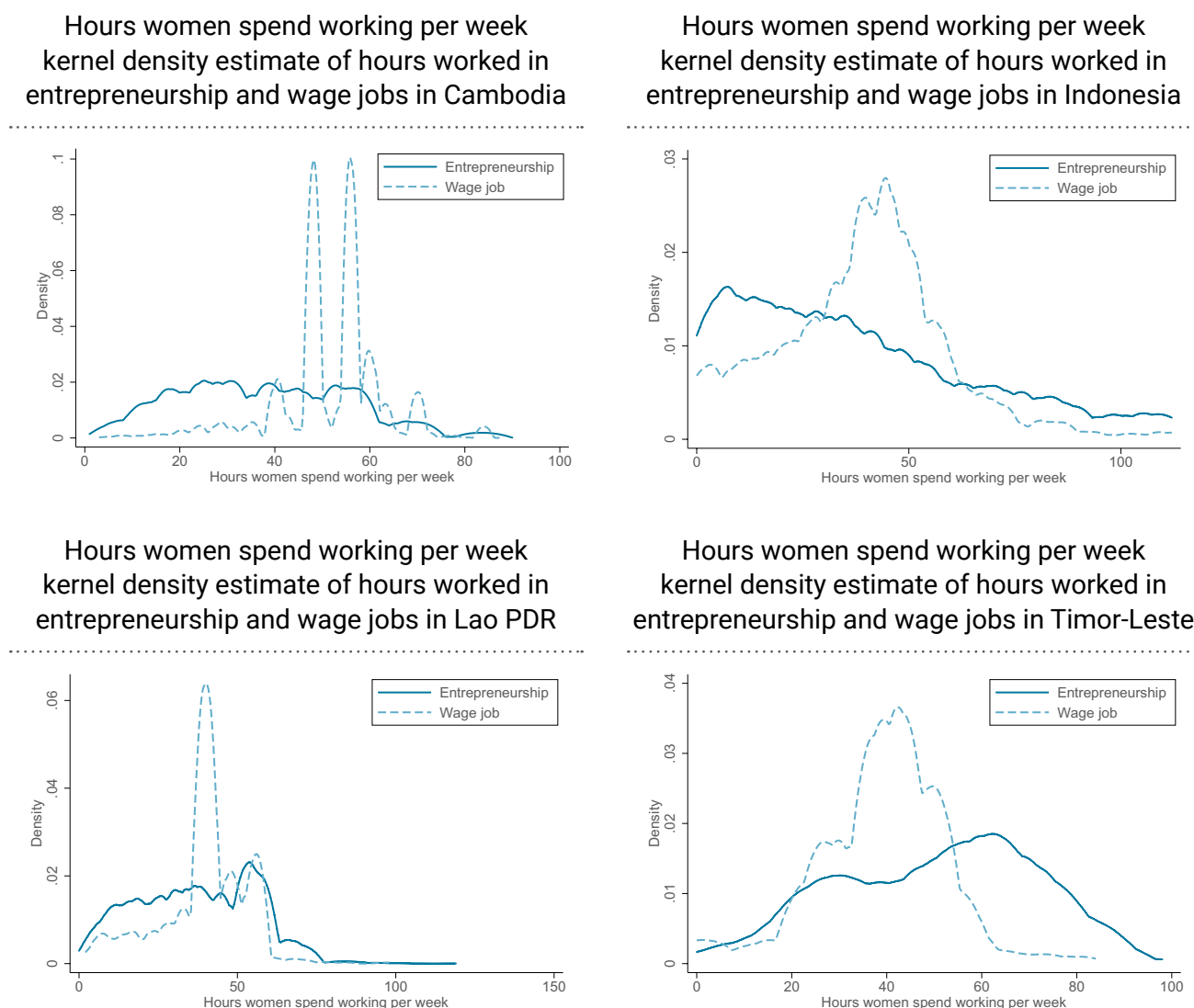


Source: Author calculations using the IFLS.
Note: See Model 2.3 in Appendix B for more details.

In all countries studied, entrepreneurship seems to offer much more flexibility in the amount of time that women spend working.

Entrepreneurship can offer more flexible hours, which can enable women to more easily combine market work with domestic work, such as childcare.¹¹ The average number of hours that female entrepreneurs work compared to female wagedworkers depends on the country. In Cambodia and Lao PDR, female entrepreneurs work fewer hours per week on average than female wagedworkers, whereas in Timor-Leste the opposite is true. In Indonesia, female entrepreneurs and wagedworkers spend a similar number of hours working. However, in all countries studied, entrepreneurship seems to offer much more flexibility in the amount of time that women spend working. Figure 6 shows there is much more variability in the number of hours that female entrepreneurs work compared to female wagedworkers, as the distribution is represented by a much flatter curve. The majority of female wagedworkers tend to work a specific number of hours, which suggests women may have less choice about the number of hours they work when they are employed by someone else rather than self-employed as entrepreneurs.

Figure 6 There is more heterogeneity in the number of hours that female entrepreneurs work than female wageworkers



Source: Author calculations using CSES, IFLS, LECS, TLSLS

Note: These graphs show the kernel density function, which depicts the underlying distribution of a continuous variable. In other words, it shows the extent to which female entrepreneurs (represented by the yellow lines) and female wageworkers (represented by the blue lines) report working different numbers of hours per week. A flatter line, such as the yellow lines, show that there is more variability in the number of hours worked, whereas a distribution with one or several peaks, such as the blue lines, demonstrate that a large share of women work a certain number of hours.

In addition, entrepreneurship can offer more flexibility in terms of work location. In Indonesia and Lao PDR, women are more likely to operate their businesses from home than men, either partially or entirely. Running businesses from home can make it easier for women to combine caretaking or other domestic work with their business operations. Although we do not find significant correlations between business location and the number of children under age 3 or primarily being a homemaker in Indonesia or Lao PDR, because business location can be difficult to change over time, past or expected future childcare constraints and domestic responsibilities may still influence the current business location.

Although entrepreneurship offers some flexibility for both men and women, global evidence suggests that women are more likely to take advantage of this flexibility to simultaneously manage earning and caring responsibilities. For example, Delecourt and Fitzpatrick (2020) find that 37 percent of female microentrepreneurs in their sample in Uganda bring small children to work, compared to 0 percent of men. Nevertheless, entrepreneurs who open businesses to resolve conflict between competing earning and caring roles may not be as well-equipped to compete with those who open a business out of passion or after identifying a promising business opportunity. Global evidence suggests that women who are pushed to open businesses to balance market and domestic work are more likely to run smaller, less growth-oriented enterprises.¹² Conversely, when institutional policies are supportive of balancing market and domestic work, such as those offering paid leave, publicly subsidized childcare, and part-time employment, women in industrialized countries are more represented among growth entrepreneurs, even if they are less likely to engage in entrepreneurship overall.¹³

2.1.2 Availability and relative attractiveness of other labor market opportunities

As discussed above, the decision of whether to engage in entrepreneurship is not made in isolation: some people turn to entrepreneurship due to the lack of available wage jobs. Entrepreneurship is one of several choices individuals make regarding whether and how to engage in the labor market, and these decisions are influenced by the availability and conditions of different labor market opportunities. According to the Global Entrepreneurship Monitor, the share of entrepreneurs who started their business due to necessity varies by a country's income level, with 35 percent of entrepreneurs in low-income economies, 28 percent in middle-income economies, and 18 percent in high-income economies stating that they opened their business because they had no better option for work.¹⁴

Men and women may not have the same access to available job opportunities because gendered social norms shape the formation of men and women's human capital and interactions with perspective employers.

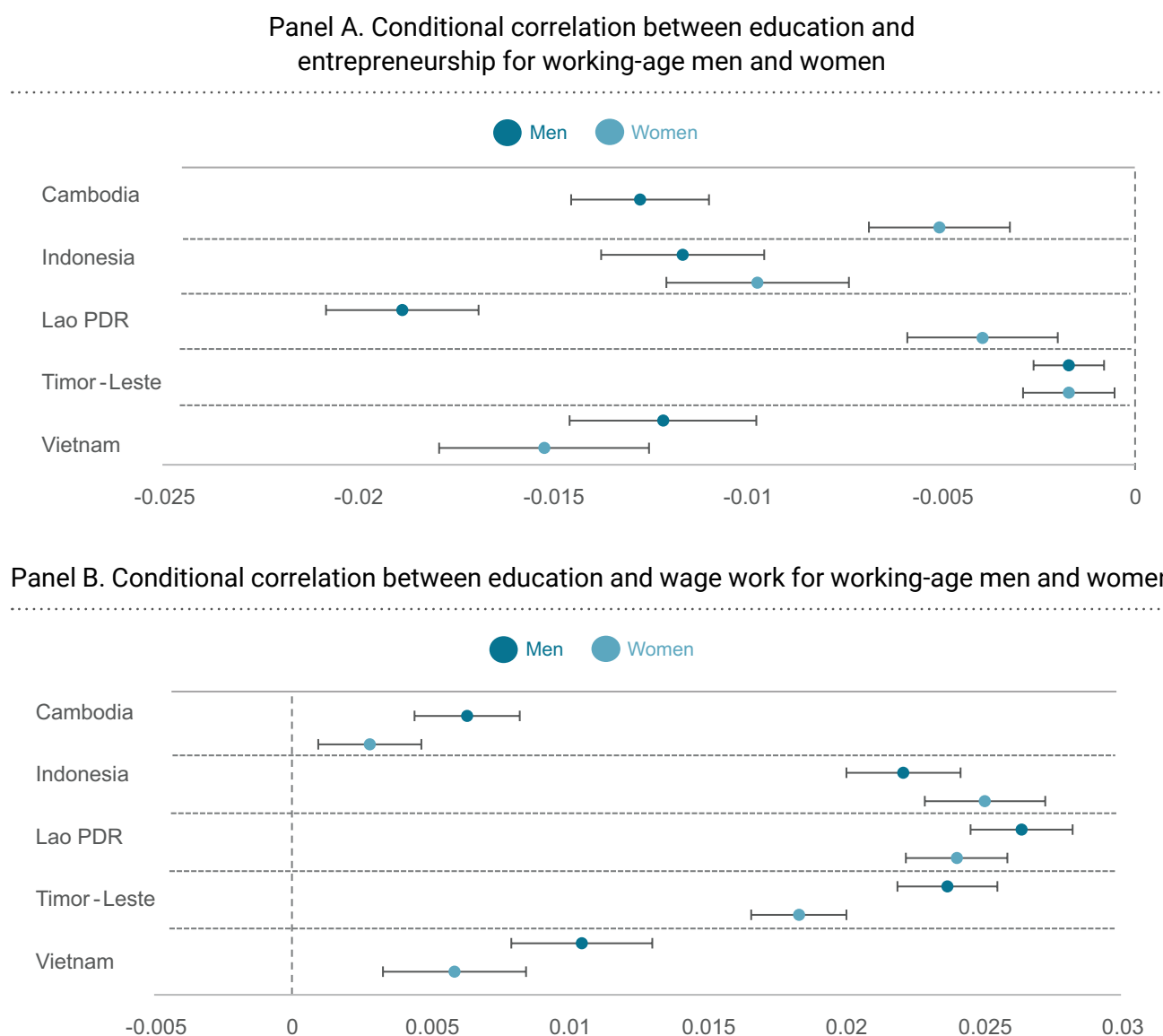
Even though gender gaps in school enrollment have been closing in recent decades,¹⁵ due to historical gender gaps in access to education, working-age women have lower education levels than working-age men in all countries included in this report. In addition, sorting into fields of education and occupations is also influenced by gender,¹⁶ which leaves men and women with skills and experience that can determine their access to available job opportunities. Even when skills and experience may not predetermine which opportunities are available for men and women, strong social norms about which jobs are appropriate for

women may influence women's choice to apply and their likelihood of receiving the jobs. In a study of gender social norms across 20 low- and middle-income countries, Muñoz-Boudet et al. (2013) show that women's choices were linked with whether a job was deemed appropriate for women or not, and in many cases, inappropriate jobs involved a real or perceived danger from interacting with men. Even when women choose to apply to a job, firms may consciously alter their hiring choices if employees or customers prefer a gender-segregated workplace,¹⁷ and unconscious bias may also make it more difficult for women to be hired for positions more strongly associated with men.¹⁸ When men and women do not face the same wage work opportunities, it influences their decisions of whether or not to engage in entrepreneurship by changing the number, type, and relative attractiveness of their other labor market options.

In all countries studied, higher levels of education are associated with lower engagement in entrepreneurship and a higher probability of wage work for both men and women (Figure 7). However, the strength of this relationship is different for women and men in Cambodia, Lao PDR, and Vietnam, which may reflect differences in available wage jobs for men and women with different skill levels. In Cambodia and Lao PDR, the negative relationship between education and entrepreneurship is stronger for men than for women, whereas in Vietnam, the opposite is true. This may reflect the differences in available wage jobs for women and men with different skill levels: for example, if there are more opportunities for low-skilled women than low-skilled men in a country, one would expect that the relationship between education and entrepreneurship would be weaker for women than men.



Figure 7 Higher education levels are associated negatively with entrepreneurship and positively with wage work for both men and women, but the relationship varies by gender and country



Source: Author calculation using CSES, IFLS, LECS, TLSLS, VARHS

Note: This figure shows the coefficients for men and women taken from the regressions in equation 2.1 in Appendix B. Panel A refers to specification 2, and Panel B refers to specification 4.

Beyond the skill level required, other characteristics of available wage jobs, such as paid leave, hours of employment, or employer-supported childcare, can shape women's labor market decisions. Chowdhury et al. (2019) shows that women in Vietnam sort into occupations with shorter hours and better leave policies, which may enable them to better balance market and domestic work. Similarly, Thébaud (2015) finds that in 24 high-income countries, women are less likely to engage in necessity entrepreneurship when there are policies that can reduce work-family conflicts, such as paid leave, publicly subsidized childcare, and part-time employment. If the enabling environment does not mandate paid leave or subsidized childcare and the local labor market does not have available jobs with these types of characteristics, some women may turn to self-employment instead.

Infrastructure¹⁹ that can facilitate small-scale entrepreneurship may make it more feasible or attractive for women to open their own businesses rather than supporting those of other family members. Labor market choices are not limited to only wage work and entrepreneurship. For example, 4 percent, 24 percent, 33 percent, 31 percent, and 19 percent of women engage in unpaid family work supporting family farms or businesses in Cambodia, Indonesia, Lao PDR, Timor-Leste, and Vietnam, respectively.²⁰ New analysis for this report shows that access to markets is linked with a higher level of women's engagement in entrepreneurship and to a lower level of their involvement in unpaid family work, even when accounting for women's time-invariant preferences and characteristics.²¹



2.1.3 Access to capital

Access to capital is positively linked to both men and women's participation in entrepreneurship. Nevertheless, it is not possible to distinguish whether individuals with greater access to capital open businesses or whether entrepreneurs have a greater demand for and use of financial services. There are three aspects of access to capital captured in the different surveys used for this analysis: loans, availability of assets that can be used as collateral, and savings.²² The use of loans and savings is not only influenced by the availability of formal and informal financial services, but also by an individual's financial literacy and knowledge of how to use and access available services. Because it is not possible to disentangle the relative contributions of availability and financial literacy, additional analysis is needed to determine how binding each constraint is and whether interventions targeting both access and knowledge are needed.

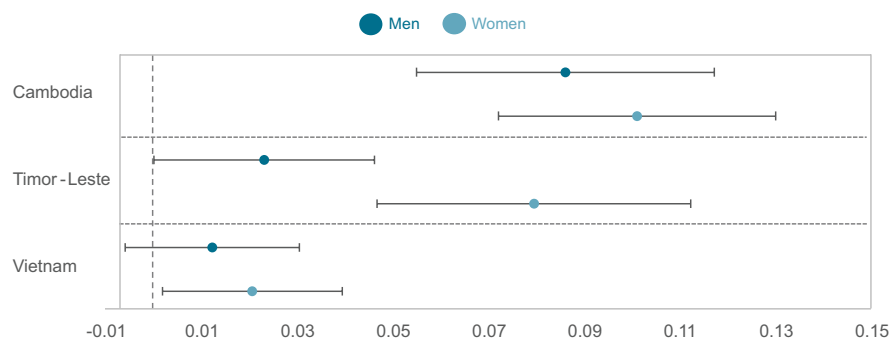
Women in Cambodia, Timor-Leste and Vietnam are more likely to engage in entrepreneurship when they are in households that have received loans.²³ Although there is also a

positive and statistically significant relationship between being in a household that received loans and engaging in entrepreneurship for men in Cambodia and Timor-Leste, in Timor-Leste the relationship is more than three times stronger for women than men (Figure 8: Panel A). Even when accounting for entrepreneurs' unobserved, time-invariant characteristics and preferences in Vietnam, there is a positive relationship between receiving loans and entrepreneurship for women but not men.²⁴ Linked with access to loans, individuals with assets that can be used as collateral are

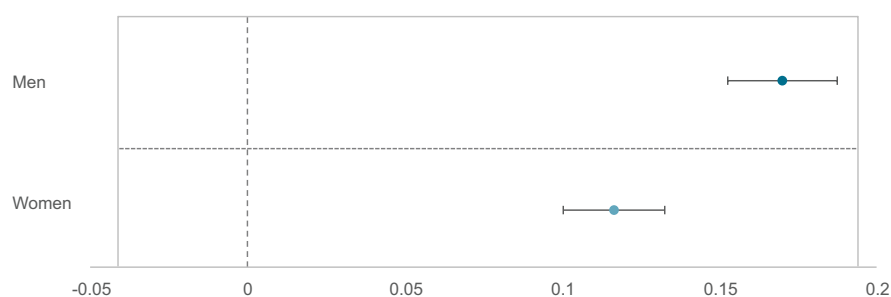
more likely to be entrepreneurs in Cambodia, although this relationship is stronger for men than women (Figure 8: Panel B).²⁵

Figure 8 Access to capital is positively associated with engagement in entrepreneurship

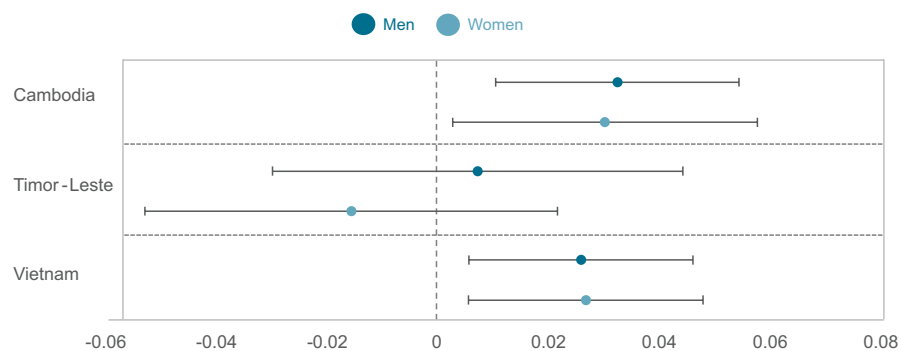
Panel A. Conditional correlation between loans and entrepreneurship for working-age men and women



Panel B. Conditional correlation between having assets that can be used as collateral and entrepreneurship for working-age men and women (Cambodia)



Panel C. Conditional correlation between savings and entrepreneurship for working-age men and women



Source: Author calculations using CSES, IFLS, TLSLS, VARHS

Note: This figure shows the coefficients for men and women taken from linear probability models as defined in equation 2.1 in Appendix B for Cambodia and Timor-Leste and from linear probability models with individual fixed effects as defined in equation 2.2 in Appendix B for Indonesia and Vietnam. All panels refer to regression specification 2, showing the correlation between capital and the likelihood of engaging in entrepreneurship among the working-age population.

Participation in arisans may enable Indonesian women to save enough funds to engage in their own activity rather than support the activities of other family members.

Aligned with global evidence,²⁶ savings can provide an important source of seed capital for female microentrepreneurs in Southeast Asia and support their ability to open their own businesses. The majority of female microentrepreneurs in Indonesia use savings to finance their start-up capital, and a higher share of female microentrepreneurs than men rely on savings to start their businesses. Moreover, Indonesian women who participate in rotating savings and credit associations, known as arisans, are more likely to be self-employed than to work as an unpaid family worker in a family farm or business, even after taking time-invariant preferences and characteristics into consideration (Figure 8: Panel C).²⁷ Participation in arisans may enable Indonesian women to save enough funds to engage in their own activity rather than support the activities of other family members. Similarly, in Vietnam, both men and women who have informal savings are more likely to engage in entrepreneurship. Interestingly, formal savings in Vietnam are not positively associated with entrepreneurship when observing how changes in an individual's savings over time is linked with their labor market outcomes (Figure 8: Panel C).²⁸ However, if relatively few individuals begin saving through formal channels, it would be more difficult to technically capture such a relationship. Further evidence of the importance of the availability of family resources to fund seed capital for entrepreneurs in Vietnam comes from the fact that men and women in wealthier households (proxied as those with higher food consumption) are more likely to be entrepreneurs.²⁹

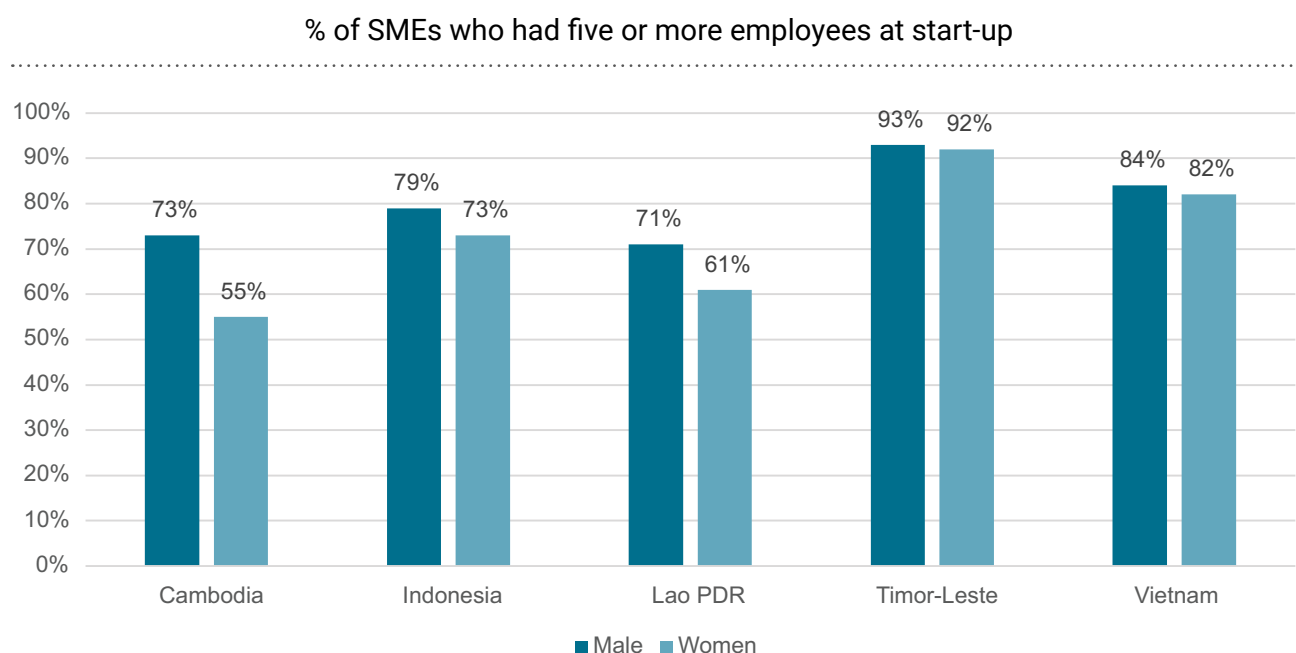
2.2 What characteristics are linked with women's entry into SME ownership?

There is evidence that most entrepreneurs who successfully run an SME directly opened an SME rather than scaling up a microbusiness.

However, available data do not provide information on the number of microbusinesses that attempt to grow their businesses into an SME. Figure 9 shows the vast majority of female-owned SMEs were already SMEs at start-up, ranging from 55 percent of women-owned firms in Cambodia to 92 percent of

women's firms in Timor-Leste. This trend is not limited to female SME owners, as male-owned SMEs also overwhelmingly had five or more employees when they began operations. In many countries, firms that were considered microbusinesses at start-up were just below the threshold for the definition of an SME. For example, in Cambodia, 23 percent of women-owned firms had four employees when they opened.³⁰

Figure 9 Most SMEs had five or more employees at start-up



Source: Author calculations using World Bank Enterprise Surveys, recent years

Entrepreneurs who are able to open larger scale operations likely have different motivation and/or characteristics than those who either choose to open microbusinesses or have no other choice. Indeed, analysis from a panel dataset in Vietnam shows that women who own microbusinesses have different characteristics than those owning SMEs.³¹ However, in many cases, there are similar patterns for men, suggesting that some factors linked with owning larger businesses are not necessarily specific to gender. Nonetheless, if women face specific disadvantages in terms of access to collateral or levels of human capital, a gender focus in policies to help entrepreneurs transition to running larger businesses would be necessary.

Growth-oriented enterprises are firms that have a strong desire and capacity to grow over time, whereas necessity entrepreneurs refer to entrepreneurs who have been pushed into self-employment and are running a business as an alternative to formal employment. The size of the business is not synonymous with whether the entrepreneur is growth-oriented or necessity-driven. Microentrepreneurs comprise both necessity and growth-oriented segments, whereas there are also both necessity and growth-oriented SME owners.³²

Although both microentrepreneurs and SME owners can be driven by either growth or necessity, analysis for this report suggests that male- and female-owned SMEs are more growth-oriented than microbusinesses in Vietnam. While female SME owners in Vietnam are more likely to cite capital as a main constraint for new projects and growth, they are also more likely than female microbusiness owners to have applied for formal credit, borrowed informally, and are more leveraged (Figure 10: Panel A). Similarly,

male SME owners are more likely than male microbusiness owners to have received loans and are more leveraged. Taken together, this suggests that compared to microbusiness owners, both male and female SME owners are more growth-oriented, with plans to develop their businesses that require more capital. Microbusiness owners may be less likely to have concrete plans to develop their businesses if they opened a business due to the lack of a wage job³³ or if they prefer to remain small to better balance running a business with domestic duties.³⁴

Nevertheless, there seems to be a financing gap for both male and female SME owners.

Only one-third of female SME owners have applied for formal loans, and over half use informal loans to meet their financing needs. Although higher than for women, these rates are also fairly low for male SME owners: 40 percent of male SME owners applied for formal loans and 58 percent use informal loans for their businesses (Figure 10: Panel A). Moreover, 22 percent of female SME owners and 24 percent of male SME owners report that capital is the main factor constraining their ability to implement new projects, and 32 percent and 36 percent of male and female SME owners, respectively, report that capital is the main constraint to their business growth.

In addition to capital, labor issues also seem to affect SMEs more than microbusinesses with SME owners reporting more labor turnover and more difficulties in hiring workers. The differences between microbusinesses and SMEs are larger for women than men (Figure 10: Panel B).

Although both male- and female-owned SMEs are more likely to have road and rail access than microbusinesses, the correlation between infrastructure and firm size is stronger

for women than men.³⁵ This suggests that infrastructure is a stronger enabling factor for women who would like to open an SME than for men. In Vietnam, there is a relationship between infrastructure, including road and rail access, and business size (Figure 10: Panel C). However, it is not clear whether the presence of infrastructure enables entrepreneurs to open larger firms, or whether those who decide to open an SME gravitate toward locations with better infrastructure.

There is also a positive relationship between knowledge of laws and regulations and use of good business practices and SME ownership for both men and women. Both male and female SME-owners have greater knowledge of laws and regulations, are more likely to be formal, to keep and audit accounting books, innovate, and provide health

and social insurance for employees than microbusiness owners (Figure 10: Panel D). As with infrastructure, it is not clear whether knowledge and business practices are what enable entrepreneurs to grow their businesses into SMEs or whether it reflects the needs and lessons learned in running a larger operation.

There is suggestive evidence that knowledge and skills facilitate SME ownership for both men and women. SME owners are more likely to have completed higher secondary or college education than microentrepreneurs, who are more likely to have a lower-secondary education or technical education (Figure 10: Panel E). While it is possible that SME owners may go back to school to further develop their skills, it is more likely that the education level they achieved earlier in life has prepared them to run more sizeable businesses.



Figure 10 SMEs in Vietnam have different characteristics than microbusinesses



Source: Author calculations using the VSMES

Finally, networks may play a role in supporting entrepreneurs to grow their businesses, as both men and women who own SMEs have larger networks than those who own microbusinesses. However, network composition may be more salient for women than men. Both women and men who own SMEs have a larger share of men in their network than those who own microbusinesses,³⁶ but the differences between SME and microbusiness owners is particularly stark for women.

Whereas 42 percent of individuals in female microentrepreneurs' networks are women, only 31 percent of those in female SME owners' networks are women (Figure 10: Panel F). Networks can be important for sharing information about customers or suppliers,³⁷ connecting with potential business partners,³⁸ improving production technologies,³⁹ or learning about investment opportunities.⁴⁰ Male role-models or mentors have also been shown to help female entrepreneurs break into traditionally male-dominated sectors.⁴¹



Endnotes

- 1 Global Entrepreneurship Monitor 2019-2020
- 2 Manolova et al., 2017
- 3 Please see equation 2.1 in Appendix B for more technical details.
- 4 Please see equation 2.2 in Appendix B for more technical details.
- 5 Please see Equation 2.3 in Appendix B for more technical details.
- 6 OECD, 2017
- 7 International Labour Organisation, 2018: 56
- 8 In Asia and the Pacific, 52.6% of the 770 million inactive women are out of the labor force due to unpaid care work responsibilities (UNESCAP, 2019: p.18).
- 9 Bahramitash & Kazemipour, 2011; Chen, 2001; Manning, 1998; Vanek, 2013; Campana, Giménez-Nadal, Molina, 2020; Bayudan-Dacuycuy 2019
- 10 This result comes from an event study analysis, as described in Model 2.3 in Appendix B. This analysis was only possible in Indonesia due to data limitations. This type of event study requires both panel data and detailed pregnancy histories.
- 11 Gimenez-Nadal, Molina, Ortega, 2012; Lim, 2019
- 12 Buttner and Moore, 1997; Cliff, 1998; Loscocco and Smith-Hunter, 2004; Buding 2006; Morris et al., 2006; Loscocco and Bird, 2012
- 13 Thébaud, 2015
- 14 Bosma and Kelley, 2018
- 15 World Bank, 2012
- 16 World Bank, 2012
- 17 Miller et al., 2019
- 18 Moss-Racusin et al., 2012; Reuben et al., 2014 ; Azmat and Petrongolo, 2014
- 19 Infrastructure variables examined in this report include: access to roads, access to rail, availability of a bus stop, availability of non-motor transportation, and availability of a public marketplace.
- 20 World Development Indicators 2019
- 21 Result from a model including individual fixed effects, as described in equation 2.2 in Appendix B. The only other country for which we have information on infrastructure that could enable business is in Timor-Leste, where there is a significant and positive relationship between proximity to vehicle roads and women's participation in entrepreneurship; however, the magnitude of that relationship is small.
- 22 Each survey only contains information on one or two of the aspects discussed. Both significant and insignificant results are discussed, so omission reflects differences in data availability. Results that only discuss certain types of finance, such as loans or savings, are only a reflection of data constraints and not of the importance of such financing sources in the countries studied.
- 23 In Cambodia, the question focuses on any type of loans. In Timor-Leste, the question focuses on loans from institutions. In Vietnam, the question asks about any loans received in the past 2 years.
- 24 This result comes from a regression model that uses individual fixed effects, as described in Model 2.2 in Appendix B.
- 25 The only dataset that explicitly asks about assets that can be used as collateral is Cambodia. Owning land is not statistically significantly associated with being an entrepreneur for men or women in Lao PDR or Timor-Leste; however, it is unclear whether the owned land meets requirements for being used as collateral (for example, formal documentation).
- 26 Dupas and Robinson, 2013; Campos et al., 2015 ; Suri and Jack, 2016 ; Buvinic et al., 2020
- 27 This relationship is stronger for women than men using OLS regressions (Model 2.1 in Appendix B) but is similar for women and men when including individual fixed effects to control for time invariant preferences and characteristics (Model 2.2 in Appendix B).
- 28 The model used is a fixed effects model, as described in Model 2.2 in Appendix B.
- 29 This holds true for both equations 2.1 and 2.2 in Appendix B.
- 30 Smaller firms are more likely to have started as micro firms and grown in size. However, even considering firms that have between 5 and 10 employees, the majority of firms had at least 5 employees at start-up. Of firms with between 5 and 10 employees, 55% in Cambodia, 70% in Indonesia, 56% in Lao PDR, 86% in Timor-Leste, and 74% in Vietnam had at least 5 employees at start-up.
- 31 Due to data constraints, this analysis was not possible for the other countries studied.
- 32 World Bank, 2016b
- 33 See Section 2.1.2 for more details.
- 34 See Section 2.1.1 for more details.
- 35 It is possible that infrastructure is correlated with other factors such as higher levels of education; however, the relationship remains when controlling for the characteristics of the owner.
- 36 Defined as the number of people the owner has regular contact with at least once every three months, which is useful for business operations
- 37 McMillan and Woodruff, 1999; Greif, 1993
- 38 Casella and Rauch, 2002
- 39 Parente and Prescott, 1994; Conley and Udry 2001, 2010
- 40 Patnam, 2013
- 41 Campos et al., 2015; Cucagna et al, 2020

Section 3:

What contributes to the gender gap in performance of microenterprises?

Section 1 showed sizeable gender gaps in the performance of microenterprises in Southeast Asia, and Section 2 demonstrated that gender-related constraints shape the profiles and motivation of female microentrepreneurs. Women's differential selection into microentrepreneurship can contribute to observed gender gaps in the performance of microbusinesses. For example, if women open microbusinesses due to a lack of appropriate wage work opportunities, they may be less driven to grow their businesses and instead invest more time in seeking other employment opportunities. Nevertheless, gender differences in the choice to open a business does not explain all of the gap in microenterprise performance. Gender gaps in microenterprise performance remain statistically significant when comparing men and women with similar characteristics.

This section explores how women's lower levels of inputs correlate with the gender gap in microenterprise performance.

Compared to male microentrepreneurs, female microentrepreneurs have lower levels of hired labor, own labor, skills, and capital. Gender differences in inputs are associated with the gender gap in business performance. These gender differences in inputs are shaped by gender norms, market failures, and legal distortions.

Factors other than entrepreneurial inputs may also contribute to gender gaps in microenterprise performance; however, available data do not enable empirical analysis of these constraints. Women with lower levels of agency are less able to set objectives aligned with their goals and values and to work toward these objectives, which can impede their ability to run their businesses as they see fit. For example, a female entrepreneur

may have an idea to expand her business but may not be able to act on this idea without the permission of her husband. Gender norms may also constrain the performance of women's microbusinesses beyond their influence on entrepreneurial inputs. For example, if customers perceive women's businesses as less reliable or female managers as less capable, women may face more obstacles to growing their market share and accessing new market opportunities. Due to data constraints, this section focuses on how gender differences in inputs relate to the gender gap in microenterprise performance. Nevertheless, because gender gaps in business performance persist even after comparing men and women with similar personal, household, and business characteristics, it is likely that these other unobserved factors are contributing to gender differences in performance. Future research should explore this topic in more detail.



Box 8 How does this report analyze factors limiting the performance of women's microbusinesses?

We test the association between different characteristics of interest and business performance using Ordinary Least Squares (OLS) regressions and interact the manager's gender with the characteristics to assess whether this association is different for male and female entrepreneurs.¹ Where panel data is available in Indonesia and Vietnam, we also run these models using individual fixed effects that take time invariant characteristics that cannot be observed into account.² In addition, for all countries included in the analysis, we use stepwise regressions that examine how the gender gap in firm performance changes after accounting for a specific characteristic.³ The results of this analysis do not reveal causal relationships. However, they show interesting patterns about factors correlated with business performance.

Due to the detailed nature of the data in Vietnam, two additional descriptive analytical techniques

are possible. First, we use Oaxaca-Blinder decompositions, a technique that breaks down the parts of an observed difference in outcomes to understand which relationships are most strongly associated with the gap. This technique sheds light on the extent to which gender gaps in business performance are due to men and women's different levels of endowments, the extent to which they are due to differences in the relationship between endowments and business performance, and the extent to which they are due to the interaction between endowment levels and relationships with performance.⁴ Second, we use a Cobb-Douglas production function to examine the returns to factors of production, including capital, land, and labor, for men and women.⁵ The results of these additional techniques cannot prove causality, but provide additional nuance for understanding what factors are linked with the gender gap in business performance.

3.1 Access to labor

3.1.1 Hired labor

In all countries studied, female microentrepreneurs have fewer paid workers than men (Figure 11: Panel B). The percentage of female-owned businesses that have any paid workers ranges from 2 percent in Timor-Leste to 37 percent in Vietnam, whereas the percentage of male-owned businesses that have any paid workers ranges from 6 percent

in Timor-Leste to 53 percent in Vietnam (Figure 11: Panel A). Considering only businesses that have any paid workers, women still have fewer paid workers than men in Indonesia and Lao PDR. In Indonesia, men have 3.7 paid workers on average compared to women's 2.1 paid workers, and in Lao PDR men have 1.8 workers compared to women's 1.4 paid workers (Figure 11: Panel C).

Figure 11 Women's microbusinesses have fewer paid employees than men's in all countries, but gender differences in unpaid workers vary by country



Source: Author calculations using CSES, IFLS, LECS, TLSLS, VSMES

Note: The number of paid workers is not available for Cambodia or Timor-Leste; however, whether or not there are paid workers is approximated in these countries by whether or not the firm has salary costs. The number of unpaid workers in Timor-Leste may be an underestimate because the data do not distinguish which household member is primarily responsible for the business, so analysis was limited to firms where all family workers were of the same gender.

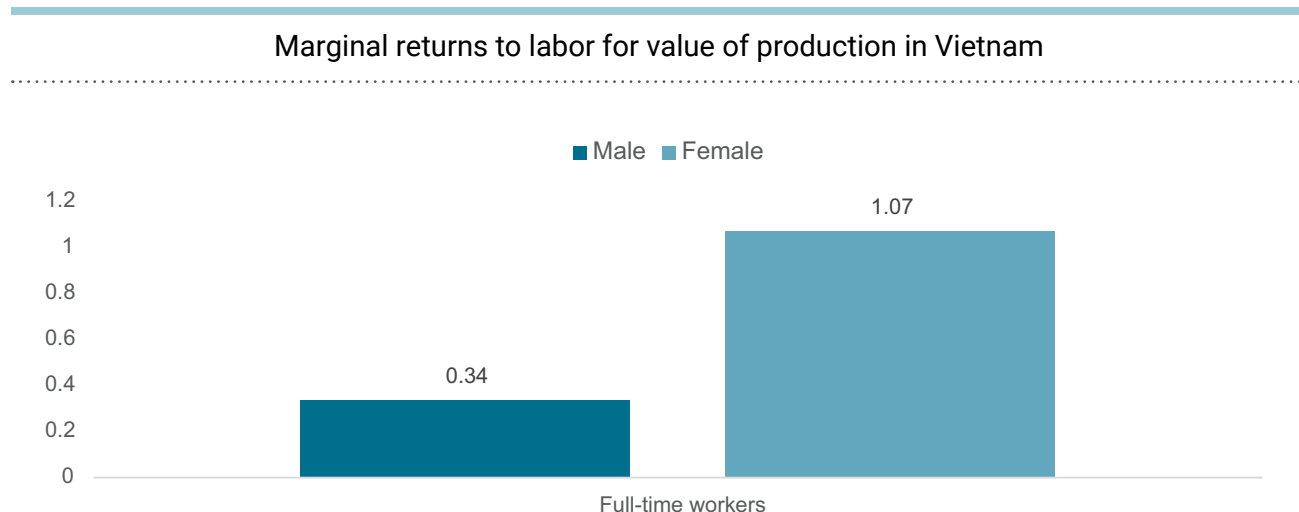
Moreover, **female microbusinesses in Vietnam are operating below their optimal size.** The Cobb-Douglas production function shows the marginal return to labor for the value of production is 1.07 for female-owned microbusinesses and 0.34 for male owned-microbusinesses (Figure 11).⁶ A marginal return to labor that is greater than one signifies that there are increasing returns to scale for labor: in other words, doubling the number of workers would more than double the value of production. In absence of constraints, most businesses would continue to hire workers until constant returns to scale have been reached, and the efficiency of the firm has been maximized.

Increasing returns to labor for female-owned microbusinesses in Vietnam suggest they either face challenges hiring qualified workers or they make choices to remain in smaller-scale operations, even if there could

be benefits to expanding the size of their businesses. Because only female-owned businesses have increasing returns to labor, it is likely that gender-related constraints or preferences affect women's ability and/or desire to expand their businesses.

More research is needed to understand why women have fewer workers than men; however, either gender-specific constraints or preferences may contribute to this gap. On the one hand, women might have difficulties hiring additional labor if they lack the necessary financing or if negative stereotypes about women's ability as managers makes it more difficult for them to hire and retain male employees.⁷ On the other hand, women may prefer to maintain a smaller scale to better balance their business operations with household responsibilities.⁸

Figure 12 Women's microbusinesses have increasing returns to labor, whereas men's microbusinesses have decreasing returns to labor in Vietnam



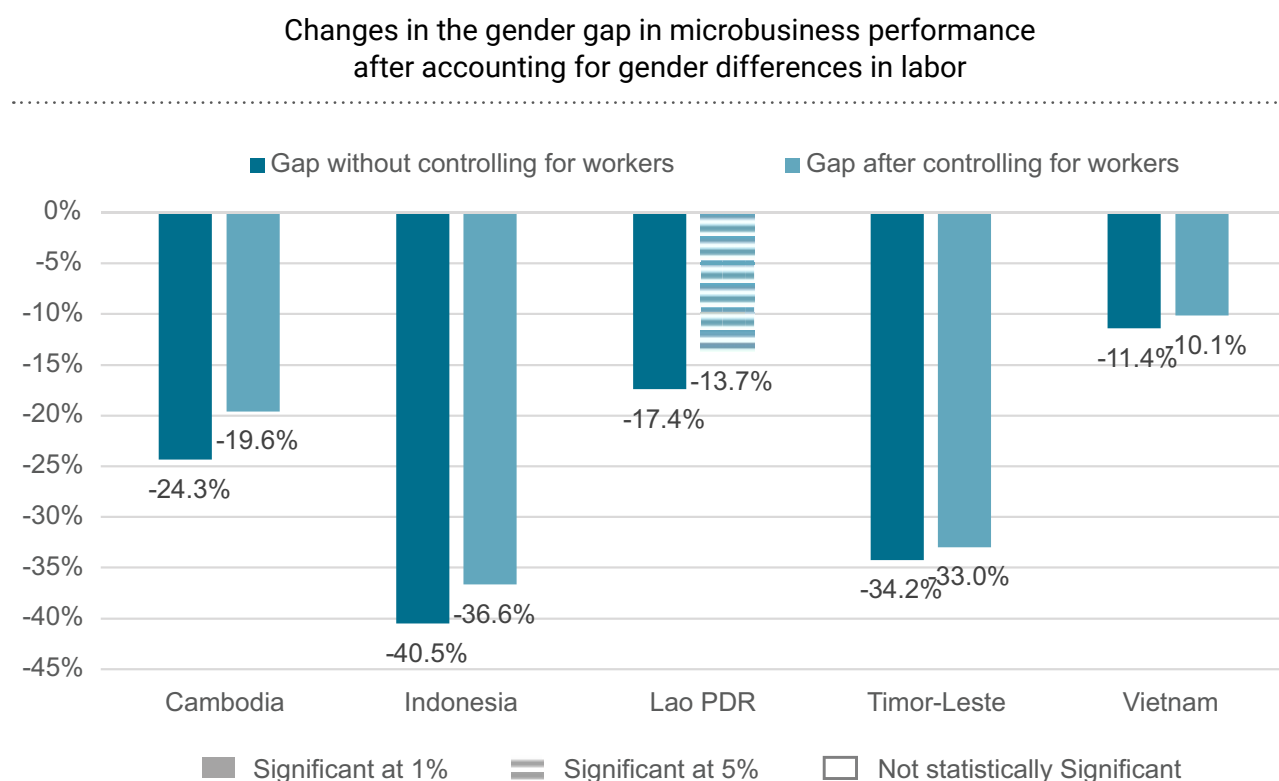
Source: Author calculations using VSMES

Note: The marginal productivity of labor is calculated using the Cobb Douglas production function as described in Model 3.5 in Appendix B. Gender differences are statistically significant at the 5 percent level.

Women's lower levels of paid labor contribute to the gender gap in business performance in Southeast Asia. Unsurprisingly, the number of paid workers is positively correlated with business performance in all countries,⁹ which means that having fewer paid employees puts female entrepreneurs at a disadvantage. Indeed, the size of the labor force in Vietnam explains 15 percent of the gender gap in profits.¹⁰ After accounting for women's lower levels of paid and unpaid workers, the gender gap in business performance shrinks by 19 percent, 10 percent, 21 percent, and 4 percent in Cambodia, Indonesia, Lao PDR, and Timor-Leste, respectively (Figure 13).

Beyond only the number of workers, **challenges related to hiring and retaining workers partially explain gender gaps in microbusiness productivity in Vietnam.** Labor turnover (the share of a firm's total employees who leave the company during a year) contributes to the gender gap in value-added.¹¹ Moreover, accounting for gender differences in the number of workers, amount of employee turnover, and reported difficulties in hiring workers shrinks the gender gap in profits of microenterprises by 11 percent in Vietnam (Figure 13).

Figure 13 Accounting for differences in labor reduces the gender gap in microbusiness performance



Source: Author calculations using CSES, IFLS, LECS, TLSLS, VSMES

Note: Results are from stepwise regressions as described in Model 3.3 in Appendix B. Labor-related variables include the number of unpaid workers in all countries, the number of paid workers in Indonesia, Lao PDR, and Vietnam, whether the firm has paid workers in Cambodia and Timor-Leste, and employee turnover and difficulties hiring workers in Vietnam.

In addition to having fewer paid workers, **female microentrepreneurs have a greater reliance on unpaid labor, which in turn can affect the quality and reliability of their labor supply.**

A greater proportion of women's workers in Indonesia and Lao PDR are unpaid compared to men. Relying on unpaid labor may mean accepting the support of whoever is available, rather than finding individuals with the most relevant qualifications and experience for the job. Moreover, unpaid workers may have less incentive to exert the highest levels of effort and commitment to the job and may temporarily or permanently leave the job on short notice if paid work becomes available. Despite relying more on unpaid labor in terms of the proportion of workers, women in Lao PDR also have fewer unpaid workers than men.¹² If women have less bargaining power in the household or if their businesses are considered as secondary activities, they may face more challenges in seeking the help of household members for their businesses. Because the number of unpaid workers is positively correlated with business performance in Lao PDR, the gap in the number of unpaid workers could contribute to gender gaps in business performance.

3.1.2 Own labor

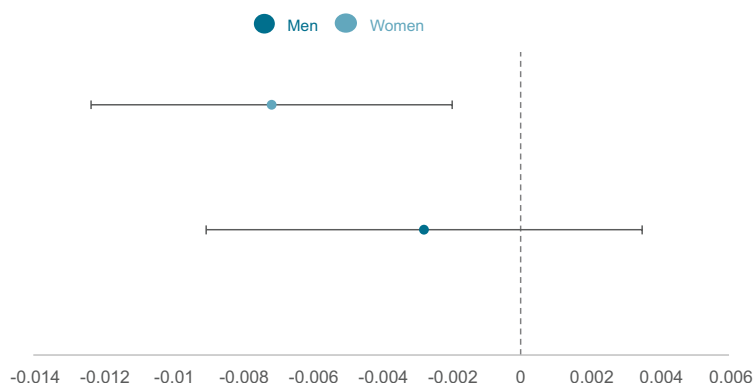
When considering labor supply availability for microenterprises, it is important to also consider the amount of time the business owner or manager spends working in the business. The vast majority of microbusinesses in all countries do not have any paid workers (the percentage ranges from 74 percent in Lao PDR to 97 percent in Timor-Leste), and in Indonesia and Cambodia the majority also do not have any unpaid workers.¹³ In these cases, the only source of labor comes from the person responsible for the business. Even for businesses with paid or unpaid workers, microbusinesses do not have many workers on average (Figure 11), which means that the entrepreneurs' own labor still represents an important source of labor.

Women's greater role in managing domestic and care work limits the amount of time that female entrepreneurs dedicate to their businesses, and this can be associated with the gender gap in business performance.

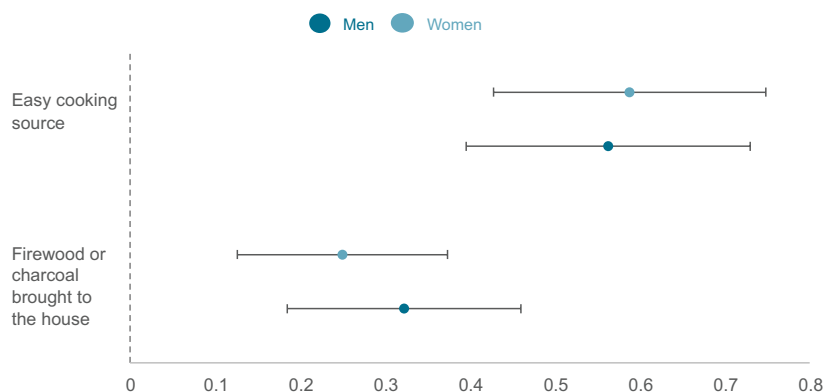
In Cambodia, the more time women spend fetching water during the dry season, the lower their profits, whereas there is not a statistically significant relationship for men (Figure 14: Panel A). In addition, women in Cambodia who have access to a cooking source that requires less time to collect and ignite, such as gas or electric, or who have firewood or charcoal brought to their house have higher profits (Figure 14: Panel B). Similarly, women in Indonesia who have water inside their household and less time-consuming cooking sources also have higher profits (Figure 14: Panel C).¹⁴ Spending less time cooking and collecting fuel and water may enable women to spend more time on their businesses, thus boosting their productivity.¹⁵

Figure 14 Time spent on domestic tasks is negatively associated with profits of female microentrepreneurs in Cambodia, and time-saving domestic infrastructure is associated with higher profits in Cambodia and Indonesia

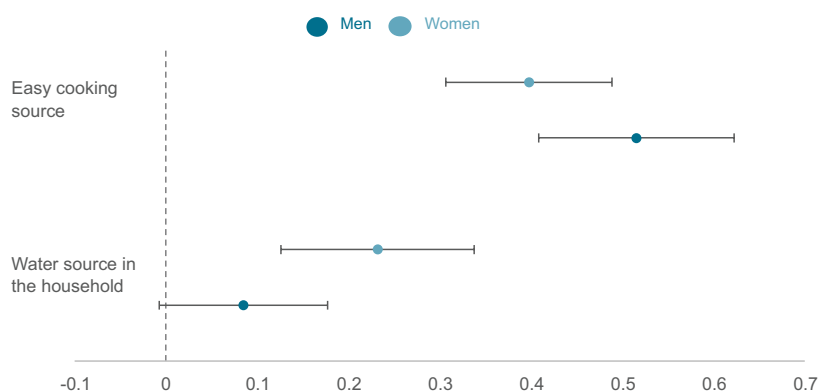
Panel A. Conditional correlation between time spent fetching water in the dry season and profits in Cambodia



Panel B. Conditional correlation between time-saving domestic infrastructure and profits in Cambodia



Panel C. Conditional correlation between time-saving domestic infrastructure and profits in Indonesia



Source: Author calculation using CSES and IFLS

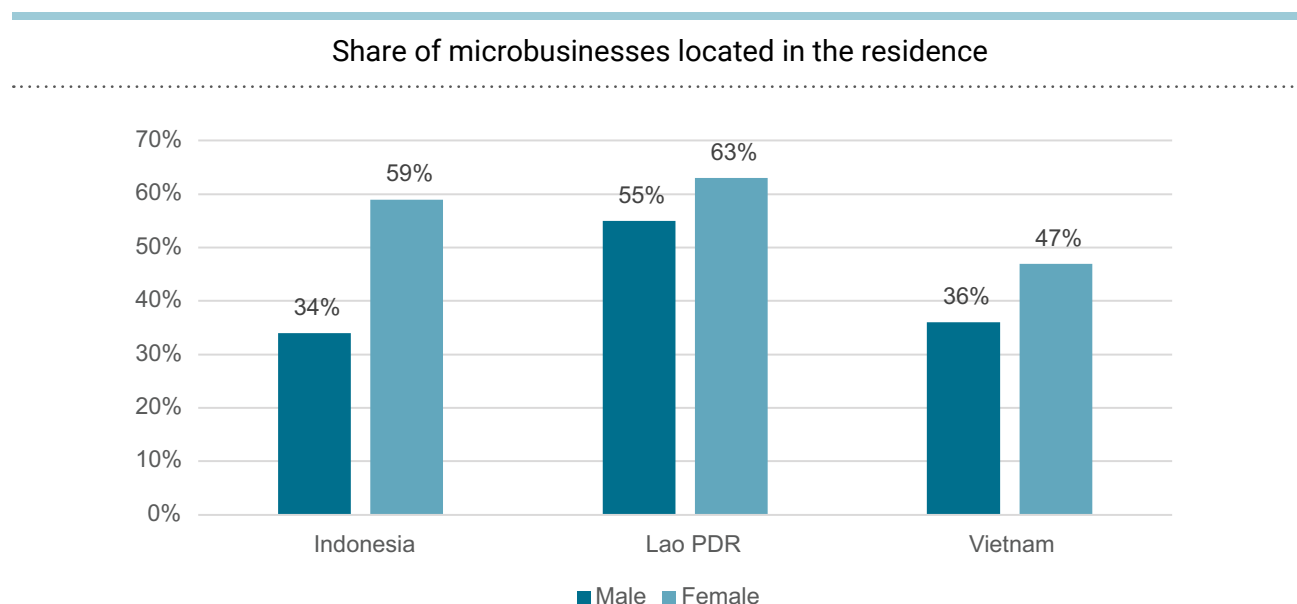
Note: Regression coefficients come from Model 3.1, as described in Appendix B.

In Lao PDR, 34 percent of female microentrepreneurs identify primarily as homemakers in at least one month over the past year, and their revenues are 18 percent lower than those who were primarily working all year.¹⁶ Likewise, in Indonesia, women whose primary activity is entrepreneurship have profits that are 28 percent higher than those who are not fully focused on their businesses, even when taking both observed and unobserved characteristics into account.^{17,18} Though many women combine entrepreneurship with carrying out domestic tasks, these examples indicate many women identify primarily as homemakers and report that their business is their secondary activity. It is likely women who identify their business as a secondary activity may face more time constraints that limit their own labor in the business.

While operating the business from home can facilitate balancing market and domestic work, women who run their businesses from home are likely subject to more interruptions during the workday, limiting their labor supply and lowering their performance. In Lao PDR, Vietnam, and Indonesia, for example, women are more likely than men to operate their businesses from home (Figure 15), which is associated with lower business performance. Women who operate their businesses from home have revenues that are 24 percent lower in Lao PDR and profits that are 16 percent lower in Indonesia than those who have a separate business location. Although a negative trend between operating from a residential location and business performance also exists in Vietnam, it is not statistically significant (Figure 16).¹⁹ While home-based businesses may be less profitable due to interruptions during the workday or distance from customers, it is also possible that the negative correlation

between operating a business from home and business performance reflects the choices or ability of more profitable entrepreneurs to move their businesses to a commercial location. Regardless of the direction of causality, if women are more likely than men to operate their businesses from home in order to align with expectations of combining business and domestic work rather than only an economic calculation, it can help explain gender differences in business performance. Indeed, women's greater likelihood of working from a residential location in Vietnam explains 9 percent of the gender gap in microbusiness profits.²⁰

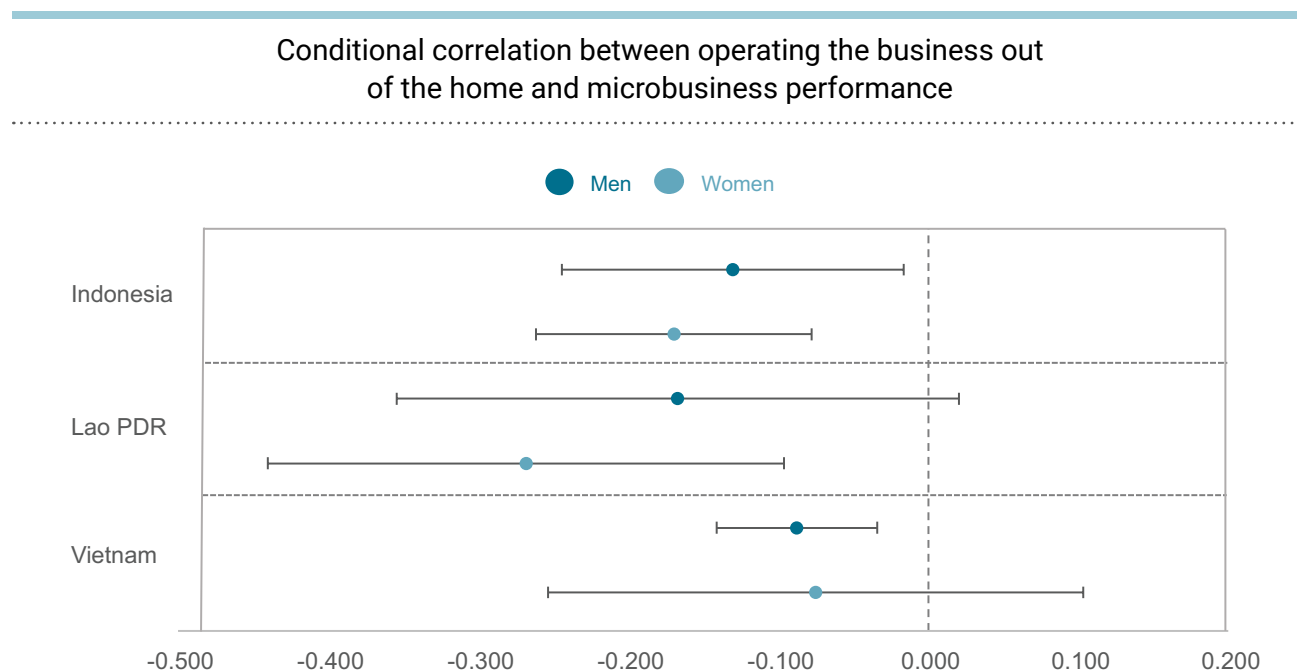
Figure 15 Female microentrepreneurs are more likely to operate their businesses from home



Source: Author calculations using IFLS, LECS, VSMES

Note: Differences between men and women are statistically significant at the 1 percent level.

Figure 16 Operating a microbusiness from residential property is negatively associated with business performance



Source: Author calculations using IFLS, LECS, VSMES

Note: Regression coefficients come from Model 3.1 in Appendix B.

The finding that domestic work limits women's business performance is aligned with evidence from other countries and regions.

Arráiz (2018) shows that time spent on household chores, childcare, and care for the elderly explains 33 percent of the gender gap in profits of micro and small businesses in Ecuador. Another 58.9 percent of the gender gap is explained by business size, entrepreneurial motivation, and sector of activity, which may also be indirectly affected by the time available to entrepreneurs. Similarly, studies show that time spent on childcare, housework, and market work explain 61 percent of gender differences

in self-employed income in the US²¹ and 22.5 percent of the gender gap in self-employed earnings in Germany.²² Combining childcare with business activities can also lower women's profits. Delecourt and Fitzpatrick (2020) document that female-owned businesses in Uganda where children are present earn 48 percent lower profits than other female-owned businesses that do not have children present. Prices and product quality are similar among these two groups of businesses, but women who simultaneously care for their children and operate their businesses are more likely than those that do not to run out of stock.²³

3.2 Skills

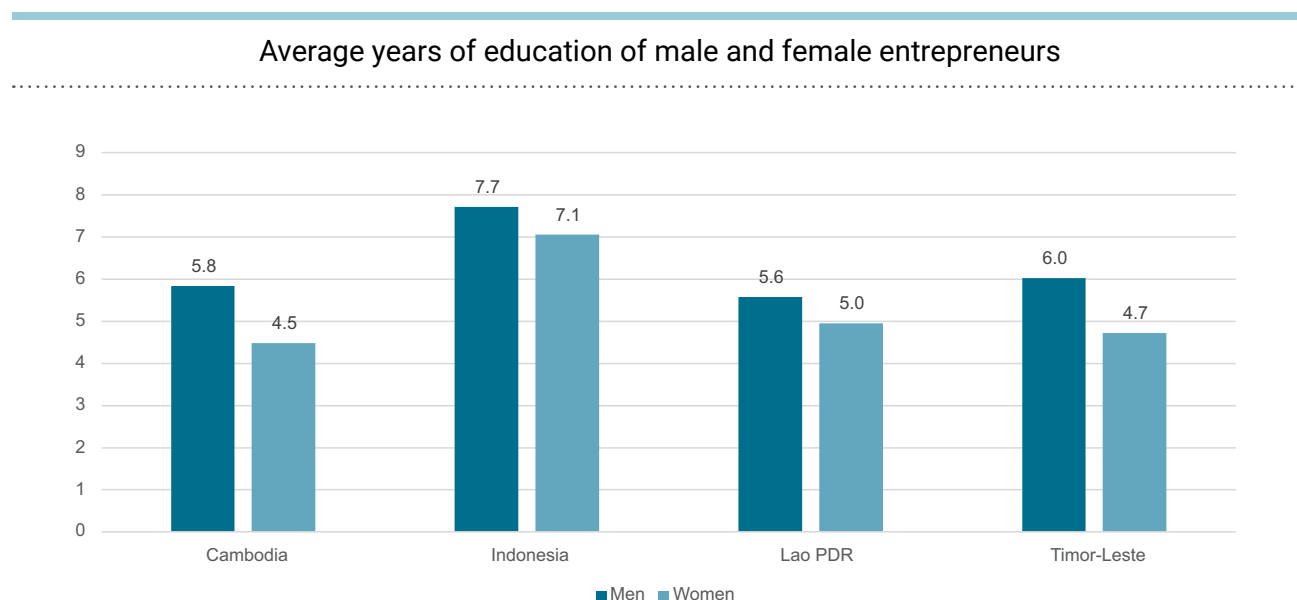
3.2.1 Formal education

As discussed in Section 2, both men and women with lower levels of formal education sort into microentrepreneurship. This can have important implications for business performance, as previous studies have shown that formal schooling is positively linked with business characteristics and performance.²⁴ Business formation, operation, and management require skills that can be acquired through formal education and training.²⁵

Nevertheless, controlling for education in Vietnam does not change the gender gap in business performance (Figure 18).²⁷

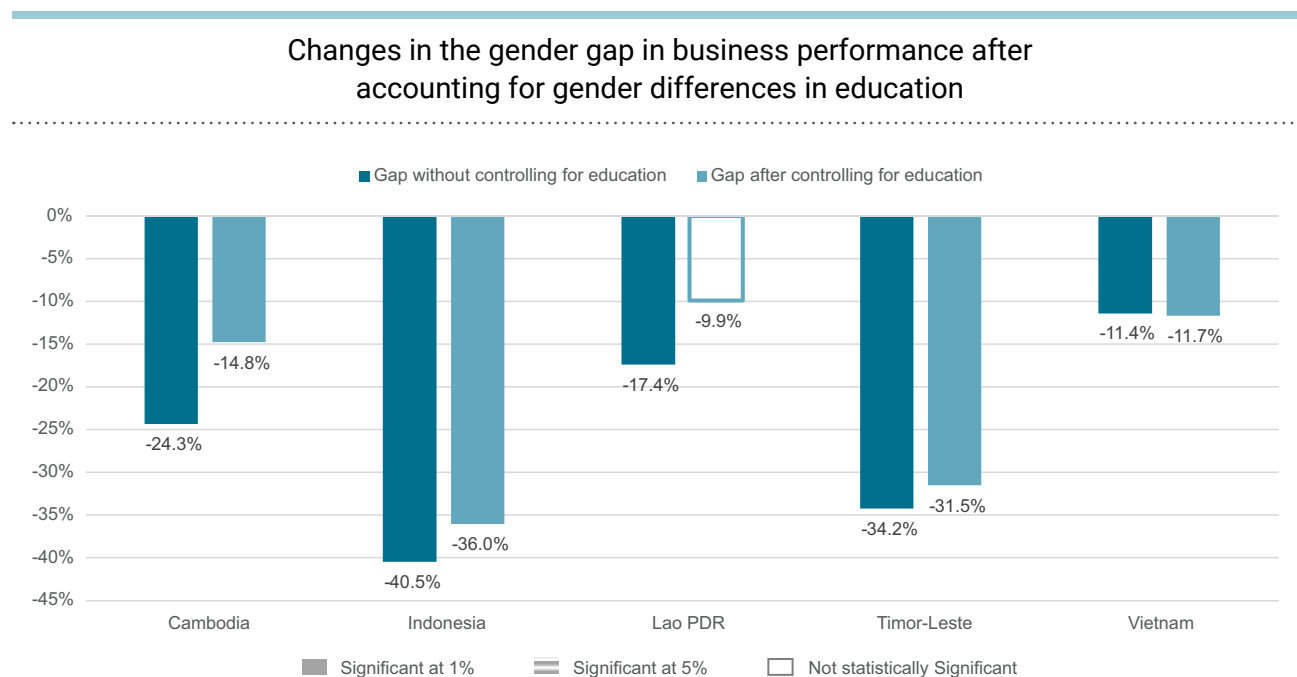
In all countries studied, female entrepreneurs have lower education levels than men (Figure 17),²⁶ **which contributes to the gender gap in performance of microenterprises.** Indeed, taking gender gaps in education into account shrinks the gender gap in performance by 39 percent in Cambodia, 11 percent in Indonesia, 43 percent in Lao PDR, and 8 percent in Timor-Leste (Figure 18). After controlling for education, the gender gap in revenues is not statistically significant in Lao PDR.

Figure 17 Female entrepreneurs have lower education levels than male entrepreneurs



Source: Author calculations using CSES, IFLS, LECS, TLSLS

Figure 18 After accounting for differences in education levels, the gender gap in microenterprise performance shrinks in all countries except Vietnam



Source: Author calculations using CSES, IFLS, LECS, TLSLS

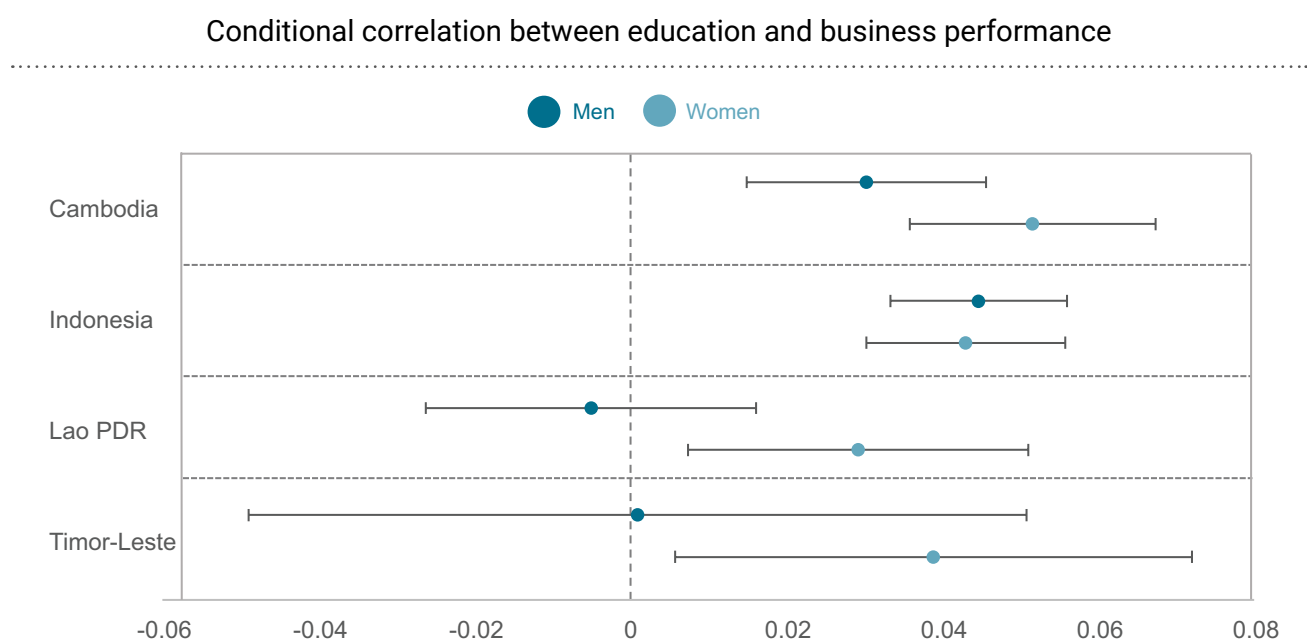
Note: This graph shows the gender gap in business performance before and after controlling for education, according to the stepwise regressions described in Model 3.3 in Appendix B.

Nevertheless, female microentrepreneurs in some countries benefit more from formal education than their male counterparts.

Aligned with existing evidence,²⁸ years of education are positively correlated with the performance of female microbusinesses in all countries studied. However, contrary to expectations, there is no relationship between years of education and business performance

for men's businesses in Lao PDR and Timor-Leste. Even in Cambodia where both men and women's education are positively related to their business performance, the association is stronger for women than men (Figure 19). Evidence from other countries and regions also suggests that female entrepreneurs have greater returns to their formal education than male entrepreneurs.²⁹

Figure 19 Education levels are positively associated with business performance of female microentrepreneurs



Source: Author calculations using CSES, IFLS, LECS, TLSLS

Note: This graph shows the coefficients from regressions as described in Model 3.1 in Appendix B.

3.2.2 Business skills

In addition to formal education, **evidence from Vietnam shows that gender differences in business knowledge and use of good business practices contribute to the gender gap in microenterprise profits.**³⁰ Aligned with evidence in the literature,³¹ knowledge of laws and regulations and implementation of good business practices are correlated with higher profits for both male and female-owned microenterprises.³² However, gender differences in formal education, business knowledge, and adopting innovative business practices—namely levels of higher-secondary education, knowledge of laws and regulations, and introducing new product groups—explains part of the gender gap in profits of microenterprises. The profit gap would be even larger if female microentrepreneurs were less likely to keep accounting books or to be formally registered.³³

In addition, gender differences in the relationship between these business skills and performance contribute to the gender gap in microenterprise profits in Vietnam.

Female microentrepreneurs have a lower association between their business practices and performance than men, which contributes to gender gaps in profits. Specifically, female microenterprise owners who introduce new technology get less of a boost to their businesses compared to men.³⁴ This is despite the strong relationship between intensive use of innovative technology and higher productivity dividends for firms in Vietnam compared to firms with less-intensive technology use.³⁵ Differential knowledge about how to use the technology or to maximize its benefits may contribute to this gap. Nevertheless, female microenterprise owners who formalize their businesses get more of a premium to that formalization compared to their male

counterparts,³⁶ despite having fewer benefits or being treated differently than men who are running formal businesses.³⁷

Digital skills and other technological innovation are important for business success, and the COVID-19 pandemic has increased their relevance.³⁸ Although the results from Vietnam suggest that female-owned microbusinesses have lower returns to introducing new technology than male-owned microbusinesses, in other countries, women can reap greater benefits from new technologies. A recent study in Indonesia found that female entrepreneurs were more likely to use and benefit from digitalization.³⁹

3.2.3 Access to information

Networking can provide a range of benefits to entrepreneurs, including enhancing their skill development.⁴⁰ It is positively linked to entrepreneurial development in general and, in particular, female entrepreneurship.⁴¹ Entrepreneurs who have well-developed networks are more successful in their businesses, identify more viable opportunities, and have greater access to resources.⁴²

New analysis for this report confirms that networks are particularly important for the profitability of female-owned microbusinesses in Vietnam. The number of individuals in the owner's network⁴³ is positively associated with profits, and this relationship is stronger for female entrepreneurs than for male entrepreneurs. For female-owned microenterprises, an additional person in the owner's network is associated with 0.49 percent higher profits. This result does not appear driven by an individual's personality: comparing the same firm over time, an additional person in a female entrepreneur's network is linked with

a 0.36 percent increase in profits.⁴⁴ In contrast, an additional person in a male owner's network is only correlated with a 0.15 percent increase in profits, and this relationship disappears when examining how changes in the owner's network over time correlates with a specific firm's performance.⁴⁵

Social norms can make it more challenging for women to build and diversify their networks as well as to participate in programs to enhance their skills more broadly. For example, in

Cambodia, it is considered inappropriate for women to interact with male business owners and government officials.⁴⁶ In addition to gender norms related to mobility and interacting with men in the community, social norms related to women's role in providing care

work and other domestic work limits women's time to engage in networking activities. Female entrepreneurs surveyed in Indonesia and Malaysia underscored the importance of networking, however, many of them noted that domestic work significantly restricted their time to expand their business contacts, participate in formal associations and networks, and communicate with potential mentors.⁴⁷ These same time constraints can make it more challenging for women to participate in programs to build entrepreneurial skills, in particular if entrepreneurship support programs are not designed with hours, location, and availability of support services like childcare to facilitate women's participation.

3.3 Access to capital

Aligned with evidence from other regions,⁴⁸ female microentrepreneurs in Indonesia and Vietnam have lower levels of business assets than male microentrepreneurs. Female

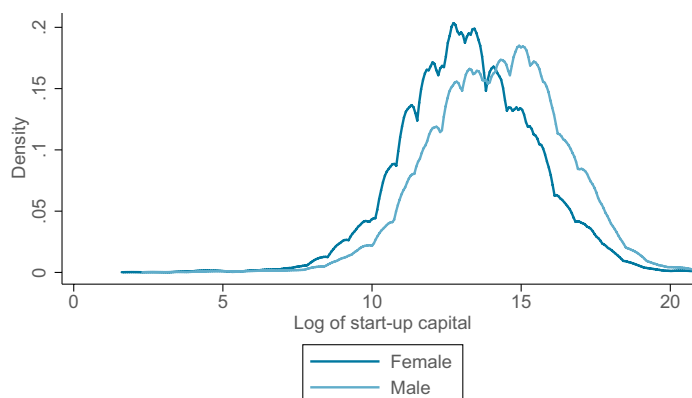
microentrepreneurs in Indonesia had less than half of the amount of start-up capital as men, and a gender gap in start-up capital exists all along the distribution (Figure 20). In Vietnam, female-owned microbusinesses have physical assets, including the value of land, buildings, equipment and machinery, that are 18 percent lower than the physical assets of male-owned microbusinesses. As shown in Figure 21: Panel A, the gender gaps in physical asset levels are particularly large at the lower end of the distribution. In addition, female microentrepreneurs in Vietnam have financial assets—nonphysical assets such as cash or receivables (ex. money owed to the firm by customers)—that are 39 percent lower than those of male microentrepreneurs, and these

gender gaps exist at every level of financial assets (Figure 21: Panel B).

Although existing evidence from Southeast Asia shows that women are concentrated in sectors that are less capital intensive than those dominated by men,⁴⁹ gender gaps in asset levels remain after accounting for gendered sectoral segregation. Female microentrepreneurs in Indonesia have start-up capital that is much lower than that of men, even when comparing men and women within the same sector of activity. Similarly, gender gaps in both physical and financial assets in Vietnam remain even after accounting for the fact that men and women operate in different sectors of activity. Women's lower levels of capital compared to men operating in the same sector of activity can hinder their ability to grow their businesses, harness technology, and generate income.

Figure 20 Women's microbusinesses in Indonesia had lower start-up capital than men's

Distribution of start-up capital for microbusinesses in Indonesia
Kernel density estimate: Log of start-up capital



kernel = epanechnikov, bandwidth = 0.3295

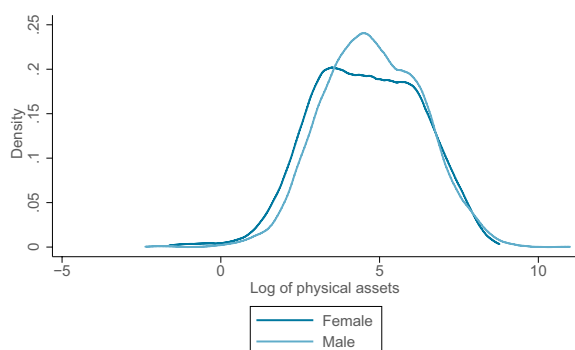
Source: IFLS Household and Community survey representing year 2000, 2007 and 2014

Source: Author calculations using IFLS

Note: This graph shows the kernel density function, which depicts the underlying distribution of a continuous variable. In other words, it shows the extent to which women (as represented by the yellow line) or men (as represented by the blue line) in the sample are concentrated at different levels of start-up capital. Because the yellow line lies to the left of the blue line, the graph shows that women are concentrated among lower levels of start-up capital. Given that the entire curve (not just a portion of it) lies to the left of the blue line, it demonstrates that women have lower levels of start-up capital than men, regardless of whether compared to other women they have lower or higher levels of initial capital.

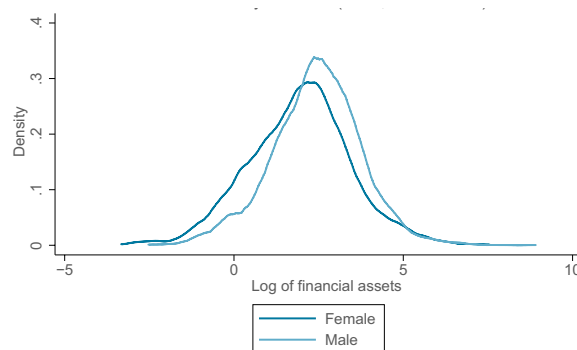
Figure 21 Female-owned microenterprises in Vietnam have lower assets than men's microenterprises

Panel A. Distribution of microbusinesses' physical assets in Vietnam, by gender
Kernel Density Estimate
(Land, Buildings, Equipment, Machinery)



kernel = epanechnikov, bandwidth = 0.3409

Panel B. Distribution of microbusinesses' financial assets in Vietnam, by gender
Kernel Density Estimate
(Cash, Receivables)



kernel = epanechnikov, bandwidth = 0.2903

Source: Author calculations using VSMES

Note: This graph shows kernel density functions, which depict the underlying distribution of a continuous variable. In other words, they show the extent to which women (as represented by the blue line) or men (as represented by the red line) in the sample are concentrated at different levels of physical capital (Panel A) or financial capital (Panel B). Because the blue line lies to the left of the red line, the graph shows that women are concentrated among lower levels of capital. For physical capital in Panel A, the gender differences are largest at the lower part of the distribution because the blue line lies to the left of the red line at lower levels, but is similar to the red line at higher levels of capital. For financial capital in Panel B, because the entire curve (not just a portion of it) lies to the left of the blue line, it demonstrates that women have lower levels of financial capital than men, regardless of whether compared to other women they have lower or higher levels of capital.

Gender norms and discriminatory laws and institutions can limit women's access to capital. In Indonesia and Timor-Leste, the law does not prohibit discrimination in access to credit based on gender.⁵⁰ However, even when the law prohibits discrimination, social norms can inhibit women's access to credit. For example, in the Philippines, although women have not needed spousal consent for applying for credit since the passage of a 1992 law, this law is not always enforced due to social norms that make husbands responsible for capital-related transactions.⁵¹

Discriminatory property laws also contribute to women's limited access to loans because their low ownership of assets negatively impacts their ability to offer collateral when seeking credit.⁵² Indonesian law does not grant equal rights to inherit parental assets for sons and daughters, and female spouses do not have the same rights to inherit assets as male spouses.⁵³ As with laws prohibiting discrimination, social norms can also impede women from fully exercising their property rights, even when they are inscribed in the law. For example, despite the 2001 Land Law in Cambodia that sets out equal land rights, women's enjoyment of their rights is lessened by customary norms that regard men as the heads of household who are responsible for land.⁵⁴ In Vietnam, many banks do not view female entrepreneurs as a priority due to perceptions that they lack knowledge of financial products and are unable to balance professional and family responsibilities.⁵⁵

Challenges accessing credit due to discriminatory laws or norms affecting their implementation can not only limit women's ability to access financing for their business, but also the sources of financing they use and the conditions of that financing. According to a recent study conducted in

Indonesia, the Philippines, and Vietnam, a significant proportion of female entrepreneurs use informal social networks for capital acquisition.⁵⁶ In Cambodia, women also typically raise capital through personal or family funds.⁵⁷ Similarly, analysis conducted for this report shows that female microentrepreneurs in Indonesia are more likely than men to rely on savings and on family members for their start-up capital, and less likely to receive formal financing. Although this may provide more flexibility and perhaps lower interest rates, it also likely limits the amount of funding available to invest in the business.

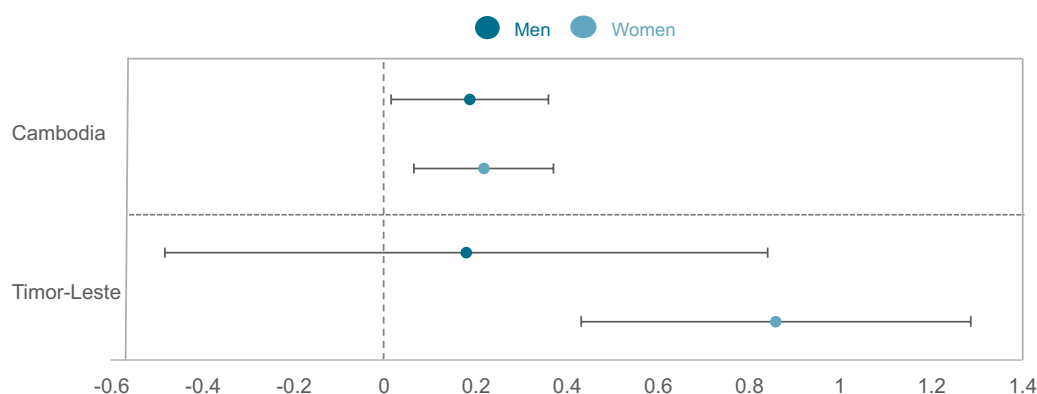
Access to capital is essential for the productivity of female-owned microbusinesses, and gender gaps in access to capital contribute to the gender gap in microbusiness performance.⁵⁸ Although women have lower levels of assets and capital than men, the relationship between capital and business performance is stronger for female microentrepreneurs than for men. In both Cambodia and Timor-Leste, access to capital in terms of loans is linked with higher profits for female-owned businesses, but there is not a statistically significant relationship for male-owned businesses in Timor-Leste (Figure 22: Panel A). Yet, female entrepreneurs in both countries are less likely than male entrepreneurs to live in households that receive loans. Aligned with the results on receiving loans, investing capital in the business in Cambodia is positively associated with women's profits but not men's (Figure 22: Panel D), but women are less likely to have invested capital. Owning the business location reflects both higher levels of capital as well as ownership of an asset that may help secure a loan. In both Cambodia and Lao PDR, owning the building for the business is associated with better business performance for women's

businesses, but not men's (Figure 22: Panel B). Receipt of government transfers may also enable entrepreneurs to invest in their business. In Timor-Leste, receiving government transfers is correlated with higher business performance only for female entrepreneurs; however, in Cambodia, there is not a statistically significant

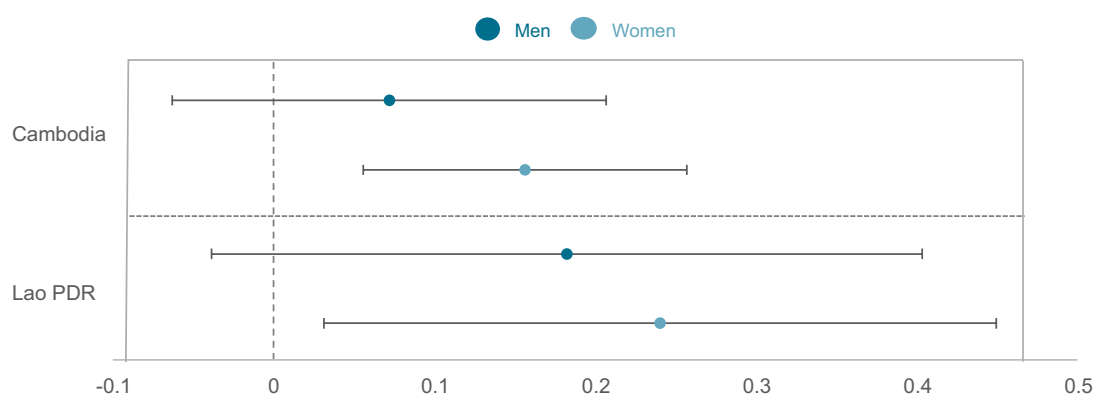
relationship between receiving transfers and business performance for either men or women (Figure 22: Panel C). For microbusinesses in Vietnam, women's lower levels of capital, land, and labor jointly explain all the gender gap in value added and value of production.⁵⁹

Figure 22 Access to capital is positively associated with women's microbusiness performance

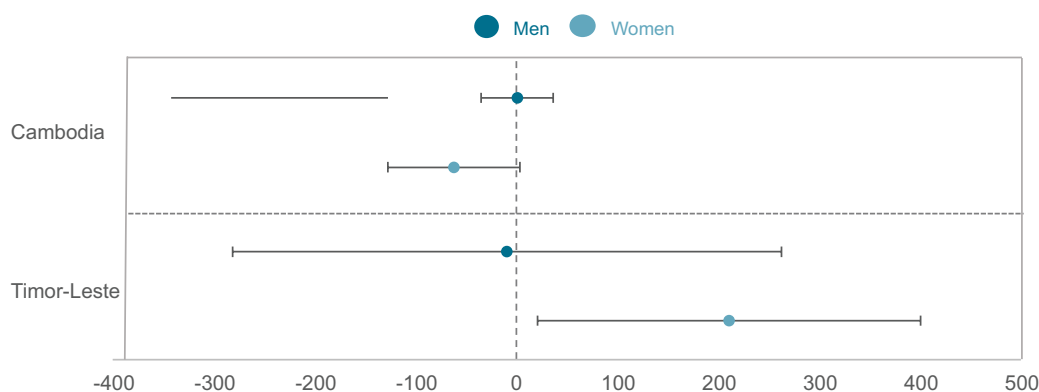
Panel A. Conditional correlation between loans and business performance



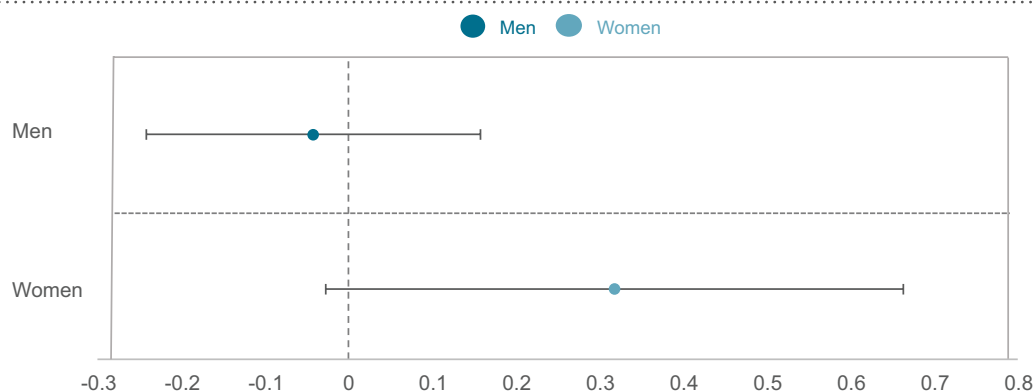
Panel B. Conditional correlation between owning building for business and business performance



Panel C. Conditional correlation between receiving transfers from the government and business performance



Panel D. Conditional correlation between investing capital in the business and business performance in Cambodia



Source: Author calculations using CSES, LECS, TLSLS

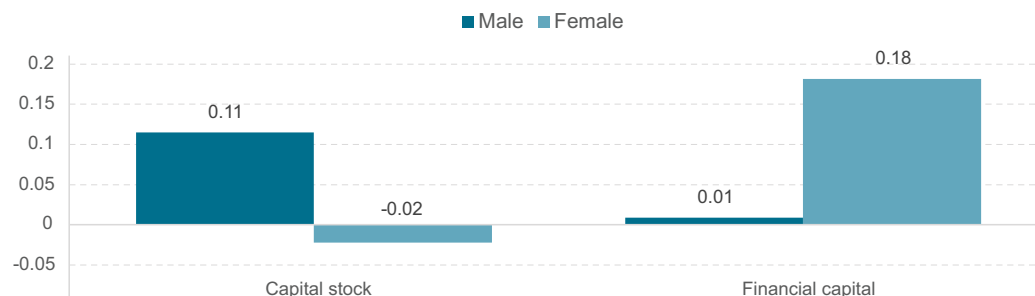
Note: These graphs show the coefficients from regressions as specified in Model 3.1 in Appendix B.

Evidence from Vietnam suggests the type of capital constraints female microentrepreneurs face are different from those men face. Women are more constrained when it comes to financial capital, whereas men are more constrained when it comes to physical capital. A Cobb-Douglas production function estimates the returns to different factors of production. Firms with a higher return to a factor of production are considered relatively more constrained in that factor than those who have comparatively lower returns. As shown in Figure 23, men have a higher return than women to physical capital, which includes buildings, machinery, and equipment. Conversely, women have a

higher return than men to financial capital, which includes cash and receivables such as money owned by customers. This suggests that the relative importance of different financial products for male and female entrepreneurs are likely different, with male entrepreneurs needing longer maturity loans that can enable purchases of machinery or equipment, whereas women may need products tailored to working capital needs. The formal financial system seems to be reaching female entrepreneurs in Vietnam less, as female microentrepreneurs in Vietnam are less likely than men to have applied for formal loans and are less leveraged, with a lower debt to equity ratio.

Figure 23 Female-owned microbusinesses have higher returns to financial capital and lower returns to capital stock than male-owned microbusinesses in Vietnam

Marginal returns to capital for value of production for microbusinesses in Vietnam



Source: Author calculations using VSMES

Note: Marginal returns are calculated using a Cobb-Douglas production function, as described in Model 3.5 of Appendix B. Gender differences are statistically significant at the 1 percent level.

Box 9 What is the role of infrastructure in supporting the productivity of women's businesses?

Multiple studies that show that infrastructure is positively linked to the development of entrepreneurship,⁶⁰ including female entrepreneurship.⁶¹ Analysis undertaken for this report supports the relevance of developing different types of infrastructure and suggests that doing so may have particularly strong effects on female entrepreneurs. The presence of a marketplace in the community is positively related with female microbusiness profits in Indonesia, even taking unobserved characteristics of the entrepreneur into account, whereas the same is not true for men.⁶² Similarly, in the case of Vietnam, access to rail is found to be significantly correlated with profits only for women-owned microenterprises. Furthermore, in Timor-Leste, access to roads is found to be significantly and more strongly correlated with women's profits compared to men.⁶³ This might be explained by the fact that better roads and rail access both increase access to consumer markets and lower the associated transportation costs and travel time. Given the greater demands on women's time, improved transportation infrastructure may particularly benefit female entrepreneurs. Indeed,

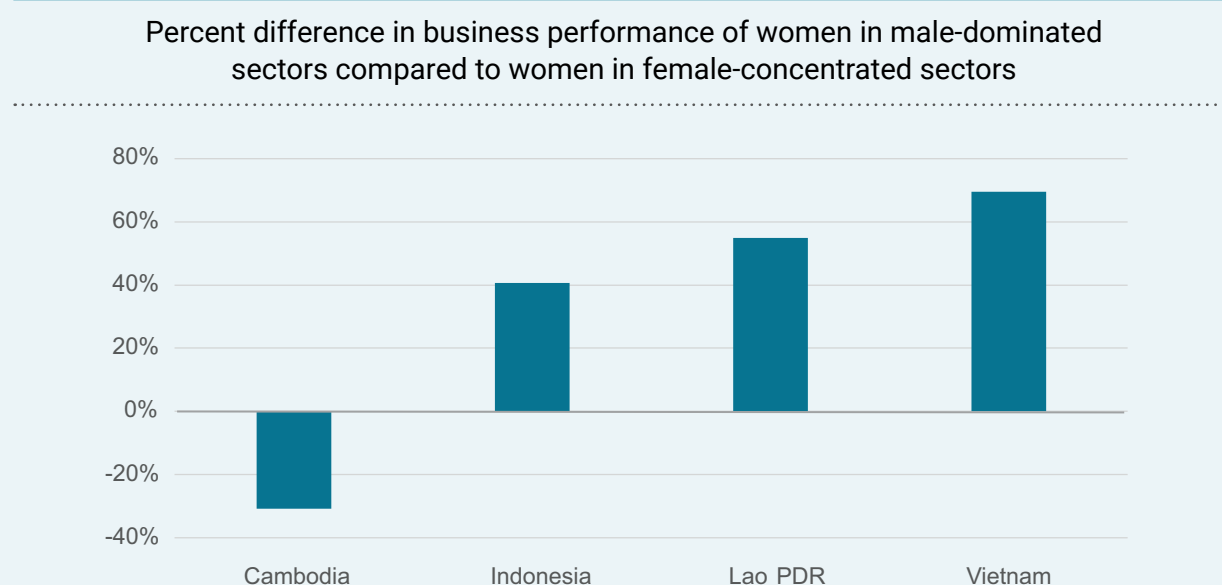
a study of cross border traders in Cambodia and Lao PDR shows on average and per crossing, female traders pay more than double what male traders pay in transportation costs, likely because time-constrained women cope with weak transportation infrastructure by hiring transporters or marketing smaller quantities.⁶⁴

While necessary, improved infrastructure alone may not be sufficient to boosting women's businesses. Beyond infrastructure constraints, social norms that limit women's physical mobility and interactions with strangers can block women's access to markets.⁶⁵ Although new rural roads in Vietnam have been shown to contribute to the development of local markets and improved opportunities for self-employment,⁶⁶ men and women may not benefit equally. Both male-headed and female-headed agricultural households benefitted from increased agricultural trade after rural road improvement in Vietnam; however, only male-headed households increased production. Capital and labor constraints seemed to prevent female-headed households from being able to fully benefit from the improved infrastructure.⁶⁷

Box 10 How is sector choice linked with the productivity of women's businesses?

As in many countries around the world,⁶⁸ analysis for this report shows that women and men in Southeast Asia are concentrated in different sectors of activity. Similar to findings from other regions,⁶⁹ women who operate in male dominated sectors⁷⁰ have profits that are 41 percent, 55 percent, and 70 percent higher than those operating in female concentrated sectors in Indonesia, Lao PDR, and Vietnam, respectively (Figure 24). The opposite is true in Cambodia: women operating in female concentrated sectors outperform those in male-dominated sectors, likely due to Cambodia's economic, social, and political history.⁷¹

Figure 24 Female entrepreneurs in male-dominated sectors have higher profits than female entrepreneurs in female-concentrated sectors in all countries except Cambodia



Source: Author calculations using CSES, IFLS, LECS, VARHS

Note: See Model 3.6 in Appendix B for details.

Nevertheless, contrary to findings from other regions,⁷² sector of activity explains little, if any, of the gender gap in microenterprise profits in Indonesia, Lao PDR, and Vietnam. Moreover, in Cambodia, a gender gap in business performance only exists when comparing men and women within the same sector, and the gender gap in performance increases when controlling for sector in Lao PDR and Vietnam (Figure 3). While sector choice may help women operating in male-dominated sectors outperform their peers in female-concentrated sectors in some countries, it explains little, if any, of the gender gap in profits. In addition, male-dominated sectors are not systematically more profitable than female-concentrated sectors: only in Vietnam do men in male-dominated sectors have higher profits than men in female-concentrated ones.

Box 11 Gendered impacts of COVID-19 on micro, small, and medium enterprises (MSMEs) in Southeast Asia

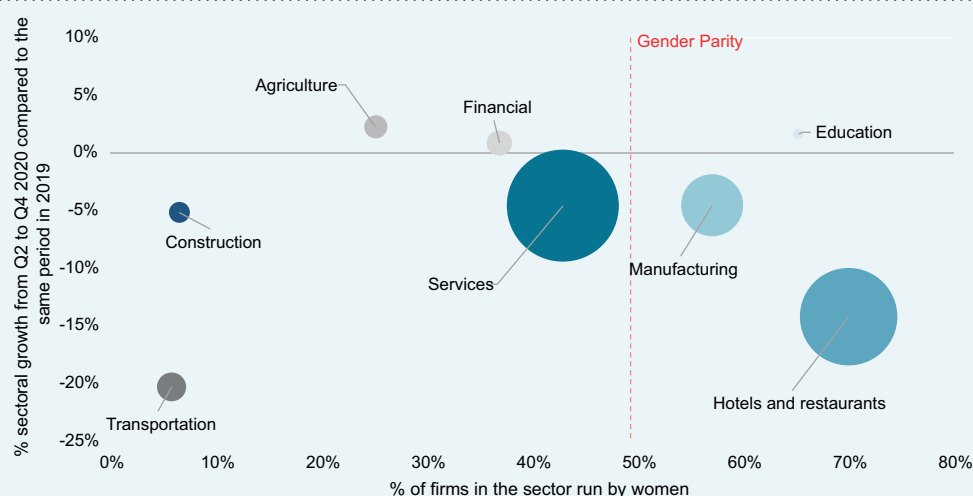
The COVID-19 pandemic has posed multiple challenges for MSMEs. Many firms have either had to temporarily or permanently close their doors or modify their operations due to government containment measures, health concerns among employees, or changes in customer demand. Globally, less than 30 percent of firms remained open during the most intense periods of restricted mobility related to the pandemic, and while many re-opened, approximately 25 percent of firms remained temporarily or permanently closed after a peak in the COVID-19 outbreak.⁷³ A study examining the impacts of COVID-19 on businesses in 51 countries shows that 84 percent of firms reported a reduction in sales in the 30 days preceding the interview compared to the same period in 2019, and the average firm

experienced a 49 percent reduction in their sales.⁷⁴

Although the COVID-19 shock is not gender-specific, pre-existing gender inequalities and gender norms have left female entrepreneurs more vulnerable to the effects of the pandemic than their male counterparts. As shown in Figure 25, female microentrepreneurs in Indonesia are concentrated in certain industries, including hotels and restaurants and light manufacturing, both of which have been among those hardest hit by government restrictions and shrinking demand. While transportation and construction, which are heavily male-dominated, have also been greatly affected by COVID-19, they represent a very small proportion of the overall population of microenterprises in Indonesia.

Figure 25 COVID-19 lowered growth in sectors with higher concentrations of female entrepreneurs

Impact of COVID-19 on male- and female-dominated sectors in Indonesia



Source: Data on sectoral growth is from Haver Analytics. Data on the number of male and female microbusinesses in each sector is taken from the IFLS.

Note: The x-axis shows the share of female entrepreneurs operating in each sector. The further to the left the sector appears on the graph, the more male-dominated the sector is for microbusinesses, and the further to the right on the graph the sector appears, the more female-concentrated the sector is for microbusinesses. Sectoral growth compares the output of the sector during the period of Q2 to Q4 in 2020 with the output of the sector during the period of Q2 to Q4 in 2019. Negative growth indicates a contraction in the sector. The size of the bubbles is proportional to the number of microbusinesses in the sector.

In addition to disproportionately affecting different sectors of activity, COVID-19 has led to an increase in the amount of domestic work for many households due school and daycare closures, the need to care for sick family members, additional cleaning due to more time spent at home and concerns about the virus, and more meals being consumed at home. Prior to COVID-19, women in Asia and the Pacific contributed more than four times the number of hours that men spent on unpaid care work.⁷⁵ Although both women and men in East Asia and the Pacific have reported an increase in the amount of time spent on caretaking and domestic activities due to the pandemic,⁷⁶ global evidence shows that women are taking on more additional hours than men. In a study of 16 countries, women added an extra 5.2 hours on average per week of childcare compared to 3.5 extra hours per week for men.⁷⁷ Given baseline inequalities, this suggests the gender gap in unpaid care work may be widening, even if men are contributing more than previously. These increases may make it particularly difficult for women to continue operating their businesses or to work as many hours as they did previously. Because there is a negative correlation between time spent on domestic work and business performance for female microentrepreneurs in Southeast Asia,⁷⁸ increased domestic work due to the pandemic may further widen the

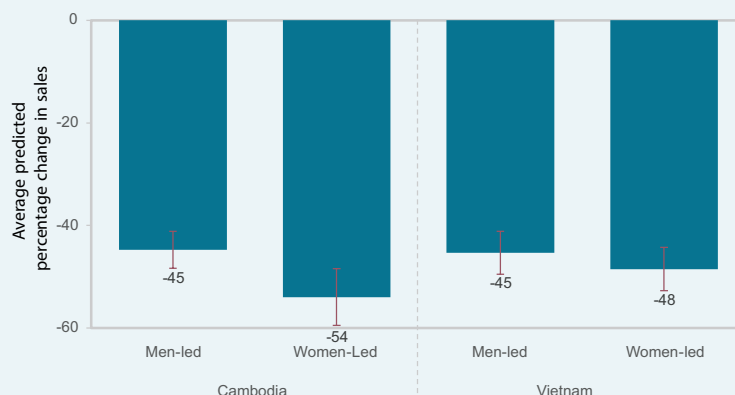
gender gap in microbusiness performance.

Prior to the COVID-19 pandemic, female microentrepreneurs were also disadvantaged in terms of other endowments including education and access to collateral to obtain loans.⁷⁹ These differences can affect the coping mechanisms that businesses can use to respond to pandemic-related issues. Unequal intra-household bargaining or perceptions about the relative importance of women's or men's businesses to household wellbeing may influence the extent to which household coping mechanisms disproportionately affect women. For example, the Asian Financial Crisis lowered Indonesian women's business assets in both urban and rural areas but did not affect the business assets of their husbands.⁸⁰

Data from the Business Pulse Surveys in Cambodia and Vietnam confirm the theoretical expectations that the COVID-19 pandemic has had a particularly strong impact on women's businesses. Entrepreneurs were asked how their sales in the past 30 days compared to the same period in 2019, prior to the COVID-19 pandemic. As shown in Figure 26, both male and female-owned firms reported large declines in revenues. The declines were larger for female-owned firms in both countries although the gender difference is not statistically significant in Vietnam.

Figure 26 Female entrepreneurs had larger declines in their revenues linked with the COVID-19 pandemic than male entrepreneurs

Change in sales in past 30 days compared to the same period in 2019
for male and female business owners in Cambodia and Vietnam



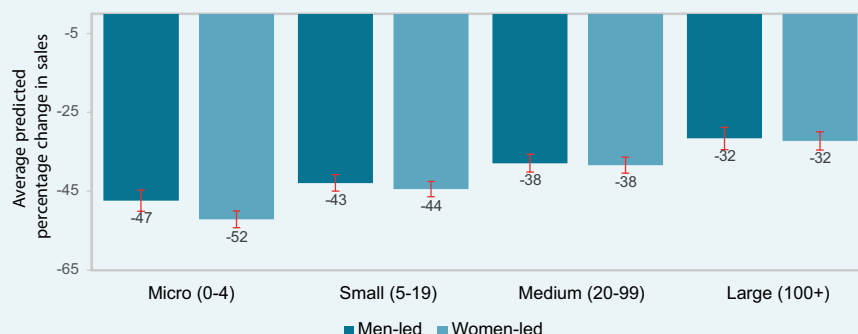
Source: Business Pulse Surveys

Note: Computations control for sector, region, and calendar month of interview.

Microbusinesses and small businesses have been particularly hard hit by the pandemic (Figure 27), and women are more likely to own microbusinesses and to have fewer employees if it is a small and medium enterprise.⁸¹ Moreover, the differences between how male- and female-owned firms have been affected are largest for microbusinesses: the revenues of female microentrepreneurs have shrunk by 52 percent, compared to a reduction of 47 percent for male microentrepreneurs (Figure 27). This suggests that without additional policy support targeting female microentrepreneurs and addressing their specific needs, the COVID-19 pandemic may contribute to widening the gender gap in microenterprise performance. Gender-sensitive recovery policies should address the specific challenges that the pandemic has created for female entrepreneurs and ensure that their implementation is done in a way that is inclusive.

Figure 27 Declines in revenues linked with the COVID-19 pandemic were largest for female-owned microenterprises

Change in sales in past 30 days compared to the same period in
2019, by gender and firm size in Cambodia and Vietnam



Source: Business Pulse Surveys

Note: Computations control for sector, region, and calendar month of interview. The estimates pool data from Cambodia and Vietnam and use weights equal to the inverse of the number of observations in each country.

Endnotes

- 1 Please see Model 3.1 in Appendix B for more technical details.
- 2 Please see Model 3.2 in Appendix B for more technical details.
- 3 Please see Model 3.3 in Appendix B for more technical details.
- 4 Please see Model 3.4 in Appendix B for more technical details.
- 5 Please see Model 3.5 in Appendix B for more technical details.
- 6 See Model 3.5 in Appendix B for technical details about this analysis.
- 7 International Finance Corporation, 2008
- 8 Asia Foundation, 2013b
- 9 As captured by the regressions in equation 3.1 in Appendix B.
- 10 This result is calculated by comparing the endowment effect component to the gender gap in performance using the Oaxaca-Blinder decomposition as described in Model 3.4 in Appendix B. See Box 6 or the overview of Appendix B for an intuitive explanation of this technique.
- 11 Calculated using an outcome variable of value-added and the Oaxaca-Blinder decomposition methodology described in Model 3.4 in Appendix B. Result comes from the endowment effect component.
- 12 In Cambodia and Indonesia, the opposite is true, and in Timor-Leste and Vietnam, there are not statistically significant differences in the number of unpaid workers in men and women's businesses.
- 13 The majority in the analysis sample for Timor-Leste also do not have unpaid workers; however, this may be in part linked with the way the data was constructed. Because the data do not distinguish which household member is primarily responsible for the business, analysis was limited to firms where all family workers were of the same gender.
- 14 In Lao PDR and Timor-Leste, the point estimate for distance to water source was very close to 0, and the correlation between cooking source and business performance was not statistically significant.
- 15 As the results denote only correlations, it is also possible that women with higher profits are more able to purchase these cooking appliances and fuel services. Even if the direction goes in this way, it shows that female entrepreneurs are seeking ways to lower the amount of time spent on domestic tasks, freeing time for either their businesses, leisure, or other activities.
- 16 The correlation between being a homemaker and revenues is measured by equation 3.1 in Appendix B.
- 17 Measured by equation 3.2 in Appendix B.
- 18 In Cambodia, although the relationship between being primarily a homemaker and profits is negative, it is not statistically significant.
- 19 Operating out of the home or residential property is also negatively correlated with business performance for men in these countries, and gender differences are not statistically significant. Correlations calculated using equation 3.1 in Appendix B.
- 20 This calculation comes from comparing the endowment effect of the Oaxaca-Blinder decomposition to the gender gap, as described in Model 3.4 in Appendix B. See Box 6 and Appendix B Overview for a non-technical explanation of this technique and Model 3.4 in Appendix B for more technical details.
- 21 Hundley, 2001
- 22 Lechmann and Schnabel, 2012
- 23 Delecourt and Fitzpatrick, 2020
- 24 Casson, 1982; Brush & Hisrich, 1991; Schutjens & Wever, 2000
- 25 Ács et al., 2017: 28
- 26 It is worth noting that women's lower education levels are not limited to entrepreneurs: among those who are not self-employed, women also have lower education levels than men.
- 27 Education was asked as a discrete variable in Vietnam, so it was not included in Figure 17 since it cannot be directly compared to other datasets.
- 28 Brush & Hisrich, 1991; Kobeissi, 2010; Van Der Sluis et al., 2008
- 29 Centindamar et al., 2012; Van Der Sluis et al., 2008
- 30 Information on business knowledge and use of business practices was only available for Vietnam.
- 31 McKenzie and Woodruff, 2016; Bloom and Van Reenen, 2007
- 32 As calculated using regressions specified in Model 3.1 in Appendix B.
- 33 These findings come from the endowment effect component of the Oaxaca-Blinder decomposition, as described in Model 3.4 in Appendix B.
- 34 This finding comes from the differences in coefficients component of the Oaxaca-Blinder decomposition, as described in Model 3.4 in Appendix B.
- 35 Xirera et al, 2021: 88
- 36 This finding comes from the differences in coefficients component of the Oaxaca-Blinder decomposition, as described in Model 3.4 in Appendix B.
- 37 This finding comes from the interaction of endowments and coefficients component of the Oaxaca-Blinder decomposition, as described in Model 3.4 in Appendix B.
- 38 Xirera et al, 2021
- 39 UN Women, 2020
- 40 Álvarez, Marin, Fonfría, 2009 ; Szarka, 1990
- 41 Ács et al., 2017; Aldrich, 1999; Aldrich & Zimmer, 1986; Allen et al., 2007; Minniti, 2010
- 42 Ács et al., 2017: 28
- 43 Defined as the number of people the owner has regular contact with at least once every three months, which is useful for business operations
- 44 The first statistic comes from OLS regressions with gender interaction terms as discussed in Model 3.1, and the second statistic comes from a model including firm fixed effects as described in Model 3.2 in Appendix B.
- 45 The gender differences are statistically significant.
- 46 Asian Development Bank, 2013: 23
- 47 United Nations Economic and Social Commission for Asia and the Pacific, 2013: 20
- 48 World Bank, 2019
- 49 World Bank, 2012
- 50 Women, Business, and the Law database 2020
- 51 Ellis et al., 2010: 21
- 52 Demirgüç-Kunt et al., 2008; Goheer, 2013
- 53 Women, Business, and the Law Database 2020
- 54 Ellis et al., 2010: 21
- 55 International Finance Corporation, 2017: 48
- 56 Women's World Banking, 2018: 5
- 57 International Finance Corporation, 2008: 21
- 58 As discussed in Section 2.1.3, existing data sources only include some variables related to capital for each country. As such, the results do not suggest that certain types of finance are more important in some countries than others.
- 59 This finding comes from the results of a Oaxaca-Blinder decomposition using the method described in Model 3.4 in Appendix B with outcome variables of value-added and value of production.

- 60 Ács et al., 2017; Agénor & Canuto, 2012; Grady et al., 2018; Khandker et al., 2006; Lokshin & Yemtsov, 2005
- 61 Blackden & Wodon, 2006; Dinkelman, 2011; Ilahi & Grimard, 2000; Porter, 1995; Sewell & Desai, 2016
- 62 Results from Model 3.2 in Appendix B.
- 63 Results from Vietnam and Timor-Leste come from Model 3.1 in Appendix B.
- 64 World Bank, 2016
- 65 Asian Development Bank, 2018
- 66 Mu and van der Walle, 2011
- 67 Mannava, Perova, Tran, 2020
- 68 Klapper and Parker, 2010; Bardasi et al, 2011; Hallward, 2013; Anna et al, 1999
- 69 Goldstein et al, 2019; Campos et al, 2015; Bardasi et al, 2011 ; Hardy and Kagy, 2020
- 70 Defined as sectors in which 70% or more of businesses are male-owned.
- 71 Men in female concentrated sectors also outperform men in male-dominated sectors in Cambodia.
- 72 World Bank, 2019; Hardy and Kagy, 2020; Costa and Rijkers, 2012
- 73 Apedo-Amah et al. 2020
- 74 Apedo-Amah et al. 2020
- 75 International Labor Organization, 2018
- 76 UN Women, 2020a
- 77 UN Women, 2020b
- 78 See section 3.1.2 for more details.
- 79 See sections 3.2 and 3.3 for more details.
- 80 Dong, 2018
- 81 See Section 1 and Section 4 of this report for more details.

Section 4:

Do opportunities, constraints, and needs of male- and female-owned small and medium enterprises (SMEs) differ?

Although gender gaps in business performance of SMEs are only statistically significant in Indonesia, understanding the specific challenges and opportunities that men and women face in small and medium entrepreneurship is policy relevant. As discussed in previous sections, barriers that women face to start an SME may lead to a very distinct group of women choosing to and succeeding in becoming entrepreneurs at the SME level. However, they may continue to face different constraints compared to men. Without taking gender-specific constraints into account, gender-neutral SME policies may not meet the needs of all types of entrepreneurs or could generate inequities by only addressing the needs of certain SME owners. If male and female SME owners face different challenges and opportunities, gender-specific policies may be needed or policy makers should ensure that SME policies address the varied obstacles that men and women face. Moreover, understanding barriers to SME performance may feed back into the discussion of facilitating entry into small and medium entrepreneurship for more women. This section explores the

extent to which men and women face different challenges and opportunities in running SMEs in Southeast Asia and details obstacles that female-owned SMEs confront.

Box 12 How does this report identify gender-specific constraints among SMEs?

For most countries, we rely on descriptive analysis of declared constraints and indicators of integration into the financial system due to data constraints. Using a detailed survey of manufacturing SMEs in Vietnam, we use two additional techniques. First, we test the association between different characteristics of interest and business performance using Ordinary Least Squares (OLS) regressions, interacting the manager's gender with the different

characteristics to assess whether the relationship is different for male and female business owners.¹ The results of this analysis do not reveal causal relationships. However, they show interesting patterns about factors correlated with business performance. Second, we use a Cobb-Douglas production function to examine the returns to factors of production, including capital, land, and labor, for men and women.²

4.1 Perceived constraints

Both the types of constraints that SME owners cite and the extent to which male-owned and female-owned SMEs report different constraints varies by country (Table 1).³ In Cambodia and Timor-Leste, men and women perceive similar obstacles to their businesses, and the relative importance of these obstacles is also similar for male-owned and female-owned SMEs. In all countries, there are at least some obstacles that sizeable shares of male- and female-owned SMEs cite as the main constraint to their business. For example, in Indonesia, both men and women cite practices of competitors in the informal sector and political stability in large numbers, and in Lao PDR, both men and women cite access to finance as the biggest obstacle to

their business. However, the relative rankings of some obstacles are different for men and women. For example, both access to financing and practices of competitors in the informal sector are the main challenge for large shares of both male and female-owned SMEs in Vietnam; however, access to finance is the most widely cited constraint for men, whereas practices of competitors in the informal sector is the most widely cited constraint for women. Finally, in some countries, there is evidence that men and women face different constraints. In Indonesia and Lao PDR, customs and trade regulations are one of the three most widely cited constraints for female-owned SMEs, whereas it does not figure among the top three constraints cited by men in any country.

Table 1 Top three constraints for male-owned and female-owned SMEs

COUNTRY	OBSTACLE RANK	BIGGEST OBSTACLE FOR FEMALE-OWNED SMES	PERCENT OF FEMALE-OWNED SMES CITING THIS OBSTACLE	OBSTACLE RANK	BIGGEST OBSTACLE FOR MALE-OWNED SMES	PERCENT OF MALE-OWNED SMES CITING THIS OBSTACLE
CAMBODIA	1	Practices of competitors in the informal sector	33%	1	Practices of competitors in the informal sector	26%
	2	Political instability	14%	2	Political instability	17%
	3	Inadequately educated workforce	9%	3	Inadequately educated workforce	15%
INDONESIA	1	Practices of competitors in the informal sector	22%	1	Practices of competitors in the informal sector	41%
	2	Political instability	17%	2	Political instability	12%
	3	Customs and trade regulations	14%	2	Tax rates	12%
LAO PDR	1	Access to finance	36%	1	Access to finance	40%
	2	Customs and trade regulations	19%	2	Practices of competitors in the informal sector	18%
	3	Inadequately educated workforce	13%	3	Electricity	9%
				3	Inadequately educated workforce	9%
TIMOR-LESTE	1	Political instability	33%	1	Political instability	40%
	2	Corruption	22%	2	Corruption	18%
	3	Access to finance	14%	3	Access to finance	16%
VIETNAM	1	Practices of competitors in the informal sector	20%	1	Access to finance	25%
	2	Transport	19%	2	Practices of competitors in the informal sector	16%
	3	Access to finance	16%	3	Access to land	10%
				3	Inadequately educated workforce	10%

Source: Author calculations using WBES

Factors associated with the business environment pose an important barrier to both male-owned and female-owned SMEs throughout the Southeast Asian countries studied.

As shown in Table 1, political instability is cited by large numbers of both male-owned and female-owned SMEs in Cambodia, Indonesia, and Timor-Leste. Political instability may affect the business environment by increasing the risks of innovation due to uncertainty over future economic conditions.⁴ Interruptions (or expected interruptions) in government programs meant to support entrepreneurs due to instability may also stifle innovation or remove important support for SMEs.⁵ Practices of competitors in the informal sector is the main challenge for large shares of both men and women in Cambodia, Indonesia, and Vietnam and for male-owned SMEs in Lao PDR.

Other aspects of the business environment only figure among the top three most cited obstacles for female-owned SMEs. Namely,

customs and trade regulations are cited by 19 percent and 14 percent of female-owned SMEs in Lao PDR and Indonesia, respectively, and 19 percent of female-owned SMEs in Vietnam cite transport as their main obstacle. This difference does not seem to be driven by gender-based sectoral segregation, as women are more likely to cite these obstacles than men even when comparing men and women within the same sector of activity. Perhaps women experience the business environment differently due to the size or composition of their networks or knowledge of how to navigate regulations and connect to transportation services. Aligned with this hypothesis, female SME owners self-report lower knowledge of laws and regulations than male SME owners in a panel survey of manufacturing SMEs in Vietnam. Moreover, a study of cross-border traders in Cambodia and Lao PDR showed that women paid a larger share of their gross profits in taxes and were less successful than men in negotiating taxes and fees.⁶

4.2 Networks

Networks are particularly important for female entrepreneurs, but their composition is different than for male entrepreneurs.

Data from a panel survey of SMEs in Vietnam show that female-owned and male-owned SMEs have similar numbers of individuals overall in their networks (Figure 28: Panel A), but the composition and relationship with networks vary along gender lines. Female-owned SMEs have larger shares of women in their network: on average, 31 percent of the individuals that female business owners report having contact with for their businesses are also women, whereas only 24 percent of male business

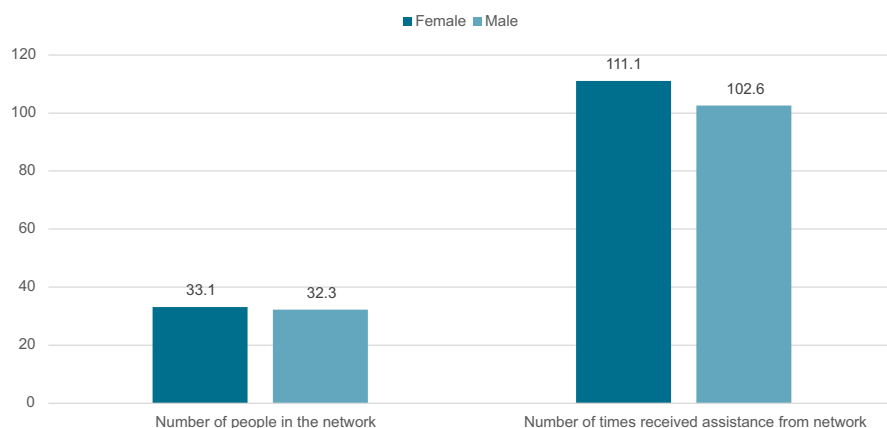
owners' networks are comprised of women on average. Female SME owners are less likely to belong to business associations, to pay membership dues for business associations, or to receive advocacy support from business associations than male SME owners (Figure 28: Panel B). Among those who are in associations, women are still less likely than men to pay membership dues, which suggests that women may belong to different types of associations than men. Nevertheless, women are just as likely as men to receive advocacy support from an association, conditional upon belonging to an association.

Despite differences in network composition, women tend to rely more frequently on their networks for support. Perhaps linked with this greater reliance for support, networks are particularly important for the profitability of female-owned SMEs in Vietnam. On average, female SME owners receive assistance from their contacts 111 times per year for their firm, whereas men report receiving assistance 103

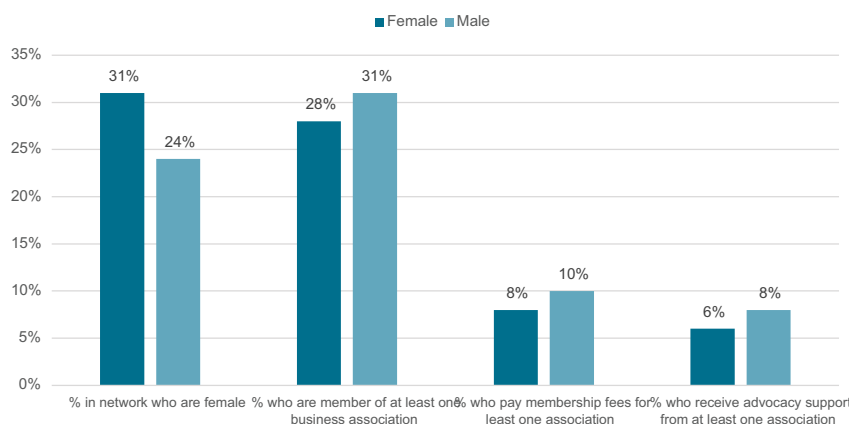
times per year on average (Figure 28: Panel A). The number of individuals in the owner's network⁷ is positively associated with profits, and this relationship is stronger for female entrepreneurs than for male entrepreneurs. For female-owned SMEs, an additional person in the owner's network is associated with 0.55 percent larger profits, compared to 0.22 percent higher profits for men.⁸

Figure 28 Female SME owners in Vietnam have similar numbers of individuals in their networks as male SME owners but rely more on their networks for support and have a different network composition

Panel A. Gender differences in networks of SME owners in Vietnam



Panel B. Gender differences in networks of SME owners in Vietnam



Source: Author calculations using VSMES

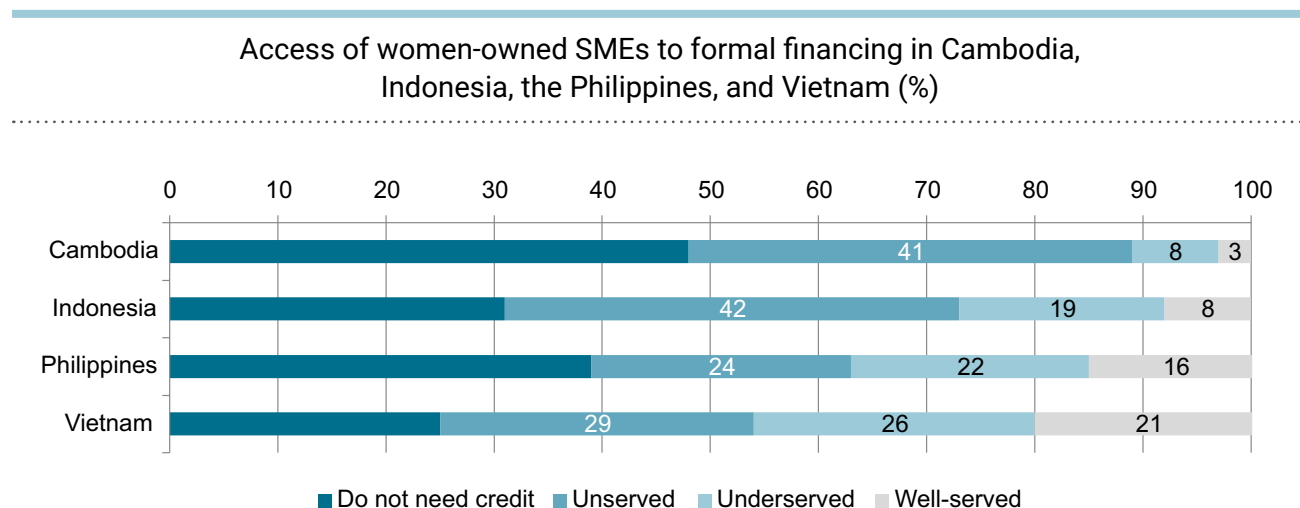
Note: Gender differences in number of people in the network are not statistically significant. Gender differences in percent in network who are female, percent who are a member of at least one business association, percent who pay membership fees for at least one association are statistically significant at the 1 percent level. Gender differences in the percent who receive advocacy support are statistically significant at the 5 percent level. Gender differences in the number of times received assistance from network are statistically significant at the 10 percent level.

4.3 Access to finance

Various sources suggest that access to finance poses a constraint to female-owned SMEs in Southeast Asia, even if it was only the most widely cited constraint for female-owned SMEs in Lao PDR according to the World Bank Enterprise Surveys data (Table 1). A study of women's access to finance in four Southeast Asian countries (Cambodia, Indonesia, the Philippines, and Vietnam) found a significant proportion of female-owned

SMEs that were unserved or underserved by financial institutions (Women's World Banking, 2018: 4).⁹ As Figure 29 shows, the number of unserved and underserved women-owned SMEs by financial institutions ranges from 46 in the Philippines to 61 percent in Indonesia. Furthermore, only a small proportion of female-owned SMEs reported being well-served by financial institutions, ranging from 3 percent in Cambodia to 21 percent in Vietnam.

Figure 29 Only a small percentage of female-owned SMEs report being well-served by financial institutions



Source: Women's World Banking (2018: 4).

Data from the World Bank Enterprise Surveys confirms that **many female-owned SMEs are not well incorporated into the formal financial system**; however, there is a fair amount of heterogeneity across countries (Figure 30). The share of female-owned SMEs that have a checking or savings account ranges from 38 percent in Cambodia to 87 percent in Timor-Leste, and the share that have an overdraft facility ranges from 2 percent in Lao PDR to 30 percent in Timor-Leste. Moreover, the vast majority of female-owned SMEs do not have a line of credit or loan from a financial institution. For example, in Timor-Leste, only 10 percent of female-owned SMEs have a line of credit or loan from a financial institution, while in Vietnam, 23 percent of them do.

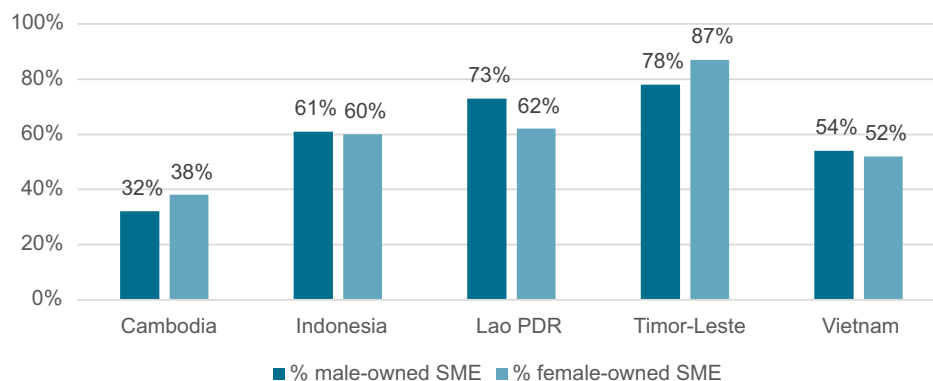
Although female-owned SMEs overall are not very well integrated into the formal financial system, in most cases, this trend is not limited to female-owned SMEs (Figure 30).

For most indicators, gender differences are not statistically significant. Notable exceptions include having an overdraft facility in Indonesia, where female-owned SMEs are less than half as likely as men to have one, and having a line of credit or loan from a financial institution in Lao PDR and Vietnam, where the share of female-owned SMEs with a line of credit or loan is 28 and 20 percentage points, respectively, lower than the share of male-owned SMEs. In Lao PDR, female-owned SMEs are just as likely to have applied for a loan, suggesting that women may face higher rates of rejection or receive loans that are much shorter in term. In contrast, in Vietnam, female-owned SMEs are less likely to have applied for a loan than male-owned SMEs and are more likely than male-owned SMEs to say they did not apply for a loan because they did not need credit.

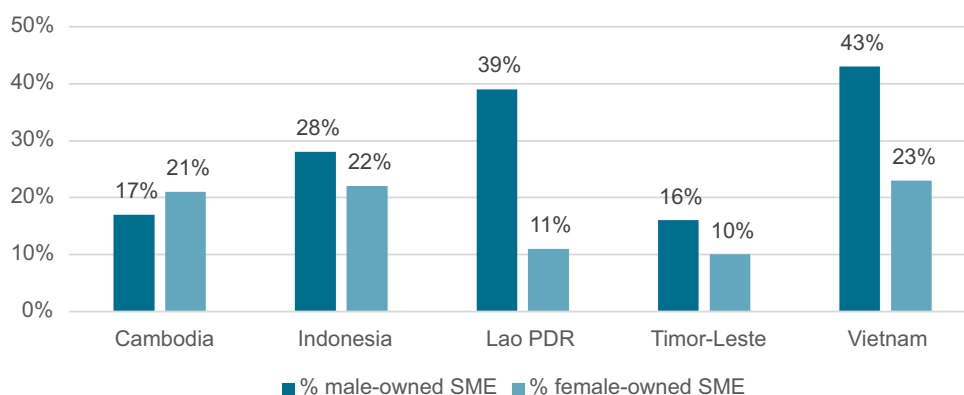


Figure 30 Many female-owned SMEs are not well integrated in the formal financial system; however, there is heterogeneity across countries

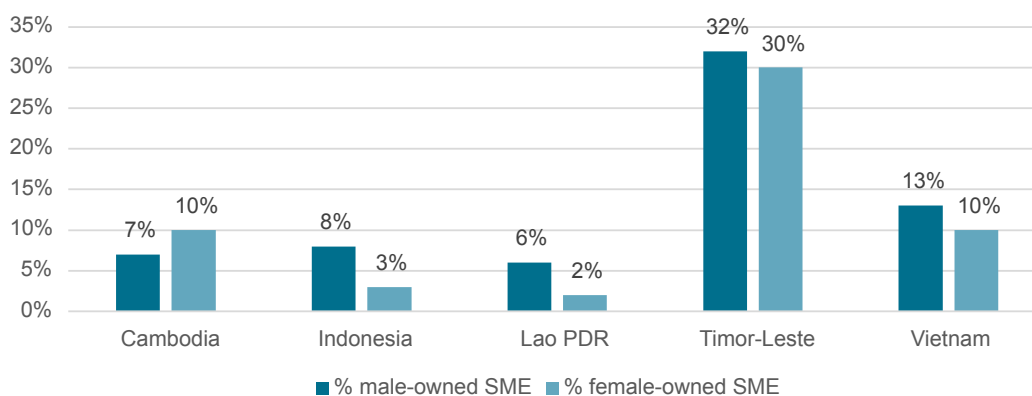
Panel A. Percentage of SMEs with a checking or savings account



Panel B. Percentage of SMEs with a line of credit or loan from a financial institution



Panel C. Percentage of SMEs with an overdraft facility



Source: Author calculations using WBES

Note: The only gender differences that are statistically significant are having a line of credit or loan in Lao PDR and in Vietnam (Panel B) and having an overdraft facility in Indonesia (Panel C).

Evidence from Vietnam shows the importance of considering the type of capital that male and female-owned SMEs need. Female-owned SMEs in Vietnam appear to face greater constraints than men in terms of land and financial capital, which includes liquid assets and cash, as they have greater marginal returns to these factors of production (Figure 31). However, women have statistically similar returns to physical capital, such as equipment

and machinery, suggesting both male and female-owned SMEs face similar levels of constraints in accessing physical capital. Policies to boost SMEs access to finance need to consider the types of financial products offered, as a focus on capital that can be used to purchase machines and equipment will not address women's greater constraints for financial capital and land.

Figure 31 Female-owned SMEs in Vietnam have larger marginal returns to financial capital and lower marginal returns to capital stock than male-owned SMEs

Marginal returns to factors of production for SMEs' production value in Vietnam



Source: Author calculations using VSMES

Note: Gender differences in returns to land and financial capital are statistically significant at the 1 percent level, whereas gender differences in returns to capital stock and full-time workers are not statistically significant. Estimated using a Cobb-Douglas production function, as described in Model 3.2 in Appendix B.

Endnotes

- 1 Please see equation 4.1 in Appendix B for more technical details.
- 2 Please see equation 4.2 in Appendix B for more technical details.
- 3 Respondents were asked what the biggest obstacle affecting the operation and growth of the establishment was, and there were 15 answer options: 1. Access to finance (availability and cost); 2. Access to land; 3. Business licensing and permits; 4. Corruption; 5. Courts; 6. Crime, theft and disorder; 7. Customs and trade regulations; 8. Electricity; 9. Inadequately educated workforce; 10. Labor regulations; 11. Political instability; 12. Practices of competitors in the informal sector; 13. Tax administration; 14. Tax rates; 15. Transportation of goods, supplies and inputs
- 4 Varsakelis, 2006
- 5 Allard, Martinez and Williams, 2012.
- 6 World Bank, 2016
- 7 Defined as the number of people the owner has regular contact with at least once every three months, which is useful for business operations.
- 8 This estimate comes from Model 4.1 in Appendix B.
- 9 The Women's World Banking report defines SME as women-owned if the sole proprietor, or at least one joint owner, is female.

Section 5:

Toward a targeted, gender-informed entrepreneurship policy

This report provides evidence of gender-specific barriers to entrepreneurship in Southeast Asia. Section 1 of this report shows that women are just as likely as men to enter microentrepreneurship; however, they are less likely than men to own SMEs in almost all countries. This suggests gender-specific constraints hinder women from opening an SME or growing their microbusinesses into an SME. Women's microbusinesses have profits that are lower than men's profits. These gender gaps in entrepreneurial outcomes are linked with gender gaps in entrepreneurial inputs, including hired labor, time for own labor, skills, and capital. Gender norms, market failures, and legal distortions are underlying factors that constrain women's access to inputs and inform their preferences of how to allocate limited resources.

Two types of policies should be ideally adopted in parallel: policies that directly address input gaps and those that influence the underlying drivers of gender gaps. Addressing underlying drivers of gender gaps can lead to more sustainable changes in the long-term but can be a slow process. As such, policies that address gender gaps

in inputs can help in the short-term. In some cases, policies that directly address current gender gaps in inputs can also help shift underlying drivers of gender gaps, creating a virtuous cycle. For example, programs to facilitate female entrepreneurs' access to bank loans directly boost beneficiaries' input levels and simultaneously enable more bank officers to interact with female entrepreneurs. Such interactions may counteract the influence of gender norms and shift bank officers' perceptions of female entrepreneurs' managerial capacity, ability to repay, and passion for their businesses.

Addressing these gendered barriers through tailored policy actions can unleash untapped growth potential and promote equity. As discussed in the introduction, gendered barriers to opening a business lead to a misallocation of talent and lower per capita income, and removing these barriers can lead to substantial economic growth.¹ Earnings gaps also weaken economic growth.² Thus, addressing gendered barriers to participation and performance in entrepreneurship is a smart economic decision. Moreover, removing barriers to women's ability to engage and compete in entrepreneurship ensures that women are free to live the life of their choosing, which is a basic human right.³ Development entails removing obstacles that leave individuals with little choice or opportunity to exercise their agency.⁴ Promoting equitable entrepreneurship is hence critical to promote development and has a strong intrinsic value.

A gender-informed entrepreneurship policy should tackle challenges that female entrepreneurs face and ensure that female entrepreneurs can equitably benefit from broader MSME policies. This section provides evidence-based examples of how policies can both address women's specific needs

and enable their participation in broader initiatives for four types of interventions: skills enhancement, improving access to capital, support for hiring and managing workers, and alleviating time constraints related to domestic work. The types of interventions reviewed in this section are not exhaustive, and additional types of interventions, such as improvements to the business environment, may also support both female and male entrepreneurs. However, this section focuses on interventions that can address the gender gaps identified in this report.

A one-size-fits-all approach to supporting female entrepreneurs would be insufficient because of the heterogeneous needs of women operating at different scales. This report has shown that female microentrepreneurs have different characteristics and face different challenges than female SME owners. As such, policies should be tailored to different types of MSMEs. This section provides evidence of how policies in the four domains can be adapted for women's microbusinesses and SMEs.

To maximize the effectiveness of MSME policies, policymakers should simultaneously address multiple constraints rather than tackling constraints in isolation. A recent literature review and meta-analysis of interventions to support female entrepreneurs notes that intervention packages that address multiple barriers, such as providing both skill development and financing, are more effective than those that address only one constraint.⁵ Intuitively, an intervention that helps firms identify qualified workers will only be effective if they have enough liquidity or access to finance to pay their salaries or to purchase additional equipment for the new employees to use. Conversely, a finance intervention that enables firms to purchase additional

equipment and pay new workers may not generate returns if firms cannot identify, hire, and retain qualified workers. A multiplier effect from complementary interventions may justify their increased cost. In a resource constrained environment, it may be more impactful to address multiple binding constraints for a smaller group of entrepreneurs than to address one constraint for a larger group of entrepreneurs. Nevertheless, some underlying drivers of gender gaps, such as gender norms, take time to change and may limit the extent to which certain input gaps, such as time for own labor and skills, can be effectively closed in the short-term. The design and expected return to costly interventions may need to be conditioned on the extent to which the targeted or complementary inputs can be addressed. Identifying the right package of policies should be highly tailored to the country context, target firms and their binding constraints.

Because action is needed on multiple fronts, it is critical to create a coordinated policy agenda among the various relevant ministries, institutions, and stakeholders. A high-level champion can build consensus, track progress, and facilitate coordination on the agenda. Such a champion should ensure that MSME policy agenda addresses the needs of both women and men as well as female entrepreneurs operating at different scales.

Finally, promoting gender equality in terms of endowments, agency, and economic opportunities more broadly can help women engage in labor market activities that are most aligned with their goals and interests. Due to a lack of outside opportunities and a need to earn a living, in many economies, women are more likely than men to engage in necessity entrepreneurship, motivated by a need to earn a living and the scarcity of

jobs.⁶ Policies that facilitate women's wage work can enable women to choose from more options about how to engage in the labor market and reduce the need for necessity-oriented entrepreneurship. Nevertheless, programs to increase access to women's wage work may take time to enable all women to access the jobs most aligned with their skills and goals. As such, it is critical to invest in boosting the performance of all types of female entrepreneurs in parallel to unlocking new labor market opportunities.

5.1 Interventions to enhance skills

5.1.1 Rationale and targeting

Programs to support entrepreneurs' skill development have the potential to bolster female entrepreneurship in Southeast Asia.

As shown in Sections 2 and 3, lower-skilled workers tend to sort into entrepreneurship; however, education and business knowledge are positively associated with microentrepreneurs' profits. Although female microentrepreneurs have lower education levels than their male counterparts, the positive relationship between education and business performance is stronger for women than men, and skills gaps contribute to the gender gap in microenterprise profits. As such, while skills-enhancing interventions would likely benefit both male and female enterprises, women's businesses may reap greater benefits. Global evidence sheds light on several promising types of interventions to develop entrepreneurs' skills, which have the potential to address obstacles to women's entrepreneurship that this report has identified.

Skills-enhancing interventions are especially relevant for female microentrepreneurs, who have lower education levels and knowledge of business practices than both their male counterparts and female SME owners. However, because SME ownership is associated with greater levels of both education and business-specific knowledge, programs to boost the skills of prospective business owners hold potential for supporting women who would like to break into the SME sector rather than opening microbusinesses. Although addressing skill gaps of female microentrepreneurs is critical, supporting female SME owners to expand their networks and reap more benefits

from these exchanges could bolster their businesses since female SME owners have different network composition than their male counterparts and use their networks in slightly different ways. Given differences in education and skills, programs should adapt content of programs to the different baseline levels and needs of microenterprises and SMEs.

Entrepreneurs may underinvest in developing their business skills due to market failures, which can be one justification for public support.⁷ Entrepreneurs may not know the potential benefits of business training, and this may be particularly the case for firms with the worst business practices who may lack knowledge of what good business practices include. Even if entrepreneurs think a training could be beneficial, they may lack information about the magnitude of the return on their investment or have concerns about the quality of the training offered. Financially constrained firms may also underinvest, as it can be challenging to borrow funds for intangible assets like training. Moreover, in some contexts, training is not readily available in the market.

Equity concerns also justify public intervention to support the skill development of female entrepreneurs. As discussed in previous sections, female entrepreneurs have lower education levels than male entrepreneurs, and these gender gaps in endowments put female entrepreneurs at a disadvantage. Closing gender gaps in access to formal education is critical to promote equitable opportunities among the next generation, and gender gaps in school enrollment have closed or reversed in recent decades.⁸ However, such policies will not enable adult women who have completed their

education to equitably engage and compete in entrepreneurship. Targeted interventions to support the business and entrepreneurial skills of adult women can help level the playing field.

5.1.2 Evidence of promising skills-enhancing interventions

Traditional business training

A recent meta-analysis shows that managerial business training programs can positively impact firm performance, boosting profits on average by 10 percent and sales by 5 percent. These effect sizes are reasonable given the relatively short duration of most programs and expected return on investment.⁹ A growing body of rigorous evidence testing business training programs typically involve a trainer teaching groups of 15 to 40 potential or existing entrepreneurs in a classroom setting over three to 12 days. Common modules for potential entrepreneurs include identifying a business idea, developing a business plan, permits, costing, pricing, and budgeting, while common modules for existing entrepreneurs include record-keeping and accounting, marketing, human resources (HR) management, inventory management, planning and operations management.¹⁰ While costs of training programs vary depending on the country context and implementation arrangements, several studies have found that the benefits outweigh the costs under reasonable hypotheses and time periods.¹¹

Profit increases do not necessarily come at the expense of firms in the same location who were not trained, according to emerging evidence. A study that offered training to some businesses in select markets in Kenya showed that impacts on firms who did not receive

training but were in the same markets as those who did were small and not statistically significant, and the sales volume of the entire market where women were trained increased.¹²

Alternative types of business training

Although traditional business training may be one possible solution, several variations in content, delivery, or adaptation of training materials have been shown to be more effective for promoting the development of women's businesses. One such promising approach is to use heuristics, or rules of thumb, to help entrepreneurs improve the management of their businesses. For example, Drexler et al. (2014) compared traditional business training to a training that focused on simple heuristics to help entrepreneurs—90 percent of whom were women—separate household and business finances in the Dominican Republic. They found that the simple rule of thumb training was more effective than traditional accounting training at improving entrepreneurs' business practices and revenues, especially for firm owners who were less educated and had lower initial use of business practices. Arraíz et al. (2019) conducted a similar experiment in Ecuador and found that a four-hour training providing rules of thumb to improve finances increased the daily profits of firms by 8.1 percent one year later, and the training was particularly effective for women and entrepreneurs with lower cognitive scores. In another example, informing microbusinesses of the importance of keeping correct change to avoid losing customers led to an increase in profits three months after the intervention in Kenya.¹³

Although most business training programs undergo some form of adaptation to the local context and population, some promising interventions have done much more adaptation

of materials than is typically done in a more standard program. For example, the Get Ahead training program studied in Bulte et al. (2016) and McKenzie and Puerto (2021) teaches entrepreneurial skills from a gender perspective and includes topics specifically designed to overcome gender constraints. Although the profits variable was too noisy in the Bulte et al. (2016) study to detect impacts, McKenzie and Puerto (2021) show that after three years, this program increased profits by 15 percent, which is greater than average impacts in traditional programs. Using a different approach, Dalton et al. (2019) developed a highly tailored training program for entrepreneurs in Indonesia by first studying the specific practices that were most strongly correlated with business success in the project areas. The program included a handbook that detailed the local best practices, corrected common misperceptions about them, and provided relevant examples of using these practices in the local context. Combining this handbook with two 30-minute sessions to help firms understand and use them increased profits by 35 percent one year later.¹⁴

Another promising alternative to traditional business training uses psychology to help entrepreneurs develop a more entrepreneurial mindset. One specific type of psychological training teaches personal initiative, or the development of a proactive, persistent, future-oriented mindset.¹⁵ In a small-scale pilot in Uganda, Glaub et al. (2014) showed that a personal initiative training boosted entrepreneurs' personal initiative behavior, and this increased entrepreneurial success. A similar training in Togo increased firms' profits by 30 percent on average¹⁶ and was equally effective for women with different initial levels of human capital.¹⁷ Nevertheless, the characteristics of the trainers may be essential to the success of a psychology-

based training program. Alibhai et al. (2019) showed that a personal initiative training for female entrepreneurs in Ethiopia did not have a statistically significant impact on profits, likely due to the profile of trainers who delivered the training. However, an alternative psychology-based business training program in Ethiopia, which aimed to boost entrepreneurs' self-esteem and entrepreneurial spirit, was effective at promoting entrepreneurial success, boosting average monthly profits by 30 percent.¹⁸ Another example of a psychology-based training for entrepreneurs includes an agency-based training that draws on principles of positive psychology and aims to boost self-knowledge and actionable growth strategies. This type of training improved the ability of entrepreneurs to sell improved cookstoves in Kenya, with the greatest improvements for female entrepreneurs.¹⁹

Overall, these alternative approaches have proven more effective for supporting business development than more traditional business training approaches and content. A meta-analysis examining the average impacts of business training programs using a variety of alternative approaches found a 15 percent increase in profits on average and an 11 percent increase in sales on average, greater than the average effect sizes found in more traditional training programs.²⁰ Another meta-analysis that focuses only on female entrepreneurs also shows that enhanced training programs are more effective for boosting the performance of women's businesses.²¹ Most individual studies that have compared traditional business training with a more innovative approach have also found alternative approaches to be more effective than traditional ones, even if the difference between the two is not systematically statistically significant.²²

Consulting and mentoring

Personalized guidance from business consultants or trained mentors provides a promising alternative to classroom-based group training; however, this approach seems to be more effective for SMEs than for micro firms. One advantage of consulting types of interventions for SMEs is that it can help owners address the specific needs of their businesses. Bruhn et al. (2018) showed that Mexican SMEs received management consulting services for various types of managerial practices, and that no single practice seemed to be a silver bullet to unleash growth. As such, highly tailored interventions can ensure that skills enhancement programs meet the specific needs of each SME. Such programs can also introduce entrepreneurs to market-based solutions to grow their businesses, helping overcome informational barriers surrounding the quality of available service providers and the returns to business development services. Indeed, a study in Nigeria showed that firms that received consulting services or support to insource or outsource specialized tasks to trained professionals were more likely to return to the business service market for additional support after the subsidized intervention period.²³

Consulting interventions have been shown to boost the productivity of SMEs. For example, in Mexico, SMEs who were offered four hours per week over the course of one year to work with a consultant on needs identified through a thorough firm diagnostic increased their total factor productivity and return on assets by 0.2 standard deviations and profits by 0.1 standard deviations one year after the intervention. Effects appear long-lasting, as treatment firms had 50 percent more workers even five years after the program.²⁴ One-on-one

consulting can be costly, so Iacovone et al. (forthcoming) tested two types of consulting interventions among auto parts manufacturers with more than 10 workers in Colombia. Some entrepreneurs received individual consulting, which cost approximately US\$30,000, while others received group consulting services that cost approximately US\$10,000 per firm. Group consulting was clearly more cost-effective, increasing use of good business practices by between 8 and 10 percentage points, employment by between six and 15 workers, sales by between 28 and 33 percent, profits by between 5 and 26 percent, and value-added by 43 percent.

Consulting also supported firms with between two and 15 workers in Nigeria; however, insourcing and outsourcing interventions performed equally well at half of the cost. Insourcing and outsourcing interventions enabled entrepreneurs to hire skilled professionals to conduct certain tasks rather than providing the entrepreneur with the skills to conduct the tasks themselves.²⁵ Market-based solutions that help entrepreneurs hire skilled workers or contractors can thus be a promising alternative to upskill SMEs.

Nevertheless, interventions offering personalized guidance from business consultants or trained mentors have had mixed results for boosting the productivity of microenterprises. Karlan et al. (2015) found that while consulting services offered to microenterprise Ghanaian tailors led to modest increases in business practices in the short run, these impacts faded over time, and there were no impacts on profits during any time period. While in the short run, microbusinesses in a Kenyan slum that received mentoring from profitable business owners in their area saw an increase in profits of 20 percent, the effect

dissipated by 12 and 17 months.²⁶ Similarly, in Peru, the impacts of combined training and technical assistance were stronger for female microentrepreneurs approximately 10 months after the program, but by approximately two years after, the training alone and the combination of training and technical assistance had similar impacts, suggesting the individualized assistance may not be worth the additional cost.²⁷ In other cases, mentoring add-on interventions to business training did not boost the effectiveness of programs for microenterprises in the Dominican Republic,²⁸ Kenya,²⁹ or Pakistan.³⁰ Nevertheless, some studies have shown more promising impacts of mentoring interventions for microentrepreneurs. For example, volunteer marketing coaches from across the world worked with Ugandan entrepreneurs whose businesses employed on average 1.7 paid staff. Over a two-year period, firms matched with international marketing experts experienced a 36 percent increase in profits and 16 percent increase in employees which seemed driven by adopting product differentiation.³¹ Moreover, individualized consulting, whether delivered in the business or in the classroom after a training program, boosted income by approximately 15 percent one year after the intervention in Chile, although an alternative intervention using role models was able to produce a similar impact at one-tenth of the cost.³² In line with studies showing positive impacts of consulting interventions on SMEs, some studies have shown that personalized assistance may be more effective or have more sustained impacts for microentrepreneurs with more experience, formal education, or comparatively larger businesses.³³

Social learning interventions

Promoting peer-to-peer learning and network formation is another promising approach to support the development of SMEs. In a light-touch intervention in Ethiopia, Tanzania, and Zambia, Fafchamps and Quinn (2018) found that peer networks formed through a business plan competition boosted knowledge of VAT registration and the need for bank account ownership. Building off this work, Cai and Szeidl (2018) tested a more intensive peer-learning intervention in a sample of 2,820 SMEs in China. Small groups of managers were asked to hold monthly meetings for a year during which members would meet at a member's firm, tour the firm, and discuss relevant business issues. Even one year after the end of the intervention, those who had been invited to the meetings had revenue that was 8.1 percent higher, as well as higher profits, inputs, number of partners, borrowing, and management practices. Managers shared business information, especially more general information with firms that were not direct competitors, and learning from peers seems to be one channel for the success of the intervention since those with better performing peers benefitted more.³⁴ In another example, working with high-growth technology firms in India, Chatterji et al. (2018) found that entrepreneurs who received advice from peers with a formal approach to managing their employees experienced employment growth of 28 percent and were 10 percentage points less likely to fail two years after the intervention than those who received advice for peers with an informal human resource management approach.

Social learning interventions also hold promise for microentrepreneurs. In Chile, inviting a successful alum of a business training program to speak at training sessions boosted the

income of training participants by 15 percent after one year. These role models seem to shift participants' attitudes toward entrepreneurship and investment decisions.³⁵ In India, women who were invited to attend a business training with a friend experienced much bigger impacts on borrowing, business volume, and business plans than those who were invited to attend on their own. They also had higher household incomes and expenditures and were less likely to state their occupation as housewife. Access to networks seems to contribute to these impacts, as impacts of attending the training with a peer were concentrated among women belonging to groups with more restrictive social norms.³⁶ Also in India, a seven-year field quasi-

experiment suggested that ties to family and community are positively linked with women's entrepreneurial activity and profit.³⁷

Summary of promising interventions

Global evidence suggests several types of interventions that policy makers in Southeast Asia may want to consider, which address the skills gaps that contribute to the gender gap in microenterprise profits, support SME development, and differences in networks among male and female SME owners. Table 2 provides a summary of the global evidence described above.

Table 2 Summary of global evidence of programs to improve entrepreneurs' skills

INTERVENTION DESCRIPTION	SUMMARY OF EVIDENCE	RELEVANCE		EFFECTIVENESS
		MICRO	SME	
STANDARD BUSINESS TRAINING PROGRAMS	Standard business training programs can have a positive impact on firm performance. However, alternative training approaches that use heuristics, highly tailored content, or psychological principles have proven more effective on average.	●	●	●
ALTERNATIVE BUSINESS TRAINING PROGRAMS	Business training that uses basic rules of thumb, content that is highly tailored to the local context, or is based on psychology is more effective than standard business training at boosting business performance.	●	●	●
PERSONALIZED GUIDANCE FROM BUSINESS CONSULTANTS OR TRAINED MENTORS	Business consulting can lead to sustained positive impacts on SME performance. Evidence is somewhat mixed for microenterprises and may be more effective for those with more experience, formal education, or slightly larger businesses.	●	●	● Micro ● SME
PEER-TO-PEER LEARNING AND NETWORK FORMATION	Social learning interventions have improved the business performance of both SMEs and microenterprises and can be cost-effective solutions.	●	●	●

RELEVANCE	● Strong relevance	● Somewhat relevant	● Not relevant
EFFECTIVENESS	● Demonstrated effectiveness	● Mixed or limited evidence	● Minimally or not effective

5.1.3 Ensuring gender-inclusive skills-enhancement interventions

Even programs that are not gender-specific can adopt a “smart design” to ensure that women are able to equally benefit from them despite the gender-specific constraints that they face.³⁸ To ensure skills-enhancing programs address the needs and constraints of female entrepreneurs, policy makers should consider adaptations to the curriculum and delivery, logistical arrangements, and measures to debias service provision.

Although traditional business training programs can have an impact on entrepreneurs generally,³⁹ “enhanced training programs” that include mentoring components or different types of content are more effective for female entrepreneurs.⁴⁰ Adapting content to address gender-specific constraints, such as the Get Ahead for Women in Enterprise training program developed by the ILO, has improved the business performance of female entrepreneurs in Kenya.⁴¹ Psychological business training, such as personal initiative, has been shown to work for female entrepreneurs with varied characteristics⁴² and is also effective for boosting performance of male entrepreneurs.⁴³ In designing training programs, policy makers should carefully consider not only the needs of the general target population, but also whether the content is adapted for female entrepreneurs. As shown in Section 3 of this report, female microentrepreneurs have lower education levels than male entrepreneurs, so it is important also for content and materials to be adapted for entrepreneurs with lower literacy levels. Although there is limited rigorous evidence about how the gender of the trainer impacts women’s experience in training programs, working with female trainers,

mentors, or role models may serve as an inspiration for female entrepreneurs or help them relate more with the materials.

Logistical arrangements may pose a barrier to women’s participation if the program is not designed with gender in mind. In a review of the effectiveness of several entrepreneurship interventions for female entrepreneurs, Revenga and Dooley (2020) note that many studies held training during the middle of the day with no childcare options, which was associated with higher dropout rates and absenteeism for women than men. To address such concerns, a youth employment program in Benin invited participants with young children to bring a second person to care for the children during the training and offered transport stipends and mid-day meals to both the trainee and to the babysitter.⁴⁴ In the preparation of a training program for microentrepreneurs in Togo, formative qualitative work prior to the training helped ensure that the logistical arrangements were appropriate to ensure widespread participation of women. Based on focus group discussions, sessions took place during hours when children would be in school and outside of hours when women typically prepare meals for the family. In addition, rather than using a centralized location for training, hotel conference rooms throughout Lomé were rented to ensure that no entrepreneur had to travel more than 15 minutes to reach their training center.⁴⁵ Bringing training close to entrepreneurs is particularly important for female entrepreneurs, who often face more time constraints and may face security issues in transportation. When working in remote areas, one innovative project brought a mobile team to deliver services, so women would not need to travel long distances to participate.⁴⁶ Beyond the timing, location, and need for childcare arrangements, outreach

and enrollment campaigns should incorporate gender. For example, if women have smaller networks, specific outreach activities targeting women may be needed to ensure inclusive awareness of the program. Moreover, eligibility criteria may inadvertently exclude women, such as programs requiring a national identity card in contexts where women are less likely to have them.

It is critical to have the proper protections and incentives in place to ensure an unbiased service provision in addition to considering whether content and logistical arrangements are adapted to women's needs. Skills training programs should include mechanisms to prevent, respond to, and report cases of

sexual harassment and abuse. This would include a clear and accessible anti-sexual harassment code of conduct and policy, training and awareness raising, grievance redress mechanisms, and monitoring and evaluation of these systems.⁴⁷ Beyond ensuring that women are not exposed to harassment or gender-based violence during their participation in skills programs, it is important to ensure that they are treated equitably. One potential way to incentivize trainers to ensure gender-equitable treatment is to offer financial incentives based on achieving specific results, such as the number of women who successfully complete the training.⁴⁸



5.2 Interventions to improve access to capital

5.2.1 Rationale and targeting

Improving women's access to finance in Southeast Asia could support potential entrepreneurs in opening businesses, close gender gaps in microbusiness performance, and bolster SME performance. As shown in Section 2.1.3, women who have land that can be used as collateral or are in households that have received credit are more likely to engage in entrepreneurship. Female microentrepreneurs in Indonesia are more likely than men to rely on savings to open their businesses, and participation in rotating savings and credit associations seems to enable women to open businesses rather than contribute to family farms or businesses as an unpaid worker. Section 3.3 shows that the relationship between different sources of capital and business performance is strongly positive for female microentrepreneurs, which is not always the case for men. Moreover, the gender gap in value added and the value of production among Vietnamese microbusinesses is completely explained by women's lower levels of capital, land, and labor, and female-owned microbusinesses in Vietnam face greater financial capital constraints than men and are less leveraged. Although neither men-owned or women-owned SMEs are well incorporated into the formal financial system, evidence from Vietnam shows that women's SMEs are more constrained in land and financial capital.

Market failures can prevent both men- and women-owned MSMEs from accessing finance and call for policy action. Asymmetries of information make it difficult for bank officers to assess the real value of projects and lead to credit rationing. Increasing interest rates or

collateral requirements can increase the bank's risk because less risky borrowers leave the credit market and remaining borrowers may propose riskier projects. As such, banks do not adjust interest rates until the credit supply equals credit demand, and some borrowers cannot access credit even if they have worthwhile investment proposals.⁴⁹ Although credit rationing affects both male and female borrowers, women may be more exposed if bank officers find men's funding request pitches to be more convincing⁵⁰ or if social norms that regard men as breadwinners bias decisions of how to invest limited funds. Public investment is needed to address these market failures and to ease access to finance for firms with viable projects who are affected by such credit rationing.

Moreover, supporting female entrepreneurs' access to finance is aligned with the value of equitable development because systemic gender inequalities inhibit women's access to finance. As discussed in previous sections of this report, women have more limited collateral and face gender norms that regard husbands as responsible for credit-related transactions or land management. Public investment is warranted to address distributional concerns or to promote the value of equity. Because men and women do not face equal opportunities to seek financing for their business, policy interventions to ease female entrepreneurs' access to credit are justified.

A variety of approaches to improving access to capital for MSMEs have been tried globally, which can serve as inspiration for policy makers in Southeast Asia who would like to address the financing constraints of female

entrepreneurs described above. While there is a vast body of evidence on some types of interventions, others have not been rigorously evaluated for effectiveness. The various types of interventions can be grouped into four large types of interventions, including policies to help improve access to loans, grants, savings interventions, and equity financing. Although equity finance interventions, such as supporting angel investing, may have promise, they are not included in this review due to the lack of rigorous evidence demonstrating their effectiveness.

5.2.2 Evidence of promising interventions to improve access to capital

Improving access to loans

Microfinance interventions promote access to very small loans that are offered to entrepreneurs or potential entrepreneurs under a variety of conditions. Given the size of the loans, they are unlikely to meet the capital needs of SMEs and are targeted at microentrepreneurs.⁵¹ Often loans are offered using solidarity group lending, in which groups of members receive individual loans and the members of the group help ensure repayment. However, some microfinance institutions also offer individual loans, typically to less poor borrowers.⁵²

Reviews of microfinance interventions have shown that they do not lead to transformative impacts for female entrepreneurs, although most studies do show positive, though statistically insignificant, increases in business start-up and performance.⁵³ Using meta-analysis techniques combining results from several studies, Revenga and Dooley

(2020) note that microfinance interventions have a large positive impact on sales but are less effective than basic training in increasing profits or encouraging entrepreneurial activity among women.

Although on average, effects of microfinance interventions have been modest at best, results are heterogeneous. Crépon et al. (2015) find that in Morocco, although the impacts of microfinance were positive on average, for some entrepreneurs there were negative impacts on profits, suggesting microfinance may not be an appropriate solution for all entrepreneurs. Evidence from India shows that the impacts of microfinance on business performance were strongest for those who had existing businesses than for new entrants⁵⁴ and for those with more profitable businesses at baseline.⁵⁵

Emerging evidence suggests that improving the terms of microfinance may enhance its effectiveness. In most cases, microfinance offers loans with a relatively high interest rate and no grace period before repayment must begin. Field et al. (2013) show that relaxing the immediate repayment obligation for microentrepreneurs in India led to increased investment in the short-term and increased profits in the long-term. While microfinance interventions may support female entrepreneurs in some contexts and under certain conditions, the evidence base suggests that it is not a panacea, so additional policy interventions are needed to improve access to finance for women's MSMEs.

Other programs to help MSMEs gain access to loans, such as psychometric testing, often seek to overcome constraints related to lack of collateral, which may be particularly useful for female entrepreneurs who are more likely to lack collateral to secure loans. However, while

there are several types of interventions to ease collateral constraints, there is limited rigorous evidence of how effective these interventions are. Psychometric testing, which assesses entrepreneurs' personality characteristics, is one promising alternative to help MSMEs access credit. Pilot studies have shown that psychometric tests are significant correlates of borrowers' risk of defaults. In Peru, borrowers who had been rejected by a psychometrically enhanced application scorecard had a probability of defaulting that was up to four times greater than those who were accepted.⁵⁶ In Ethiopia, customers who performed better on the psychometric tests were seven times more likely to repay their loans than those with lower scores.⁵⁷ Because psychometric testing can be available to any potential borrower who accepts to take the test, it has the potential to help expand credit to those who lack a credit history or collateral or who would like to seek greater loan amounts. Nevertheless, financial institutions in developing countries may be reticent at first to completely change their lending practices and may be more likely to adopt in an initial stage as a complement to other screening and risk mitigation practices rather than a substitute.⁵⁸

Another new lending methodology to offer loans based on cash flow rather than collateral holds promise for SMEs. A non-experimental evaluation of MSMEs in Bulgaria, Georgia, Russia, and Ukraine showed access to cash-flow loans had positive effects on firm capital formation, revenue growth, and profit growth. The impacts were increasing with firm size, with some negative impacts for microbusinesses but positive impacts for small firms and even larger positive impacts for medium firms.⁵⁹

While psychometric testing and cash-flow lending attempts to demonstrate

entrepreneurs' creditworthiness, credit guarantees are another way to incentivize banks to lend to firms without sufficient collateral despite that risk. Although there are no randomized controlled trials testing the impact of government-backed credit guarantees, there is some suggestive evidence that these types of programs can also support MSMEs. Arraíz et al (2014) use propensity score matching and difference-in-difference methodology to show that government-backed credit guarantees in Colombia increased firm output for the year of the guarantee as well as the two subsequent years studied. Although there were no significant impacts on fixed asset investments, as measured by the capital stock per worker, investments in working capital may explain the changes in output. A credit guarantee scheme in the Republic of Korea also had positive impacts on SMEs in Korea: Oh et al. (2009) use propensity score matching to show that the program increased sales, employment, wage levels, and survival of firms that received financing through the guaranteed scheme.

Loans that use movable collateral may also hold promise for supporting female-owned firms with limited collateral. Using non-experimental methods, Love et al. (2016) show that the introduction of collateral registries for movable assets increased firm's access to finance, in particular for younger and smaller firms.

Another type of policy intervention to improve access to loans, which has typically targeted SMEs more than microbusinesses, offers loan subsidies, introduces lending quotas for banks, or blended finance. Three studies that take advantage of natural experiments suggest that such measures may be effective if they are well targeted to firms that are truly credit constrained. Since 1973, Pakistan has offered

publicly subsidized working capital loans to firms that export an eligible set of commodities; however, in June 2001, cotton yarn became no longer eligible, while other types of non-yarn textile firms could continue receiving subsidies. Zia (2008) took advantage of this policy change to examine the effects of losing access to subsidized loans on SMEs by comparing outcomes before and after the policy change for all yarn and non-yarn textile firms. The loss of publicly funded export credits lowered the access to credit in the form of working capital loans as well as the overall amount of exports for smaller, privately owned enterprises. On the other hand, larger, publicly listed and group network firms that presumably have more access to alternative sources of funding did not experience declines in their working capital and were mainly affected in terms of the cost of credit.⁶⁰ Two studies examined the impacts of changes in eligibility for a directed credit policy in India that requires 40 percent of net bank credit be reserved for the priority sector.⁶¹ The policy enabled newly eligible credit-constrained firms to access credit⁶² and increased their investment, sales, profits,⁶³ and growth of export earnings.⁶⁴ Although not rigorously evaluated, the International Finance Corporation and the World Bank Group's We-Fi program offer blended finance or other incentives to boost access to finance for female entrepreneurs, and experience suggests this approach holds promise for supporting female entrepreneurs. These programs offer incentives, such as subsidies or interest rebates, for banks that hit targets for reaching female entrepreneurs.⁶⁵ A rigorous evaluation of these programs would provide valuable information on their potential.

Although earmarked and subsidized credit programs have the potential to reach credit-constrained firms, the design and

implementation of the programs are crucial to achieving this policy objective. A study of earmarked credit in Brazil that are distributed by private banks shows that banks are more likely to extend earmarked loans to larger firms and those with an existing credit relationship, while riskier borrowers who do obtain earmarked credit often also face increased prices of free-market loans.⁶⁶ Moreover, subsidized credit risks introducing market distortions, so the general equilibrium effects of such a program need to be considered and addressed at the design stage.

Grants

The potential of grant interventions to support female entrepreneurs is strongly linked to their design and targeting. Public transfers to firms in the form of grants may be warranted if it can generate positive externalities, such as contributions to growth or employment creation. In a review of several types of entrepreneurship interventions, Revenga and Dooley (2020) find that grants have a mixed record in terms of impacts for female entrepreneurs, with some studies even suggesting negative impacts. However, the studies with no or even negative impacts all involved cash grants given to microentrepreneurs and focused on the grantees' businesses. Female entrepreneurs may have different preferences but also face more pressure due to gendered social norms and unequal intra-household bargaining power that push them to invest cash grants in their households or in another household member's business. Revisiting studies from India, Ghana, and Sri Lanka that showed only male entrepreneurs had a return on investment after receiving cash grants, Bernhardt et al. (2019) demonstrate that considering household-level returns, cash grants offered to male and

female entrepreneurs were equally effective. Previous studies had not captured impacts of cash grants on women's businesses because the capital they received had been invested in their husbands' enterprises.⁶⁷ Aligned with this finding, in-kind grants, which are more difficult to divert away from the woman's business, have been shown to be more effective for female entrepreneurs in Ghana, in particular for women with higher initial profits and those in sectors that are not female dominated.⁶⁸ More evidence, in particular from Southeast Asia, is needed to confirm whether in-kind grants can sustainably boost the performance of female microentrepreneurs.

While offering grants to microentrepreneurs has a mixed record, business plan competitions that result in cash grant prizes have been shown to support the creation, growth, and productivity of growth-oriented businesses. A randomized controlled trial of offering grants averaging US\$50,000 to semi-finalists of the YouWiN! business plan competition in Nigeria showed that new firm applicant winners were 37 percentage points more likely than the control group to operate a business three years after applying and 23 percentage points more likely to have a business with 10 or more workers. Existing firm winners were 20 percentage points more likely to have survived and 21 percentage points more likely to have a firm with 10 or more workers. The program doubled employment for new firms and increased employment by 80 percent for existing firms.⁶⁹ The program closed gender gaps in firm entry for female winners and had similar impacts on employment, sales, and profits for both men and women; however, women only represented one-fifth of applicants.⁷⁰ Firms innovated more, and access to capital and hiring of labor seemed to be pathways for the success of the program. The

program appeared to reach entrepreneurs that were truly credit constrained, as it altered firms' production decisions rather than only boosting the incomes of the entrepreneurs.⁷¹ Although impacts were sizeable, the YouWiN! competition in Nigeria was expensive due to the size of the grants and the training and support offered to entrepreneurs to help develop their business plans. Programs with smaller grant sizes and no training have also been shown to support firm entry and performance. Fafchamps and Quinn (2017) use non-experimental methods to show that a business plan competition offering grants of US\$1,000 to winners in Ethiopia, Tanzania, and Zambia increased the likelihood of being an entrepreneur by 33 percentage points, employment in the firms by two additional permanent employees, and profits by approximately US\$150 per month six months after the competition. Cash grant prizes appear to be the key to the success of business plan competitions, as a business plan competition that only offered training and mentoring but not funding to winners in Ghana did not have an impact on firm growth or employment one or two years after treatment.⁷²

Savings

Rather than relying on external sources of funding from loans or grants, savings interventions may help female microentrepreneurs overcome negative income shocks, protect business earnings from household needs and the demands of others, boost productivity, and invest in their businesses. Different types of interventions have been tested to boost women's savings, including promoting access to accounts, financial literacy training, commitment savings products, and behavioral nudges.

Aligned with the finding in this report that many female entrepreneurs rely on savings for their

start-up capital, proximal access to safe, formal accounts can help women save and open a non-farm enterprise. Suri and Jack (2016) showed that the mobile money service M-PESA in Kenya increased the savings of female-headed households and shifted their occupational choice from agriculture to business.

Bank accounts can also boost the performance of existing female-owned businesses. Dupas and Robinson (2013) offered non-interest-bearing savings accounts to market vendors, who are predominantly female, and to male motorbike drivers in Kenya. Despite the large withdrawal fees associated with the accounts, 87 percent of women took up the accounts and 41 percent made at least two transactions during the first six months. The accounts substantially increased women's savings and investment in their businesses as well as their private expenditures. In contrast, men were less likely to take up and use the accounts and did not increase their total savings, suggesting that women may face negative private returns to money saved informally.⁷³ Offering bank accounts to female entrepreneurs also showed promise, according to a study from Malawi. Female entrepreneurs who were offered an information session on opening a business bank account as part of a package of interventions aiming to support formalization increased their use of business bank accounts and insurance, saved more, and separated household and business money.⁷⁴ These short-term impacts translated into large impacts on women's sales and profits.⁷⁵

Training that helps female entrepreneurs understand new mobile money or agent banking products can boost women's savings and has potential to boost their business performance. In Indonesian villages where agent banking services were introduced,

financial literacy training emphasizing the importance of savings and explaining the new product increased female entrepreneurs' savings and profits.⁷⁶ Similarly, Bastian et al. (2018) show that mobile money interventions in Tanzania enabled women to save substantially more, and business training bolstered this effect. Although the mobile money service and additional savings did not translate into greater investment, sales, or profit of the primary business, there is some evidence that women expanded into a profitable secondary business.⁷⁷

Several other studies have explored interventions to boost savings without focusing on entrepreneurs. However, the lessons learned can serve as inspiration for policy makers who would like to promote savings as a way to foster female entrepreneurship. In a study of cash-crop farmers in Malawi, some farmers had the opportunity to have the proceeds of their cash-crop harvest deposited directly into new bank accounts in their names. Receiving payments in the account led to higher savings in the months preceding the next planting season, raised input usage in that planting season, and led to increases in crop sale proceeds and household expenditures.⁷⁸ Future research could test whether a similar intervention could be effective to help female entrepreneurs who typically sell their products or services to a few larger firms in the value chain.

Commitment devices—defined as “any arrangement, entered into by an individual, with the aim of making it easier to fulfill his or her own future plans”—used in a variety of contexts, including for promoting savings, have been shown to shift individual behavior.⁷⁹ A commitment savings product in the Philippines that restricted clients' access

to deposits as per their instructions upon opening the account increased the average savings balances by 81 percentage points after 12 months.⁸⁰ These commitment-savings products had longer-term positive impacts on women's decision-making power and purchases of female-oriented durable goods, particularly for women with lower levels of decision-making authority at baseline.⁸¹ Deposit collectors who come to households or businesses to collect deposits for savings accounts in banks or microfinance institutions can simultaneously act as a loose commitment device and reduce transaction costs related to using formal bank accounts. Ashraf et al. (2006) show that offering deposit collection services substantially increased savings in the Philippines, and there is suggestive evidence that intra-household bargaining issues can encourage married women to adopt this type of service. Nevertheless, commitment savings products can also have negative repercussions if individuals increase their debt levels to offset their savings commitment, so the products may not be adapted to all individuals. Buehren et al. (2018) find that salaried workers in Ghana with a worse history of overdrawing their bank accounts increased their debt levels to offset savings commitments, while those with fewer issues of overdrawing their bank accounts at baseline saved more both during and after the commitment period without increasing their debt.

Behavioral nudges also hold promise for increasing savings and helping individuals stick with their savings goals. Microfinance clients in Chile who were invited to savings groups that involved public goal setting, monitoring in group, and non-financial rewards significantly increased their savings—the number of deposits grew 3.7-fold and average savings balances almost doubled. However,

these results were likely not driven by peer-pressure alone. Feedback text messages that provided recipients with information about their own achievements toward their savings goals and the savings of others had similar impacts.⁸² While simple informational nudges, such as feedback or reminder text messages, hold promise, less intensive nudges may not have a durable impact. In Nigeria, Coville et al. (2019) found that an edutainment film about the importance of savings increased the likelihood that individuals opened a savings account at the end of the film, but the effects dissipated quickly with no detectable impacts four months later. Interestingly, household savings is relatively inelastic with regard to the interest rate offered,⁸³ so offering high interest-rate savings accounts may not be an effective way to boost savings.

Summary of promising interventions

Global evidence suggests several types of interventions that policy makers in Southeast Asia may want to consider to address the financing gaps that contribute to the gender gap in microenterprise profits and support SME entry and development. Table 3 provides a summary of the global evidence described above.

Table 3 Summary of global evidence of programs to improve entrepreneurs' access to capital

INTERVENTION DESCRIPTION	SUMMARY OF EVIDENCE	RELEVANCE		EFFECTIVENESS
		MICRO	SME	
MICROFINANCE	Microfinance can generate small, positive changes but are unlikely to lead to transformative impacts for female entrepreneurs.	●	●	●
OVERCOMING COLLATERAL CONSTRAINTS	Although there is a paucity of rigorous evidence, psychometric testing, cash flow loans, and credit guarantees hold potential to support female entrepreneurs.	●	●	●
SUBSIDIZED LOANS, DIRECTED LENDING, AND BLENDED FINANCE	While these programs can help credit-constrained firms access credit, design and implementation are critical to ensure proper targeting and avoid distorting the market.	●	●	●
UNCONDITIONAL GRANTS	Cash grants have overall not succeeded in boosting the performance of women's microbusinesses, often due to issues of diversion of funds from their businesses. In-kind grants may hold more potential for female microentrepreneurs, but more evidence is needed.	●	●	● Cash ● In-Kind
BUSINESS PLAN COMPETITIONS	Business plan competitions offering cash prizes have been proven to increase high growth entrepreneurship for both men and women; however, the design should include specific targeting to women, such as female-only competitions.	●	●	●
SAVINGS PROMOTION	Savings interventions have helped increase investment and business performance of women's microbusinesses.	●	●	●

RELEVANCE	● Strong relevance	● Somewhat relevant	● Not relevant
EFFECTIVENESS	● Demonstrated effectiveness	● Mixed or limited evidence	● Minimally or not effective

5.2.3 Ensuring gender-inclusive interventions to improve access to capital

Effective capital-related interventions must take into account gender imbalances in intra-household bargaining power and normative pressures for women to divert capital flows toward the needs of their households or other members of their family.

Ignoring these constraints can reduce the effectiveness of interventions for female entrepreneurs. For example, cash grants to female microentrepreneurs in India, Ghana,

and Sri Lanka did not generate returns to their businesses because the money was invested in their husbands' businesses,⁸⁴ whereas in-kind cash grants, which are harder to divert from the intended business, were more effective than cash grants for boosting women's businesses in Ghana.⁸⁵ Moreover, women in several contexts have demonstrated an interest in financial products that help them protect their individual interests from the demands of others, even if these come at a cost. Dupas and Robinson (2013) hypothesize that female market vendors were willing to save in formal accounts even though they incurred

a negative interest rate when considering both inflation and withdrawal fees because they may face trouble saving on their own and can face negative private returns to money saved informally that is more easily shared under pressure. Similarly, Schaner (2017) shows that ATM cards that reduced transaction costs of account use both in terms of money and convenience only increased account usage of male-owned and joint accounts of married couples. Married women were less likely to use the accounts when they became more accessible, especially when they had lower initial bargaining power. An examination of the mechanisms suggests that this result is driven by the interpersonal constraints that married women with low bargaining power face in protecting their personal savings from external demands.⁸⁶ Similarly, evidence from an intervention offering commitment savings devices to men and women in the Philippines suggests that financial products that shield income from external demands can boost savings and increase decision-making power of women with lower intra-household bargaining at baseline.⁸⁷ Capital-related interventions need to account for the risk that support aimed at female entrepreneurs will be diverted to other household businesses or needs by enabling financial information to remain private and making capital injections more difficult to divert, for example through in-kind provisions or commitment devices.

Social norms and stereotypes may not only affect whether capital targeted at women's businesses are indeed invested in those businesses: they may also impact women's propensity to self-select into programs.

Women represented only 18 percent of applicants in the first round of the YouWiN! business plan competition in Nigeria.⁸⁸ While the reason women were less likely to apply is

unknown, literature from other countries has shown that women have a lower willingness to compete than men,⁸⁹ even when they are equally qualified.⁹⁰ Lower willingness to compete may be linked with lower levels of self-confidence, which can be perpetuated by gender stereotypes. Nevertheless, women were more likely to enter competition during a lab experiment in Kenya when they were only faced with female competitors than when faced with mixed-gender competitors.⁹¹

Rather than avoid competition, program design should consider female-only competitions or designing a communications and recruitment campaign that encourages women to apply.

For example, communications could include female role models to help young women see themselves as potential beneficiaries in the program or offer psychological-based training aiming to boost self-confidence during capacity building sessions.

Social norms and gender stereotypes may also affect women's experience with program implementors or successful receipt of programs once they decide to apply. Women are often perceived as less competent managers.⁹² If credit officers or judges in a business plan competition hold negative gender stereotypes about women's managerial abilities, unconscious bias may affect their assessments of women's applications or business plans and potentially restrict women's access to the programs. Removing the name and gender of the applicant from the assessed copies of applications may lower the risk of bias. Concealing the gender of the applicant has proven to boost women's successful integration in other domains where gender stereotypes persisted.⁹³ Alternatively, policy makers may consider well-designed incentives for decision-makers who have demonstrated

gender equity in program execution.⁹⁴ Moreover, programs should ensure that anti-harassment and anti-discrimination policies are well developed, clearly communicated about to both implementors and potential beneficiaries, and that well-functioning grievance redress mechanisms are in place.

Understanding the local context of gender norms and intra-household decision-making is key for targeting interventions to women entrepreneurs.

Gender norms regarding employment, intra-household bargaining, and domestic labor may constrain the time, capital, and other resources available to female entrepreneurs, but may also provide opportunities for intervention. Women are expected to be the primary decision-makers with regard to household finances in countries including the Philippines,⁹⁵ Indonesia,⁹⁶ and Vietnam,⁹⁷ which may provide avenues for interventions aimed at increasing financial literacy and providing new financial options for female entrepreneurs. In a randomized experiment in the Philippines, men whose wives controlled household financial decision-making were more likely to invest money in household savings when their financial choices were observable, as were women whose husbands controlled financial decision-making.⁹⁸ Women were also more likely to take up a commitment savings product, which strongly boosted household savings. Interventions targeted at female entrepreneurs may also have positive impacts on social norms and intra-household bargaining: a mobile banking and financial skills training intervention in Indonesia also increased women's household decision-making power.⁹⁹

As with training, the logistical arrangements for capital interventions should also consider gender-specific constraints. If potential beneficiaries must travel long distances to

apply or participate in the program, safety concerns, mobility restrictions, and time-constraints may disproportionately exclude women from participating. Moreover, eligibility requirements should ensure that programs do not inadvertently exclude women. Products that require collateral may exclude female entrepreneurs who have less access to collateral. In addition, programs that target specific sectors of activity may inadvertently exclude women due to sectoral segregation, unless a gendered approach to design is adopted.

Finally, it is critical to consider the types of financial products offered to ensure they meet the unique needs of female entrepreneurs.

This report showed that female entrepreneurs may face different types of capital constraints than men—female-owned MSMEs in Vietnam were more likely than men to be constrained in terms of financial capital (including cash and receivables). Female-owned SMEs were also more likely than male-owned SMEs to face land-related capital constraints. However, considering physical capital, female-owned SMEs face similar and female-owned microbusinesses face fewer constraints than men. As such, interventions that target only physical capital investments may not address the specific financial constraints that female MSMEs face in Vietnam. Products tailored to working capital needs would better meet the specific needs of women's MSMEs in Vietnam. In addition, female SME owners would benefit from tailored products to support land purchase and lease. During the design stage of an intervention, it is critical to ensure that the product offering is tailored to the needs of female entrepreneurs in that context. Future interventions could also work with banks to target female entrepreneurs specifically, including providing additional information on

the financial needs of female SME owners and the financial products that may be of interest to them. In Cambodia, where the majority of bank loans are made to women, a study found that banks are generally unaware of differences between female- and male-owned SMEs, but that there is interest in understanding their specific needs to become more competitive.¹⁰⁰



5.3 Interventions to support hiring and managing workers

5.3.1 Rationale and targeting

Among both microbusinesses and SMEs, women's businesses are smaller than men's businesses in Southeast Asia, suggesting there are gender-specific constraints to hiring, managing, and retaining workers. Gender differences in the number of workers are linked with the gender profit gap for microenterprises, and female microentrepreneurs are operating below their optimal size to maximize their production value in Vietnam. Moreover, women are under-represented among SMEs, likely because of gender-specific constraints to opening or growing into SMEs. Women may operate smaller businesses due to time constraints related to domestic responsibilities. Alternatively, gender stereotypes that question women's managerial skills¹⁰¹ can make it harder for women to hire and retain workers.¹⁰² If women internalize this notion, they may have lower self-efficacy about their ability to manage workers.¹⁰³ Hesitancy to hire workers due to a lack of self-confidence can create a negative feedback loop, as women will not learn that through experience that they are indeed capable.¹⁰⁴

Economic theory provides a basis for understanding why firm owners may not hire workers, even when it may be profitable to do so, and gender may interact with several of these possible constraints. One possibility is that entrepreneurs do not have proper information about the potential returns to hiring additional workers in their business. They may lack information about their own entrepreneurial ability¹⁰⁵ or have little experience

hiring additional workers. This lack of experience and attention to the input prevents entrepreneurs from learning that hiring an additional worker could be profitable.¹⁰⁶ Given that women have smaller businesses than men, they are less likely to have had experience hiring additional workers and may be more likely to underestimate how hiring additional workers could boost their business performance. Labor market frictions can also lead firms to operate at a sub-optimal size. Costs related to identifying, hiring, and training workers may be prohibitive, especially in contexts with high labor turnover. Imperfect information about job candidates' qualifications can also make it difficult to identify the right worker for the job. These costs may be higher for women, who are often more time constrained and have more narrow networks.

Global evidence has revealed some promising interventions for addressing informational constraints and labor market frictions, which may be relevant for supporting female entrepreneurs in Southeast Asia. Nevertheless, most studies focus on male-owned firms or do not report gender-disaggregated results, and there are relatively few interventions specifically aiming to boost firm size that have been rigorously tested. For example, simultaneously reducing challenges to identifying qualified workers and offering subsidies to hire them has proven impactful, but interventions that only alleviate search frictions have not been rigorously evaluated. The evidence presented in this section should be considered as promising options, but more research is needed to understand how effective such interventions

can be for women's businesses and to test additional types of interventions. Moreover, policy recommendations can be better tailored to the specific needs of Southeast Asian women if more research is done on the specific reasons female entrepreneurs in Southeast Asia are not hiring more workers.

5.3.2 Evidence of promising labor-related interventions

Improving knowledge of labor laws and good HR practices

MSMEs may lack knowledge of how to comply with labor regulations or how to hire, manage, and retain workers. The analysis conducted for this report shows that generally knowledge of laws and regulations is relatively low among MSMEs in Vietnam, and these knowledge gaps are larger for female-owned businesses and for microbusinesses. If MSMEs are unsure whether they will be able to easily comply with labor laws and regulations or whether those laws and regulations may negatively impact their ability to adapt their labor needs to changes in their business, they may be hesitant to expand their businesses.

Formal interventions to address informational barriers can boost employment in SMEs. In a randomized controlled trial of SMEs in South Africa, Bertrand and Crépon (forthcoming) found that a 21-week membership to a labor law club that shared biweekly newsletters covering labor law and HR management increased employment by between 12 and 15 percent. Aligned with the possibility of informational issues, some business training programs have increased employment without necessarily targeting it specifically. Grimm and Paffhausen (2015) find that business training

increased employment in MSMEs in 15 out of 36 studies included in their review, including four out of six studies of SMEs.

In addition to formal channels for information exchange, peer-to-peer learning can also help MSMEs overcome informational barriers related to HR management. Chatterji et al. (2018) find that firms in India that received advice from peers with formal HR management procedures—such as consistently setting goals, providing feedback, coordinating employees across various tasks—grew 28 percent larger in terms of the number of employees and were 10 percentage points less likely to fail two years after the intervention than firms who received advice from peers with an informal approach to HR management. Nevertheless, firms may undervalue the importance of training and informational barriers related to HR management. For example, garment factories in Bangladesh were less likely to demonstrate interest in a training program and were more sensitive to the program's price when offered modules related to HR management, leadership, and social compliance than when offered modules on production planning and process or processes to enhance quality.¹⁰⁷

Wage subsidies

Wage subsidies have been shown to increase employment during the subsidy period;¹⁰⁸ however, these short-term impacts can dissipate after the subsidy ends.¹⁰⁹ Wage subsidies have the potential to address some informational barriers as well as alleviate some of the transaction costs associated with hiring and training new workers. For firms that lack information about the potential returns to an additional worker or are concerned they may not be able to effectively manage workers, a wage subsidy can incentivize them to take

the risk and learn about the potential returns through experience.

Nevertheless, the design and targeting of wage subsidy interventions are critical for their effectiveness. Although on average De Mel et al. (2019) found that wage incentives for microenterprises in Sri Lanka did not have a durable impact on the employment or profitability of male-owned firms on average, they found that subsidies had more durable effects for manufacturing firms. Aligned with this finding, Bruhn (2020) finds that wage subsidies for Mexican manufacturing firms during the 2009 financial crisis increased employment by 18 percent after the program ended, and this impact increased over time. After reviewing several studies, Grimm and Paffhausen (2015) conclude that “business support services and targeted subsidies can contribute to employment generation if they are demand-driven, tailor-made and focused.” Nevertheless, wage subsidy programs can be very expensive, so additional research is warranted to understand whether they can effectively address the labor challenges that female MSMEs face in Southeast Asia and whether they would need to be coupled with additional support.

Programs that simultaneously address informational challenges in identifying qualified workers and offer subsidies may be more impactful. A program for MSMEs with between two and 15 workers in Nigeria created a marketplace of service providers and potential employees and offered subsidies for some firms to hire an employee full time (insourcing) and for others to hire someone to work one day per week for the firm on a specific task and the rest of the time for others (outsourcing). These interventions were compared with a traditional business training program and with

subsidies for consulting services. Outsourcing significantly increased firm employment, profits, and sales two years after the intervention started. Moreover, firms that received insourcing, outsourcing, or consulting subsidies were more likely to have purchased a business service again in the future. Helping firms insource or outsource workers proved more effective than business training and more cost-effective than consulting for boosting firm growth.¹¹⁰

Summary of promising interventions

Global evidence provides some promising ideas, summarized in Table 4, for how to support female MSMEs in Southeast Asia to hire, manage, and retain more workers. However, more research is needed to test how effective such solutions can be when specifically targeting women. Moreover, more research is needed to better understand the underlying reasons for the labor-related constraints that female entrepreneurs in Southeast Asia face and to design and rigorously test alternative types of interventions to address these constraints.

Table 4 Summary of global evidence of programs to support hiring and managing workers

INTERVENTION DESCRIPTION	SUMMARY OF EVIDENCE	RELEVANCE		EFFECTIVENESS
		MICRO	SME	
IMPROVING KNOWLEDGE OF LABOR LAWS AND GOOD HUMAN RESOURCES PRACTICES	Limited rigorous evidence is available, but existing evidence seems promising.			
WAGE SUBSIDIES	A few studies show that wage subsidies may have impacts if they are tailored and targeted to specific types of firms; however, more evidence is needed on how they can impact female-owned firms. Combining subsidies with support to identify qualified workers may be more impactful.			

RELEVANCE	 Strong relevance	 Somewhat relevant	 Not relevant
	 Demonstrated effectiveness	 Mixed or limited evidence	 Minimally or not effective

5.3.3 Ensuring gender-inclusive labor-related interventions

Women may be more constrained in terms of access to information, time, and working capital, so targeting, application, and selection processes must enable equal access.

Information campaigns should be designed in a way to target female entrepreneurs, for example by working through associations of female entrepreneurs or partnering with banks or microfinance institutions with a large clientele of female entrepreneurs. Advertising materials should include female role models when possible, so female entrepreneurs can see themselves as potential beneficiaries. Selection criteria should also ensure that it does not inadvertently make it more difficult for women to participate when in a situation of limited resources. For example, if women face greater time constraints or informational barriers, a first-come-first-served model may inadvertently

favor male entrepreneurs who may hear about the program faster or have more time to apply immediately.

In addition to ensuring equal access, content should be gender-sensitive, and design must mitigate risks of gender-based violence and sexual harassment. Where possible, informational interventions can address confidence and entrepreneurial self-efficacy, for example, by using female role models or mentors to deliver messages. Capacity building programs and those that support worker placement should assess the risk of harassment and gender-based violence, create clear policies and procedures designed to mitigate the risk, and ensure appropriate grievance redress mechanisms to address any violation of the policies and procedures.

5.4 Interventions to alleviate time constraints related to domestic work

5.4.1 Rationale and targeting

Policies to help reduce work-family conflict would likely support a broad range of female entrepreneurs through different channels. First, they can help address issues of selection into entrepreneurship. Section 2.1.1 shows that domestic responsibilities are associated with lower labor force participation, so alleviating time constraints related to domestic work could enable some women to enter entrepreneurship by enabling their labor market entry. On the other hand, some women who enter the labor force become entrepreneurs due to the greater flexibility of hours and location that it can afford, which can facilitate combining market and domestic work. This may lead some women who would rather engage in wage work to running businesses, which may affect their motivation to grow their businesses. Policies that reduce the work-family conflict could hence support those who choose entrepreneurship out of necessity to engage in other activities, thereby increasing the relative proportion of female entrepreneurs who are opportunity- and growth-oriented.

Beyond affecting women's ability and/or motivation to enter entrepreneurship, policies to lower the time women spend on domestic work may boost their business performance. As discussed in Section 3.1.2, female microentrepreneurs in households that likely have a greater need for time spent on domestic work, such as those with small children or who lack time-saving household infrastructure, also have lower profits. Conversely, women who

report their business as their primary activity have higher profits. Domestic responsibilities may also affect key strategic business decisions, such as the location or sector of the business, which can in turn affect business performance. Indeed, as discussed in Section 3.1.2, working from home is associated with lower profits of microenterprises in Indonesia, Vietnam, and Lao PDR, and women are more likely to operate their businesses from home.

Global evidence suggests various policy tools that can lower women's domestic workload. Given the ways in which domestic work influences women's engagement in entrepreneurship and ability to dedicate time to their businesses, such policies hold potential for enabling female micro, small, and medium entrepreneurship in Southeast Asia.

Policy makers have an interest in investing in such policies because they promote values of equity and can unleash untapped growth potential. To the extent that domestic work constrains women's choices, it impedes their ability to exercise complete agency over their lives, which is an important development outcome as well as a means to development.¹¹¹ Moreover, as discussed above, time constraints due to domestic workload orient women's choices and can lead them to choose labor market activities that are not aligned with their skills or preferences. Existing evidence shows that such misallocation of talent poses a drag on economic growth and development.¹¹²

5.4.2 Evidence of promising interventions to reduce women's domestic workload

Access to quality, affordable childcare

Access to quality, affordable childcare reduces the amount of time women spend on unpaid care work and supports their ability to engage in productive work.

There is a solid evidence base that childcare services boost women's labor force participation in low- and middle-income countries.¹¹³ Childcare availability can likewise increase women's engagement in entrepreneurship. In China, a 1 percentage point increase in access to affordable childcare increased women's engagement in entrepreneurship by 0.47 percentage points.¹¹⁴

Nevertheless, if women engage in entrepreneurship due to the need for flexible working arrangements, increased availability of childcare may lower engagement in entrepreneurship from some women who transition to wage work.

¹¹⁵ Dang et al. (2019) find that childcare in Vietnam increased the probability that women have a wage job by 38 percentage points and reduced self-employment in farm work. Despite evidence that a lack of childcare is linked with women's lower profits,¹¹⁶ there is no rigorous study to date testing the impact of access to childcare on the profitability of women's businesses.

Governments can play two important roles to increase the availability of accessible, affordable, high-quality childcare. First, governments can set quality standards and regulations for the childcare sector, support training of childcare workers, and enforce adherence to standards and regulations.

Effective support to ensure that childcare services deliver high-quality services can

simultaneously increase parents' confidence in using the centers, and hence their uptake, as well as improve development outcomes for children. Such regulations and support should ensure that the paid jobs created in the care sector offer decent working conditions, which not only ensures protection of basic worker rights but also can improve the quality of services offered.

Second, governments can help support funding for childcare services through a mix of policy tools, such as funding the creation of public childcare centers, support for community-based childcare solutions, or subsidies offered either directly to parents or to private care providers.

Although efforts to support employer-based childcare models can support women who work in wage jobs, most female MSME owners would be excluded from these types of programs. Reliable public funding for childcare providers may have the added benefit of giving childcare providers the stability of income they need to invest in initiatives to boost the quality of their services.¹¹⁷

Special attention is warranted to support access to high-quality childcare services for children under the age of three, as the availability and use of childcare services for children ages 0-3 is particularly low: 53 out of 87 countries with available data have gross enrollment rates for children in this age group of less than 20 percent.¹¹⁸

Time-saving infrastructure

Beyond childcare services, support for the development of infrastructure that reduces the time and labor needed to complete domestic tasks could support female entrepreneurs with managing business and household needs. Although a limited number of studies examine causal impacts, existing evidence

supports the link between improved household infrastructure such as drinking water inside the house, time-saving cooking technologies, or other household appliances and a reduction in women's time spent on domestic chores. Devoto et al. (2012) find that facilitating access to an in-house water connection greatly decreases the time households spend fetching water as well as conflict within the household and with neighbors on water-related issues in urban Morocco. However, the time savings from improved water infrastructure did not boost labor force participation, and households spent more time on leisure activities.¹¹⁹ On the other hand, a program in China to lower the cost of certain types of durable goods, including a refrigerator or a washing machine, did both decrease the time women spent on household production by 1.8 hours per week and increase women's engagement in market work. Eligibility for the durable good rebate program increased the predicted probability of married women's labor force participation by 10 to 15 percent, and eligible women increased their working hours by 4.9 hours per week.¹²⁰ Aligned with this finding, a randomized controlled trial offering improved cookstoves to pregnant women in Ghana found that LPG stoves decreased the amount of time women spent collecting firewood and cooking each meal. During the study period, women offered free LPG stoves also spent more time on income generating activities than those in the control group who continued using traditional three-stone fires for cooking.¹²¹ Non-causal evidence also supports the findings that improved cookstoves decrease the amount of time women spend on cooking and related tasks,¹²² and household appliances more generally are associated with greater female labor force participation.¹²³ Nevertheless, additional evidence is needed to explore whether such time-saving impacts

translate into improved business outcomes for female entrepreneurs. It is possible that marginal time savings may not be sufficient to close gender gaps in opportunities and business performance.

Shifting norms for a more gender-equitable distribution of household work

Interventions to support a reallocation within the household can be a nice complement to care services offered by non-household members and access to time-saving household infrastructure.

The design of parental leave policies can encourage men to take a more active caregiving role in the family and may shift social norms about gender and caregiving in the longer term. Paternity leave policies can signal that fathers should be spending time with children and can enable behavioral shifts. A descriptive study from four OECD countries shows that fathers who take leave, especially of two weeks or more, are more likely to carry out childcare-related activities when children are young,¹²⁴ and longitudinal analysis suggests that longer periods of paternity leave are associated with more frequent engagement in developmental tasks and caretaking both when children are infants and during the first few years of children's lives.¹²⁵ Beyond the existence of paternity leave, the characteristics of parental leave policies can influence the gendered division of labor. Studying parental leave policies in 21 European countries, Castro-García and Pazos-Moran (2015) conclude that parental leave policies should include equal, nontransferable, and well-paid leave for each parent. Although parental leave policies provide one policy instrument to shift norms and behavior, they are unlikely on their own to be sufficient in contexts that have not yet achieved widespread maternity leave protections and have a sizeable informal sector.

Other interventions to engage men and boys can improve gender relations within the household and lead to a more equitable gendered division of labor. The Bandedereho, or “role model,” program in Rwanda included 15 facilitated sessions for groups of 12 men that addressed issues surrounding caregiving, gender and power, communication and decision-making, and intimate partner violence. Seven sessions were dedicated only for men and covered becoming a father, caring for a baby, the impact of their own parents, identifying violence, resolving conflict, alcohol and drug abuse, and reflections on how to become a more involved father. Both the men and their wives were invited to the eight other sessions that covered gender equality, pregnancy, supporting a pregnant partner, childbirth, family planning, gender-based violence, raising children, and sharing responsibilities at home. The intervention lowered physical and sexual intimate partner violence, improved reproductive health outcomes—including attendance and male accompaniment at antenatal care and use of contraceptives—and lowered men’s dominance in intra-household decision-making. The intervention also increased men’s participation in childcare and household tasks.¹²⁶ Aligned with this finding, a 16-session curriculum for men’s discussion groups in Côte d’Ivoire significantly increased men’s participation in domestic tasks typically done by women and improved their ability to control their hostility and manage conflict. There is also suggestive evidence that the intervention lowered levels of physical and sexual intimate partner violence.¹²⁷ Similarly, in Uganda, a community mobilization intervention that aimed to shift harmful social norms and address power imbalances between women and men that perpetuate violence, HIV risk, and inequitable relationships increased joint decision-making and more open

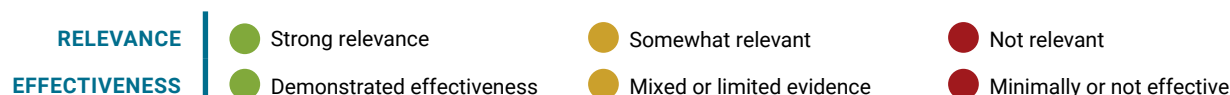
communication between couples. Men also reported a greater increase in household tasks; however, women did not report their spouses being more involved in household tasks.¹²⁸ While interventions to engage men either in men’s discussion groups, couples interventions, or community-level interventions seems able to shift men’s participation in household tasks, there is currently no evidence on whether or how these shifts could improve outcomes for female entrepreneurs.

Summary of promising interventions

Global evidence suggests several types of interventions that policy makers in Southeast Asia may want to consider addressing how the unequal distribution of domestic work in households affects women’s ability to engage and compete in entrepreneurship. Table 5 provides a summary of the global evidence described above.

Table 5 Summary of global evidence of programs to alleviate women's time constraints related to domestic work

INTERVENTION DESCRIPTION	SUMMARY OF EVIDENCE	RELEVANCE		EFFECTIVENESS
		MICRO	SME	
IMPROVING ACCESS TO AFFORDABLE, QUALITY CHILDCARE	There is a solid evidence base that childcare can increase women's labor force participation; however, more evidence is needed to understand the impacts on female entrepreneurship. More evidence is also needed on the ideal type of childcare to support female entrepreneurs in different country contexts.			
SUPPORTING ACCESS TO TIME-SAVING, IMPROVED HOUSEHOLD INFRASTRUCTURE	Evidence shows that improved household infrastructure, such as in-house drinking water, time-saving cooking technologies, and other time-saving appliances reduce time spent on domestic tasks. However, more evidence is needed to understand the impact of these time savings on female entrepreneurs and whether the amount of time saved is sufficient to translate into meaningful impacts for female entrepreneurs.			
PARENTAL LEAVE POLICIES	Well-designed parental leave policies that include sufficient, highly paid, nontransferable leave to both parents can boost men's involvement in childcare. However, this may not be a policy priority to support female entrepreneurs in contexts where leave protections are not universal to all workers, such as those in the informal sector.			
ENGAGING MEN AND SHIFTING INTRA-HOUSEHOLD ALLOCATION OF DOMESTIC WORK	Programs that engage men in discussions related to gender-related issues have shown increases in joint decision-making and an increase in men's involvement in domestic tasks in addition to other development outcomes affecting women. More evidence is needed on how such programs can support female entrepreneurs more specifically.			



5.5 The path forward

Policy makers have a diverse set of tools and actions that they can take to support female entrepreneurs in Southeast Asia. However, knowledge gaps remain in all areas about the relative effectiveness of different interventions, the optimal way to implement them, and how well they translate to different contexts. In particular, very few rigorous studies have been carried out to identify what works for MSMEs in Southeast Asia, and many evaluations have not integrated a gender

perspective or even reported heterogeneous impacts by gender. As discussed throughout this section, gender may moderate access to and the resulting effectiveness of different programs.

A growing body of evidence sheds light on different policies to enhance the skills of MSMEs. Classroom-based training, in particular when using more innovative curriculum, holds promise for boosting microenterprise performance, and business

consulting interventions has the potential to boost the productivity of SMEs. Social learning interventions that promote peer-to-peer learning and network formation hold promise for various types of entrepreneurs.

However, more research is needed to understand under which conditions skills-enhancing interventions best meet female entrepreneurs' needs and to test alternative, more scalable solutions. There is limited evidence on how social-learning, consulting, or mentoring interventions may work differently for male or female entrepreneurs or how the gender of the consultants, mentors or peers may affect the effectiveness of these interventions for female entrepreneurs. Moreover, additional evidence is needed on how to address market failures and promote sustainable solutions. Relatively few studies rigorously test why firms do not pay for these types of Business Development Solutions themselves,¹²⁹ or examine market-based solutions such as having firms pay for training¹³⁰ or testing insourcing/outsourcing types of models for acquiring skills.¹³¹

Global evidence sheds light on the types of capital-related interventions that hold potential for supporting female entrepreneurs.

Savings promotion has been shown to boost investment and business performance of female microentrepreneurs, and business plan competitions with cash prizes are effective at increasing high growth entrepreneurship for both men and women. Female-only competition windows could be a particularly promising solution to explore further given the gender gap in participation in SMEs in Southeast Asia. Notably, business plan competitions for new businesses can help close the gender gap in entry into ownership of growth-oriented businesses and increases the probability of

having an SME. In addition, in-kind grants and directed lending have potential to support microenterprises and SMEs, respectively.

Nevertheless, more evidence is needed to test capital-related interventions in the Southeast Asian context, inform intervention design, and test more innovative solutions to capital constraints.

Most evidence on business plan competitions comes from Sub-Saharan Africa, so it would be important to rigorously evaluate this type of intervention elsewhere to ensure that it functions well in diverse contexts. Similarly, more evidence is needed to demonstrate the effectiveness of in-kind grants and directed lending in Southeast Asia. To ensure that directed lending is effective, it must be well-targeted to meet firms that are truly credit constrained, so additional research should provide guidance on how to effectively target such interventions. Although global evidence suggests that savings promotion can support microentrepreneurs, more evidence is needed about which specific interventions are the most effective for helping female entrepreneurs save and invest in their businesses, given that several promising interventions have not yet been specifically tested with entrepreneurs. Additional research is also needed to rigorously test the effect of psychometric testing, cash flow loans, credit guarantees, and movable collateral registries for helping female entrepreneurs without collateral to access loans, though initial studies suggest they hold potential for both microenterprises and SMEs.

Much more evidence is needed on effective policies to support hiring and managing workers. Knowledge of labor laws and good human resource management appears promising and combining short-term subsidies for insourcing or outsourcing labor with the

development of a marketplace with qualified workers holds potential. Nevertheless, available studies have not examined gender-disaggregated impacts, and more evidence is needed on whether interventions that only reduce informational barriers to identifying qualified workers without any subsidies can be effective. Another area for future research would be to explore psychological interventions that can boost women's confidence and help them overcome stereotype threat associated with negative stereotypes of women's managerial abilities. Such interventions may be stand alone or offered in combination with relaxing other constraints to hiring workers.

Global evidence shows promising interventions for reducing women's time spent on domestic work; however, no studies have specifically studied the impacts of such interventions when targeted to female entrepreneurs.

Access to affordable, quality childcare is likely very promising, as there is a solid evidence base that childcare increases women's labor force participation. However, more evidence is needed to assess demand for childcare services among female entrepreneurs and to identify the form of childcare most adapted to the needs of female entrepreneurs in different country contexts. Access to time-saving household infrastructure and interventions to shift the intra-household allocation of domestic work have been shown to reduce the amount of time that women spend on domestic tasks. However, it remains an open question whether the quantity of time released from such interventions would be sufficient to substantially influence the productivity of women's businesses. Moreover, programs that engage men on gender-related issues typically require fairly intensive planning and support for implementation, which may make them harder to scale. Future research could

also test whether less-intensive, more scalable interventions may be powerful enough to generate change.

Future research should also assess not only whether interventions are effective but the extent to which they are cost-effective. In a context with limited resources, information on cost-effectiveness is critical to choosing the package of interventions that will maximize impact for a certain amount of funding. Because it is recommended to adopt policies that address multiple constraints, a deeper understanding of costs is essential to ensure the budget feasibility of proposed interventions.

Although a number of knowledge gaps remain, there is much that policy makers can already do to improve MSME policies for female entrepreneurs. Interventions discussed in Sections 5.1 through 5.4 that have already proven successful or promising can be scaled up or introduced in new places. As much of this research is based on evidence from outside Southeast Asia, program implementers can conduct formative quantitative or qualitative research to adapt internationally proven interventions to the context and needs of local entrepreneurs. In parallel, policy makers can pilot and rigorously evaluate innovations, including new interventions or design tweaks to implementation. Policy makers and program implementers can partner with researchers to build a rigorous research agenda into their work.

Endnotes

- 1 Esteve-Volart 2004; Cuberes and Teignier 2016; Hsieh et al. 2019
- 2 Cavalcanti and Tavares 2015; Hsieh et al. 2019
- 3 World Bank 2012a
- 4 Sen 1999
- 5 Revenga and Dooley 2020
- 6 Global Entrepreneurship Monitor 2019-2020
- 7 See McKenzie and Woodruff (2014) for a useful review of the literature that includes a discussion of market failures that can justify public investment in skills development programs for entrepreneurs, which is summarized in this paragraph.
- 8 World Bank 2012b
- 9 McKenzie 2020
- 10 McKenzie 2020
- 11 Anderson et al. 2018; Buvinic et al. 2020; McKenzie and Puerto 2021
- 12 McKenzie and Puerto 2021
- 13 Beaman et al. 2014
- 14 Dalton et al. 2021
- 15 Frese and Fay 2001
- 16 Campos et al. 2017
- 17 Campos et al. 2018
- 18 Alibhai et al. 2019
- 19 Shankar et al. 2015
- 20 McKenzie 2020
- 21 Revenga and Dooley 2020
- 22 Arraiz et al. 2019; Campos et al. 2017; Drexler et al. 2014
- 23 Anderson and McKenzie, 2020
- 24 Bruhn et al. 2018
- 25 Anderson and McKenzie, 2020
- 26 Brooks et al. 2018
- 27 Valdivia, 2015
- 28 Drexler et al. 2014
- 29 McKenzie and Puerto, 2021
- 30 Giné and Mansuri, 2020
- 31 Anderson et al. 2020
- 32 Lafortune et al., 2018
- 33 Lafortune et al., 2018 ; Valdivia, 2015
- 34 Cai and Szeidl, 2018
- 35 Lafortune et al. 2018
- 36 Field et al. 2016
- 37 Venkatesh et al. 2017
- 38 Buvinic and O'Donnell 2019
- 39 McKenzie 2020
- 40 Revenga and Dooley 2020
- 41 McKenzie and Puerto 2021
- 42 Campos et al. 2018
- 43 Campos et al. 2017
- 44 Beegle and Rubiano-Matulevich 2020
- 45 Beegle and Rubiano-Matulevich 2020
- 46 Beegle and Rubiano-Matulevich 2020
- 47 Beegle and Rubiano-Matulevich 2020
- 48 Buvinic and O'Donnell 2019
- 49 Stiglitz and Weiss 1981
- 50 Balachandara et al. 2013
- 51 Alibhai et al., 2018
- 52 See Mehra et al., 2012 for a description of different types of microfinance lending.
- 53 Revenga and Dooley, 2020 ; Meager, 2018 ; Dahal and Fiala, 2018
- 54 Banerjee, Brez, Duflo, Kinnan, 2017
- 55 Banerjee, Duflo, Glennerster, Kinnan, 2015
- 56 Klinger et al., 2013
- 57 Alibhai et al., 2019
- 58 Alibhai et al., 2019
- 59 Cassano et al., 2013
- 60 Zia (2008)
- 61 Prior to 1998, the priority sector included firms with less than Rs. 6.5 million in total investment in plant and machinery, and in January 1998, the definition was expanded to include firms with investment in plant and machinery of less than Rs. 30 million. In January 2000, the eligibility criteria changed again, and the threshold was lowered to Rs. 10 million.
- 62 Banerjee and Duflo, 2014 ; Kapoor, Ranjan, and Raychaudhuri, 2012
- 63 Banerjee and Duflo, 2014
- 64 Kapoor, Ranjan, and Raychaudhuri, 2012
- 65 For more information on these programs, see https://www.ifc.org/wps/wcm/connect/Industry_EXT_Content/IFC_External_Corporate_Site/Financial+Institutions/Priorities/Banking+on+Women/
- 66 Ornelas et al. 2019
- 67 Bernhardt et al., 2019
- 68 Fafchamps et al., 2014
- 69 McKenzie, 2017
- 70 McKenzie, 2015
- 71 McKenzie, 2017
- 72 Fafchamps and Woodruff, 2014
- 73 Dupas and Robinson 2013
- 74 Campos et al. 2015
- 75 Campos et al. 2018
- 76 Buvinic et al. 2020
- 77 Bastian et al. (2018)
- 78 Brune et al. 2016
- 79 Bryan et al. 2009
- 80 Ashraf et al. 2006
- 81 Ashraf et al. 2010
- 82 Kast, Meier, and Pomeranz 2018
- 83 Kast, Meier, Pomeranz 2018 ; Karlan and Zinman 2018
- 84 Bernhardt et al. 2019
- 85 Fafchamps et al., 2014
- 86 Schaner 2017
- 87 Ashraf, Karlan and Yin 2006; Ashraf, Karlan, and Yin 2010
- 88 McKenzie 2015
- 89 Gneezy, Leonard, and List 2009; Niederle and Vesterlund 2007, 2008, 2011; Paryavi, Campos, and Santos 2018
- 90 Niederle and Vesterlund 2011
- 91 Paryavi, Campos and Santos 2018
- 92 International Finance Corporation 2008; Macchiavello et al, 2015
- 93 Goldin and Rouse 2000
- 94 Buvinic and O'Donnell, 2019
- 95 Malapit et al 2020, Bayudan-Dacuycuy 2011
- 96 Colfer et al 2015
- 97 Ngo 2020 ; Huis et al 2020
- 98 Ashraf 2009
- 99 Buvinic et al 2020
- 100 International Finance Corporation 2019, 46
- 101 Macchiavello et al 2015
- 102 International Finance Corporation 2008
- 103 While little evidence is available from Southeast Asia, in Sub-Saharan Africa, the World Bank (2019) shows that women generally have lower levels of confidence in their entrepreneurial ability than men, especially when it comes to domains that are typically associated with men.
- 104 Although not applied to a context of women's lower self-efficacy, Hanna, Mullainathan, and Schwartzstein (2014) show that a negative feedback loop can arise when business owners do not experiment with an input and as a consequence do not learn that it matters.

- 105 Jovanovic 1982
- 106 Hanna, Mullainathan, and Schwartzstein 2014
- 107 Machiavello et al. 2015
- 108 Betcherman et al. 2010; Kangasharju 2007
- 109 Card and Hyslop 2005; Groh et al. 2016
- 110 Anderson and McKenzie 2020
- 111 Sen 1999
- 112 Esteve-Volart 2004; Cuberes and Teignier 2016
- 113 Causal evidence of how childcare boosts women's labor force participation is available for Argentina (Berlinski and Galiani, 2007; Berlinski et. al., 2011), Brazil (Paes de Barros et al., 2011), India (Jain, 2016), Kenya (Clark et al., 2019), Indonesia (Halim et al., forthcoming), and Mexico (Ángeles et al., 2011; Calderon, 2014, Padilla-Romo and Cabrera-Hernández, 2018). Dang et al. (2019) do not find impacts of childcare on women's labor force participation, likely due to high initial rates of female labor force participation, but they do find an increase in income.
- 114 Wang, 2015
- 115 Thébaud, 2015
- 116 Delecourt and Fitzpatrick, 2020
- 117 Clark et al. 2017
- 118 International Labor Organization 2018
- 119 Devoto et al. 2012
- 120 Tewari and Wang 2019
- 121 Prah et al. 2021
- 122 ADB 2009; Christianensen and Heltberg 2012; Djedje et al. 2009; Habermehl 2007, 2008; Malla et al. 2011
- 123 De V. Cavalcanti and Tavares 2008
- 124 Huerta et al. 2014
- 125 Petts and Knoester 2018
- 126 Doyle et al. 2018
- 127 Hossain et al., 2014
- 128 Kyegombe et al. 2014
- 129 A notable exception includes Macchiavello et al. (2015)
- 130 Maffioli et al. 2020
- 131 Anderson and McKenzie 2020

Appendix A:

Details of data sources used in the report

Country	Survey name	Type of survey	Type of business covered	Survey years	Sample size
INDONESIA	Indonesia Family Life Survey (IFLS)	Household panel data, representative of 83 percent of the Indonesian population	Microenterprises	2000, 2007, 2014	Sample of individuals: 152,493 Sample of businesses: 18,022
	World Bank Enterprise Survey (WBES)	Cross-sectional firm survey data	SME	2015	Sample of businesses: 935
VIETNAM	SME Survey (VSMES)	Panel data of SME non-state manufacturing firms, representative of firms in 10 provinces in 2005 when the panel was started	Both microenterprises and SME, analyzed separately	2005, 2007, 2009, 2011, 2013, 2015	Sample of microbusinesses: 5,845 Sample of SME: 7,396
	Vietnam Access to Resources Household Survey (VARHS)	Household panel data, representative for 12 provinces in rural areas	Microenterprises	2008, 2010, 2012 and 2014	Sample of individuals: 39,020
	World Bank Enterprise Survey (WBES)	Cross-sectional firm survey data	SME	2015	Sample of businesses: 749
CAMBODIA	Cambodia Socio-Economic Survey (CSES)	Nationally representative cross-sectional household survey data	Microenterprises	2014	Sample of individuals: 53,968 Sample of businesses: 16,014
	World Bank Enterprise Survey (WBES)	Cross-sectional firm survey data	SME	2016	Sample of businesses: 315
LAO PDR	Laos Expenditure and Consumption Survey (LECS)	Nationally representative cross-sectional household survey data	Microenterprises	2012, 2013	Sample of individuals: 43,641 Sample of businesses: 9,236
	World Bank Enterprise Survey (WBES)	Cross-sectional firm survey data	SME	2018	Sample of businesses: 287
TIMOR-LESTE	Timor-Leste Survey of Living Standards (TLSLS)	Nationally representative cross-sectional household survey data	Microenterprises	2014 and 2015	Sample of individuals: 32,083 Sample of businesses: 797
	World Bank Enterprise Survey (WBES)	Cross-sectional firm survey data	SME	2015	Sample of businesses: 121

Appendix B:

Methods and econometric specifications used in the report

Overview of methods used

The new analysis conducted for this report uses several different methods.

OLS regressions: For studying selection into entrepreneurship, OLS regressions show the correlation between individual and household characteristics and the likelihood of being an entrepreneur. For business performance, OLS regressions show the correlation between individual, household, and business characteristics and the performance of the business. In both cases, interacting the gender of the owner with the characteristics shows whether factors linked with engaging in entrepreneurship or with business performance are different for men and women. It is important to note that these regressions do not suggest causality.

Fixed effects regressions: Similar to OLS regressions, fixed effects regressions show the correlations between individual, household, and business characteristics and outcomes of interest, including the likelihood of being an entrepreneur and business performance. However, these models also control for time-invariant characteristics that we cannot observe, such as innate ability or preferences, by detecting how changes in an individual's or business's characteristics over time lead to shifts in their propensity to entrepreneurship or in their business performance.

Events studies: Event studies show how trends in outcomes of interest (such as engaging in entrepreneurship) shift after the occurrence of an event (such as childbirth).

Stepwise regressions: Stepwise regressions are used to measure the raw gender gap in performance and to see how it changes as additional controls for personal, household, business, and community characteristics are added.

Oaxaca-Blinder decomposition: This method examines how much of the gender gap in performance is due to differences endowments, how much is due to differences in the relationship between these endowments and business performance, how much is due to the interaction between the two, and how much is left unexplained.

Cobb-Douglas production function: The Cobb–Douglas production function explores the relationship between the amounts of inputs, including capital and labor, and the amount of output produced by those inputs. It demonstrates whether there are gender differences in marginal returns to capital and labor.

Note: All analysis done using the World Bank Enterprise Surveys data includes sampling weights, due to the design of the survey which oversamples certain types of businesses. Weights are not used for other datasets, as the sampling strategies for the other data sets did not oversample certain types of businesses over others.

Methods and specifications used in Section 1

Model 1.1: OLS regressions

The raw gender gap in performance is calculated using the following OLS regression using robust standard errors:

$$y_{it} = \beta_0 + \beta_1 F_i + \theta_t + \varepsilon_{it} \text{ (Eq. 1.1)}$$

Where:

y_{it} = Performance indicator of the firm run by individual i in time t

F_i = Dummy indicating whether individual i is female

θ_t = Time fixed effect, included in regressions using panel data

β_1 is the coefficient of interest showing the extent to which there is a gender gap in business performance

The variable used for the performance indicator depends on the dataset. Annual profits are used when available. Profits are reported directly in the Indonesia dataset and are calculated by subtracting costs from revenues in datasets from Vietnam, Cambodia and Timor-Leste. Datasets that do not include information on profits or in which there are large numbers of missing values for costs impeding a reliable calculation of profits, revenue is used with controls for sector of activity. Annual revenue is used in all cases except microbusinesses in Laos, for which monthly revenue information was available. Because profit and revenue information is often noisy, the logarithmic transformation is used in most cases, as the number of 0 or negative values was minimal. However, in two cases, more than 10 percent of firms had negative profits, so the Inverse Hyperbolic Sine (IHS) transformation was used instead of the logarithmic transformation. To calculate the percentage difference between men and women's business performance, the coefficient of interest is transformed according to recommendations in Wooldridge (2012) for logarithmic transformations and Bellemare and Wichman (2019) for IHS transformations, by exponentiating the coefficient, subtracting one, then multiplying by 100.

The gender gap with all controls is calculated using the following OLS regression:

$$y_{it} = \beta_0 + \beta_1 F_i + \beta_2 I_{it} + \beta_3 H_{it} + \beta_4 B_{it} + \beta_5 C_{it} + \theta_t + \varepsilon_{it} \text{ (Eq. 1.2)}$$

Where:

I_{it} = Individual characteristics of entrepreneur i in time t

H_{it} = Household characteristics of entrepreneur i in time t

B_{it} = Business characteristics of entrepreneur i 's business in time t

C_{it} = Community characteristics of entrepreneur i 's community in time t

All other variables are as defined in equation 1.1

Table B.1 shows the list of control variables included in regression 1.2

Table B.1: Controls included in the regression 1.2 by dataset

TYPE OF BUSINESS		MICROBUSINESS					SME				
VARIABLE		KHM	IDN	LAO	TLS	VNM	KHM	IDN	LAO	TLS	VNM
INDIVIDUAL CHARACTERISTICS											
Marital status		X	X	X	X						
Age		X	X	X	X						
Age squared		X		X	X						
Years of education		X	X	X	X						
Completed lower secondary						X					X
Completed higher secondary						X					X
Technical worker with or without certificate						X					X
Completed college (technical education)						X					X
Years of experience							X	X	X	X	
Business knowledge and practices						X					X
Primary activity is entrepreneurship			X								
Participation in rotating savings and credit groups			X								
Participation in community groups			X								
Ethnic Kinh						X					X
Communist party member						X					X
HOUSEHOLD CHARACTERISTICS											
Children 0-2 years old in the household		X	X	X	X						
Children 3-5 years old in the household		X	X	X	X						
Elders over 64 years old in the household		X	X	X	X						
Rural/urban dummy		X	X	X	X						
Province		X	X	X	X						
Drinking water inside house		X	X	X	X						
Uses less time-consuming cooking source		X	X	X	X						
Household members need assistance with daily activities			X								
Someone in household with illness or disability		X		X	X						
Household received transfers from the government		X			X						
Income from Individuals		X			X						
Dependency ratio						X					X
BUSINESS CHARACTERISTICS											
Sector of activity		X	X	X	X	X	X	X	X	X	X
Business started as a microenterprise							X	X	X	X	
Household members participating in business activity					X						
Dummy for having paid workers		X	X	X	X						

TYPE OF BUSINESS	MICROBUSINESS					SME				
VARIABLE	KHM	IDN	LAO	TLS	VNM	KHM	IDN	LAO	TLS	VNM
Number of paid workers					X	X	X	X	X	X
Dummy for having unpaid workers or household members working in business	X	X	X	X						
Labor turnover					X					X
Difficulties hiring workers					X					X
Business is outside of the home		X								
Business is on residential property					X					X
Age of business		X				X	X	X	X	
Land business is on is owned					X					X
Capital is main constraint to growth					X					X
Capital is main constraint to new projects					X					X
Business applied for formal loan					X					X
Loans received from informal sources					X					X
Debt-equity ratio					X					X
Debt-equity ratio squared					X					X
Business has access to road					X					X
Business has access to rail					X					X
Business received government assistance					X					X
Business has contract with government						X	X	X	X	
Business was formal at start-up						X	X	X	X	
Business is formal					X					X
Keeps accounting books					X					X
Accounting books audited					X					X
Introduced new product groups					X					X
Introduced new technology					X					X
Firm pays social insurance					X					X
Firm pays health insurance					X					X
All people in network					X					X
Network frequency (winsorized)					X					X
Ratio of women in network					X					X
Business is a private, domestic enterprise						X	X	X	X	
Business has a website						X	X	X	X	
COMMUNITY CHARACTERISTICS										
Community has a bus stop		X								
Community has non-motor vehicle transportation		X								
Market is present in village		X								

Note: Country name abbreviations are as follows: Cambodia (KHM), Indonesia (IDN), Lao PDR (LAO), Timor-Leste (TLS), Vietnam (VNM); Characteristics on the individual, household, and the characteristics of the owner's network are only available for a sub-sample of firms in Vietnam

Methods and specifications used in Section 2

Model 2.1: Linear probability model with gender interactions

The following equation is used to assess the factors linked with men and women's labor market choices:

$$lm_{it} = \alpha_0 + \alpha_1 F_i + \alpha_2 I_{it} + \alpha_3 H_{it} + \alpha_4 C_{it} + \alpha_5 I_{it} * F_i + \alpha_6 H_{it} * F_i + \alpha_7 C_{it} * F_i + \theta_t + \varepsilon_{it} \text{ (Eq. 2.1)}$$

Where:

lm_{it} shows the labor market outcome of interest of individual i in time t

All other variables are as defined in equation 1.1 and 1.2

The regression is run with five specifications:

1. lm_{it} takes the value of 1 if the individual is active in the labor force.
2. lm_{it} takes the value of 1 if the individual is engaged in entrepreneurship, including all working-aged individuals
3. lm_{it} takes the value of 1 if the individual is engaged in entrepreneurship, limited to individuals who participate in the labor force
4. lm_{it} takes the value of 1 if the individual is engaged in wage work, including all working-aged individuals
5. lm_{it} takes the value of 1 if the individual is engaged in wage work, limited to individuals who participate in the labor force

The correlation between individual, household and community characteristics and labor market outcomes for men is captured by α_2 , α_3 , and α_4 respectively. Whether or not these associations are statistically significantly different for men and women is captured by α_5 , α_6 , and α_7 . The relationship between women's individual, household, and community characteristics and their labor market outcomes is measured by the sum of the coefficient for men and coefficient for the interaction term: $(\alpha_2 + \alpha_5)$, $(\alpha_3 + \alpha_6)$, and $(\alpha_4 + \alpha_7)$, respectively.

Table B.2 shows the list of control variables included in regression 2.1

Table B.2: Controls included in the regression 2.1 by dataset

VARIABLE	KHM	IDN	LAO	TLS	VNM
INDIVIDUAL CHARACTERISTICS					
Marital status	X	X	X	X	X
Age	X	X	X	X	X
Years of education	X	X	X	X	X
Participation in rotating savings and credit groups		X			
Participation in community groups		X			
HOUSEHOLD CHARACTERISTICS					
Children 0-2 years old in the household	X	X	X	X	X
Children 3-5 years old in the household	X	X	X	X	X
Elders over 64 years old in the household	X	X	X	X	X
Rural/urban dummy	X	X	X	X	X
Province	X	X	X	X	X
Drinking water inside house	X	X	X	X	
Household has a private tap					X
Household cooks with electricity, gas or kerosene					X
Uses less time-consuming cooking source	X	X	X	X	
Someone in HH with illness or disability	X		X	X	
Household members need assistance with daily activities		X			
Spent time in housework in the last 12 months					X
ACCESS TO CAPITAL CHARACTERISTICS					
Sector of activity	X		X	X	X
Household nonbusiness asset index		X			
Incomes from Individuals	X			X	
Transfers from government or institutions	X		X	X	X
COMMUNITY CHARACTERISTICS					
Community has a bus stop		X			
Community has non-motor vehicle transportation		X			
Market is present in village		X			

Note: Country name abbreviations are as follows: Cambodia (KHM), Indonesia (IDN), Lao PDR (LAO), Timor-Leste (TLS), Vietnam (VNM)

Model 2.2: Linear probability model with individual fixed effects

In Indonesia and Vietnam where panel data is available, individual fixed effects are introduced into the regression 2.1 using the equation:

$$lm_{it} = \alpha_0 + \alpha_2 I_{it} + \alpha_3 H_{it} + \alpha_4 C_{it} + \alpha_5 I_{it} * F_i + \alpha_6 H_{it} * F_i + \alpha_7 C_{it} * F_i + \theta_t + \delta_i + \varepsilon_t \text{ (Eq. 2.2)}$$

Where:

δ_i is the individual fixed effect and all other variables are the same as equation 2.1

The coefficients α_2 , α_3 , and α_4 show the within-individual changes in labor market outcomes for men associated with changes in covariates over time, controlling for other time-variant covariates as well as time-invariant characteristics and preferences. The coefficients α_5 , α_6 , and α_7 capture whether these relationships are different for men and women, and the relationship for women is measured by the sum of the coefficients for men and the interaction term: $(\alpha_2 + \alpha_5)$, $(\alpha_3 + \alpha_6)$, and $(\alpha_4 + \alpha_7)$ for individual, household, and community level characteristics respectively.

Model 2.3 Events study

In Indonesia, panel data captures both information on primary activity annually as well as a detailed pregnancy history enabling the analysis of the impact of having children on women's labor market choices using an event study framework. The probability of employment before and after first childbirth is estimated using the following equation:

$$lm_{it} = \delta_i + \sum_{(t=-6)}^{(t=-2)} YearToBirth_{it} + \sum_{(t=0)}^{(t=10)} YearToBirth_{it} + interview_t + \varepsilon_{it}$$

Where:

$YearToBirth_{it}$ is a dummy for year t relative to the incidence of the first pregnancy

$interview_t$ is a dummy taking a value of 1 if the respondent was interviewed in year t ¹
All other variables are as previously defined, and standard errors are clustered at the individual level.

¹ Other values are coming from a recall module, which may be more affected by recall bias.

Methods and specifications used in Section 3

Model 3.1 OLS regressions with gender interaction terms

The following equation is used to assess the factors linked with men and women's business performance:

$$y_{it} = \gamma_0 + \gamma_1 F_i + \gamma_2 I_{it} + \gamma_3 H_{it} + \gamma_4 C_{it} + \gamma_5 B_{it} + \gamma_6 I_{it} * F_i + \gamma_7 H_{it} * F_i + \gamma_8 C_{it} * F_i + \gamma_9 B_{it} * F_i + \theta_t + \varepsilon_{it} \text{ (Eq. 3.1)}$$

Where:

y_{it} = Performance indicator of the firm run by individual i in time t

F_i = Dummy indicating whether individual i is female

I_{it} = Individual characteristics of entrepreneur i in time t

H_{it} = Household characteristics of entrepreneur i in time t

B_{it} = Business characteristics of entrepreneur i 's business in time t

C_{it} = Community characteristics of entrepreneur i 's community in time t

θ_t = Time fixed effect, included in regressions using panel data

The variable used for the performance indicator depends on the dataset and is calculated as described in Model 1.1.

The correlation between individual, household, community, and business characteristics and men's business performance is captured by γ_2 , γ_3 , γ_4 , and γ_5 respectively. Whether or not these associations are statistically significantly different for men and women is captured by γ_6 , γ_7 , γ_8 , and γ_9 . The relationship between women's individual, household, community, and business characteristics and their business performance is measured by the sum of the coefficient for men and coefficient for the interaction term: $(\gamma_2 + \gamma_6)$, $(\gamma_3 + \gamma_7)$, $(\gamma_4 + \gamma_8)$, and $(\gamma_5 + \gamma_9)$, respectively.

The control variables are the same as those used in equation 1.2 and figure in Table B.1.

Model 3.2 OLS regressions with individual fixed effects

In Indonesia and Vietnam, where panel data is available, we also run the regressions with individual or firm-level fixed effects; however, the precise model and specification used is different in Indonesia and Vietnam due to the different structures of the datasets used.

In Indonesia, the panel data is constructed by following the individual across years and the businesses they run at different points in time. Because in Indonesia the data do not enable to determine whether the firm is the same firm or a new firm, the fixed effects are individual-level fixed effects. The following regression is used for Indonesia:

$$y_{it} = \gamma_0 + \gamma_2 I_{it} + \gamma_3 H_{it} + \gamma_4 C_{it} + \gamma_5 B_{it} + \gamma_6 I_{it} * F_i + \gamma_7 H_{it} * F_i + \gamma_8 C_{it} * F_i + \gamma_9 B_{it} * F_i + \delta_i + \theta_t + \varepsilon_{it} \text{ (Eq. 3.2.1)}$$

Where:

δ_i is the individual fixed effect and all other variables are the same as equation 3.1

In Vietnam, the panel data tracks the firm, not the business owner, so firm-level fixed effects are used. Because current business performance is likely strongly linked with past outcomes, including past business performance, the Arellano-Bond estimator is used to obtain more reliable estimates using the data from Vietnam. The Arellano-Bond estimator essentially involves including the lagged dependent variable from the previous period among the covariates in the regression and instrumenting it using lagged dependent variables from earlier time periods (t-2 and feasible deeper lags). Including the lagged dependent variable among the regressors means that the first year of panel data are not used in the estimation of the relationship between regressors and the dependent variable except through being used as a lagged value for the second time period. Because only three years of panel data are used in Indonesia,² the Arellano-Bond estimator is not used to avoid loss of the number of observations that can be used. For Vietnam, the following regression is used:

$$y_{it} = \gamma_0 + \gamma_1 F_i + \gamma_2 I_{it} + \gamma_3 H_{it} + \gamma_4 C_{it} + \gamma_5 B_{it} + \gamma_6 I_{it} * F_i + \gamma_7 H_{it} * F_i + \gamma_8 C_{it} * F_i + \gamma_9 B_{it} * F_i + \beta_{10} y_{it-1} + \varphi_i + \theta_t + \varepsilon_{it} \text{ (Eq. 3.2.2)}$$

Where:

φ_i is the firm-level fixed effect

y_{it-1} is the lagged dependent variable

All other variables are the same as in equation 3.1

For both equations 3.2.1 and 3.2.2, the coefficients γ_2 , γ_3 , γ_4 , and γ_5 show how within-individual or within-firm changes in covariates in Indonesia and Vietnam, respectively, is linked with changes in firm productivity for men. Whether or not these associations are statistically significantly different for men and women is captured by γ_6 , γ_7 , γ_8 , and γ_9 . How changes in women's in individual women's individual, household, community, and business characteristics over time are linked to their business performance is measured by the sum of the coefficient for men and coefficient for the interaction term: $(\gamma_2 + \gamma_6)$, $(\gamma_3 + \gamma_7)$, $(\gamma_4 + \gamma_8)$, and $(\gamma_5 + \gamma_9)$, respectively.

² Although five waves of IFLS data are publicly available, the way household businesses were asked about in the first two waves was substantially different than in the last three waves, so the analysis is based on analysis of waves 3, 4 and 5 only to avoid biasing the estimates.

Model 3.3 Stepwise regressions

Stepwise regressions start by using the following OLS regression using robust standard errors:

$$y_{it} = \beta_0 + \beta_1 F_i + \beta_6 S_{it} + \theta_t + \varepsilon_{it} \text{ (Eq. 3.3)}$$

Where:

y_{it} = Performance indicator of the firm run by individual i in time t , defined as in Model 1.1

F_i = Dummy indicating whether individual i is female

S_{it} = Sector of activity of the firm run by individual i in time t

θ_t = Time fixed effect, included in regressions using panel data

Stepwise regressions add progressively one variable or group of variables at a time to regression 3.3 to see how the coefficient of interest β_1 , which captures the extent to which there is a gender gap in business performance, changes.

Model 3.4 Oaxaca-Blinder decompositions

The Oaxaca-Blinder decomposition seeks to decompose differences in mean outcomes across two groups, breaking them into three components.

The decomposition method relies on the following regression equation of the log of business performance (Y , as defined in Model 1.1) for businesses with a male (M) and a female (F) owner:

$$Y_{G0} = X_G' \beta_G + \epsilon_G \text{ (Eq 3.4.1)}$$

Where G stands for the gender of the owner (M or F), X is a vector containing the predictors (business and owner characteristics) and a constant, and β contains the slope parameters and the intercept, and ϵ is the random error component.

The gender gap in business performance, D , can be expressed as the difference in outcomes:

$$D = E(Y_M) - E(Y_F) \text{ (Eq 3.4.2)}$$

Where $E(Y_G)$ is the expected value of the outcome variable for those with the gender G .

It is assumed that $E(\epsilon_M) = E(\epsilon_F) = 0$ and $E(\beta_G) = \beta_G$, which means equation 3.4.2 can be rewritten:³

$$D = (X_M)' \beta_M - (X_F)' \beta_F \text{ (Eq. 3.4.3)}$$

³ Given the assumptions, $E(Y_G) = E(X_G' \beta_G + \epsilon_G) = E(X_G' \beta_G) + E(\epsilon_G) = E(X_G)' \beta_G$

As discussed in Jann (2008), equation 3.4.3 can be rearranged to identify the contribution of group differences in predictors to the overall outcome difference, as follows:⁴

$$D = \underbrace{\{E(X_M) - E(X_F)\}' \beta_F}_{\text{Component 1: Endowment effect}} + \underbrace{E(X_F)' (\beta_M - \beta_F)}_{\text{Component 2: Differences in coefficients}} + \underbrace{\{E(X_M) - E(X_F)\}' (\beta_M - \beta_F)}_{\text{Component 3: Interaction of endowments and coefficients}} \quad (\text{Eq. 3.4.4})$$

The first component captures the part of the gender gap in business performance that is due to endowments. In other words, it shows the mean increase in women's business performance that would arise if women's businesses had the same characteristics as men's businesses. Comparing this component to the overall wage gap shows the share of the wage gap that is due to women's differing levels of endowments.

The second component captures the part of the gender gap in business performance that is due to the different relationship between women's endowments and their business performance. Specifically, it quantifies the change in women's business performance that would arise if women had the same coefficients as men in a regression showing the correlation between characteristics and business performance.

The third component captures the interaction of endowments and their association with business performance, measuring the part of the gender gap in business performance that is simultaneously linked with differences in endowments and their coefficients in a regression linking the characteristics to business performance.

The Oaxaca-Blinder decomposition method requires 3 strong assumptions.⁵ First, it uses a partial equilibrium approach, in which observed outcomes of one group are used to construction different scenarios of counterfactual scenarios for the other group. Second, the estimations are based on correlational analysis and cannot be interpreted as causal, as discussed in Fortin, Lemieux, and Firpo (2011). Third, the analysis assumes linear effects and does not take potentially non-linear relationships into account.

Despite these limitations, the Oaxaca-Blinder decomposition is very useful, as it helps quantify the relative importance of different potential explanatory factors in understanding differences in means between two populations.

⁴ See Winsborough and Dickinson (1971), Jones and Kelley (1984) and Daymont and Andrisani (1984) for more details.

⁵ See Fortin, Lemieux, and Firpo (2011) for a detailed explanation of the different assumptions and identification restrictions.

Model 3.5 Cobb-Douglas production function

The Cobb-Douglas production function is commonly used to estimate the marginal returns to different factors of production. However, correlations between the observable input levels and the unobservable productivity changes and shocks is a source of bias in OLS estimations of productivity functions. One of the approaches to tackle the issue of unobservable productivity shocks is a control function approach in which investment levels are used as a proxy for productivity. Hence, changes in investment levels would reflect changes in productivity of each firm.

The basic assumption of such an approach is that the idiosyncratic shock to productivity at time t does not affect the choice of the level of state variables, which are decided at $t-1$, but only that of free variables. State variables are mostly understood as physical buildings and machinery, while free variables include labor.

Assuming that investment level is a function of productivity and state variables:

$$i_{it} = f(x_{it}, p_{it}), \text{ where } x_{it} \text{ is capital and } p_{it} \text{ is productivity of firm } i \text{ in time } t, \\ \text{productivity can be expressed as } p_{it} = f^1(x_{it}, i_{it}) = h(x_{it}, i_{it}).$$

The estimation of gross output takes the form of a Cobb-Douglas production function:⁶

$$y_{it} = \alpha + \alpha w_{it} + \gamma x_{it} + \tau c_{it} + h(x_{it-1}, i_{it-1}) + \varepsilon_{it}$$

where y_{it} is log of gross output, w_{it} is a vector of free variables (male and female labor in our case), x_{it} is a vector of state variables (physical capital), and c_{it} is a vector of control variables (gender, age, etc). Function $h(\cdot)$ is a polynomial (cubic) function level of capital and investment in $t-1$. While w_{it-1} serves as an instrument for w_{it} .

⁶ Estimated using the `prodest` command in STATA. For more information, please see Mollisi and Rovigatti (2017).

Model 3.6 Analysis of female entrepreneurs operating in male-dominated sectors

Analysis on female entrepreneurs operating in male-dominated sectors is conducted using data on microbusinesses coming from Cambodia (CSES), Indonesia (IFLS), Lao PDR (LECS), and Vietnam (VARHS).⁷ Sectors are defined as male-dominated if at least 70 percent of businesses in that sector are run by men, which is similar though slightly lower than the 75 percent threshold used in de Mel et al. (2009). The threshold of 70 percent was chosen as it seemed to capture sectors that are truly male-dominated but still had a large enough sample of women in the sector to allow for the analysis of women operating in these sectors. Robustness checks were carried out using thresholds of 65 percent and 75 percent, and the main conclusions hold across specifications, although coefficient magnitude and significance change somewhat across specifications.

To identify how the performance of female entrepreneurs operating in male-dominated sectors compare to those in female-concentrated sectors, we estimate:

$$y_{it} = \omega_0 + \omega_1 F_MDS_{it} + \omega_2 M_FCS_{it} + \omega_3 M_MDS_{it} + \theta_t + \varepsilon_{it}$$

Where:

y_{it} is the business performance of the firm run by individual i in year t , as defined in Model 1.1.

F_MDS_{it} is a dummy value taking the value of 1 if individual i is a woman operating in a male-dominated sector in year t

M_FCS_{it} is a dummy value taking the value of 1 if individual i is a man operating in a female-concentrated sector in year t

M_MDS_{it} is a dummy value taking the value of 1 if individual i is a man operating in a male-dominated sector in year t

θ_t is a time fixed effect, included in regressions using panel data

The omitted category is women operating in female-concentrated sectors, so the coefficient denotes the difference in business performance between women in male-dominated sectors when compared with women in female-concentrated sectors. As in Model 1.1, the coefficient ω_1 is transformed according to recommendations in Wooldridge (2012) by exponentiating the coefficient, subtracting one, then multiplying by 100 to calculate the percentage difference in performance. To understand whether men in male-dominated sectors outperform men in female-concentrated sectors, the coefficients ω_2 and ω_3 are compared and the difference between them is tested for statistical significance.

⁷ Timor-Leste is not included in this analysis because the sample size of women entrepreneurs in male-dominated sectors is too small to produce reliable estimates.

Methods and specifications used in Section 4

Model 4.1 OLS regressions with gender interaction terms

The regressions run are the same as in Model 3.1 but run on the sample of SME.

Model 4.2 Cobb-Douglas production function

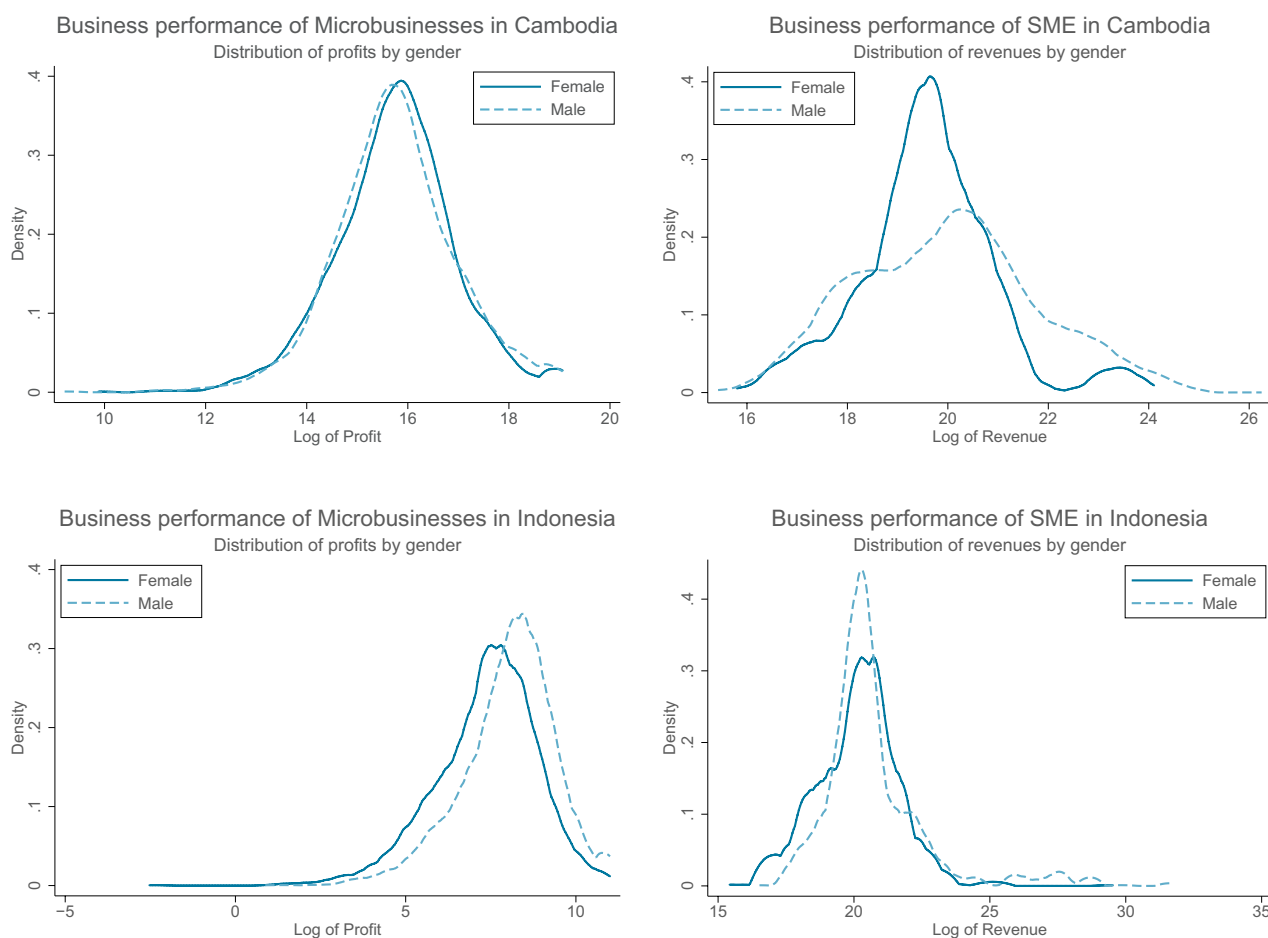
The Model is the same as Model 3.5 but run on the sample of SME.

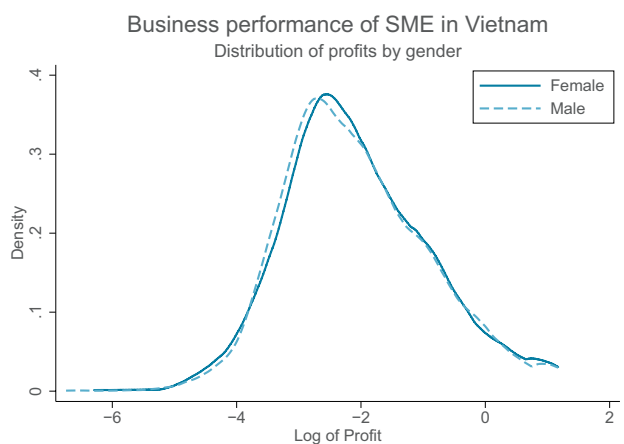
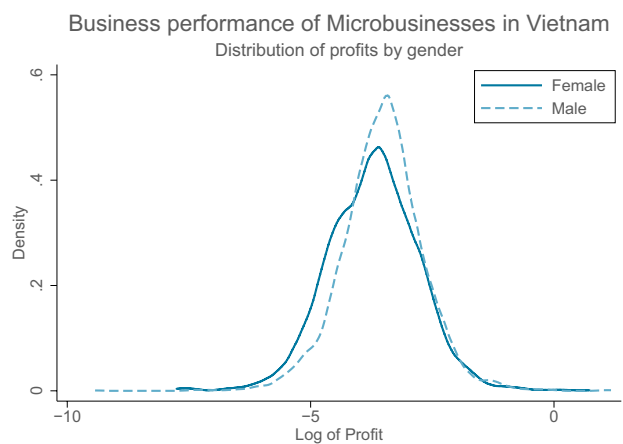
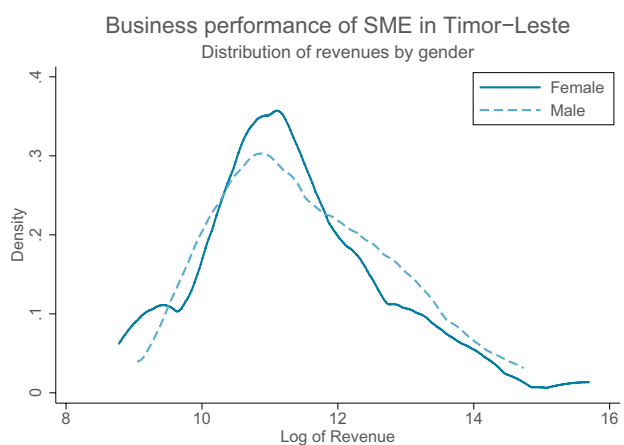
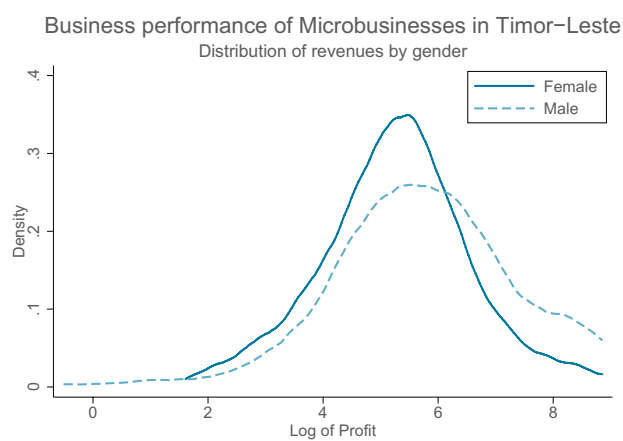
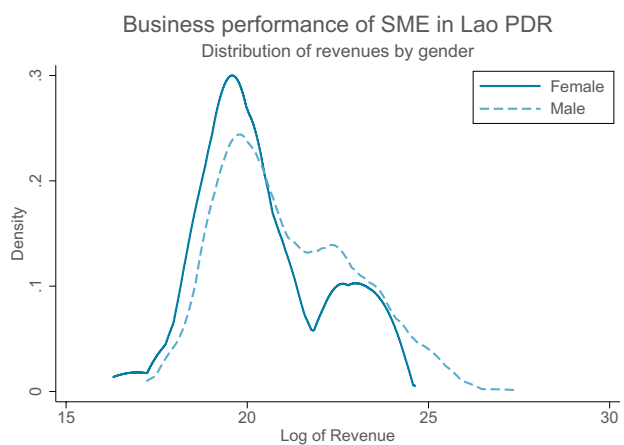
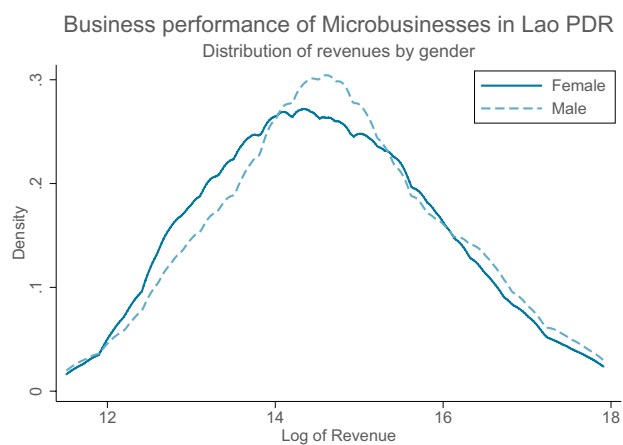
Appendix C:

Distribution of business performance variables for male and female microenterprises and SME

Section 1 shows that on average female microentrepreneurs have lower profits than male microentrepreneurs. On average, there are not statistically significant gender gaps in the performance of SMEs, with the exception of Indonesia. Understanding the average performance differentials is a useful way to identify potential gender-related obstacles to business performance because it shows trends of large groups of businesses. However, average performance differences do not tell the whole story. As this report argues, female and male entrepreneurs are not homogenous groups. Not all female microentrepreneurs perform worse than male microentrepreneurs, and some female-owned SME may outperform or underperform some male-owned SME. As such, exploring the distribution of profits can be useful to gain a more nuanced understanding of gender differences in performance. Figure C.1 shows the distribution of business performance variables for microbusinesses and SME in different countries studied.

Figure C1: Distribution microbusiness and SME performance, by gender





References

- Ács, Z. J., Szerb, L., Autio, E., & Lloyd, A. (2017). Global Entrepreneurship Index 2017. Washington, D.C.: The Global Entrepreneurship and Development Institute. Retrieved from <http://thegeedi.org/product/2017-global-entrepreneurship-index/>
- Agénor, P.-R., & Canuto, O. (2012). Access to Infrastructure and Women's Time Allocation: Evidence and a Framework for Policy Analysis. Retrieved from http://www.ferdi.fr/sites/www.ferdi.fr/files/publication/fichiers/wp45_web_janvier2014_0.pdf
- Ajzen, I. (1985). From Intentions to Actions: A Theory of Planned Behavior. In J. Kuhl & J. Beckmann (Eds.), *Action Control: From Cognition to Behavior* (pp. 11–39). Berlin, Heidelberg: Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-642-69746-3_2
- Ajzen, I. (1991). The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes*, 50, 179–191. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Alaref, J., Brodmann, S., & Premand, P. (2019). The Medium-Term Impact of Entrepreneurship Education on Labor Market Outcomes: Experimental Evidence from University Graduates in Tunisia. Washington, D.C.: The World Bank. <https://doi.org/10.1596/1813-9450-8701>
- Alatas, V., & Cameron, L. A. (2008). The Impact of Minimum Wages on Employment in a Low-Income Country: A Quasi-Natural Experiment in Indonesia. *Industrial and Labor Relations Review*, 61(2), 201–223. <https://doi.org/10.1177/001979390806100204>
- Aldrich, H. E. (1999). *Organizations Evolving*. London: Sage Publications.
- Aldrich, H. E., & Zimmer, C. (1986). Entrepreneurship Through Social Networks. In D. L. Sexton & R. W. Smilor (Eds.), *The Art and Science of Entrepreneurship* (pp. 3–24). Cambridge, MA: Ballinger Publishing Company.
- Alibhai, S., Buehren, N., Frese, M., Goldstein, M., Papineni, S., & Wolf, K. (2019). Full Esteem Ahead? Mindset-Oriented Business Training in Ethiopia. World Bank Policy Research Working Paper, 8892. <https://openknowledge.worldbank.org/handle/10986/31905>
- Alibhai, S., Buehren, N., & Papineni, S. (2018). Better Loans or Better Borrowers?: Impact of Meso-Credit on Female-Owned Enterprises in Ethiopia. World Bank Policy Research Working Paper, 8511. <https://openknowledge.worldbank.org/handle/10986/29984>
- Allen, E., Langowitz, N., & Minniti, M. (2007). *The 2006 Global Entrepreneurship Monitor: Special Topic Report: Women in Entrepreneurship*. Babson Park, MA: Center for Women Leadership, Babson College. Retrieved from <https://www.gemconsortium.org/report/47121>
- Álvarez, I., Marin, R., & Fonfría, A. (2009). The role of networking in the competitiveness of firms. *Technological Forecasting and Social Change*, 76 (3), 410–421.
- Anderson, S. J., Chandy, R., & Zia, B. (2018). Pathways to Profits: The Impact of Marketing vs. Finance Skills on Business Performance. *Management Science*, 64(12), 5559–5583. <https://doi.org/10.1287/mnsc.2017.2920>
- Anderson, S. J., Chintagunta, P. K., Germann, F., & Vilcassim, N. (2020). The Impact of Volunteer Marketers on Product Differentiation and Firm Growth: A Field Experiment with Ugandan Entrepreneurs. Chicago Booth Research Paper, 20(14). <http://dx.doi.org/10.2139/ssrn.3613139>
- Anderson, S. J., & McKenzie, D. (2020). Improving Business Practices and the Boundary of the Entrepreneur: A Randomized Experiment Comparing Training, Consulting, Insourcing and Outsourcing. Policy Research Working Paper, 9502. Retrieved from <https://openknowledge.worldbank.org/handle/10986/34979>

- Ángeles, G., Gadsden, P., Galiani, S., Gertler, P., Herrera, A., Keriger, P. & Seira, E. (2011). Evaluación de Impacto del Programa Estancias Infantiles para Apoyar a Madres Trabajadoras. Report, Centro de Investigación en Evaluación y Encuestas.
- Angelucci, M., Karlan, D., & Zinman, J. (2015). Microcredit Impacts: Evidence from a Randomized Microcredit Program Placement Experiment by Compartamos Banco. *American Economic Journal: Applied Economics*, 7(1), 151–182. <https://doi.org/10.1257/app.20130537>
- Anna, A., Chandler, G., Jansen, E., & Mero, N. (1999). Women business owners in traditional and non-traditional industries. *Journal of Business Venturing*, 15, 279–303.
- Apedo-Amah, et al. (2020). Unmasking the Impact of COVID-19 on Businesses: Firm Level Evidence from Across the World. World Bank Policy Research Working Paper. 9434. Retrieved from <https://openknowledge.worldbank.org/handle/10986/34626>
- Armentos, M., Artellini N., Hoppe A., Urizar, M., & Yaros, B. (2015): "Rethinking FOGAPE. Evaluating Chile's Partial Credit Guarantee Program. Mimeo. Retrieved from <https://en.ufm.edu/wp-content/uploads/2017/04/11.-Marco-Urizar.pdf>
- Arraíz, I. et al. (2019). Less is More: Experimental Evidence on Heuristic-Based Business Training tin Ecuador. Inter-American Development Bank. Retrieved from <https://www.idbinvest.org/en/publications/report-less-more-experimental-evidence-heuristics-based-business-training-ecuador>
- Arraíz, I., Meléndez, M., & Stucchi, R. (2014). Partial Credit Guarantees and Firm Performance: Evidence from Colombia. *Small Business Economics*, 43(3), 711–724. <http://dx.doi.org/10.1007/s11187-014-9558-4>
- Arugay, A., Jarvis, F., Johnson, H., Liaqat, S., & Valenciano, A.K. Forthcoming. *Understanding gender dynamics of decision making in agrarian households of rural Philippines*. Washington D.C.: World Bank
- ASEAN (2016). ASEAN Strategic Action Plan for SME Development 2016-2025. Retrieved from <http://www.smecorp.gov.my/images/pdf/SAP-SMED-Final.pdf>
- ASEAN. (2018). 2018 ASEAN Statistical Year Book. Retrieved from <https://www.aseanstats.org/wp-content/uploads/2019/01/asyb-2018.pdf>
- ASEAN Secretariat. (2016). Projected Gender Impact of the ASEAN Economic Community. Jakarta. Retrieved from <https://library.fes.de/pdf-files/bueros/singapur/12676.pdf>
- Ashraf, N., Karlan, D., & Wesley, Y. (2006). Tying Odysseus to the Mast: Evidence from a Commitment Savings Product in the Philippines. *The Quarterly Journal of Economics*, 121(2), 635–672. Retrieved from <http://www.jstor.org/stable/25098802>
- Ashraf, N., Karlan, D., & Yin, W. (2010). Female Empowerment: Impact of a Commitment Savings Product in the Philippines. *World Development*, 38(3), 333–344. <https://doi.org/10.1016/j.worlddev.2009.05.010>
- Asia Foundation. (2013a). Access to Trade and Growth of Women's SMEs in APEC Developing Economies: Evaluating Business Environments in Malaysia - Philippines - Thailand. San Francisco. Retrieved from <https://www.mimp.gob.pe/weapec2016/files/reportsaccess-to-trade-and-growth-of-women-smes.pdf>
- Asia Foundation. (2013b). Access to Trade and Growth of Women's SMEs in APEC Developing Economies: Evaluating the Business Environment in Indonesia. San Francisco. Retrieved from <https://asiafoundation.org/resources/pdfs/EvaluatingtheBusinessEnvironmentinIndonesia.pdf>
- Asia Foundation and Asian Development Bank. (2018). Emerging Lessons on Women's Entrepreneurship in Asia and the Pacific: Case Studies from the Asian Development Bank and The Asia Foundation. <http://dx.doi.org/10.22617/TCS189585-2>
- Asia Pacific Economic Cooperation. (2021). Small and Medium Enterprises. Retrieved from <https://www.apec.org/Groups/SOM-Steering-Committee-on-Economic-and-Technical-Cooperation/Working-Groups/Small-and-Medium-Enterprises.aspx>
- Asian Development Bank. (2009). Powering the Poor: Projects to increase access to clean energy for all. Retrieved from <https://www.adb.org/sites/default/files/publication/29138/powering-poor.pdf>

- Asian Development Bank. (2013). Gender-Inclusive Approaches in Urban Development. Retrieved from <https://www.adb.org/sites/default/files/institutional-document/34136/files/tip-sheet-gender-inclusive-urban-development.pdf>
- Asian Development Bank. (2015). Promoting Women's Economic Empowerment in Cambodia. Mandaluyong City, Philippines: ADB. Retrieved from <https://www.adb.org/sites/default/files/publication/156499/promoting-womens-economic-empowerment.pdf>
- Asian Development Bank. (2017). Accelerating Financial Inclusion in South-East Asia with Digital Finance. ADB. <https://doi.org/10.22617/RPT178622-2>
- Asian Development Bank. (2018). Emerging Lessons on Women's Entrepreneurship in Asia and the Pacific: Case Studies from the Asian Development Bank and The Asia Foundation. Manila, Philippines: Asian Development Bank. <https://doi.org/10.22617/TCS189585-2>
- Attanasio, O., & Vera-Hernández, M. (2004). Medium- and Long Run Effects of Nutrition and Child Care: Evaluation of a Community Nursery Programme in Rural Colombia. Retrieved from The Institute for Fiscal Studies website: <http://discovery.ucl.ac.uk/14749/1/14749.pdf>
- Azmat, G., & Petrongolo, B. (2014). Gender and the labor market: What have we learned from field and lab experiments? *Labour Economics*, 30(C), 32-40.
- Babbitt, L. G., Brown, D., & Mazaheri, N. (2015). Gender, Entrepreneurship, and the Formal-Informal Dilemma: Evidence from Indonesia. *World Development*, 72, 163-174. <https://doi.org/10.1016/j.worlddev.2015.02.019>
- Bahramitash, R., & Kazemipour, S. (2011). Veiled Economy: Gender and the Informal Sector. In R. Bahramitash & H. S. Esfahani (Eds.), *Veiled Employment: Islamism and the Political Economy of Women's Employment in Iran* (pp. 226-255). Syracuse, New York: Syracuse University Press.
- Balachandra, L., A.R. Briggs, K.Eddleston, and C. Brush. (2013). "Pitch Like A Man: Gender Stereotypes And Entrepreneur Pitch Success," *Frontiers of Entrepreneurship Research*: Vol. 33: Iss. 8, Article 2. Available at: <http://digitalknowledge.babson.edu/fer/vol33/iss8/2>
- Bandiera, O., Buehren, N., Burgess, R., Goldstein, M., Gulesci, S., Rasul, I., & Sulaiman, M. (2018). Women's Empowerment in Action: Evidence from a Randomized Control Trial in Africa. Washington, D.C.: The World Bank. <https://doi.org/10.1596/28282>
- Bandura, A. (1991). Social Cognitive Theory of Self-regulation. *Organizational Behavior and Human Decision Processes*, 50(2), 248-287. [https://doi.org/10.1016/0749-5978\(91\)90022-L](https://doi.org/10.1016/0749-5978(91)90022-L)
- Banerjee, A., Breza, E., Duflo, E. & Kinnan, C. (2017). Do Credit Constraints Limit Entrepreneurship? Heterogeneity in the Returns to Microfinance. Global Poverty Research Lab Working Paper. 1(104). <http://dx.doi.org/10.2139/ssrn.3126359>
- Banerjee, A., & Duflo, E. (2014). Do Firms Want to Borrow More? Testing Credit Constraints Using a Directed Lending Program. *Review of Economic Studies*, 81, 572-607. doi: 10.1093/restud/rdt046
- Banerjee, A., Duflo, E., Glennerster, R., & Kinnan, C. (2015). The Miracle of Microfinance? Evidence from a Randomized Evaluation. *American Economic Journal: Applied Economics* 2015, 7(1), 22-53. <http://dx.doi.org/10.1257/app.20130533>
- Banerjee, A., Karlan, D., & Zinman, J. (2015). Six Randomized Evaluations of Microcredit: Introduction and Further Steps. *American Economic Journal: Applied Economics*, 7(1), 1-21. <https://doi.org/10.1257/app.20140287>
- Bardasi, E., Sabarwal, S., & Terrell, K. (2011). How Do Female Entrepreneurs Perform? Evidence from Three Developing Regions. *Small Business Economics*, 37(4), 417-441. <https://doi.org/10.1007/s11187-011-9374-z>
- Baron, R. A. (2004). The Cognitive Perspective: A Valuable Tool for Answering Entrepreneurship's Basic "Why" Questions. *Journal of Business Venturing*, 19(2), 221-239. [https://doi.org/10.1016/S0883-9026\(03\)00008-9](https://doi.org/10.1016/S0883-9026(03)00008-9)

- Bastian, G., Bianchi, I., Goldstein, M. & Montalvao, J. (2018). Short-Term Impacts of Improved Access to Mobile Savings, with and without Business Training: Experimental Evidence from Tanzania. Retrieved from <https://pubdocs.worldbank.org/en/529051527991880514/pdf/122-BWC-20-Feb-2018.pdf>
- Bayudan-Dacuycuy, C. (2019). Examining the Women's Low Labor Market Participation Rate in the Philippines: Is Housework the Missing Link? Discussion Paper Series, No. 2019-05. Philippine Institute for Development Studies.
- Beaman, L., Magruder, J., & Robinson, J. (2014). Minding small change among small firms in Kenya. *Journal of Development Economics*, 108(C), 69-86. doi: 10.1016/j.jdeveco.2013.12.010
- Beegle, K., E. Rubiano-Matulevich. 2020. *Adapting Skills Training to Address Constraints to Women's Participation*. Jobs Note: No 7. World Bank, Washington, DC <https://openknowledge.worldbank.org/handle/10986/33694> License: CC BY 3.0 IGO.
- Bellemare, M. & Wichman, C. (2019). Elasticities and the Inverse Hyperbolic Sine Transformation. *Oxford Bulletin of Economics and Statistics*, 82(1), 50-61. <https://doi.org/10.1111/obes.12325>
- Berlinski, S., & Galiani, S. (2007). The effect of a large expansion of pre-primary school facilities on preschool attendance and maternal employment. *Labour Economics*, 14(3), 665-680.
- Berlinski, S., Galiani, S. & McEwan, P. J. (2011). Preschool and maternal labor market outcomes: Evidence from a regression discontinuity design. *Economic Development and Cultural Change*, 59(2), 313-344.
- Bernhardt, A., Field, E., Pande, R., & Rigol. N., (2019). Household Matters: Revisiting the Returns to Capital among Female Microentrepreneurs. *American Economic Review: Insights*, 1(2), 141-60. doi: 10.1257/aeri.20180444
- Betcherman, G., Meltem Daysal, N., & Pagés, C. (2010). Do employment subsidies work? Evidence from regionally targeted subsidies in Turkey. *Labor Econ*, 17, 710-722.
- Blackden, C. M., & Wodon, Q. (Eds.). (2006). *Gender, Time Use, and Poverty in Sub-Saharan Africa*. Washington, D.C: World Bank. Retrieved from http://siteresources.worldbank.org/INTAFRREGTOPGENDER/Resources/gender_time_use_pov.pdf
- Bloom, N., & Van Reenen, J. (2007). Measuring and Explaining Management Practices Across Firms and Countries. *The Quarterly Journal of Economics*, 122(4), 1351-1408. <https://doi.org/10.1162/qjec.2007.122.4.1351>
- Boden, R. J. (1996). Gender and Self-Employment Selection: An Empirical Assessment. *The Journal of Socio-Economics*, 25(6), 671-682. [https://doi.org/10.1016/S1053-5357\(96\)90046-3](https://doi.org/10.1016/S1053-5357(96)90046-3)
- Bollinger, K., & Merchant-Vega, N. (2013, February 28). *Networking Essential to Women Entrepreneurs in Asia*. The Asia Foundation. Retrieved from <https://asiafoundation.org/2013/02/27/networking-essential-to-women-entrepreneurs-in-asia/>
- Bosma, N., & Kelley, D. (2018). Global Entrepreneurship Monitor 2018/2019 Global Report. Retrieved from <https://www.gemconsortium.org/report/gem-2018-2019-global-report>
- Brody, C., De Hoop, T., Vojtkova, M., Warnock, R., Dunbar, M., Murthy, P., & Dworkin, S. (2015). Economic Self-help Group Programs for Improving Women's Empowerment. The Campbell Collaboration. <https://doi.org/10.4073/csr.2015.19>
- Brooks, W., Donovan, K., & Johnson, T.R. (2018). Mentors or Teachers? Microenterprise Training in Kenya. *American Economic Journal: Applied Economics*, 10(4), 196-221. <https://doi.org/10.1257/app.20170042>
- Bruhn, M., Karlan, D., & Schoar, A. (2018). The Impact of Consulting Services on Small and Medium Enterprises: Evidence from a Randomized Trial in Mexico. *Journal of Political Economy*, 126(2). <https://doi.org/10.1086/696154>
- Bruhn, M., & Zia, B. (2011). Stimulating Managerial Capital in Emerging Markets: The Impact of Business and Financial Literacy for Young Entrepreneurs. Washington, D.C.: The World Bank. <https://doi.org/10.1596/1813-9450-5642>

- Brune, L., Giné, X., Goldberg, J., & Yang, D. (2011). Commitments to Save: A Field Experiment in Rural Malawi. Washington, D.C.: The World Bank. <https://doi.org/10.1596/1813-9450-5748>
- Brune, L., Gin, X., Goldberg, J., & Yang, D. (2016). Facilitating Savings for Agriculture: Field Experimental Evidence from Malawi. *Economic Development and Cultural Change*, University of Chicago Press, 64(2), 187 – 220.
- Brush, C. G. (1992). Research on Women Business Owners: Past Trends, a New Perspective and Future Directions. *Entrepreneurship Theory and Practice*, 16(4), 5–30. <https://doi.org/10.1177/104225879201600401>
- Brush, C. G., Carter, N., Gatewood, E. J., Greene, P., & Hart, M. (Eds.). (2006). *Growth-oriented Women Entrepreneurs and Their Businesses: A Global Research Perspective*. Cheltenham, Northampton: Edward Elgar Publishing.
- Brush, C. G., & Cooper, S. Y. (2012). Female Entrepreneurship and Economic Development: An International Perspective. *Entrepreneurship & Regional Development*, 24(1–2), 1–6. <https://doi.org/10.1080/08985626.2012.637340>
- Brush, C. G., De Bruin, A., & Welter, F. (2009). A Gender-Aware Framework for Women's Entrepreneurship. *International Journal of Gender and Entrepreneurship*, 1(1), 8–24. <http://dx.doi.org/10.1108/17566260910942318>
- Brush, C. G., & Hisrich, R. D. (1991). Antecedent Influences on Women-owned Businesses. *Journal of Managerial Psychology*, 6(2), 9–16. <https://doi.org/10.1108/02683949110144846>
- Bryan, G., Karlan, D. & Scott, N. (2009). Commitment Contracts. Working Papers, 73.
- Budig, M. J. (2006). Gender, Self-Employment, and Earnings: The Interlocking Structures of Family and Professional Status. *Gender & Society*, 20(6), 725–753. <https://doi.org/10.1177/0891243206293232>
- Bulte, E., Lensink, R., & Vu, N. (2016). Gender Training and Female Empowerment: Experimental Evidence from Vietnam. *Economic Letters*, 145, 117–119. <https://doi.org/10.1016/j.econlet.2016.06.003>
- Buvinić, M., Furst-Nichols, R., & Courey Pryor, E. (2013). A Roadmap for Promoting Women's Economic Empowerment. Washington, D.C.: The United Nations Foundation and ExxonMobil. Retrieved from http://www.womeneconroadmap.org/sites/default/files/WEF_Roadmap_Report_Final_1.pdf
- Buvinić, M., Johnson, H.C., Perova, E., & Witoelar, F. (2020). Can Boosting Savings and Skills Support Female Business Owners in Indonesia?: Evidence From a Randomized Controlled Trial. The World Bank. Retrieved from <http://documents.worldbank.org/curated/en/837561585728764714/Can-Boosting-Savings-and-Skills-Support-Female-Business-Owners-in-Indonesia-Evidence-From-a-Randomized-Controlled-Trial>
- Buvinić, M., & O'Donnell, M. (2016). Revisiting What Works: Women, Economic Empowerment and Smart Design. Washington, D.C.: Center for Global Development. Retrieved from <https://www.cgdev.org/sites/default/files/CGD-Roadmap-Update-2016.pdf>
- Buvinić, M., & O'Donnell, M. (2019). Gender Matters in Economic Empowerment Interventions: A Research Review. *The World Bank Research Observer*, 34(2).
- Buttner, E. H., & Moore, D. P. (1997). Women's Organizational Exodus to Entrepreneurship: Self-Reported Motivations and Correlates with Success. *Journal of Small Business Management*, 34–46. Retrieved from https://www.researchgate.net/publication/279548467_Women's_organizational_exodus_to_entrepreneurship_Self-reported_motivations_and_correlates_with_success
- Cai, J., & Szeidl, A. (2018). Interfirm Relationships and Business Performance. *The Quarterly Journal of Economics*, 133(3), 1229–1282. <https://doi.org/10.1093/qje/qjx049>
- Calderón, G. (2014). The Effects of Child Care Provision in Mexico. Banco de México Working Papers. 07.
- Cambodian Center for Human Rights. (2016). Cambodia's Women in Land Conflict. Phnom Penh. Retrieved from https://cchrcambodia.org/admin/media/report/report/english/2016_09_27_cchr_report_Cam_Women_in_Land_Conflict_ENG.pdf

- Cameron, L., Olivia, S., & Shah, M. (2019). Scaling up Sanitation: Evidence from an RCT in Indonesia. *Journal of Development Economics*, 138, 1–16. <https://doi.org/10.1016/j.jdeveco.2018.12.001>
- Campaña, J.C., Giménez-Nadal, J.I., & Molina, J.A. (2020). Self-employed and Employed Mothers in Latin American Families: Are There Differences in Paid Work, Unpaid Work, and Child Care?. *Journal of Family and Economic Issues*, Springer, 41(1), 52-69.
- Campos, F., Frese, M., Goldstein, M., Iacovone, L., Johnson, H. C., McKenzie, D., & Mensmann, M. (2017). Teaching Personal Initiative Beats Traditional Training in Boosting Small Business in West Africa. *Science*, 357(6357), 1287-1290. doi: 10.1126/science.aan5329
- Campos, F., Frese, M., Goldstein, M., Iacovone, L., Johnson, H. C., McKenzie, D., & Mensmann, M. (2018). Is Personal Initiative Training a Substitute or Complement to the Existing Human Capital of Women? Results from a Randomized Trial in Togo. *AEA Papers and Proceedings*, 108, 256–261. <https://doi.org/10.1257/pandp.20181026>
- Campos, F., Goldstein, M., & McKenzie, D. (2015). Short-Term Impacts of Formalization Assistance and a Bank Information Session on Business Registration and Access to Finance in Malawi. World Bank Policy Research Working Paper. 7183.
- Campos, F., Goldstein, M., McGorman, L., Munoz Boudet, A. M., & Pimhidzai, O. (2015). Breaking the Metal Ceiling : Female Entrepreneurs Who Succeed in Male-Dominated Sectors. World Bank Policy Research Working Paper, 7503.
- Card, D. & Hyslop, D. R. (2005). Estimating the Effects of a Time-Limited Earnings Subsidy for Welfare-Leavers. *Econometrica Journal of the econometric society*, 73(6), 1723-1770. <https://doi.org/10.1111/j.1468-0262.2005.00637.x>
- Carr, D. (1996). Two Paths to Self-Employment?: Women's and Men's Self-Employment in the United States, 1980. *Work and Occupations*, 23(1), 26–53. <https://doi.org/10.1177/0730888496023001003>
- Carter, N. M., Williams, M., & Reynolds, P. D. (1997). Discontinuance among New Firms in Retail: The Influence of Initial Resources, Strategy, and Gender. *Journal of Business Venturing*, 12(2), 125–145.
- Caruso, B. A., Sevilimedu, V., Fung, I. C.-H., Patkar, A., & Bake, K. K. (2015). Gender Disparities in Water, Sanitation, and Global Health. *The Lancet*, 386(9994), 650–651. [https://doi.org/10.1016/S0140-6736\(15\)61497-0](https://doi.org/10.1016/S0140-6736(15)61497-0)
- Casella, A., Rauch, J. (2002). Anonymous market and group ties in international trade. *Journal of International Economics*, 58(1), 19-47.
- Cassano, F., Jõeveer, K., & Svejnar, J. (2013). Cash flow vs. collateral-based credit Performance of micro, small and medium-sized firms in transition economies. *Economics of Transition*, 21(2), 269-300. <https://doi.org/10.1111/ecot.12016>
- Casson, M. (1982). *The Entrepreneur: An Economic Theory*. Rowman & Littlefield.
- Cetindamar, D., Gupta, V. K., Karadeniz, E. E., & Egrican, N. (2012). What the Numbers Tell: The Impact of Human, Family and Financial Capital on Women and Men's Entry into Entrepreneurship in Turkey. *Entrepreneurship & Regional Development*, 24(1–2), 29–51. <https://doi.org/10.1080/08985626.2012.637348>
- Cavalcanti, T. and J. Tavares. 2015. "The Output Cost of Gender Discrimination: A Model-Based Macroeconomics Estimate." *The Economic Journal* 126(February): 109-134 Doi: 10.1111/ecoj.12303
- Chhair, S., and L. Ung. 2016. "Economic History of Industrialization in Cambodia." *Learning to Compete Working Paper No. 7*
- Chatterji, A., Delecourt, S., Hasan, S., & Koning, R. (2019). When does advice impact startup performance?. *Strategic Management Journal*, 40(3), 331-356.
- Chen, M. A. (2001). Women and Informality: A Global Picture, the Global Movement. *SAIS Review*, 21(1), 71–82. <https://doi.org/10.1353/sais.2001.0007>
- Chen, C. C., Greene, P. G., & Crick, A. (1998). Does Entrepreneurial Self-efficacy Distinguish Entrepreneurs from Managers? *Journal of Business Venturing*, 13(4), 295–316. [https://doi.org/10.1016/S0883-9026\(97\)00029-3](https://doi.org/10.1016/S0883-9026(97)00029-3)
- Chhay, D. (2011). Women's Economic Empowerment through Microfinance in Cambodia. *Development in Practice*, 21(8), 1122–1137. <https://doi.org/10.1080/09614524.2011.606891>

- Chliova, M., Brinckmann, J., & Rosenbusch, N. (2015). Is Microcredit a Blessing for the Poor? A Meta-analysis Examining Development Outcomes and Contextual Considerations. *Journal of Business Venturing*, 30(3), 467–487. <https://doi.org/10.1016/j.jbusvent.2014.10.003>
- Cho, Y., & Honorati, M. (2014). Entrepreneurship Programs in Developing Countries: A Meta Regression Analysis. *Labour Economics*, 28, 110–130. <https://doi.org/10.1016/j.labeco.2014.03.011>
- Chowdhury, I., Johnson, H. C., Mannava, A., & Perova, E. (2019). Gender Gap in Earnings in Vietnam: Why Do Vietnamese Women Work in Lower Paid Occupations?. *Journal of Southeast Asian Economies*, 36(3), 400-23. doi: 10.1355/ae36-3g
- Christiaensen, L., & Heltberg, R. (2012). Greening China's Rural Energy: New Insights on the Potential of Smallholder Biogas. World Bank.
- Cirera, X., & Qasim, Q. (2014). *Supporting Growth-Oriented Women Entrepreneurs: A Review of the Evidence and Key Challenges*. Washington, D.C.: The World Bank.
- Cirera, X., Mason, A.D., de Nicola, F., Kuriakose, S., Mare, D.S., Tran, T.T. (2021). *The Innovation Imperative for Developing East Asia*. Washington D.C.: The World Bank
- Cislaghi, B., and L. Heise. 2020. "Gender Norms and Social Norms: Differences, Similarities, and Why They Matter in Prevention Science." *Sociology of Health and Illness*: 42(2) p. 407-422 <https://doi.org/10.1111/1467-9566.13008>
- Clark, S., Kabiru, C.W., Laszlo, S. et al. (2019). The Impact of Childcare on Poor Urban Women's Economic Empowerment in Africa. *Demography*, 56, 1247–1272. <https://doi.org/10.1007/s13524-019-00793-3>
- Clark, S., Laszlo, S., Kabiru, C., & Muthu, S. (2017). Can Subsidized Early Child Care Promote Women's Employment?: Evidence from a Slum Settlement in Africa. Institute for the Study of International Development.
- Cliff, J. (1998). Does one size fit all? Exploring the relationship between attitudes towards growth, gender, and business size. *Journal of Business Venturing*, 13, 523–542.
- Cole, S., Sampson, T., & Zia, B. (2011). Prices or Knowledge? What Drives Demand for Financial Services in Emerging Markets? *The Journal of Finance*, 66(6), 1933–1967. <https://doi.org/10.1111/j.1540-6261.2011.01696.x>
- Coleman, B. E. (1999). The Impact of Group Lending in Northeast Thailand. *Journal of Development Economics*, 60(1), 105–141. [https://doi.org/10.1016/S0304-3878\(99\)00038-3](https://doi.org/10.1016/S0304-3878(99)00038-3)
- Coleman, B. E. (2006). Microfinance in Northeast Thailand: Who Benefits and How Much? *World Development*, 34(9), 1612–1638. <https://doi.org/10.1016/j.worlddev.2006.01.006>
- Conley, T., & Udry, C. (2001). Social Learning through Networks: The Adoption of New Agricultural Technologies in Ghana. *American Journal of Agricultural Economics*, 83(3), 668–673.
- Conley, T., & Udry, C. (2010). Learning About a New Technology: Pineapple in Ghana. *The American Economic Review*, 35–69.
- Coville, A., Di Maro, V., Dunsch, F. & Zottel, S. (2019). The Nollywood Nudge: An Entertaining Approach to Saving. World Bank Policy Research Working Paper. 8920.
- Cramer, J. S., Hartog, J., Jonker, N., & Praag, C. M. V. (2002). Low Risk Aversion Encourages the Choice for Entrepreneurship: An Empirical Test of a Truism. *Journal of Economic Behavior & Organization*, 48, 29–36.
- Crépon, B., Devoto, F., Duflo, E., & Parienté, W. (2015). Estimating the Impact of Microcredit on Those Who Take It Up: Evidence from a Randomized Experiment in Morocco. *American Economic Journal: Applied Economics*, 7(1), 123-50.
- Cuberes, D. and M. Teignier. 2016. "Aggregate Effects of Gender Gaps in the Labor Market: A Quantitative Estimate." *Journal of Human Capital* 10(1)
- Cucagna, E., Iacovone, L., & Rubiano-Matulevich, E. (2020). Women Entrepreneurs in Mexico: Breaking Sectoral Segmentation and Increasing Profits. World Bank.

- Dahal, M., Fiala, N. (2018). What do we know about the impact of microfinance? The problems of power and precision. *Ruhr Economic Papers*, 756. <http://dx.doi.org/10.4419/86788880>
- Dalton, P., Rüschenpöhler, J., Uras, B. & Zia, B. (2019). Learning to Grow from Peers: Experimental Evidence from Small Retailers in Indonesia. Policy Research Working Paper. 8933.
- Dalton, P., Rüschenpöhler, J., Uras, B. & Zia, B. (2021). Curating Local Knowledge: Experimental Evidence from Small Retailers in Indonesia. *Journal of the European Economic Association*. doi: 10.1093/jeea/jvab007
- Dang, H., Hiraga, M. & Nguyen, C. V. (2019). Childcare and Maternal Employment: Evidence from Vietnam. Policy Research Working Paper Series, 8856.
- Dasso, R., & Fernandez, F. (2015). The Effects of Electrification on Employment in Rural Peru. *IZA Journal of Labor & Development*, 4(1). <https://doi.org/10.1186/s40175-015-0028-4>
- Daymont, T. N., & Andrisani, P. J. (1984). Job Preferences, College Major, and the Gender Gap in Earnings. *Journal of Human Resources*, 19(3), 408-428.
- De Blasio, G., De Mitri, S., D'Ignazio, A., Finaldi Russo, P., & Stoppani, L. (2018). Public Guarantees to SME Borrowing: A RDD Evaluation. *Journal of Banking & Finance*, 96, 73-86. <https://doi.org/10.1016/j.jbankfin.2018.08.003>.
- De Mel, S., McKenzie, D., & Woodruff, C. (2007). Returns to Capital in Microenterprises: Evidence from a Field Experiment. Washington, D.C.: World Bank. Retrieved from <https://openknowledge.worldbank.org/handle/10986/7124>
- De Mel, S., McKenzie, D., & Woodruff, C. (2012). One-Time Transfers of Cash or Capital Have Long-Lasting Effects on Microenterprises in Sri Lanka. *Science*, 335, 962–966. <https://doi.org/10.1126/science.1212973>
- De Mel, S., McKenzie, D., & Woodruff, C. (2014). What Generates Growth in Microenterprises? Experimental Evidence on Capital, Labor and Training. CAGE Online Working Paper Series 212, Competitive Advantage in the Global Economy (CAGE). Retrieved from <http://economics.mit.edu/files/8666>
- De Mel, S., McKenzie, D., & Woodruff, C. (2019). Labor Drops: Experimental Evidence on the Return to Additional Labor in Microenterprises. *American Economic Journal: Applied Economics*, 11(1), 202-35.
- De Soto, H. (2002). *The Other Path: The Economic Answer to Terrorism*. New York: Basic Books.
- De V. Cavalcanti, T., & Tavares, J. (2008). Assessing the “Engines of Liberation”: Home Appliances and Female Labor Force Participation. *The Review of Economics and Statistics*, 90(1), 81-88.
- Debroux, P. (2010). *Female Entrepreneurship in East and South-East Asia: Opportunities and Challenges*. Oxford: Chandos Publishing.
- Delecourt, S., & Fitzpatrick, A. (2020). Childcare Matters: Female Business Owners and the Baby-Profit Gap. Retrieved from <https://www.aeaweb.org/conference/2020/preliminary/paper/ZiE9sy8>
- DeMartino, R., & Barbato, R. (2003). Differences between Women and Men MBA Entrepreneurs: Exploring Family Flexibility and Wealth Creation as Career Motivators. *Journal of Business Venturing*, 18(6), 815–832. [https://doi.org/10.1016/S0883-9026\(03\)00003-X](https://doi.org/10.1016/S0883-9026(03)00003-X)
- Demirgüç-Kunt, A., Beck, T., & Honohan, P. (2008). *Finance for All? Policies and Pitfalls in Expanding Access*. Washington, D.C.: The World Bank. Retrieved from <http://documents.worldbank.org/curated/en/932501468136179348/pdf/417920PAPER0Fi18082137291301PUBLIC1.pdf>
- Demirgüç-Kunt, A., Klapper, L. F., Singer, D., Ansar, S., & Hess, J. (2018). *The Global Findex Database 2017: Measuring Financial Inclusion and the Fintech Revolution*. Washington, D.C.: The World Bank. Retrieved from https://globalfindex.worldbank.org/sites/globalfindex/files/2018-04/2017_percent20Findex_percent20full_percent20report_0.pdf
- Devine, T. J. (1994). Changes in Wage-and-Salary Returns to Skill and the Recent Rise in Female Self-Employment. *American Economic Review*, 84(2), 108–113. Retrieved from <https://www.jstor.org/stable/2117812>

- Devoto, F., Duflo, E., Dupas, P., Parienté, W., & Pons, V. (2012). Happiness on Tap: Piped Water Adoption in Urban Morocco. *American Economic Journal: Economic Policy*, 4(4), 68–99. <https://doi.org/10.1257/pol.4.4.68>
- Dinkelman, T. (2011). The Effects of Rural Electrification on Employment: New Evidence from South Africa. *American Economic Review*, 101(7), 3078–3108. <https://doi.org/10.1257/aer.101.7.3078>
- Djankov, S., Porta, R. L., Lopez-de-Silanes, F., & Shleifer, A. (2002). The Regulation of Entry. *The Quarterly Journal of Economics*, 117(1), 1–37. <https://doi.org/10.1162/003355302753399436>
- Djédjé, M., Ingwe, A., Wanyohi, P., Brinkmann, V., & Kithinji, J. (2009). Survey on Impacts of the Stove Project in Transmara, Western and Central Cluster of Kenya: Final Report.
- Dong, S. X. (2018). Does economic crisis have different impact on husbands and wives? Evidence from the Asian Financial Crisis in Indonesia. *Rev Dev Econ*, 22, 1489–1512. <https://doi.org/10.1111/rode.12521>
- Doyle, K., Levto, R.G., Barker, G., Bastian, G.G., Bingenheimer, J.B., Kazimbaya, S., et al. (2018). Gender-transformative Bandedereho couples' intervention to promote male engagement in reproductive and maternal health and violence prevention in Rwanda: Findings from a randomized controlled trial. *PLoS ONE*, 13(4). <https://doi.org/10.1371/journal.pone.0192756>
- Drexler, A., Fischer, G., & Schoar, A. (2014). Keeping It Simple: Financial Literacy and Rules of Thumb. *American Economic Journal: Applied Economics*, 6(2), 1–31. <http://dx.doi.org/10.1257/app.6.2.1>
- Dupas, P., & Robinson, J. (2013). Savings Constraints and Microenterprise Development: Evidence from a Field Experiment in Kenya. *American Economic Journal: Applied Economics*, 5(1), 163–192.
- Eagly, A. H. (1987). *Sex Differences in Social Behavior: A Social-Role Interpretation* (1 edition). Hillsdale, N.J: Lawrence Erlbaum.
- Eagly, A. H., & Wood, W. (2016). Social Role Theory of Sex Differences. In *The Wiley Blackwell Encyclopedia of Gender and Sexuality Studies* (pp. 1–3). American Cancer Society. <https://doi.org/10.1002/9781118663219.wbegss183>
- Eagly, A. H., Wood, W., & Diekmann, A. B. (2000). Social Role Theory of Sex Differences and Similarities: A Current Appraisal. In T. Eckes & H. M. Trautner (Eds.), *The Developmental Social Psychology of Gender* (pp. 123–174). Mahwah, New Jersey: Erlbaum.
- Eckardt, S., G. Demombynes, D. Chandrasekharan Behr. (2016). *Vietnam – Systematic Country Diagnostic*. Washington, DC: World Bank Group <http://documents.worldbank.org/curated/en/334491474293198764/Vietnam-Systematic-Country-Diagnostic>
- Eddleston, K. A., & Powell, G. N. (2012). Nurturing Entrepreneurs' Work-Family Balance: A Gendered Perspective. *Entrepreneurship Theory and Practice*, 36(3), 513–541. <https://doi.org/10.1111/j.1540-6520.2012.00506.x>
- Elam, A., & Terjesen, S. A. (2007). Institutional Logics: Gender and Business Creation Across Gem Countries (SSRN Scholarly Paper No. ID 1060201). Rochester, NY: Social Science Research Network.
- Ellis, A., Kirkwood, D., & Malhotra, D. (2010). Economic Opportunities for Women in the East Asia and Pacific Region. Washington, D.C.: The World Bank. Retrieved from <http://elibrary.worldbank.org/doi/book/10.1596/978-0-8213-8300-1>
- Esteve-Volart, B. 2009. "Gender Discrimination and Growth: Theory and Evidence from India." Manuscript.
- Eswaran, M., & Kotwal, A. (1986). Access to Capital and Agrarian Production Organisation. *The Economic Journal*, 96(382), 482. <https://doi.org/10.2307/2233128>
- Fafchamps, M., McKenzie, D., Quinn, S., & Woodruff, C. (2014). Microenterprise Growth and the Flypaper Effect: Evidence from a Randomized Experiment in Ghana. *Journal of Development Economics*, 106, 211–226. <https://doi.org/10.1016/j.jdeveco.2013.09.010>
- Fafchamps, M., & Quinn, S. (2017). Aspire. *The Journal of Development Studies*, 53(10), 1615-1633. doi: 10.1080/00220388.2016.1251584

- Fafchamps, M., & Quinn, S. (2018). Networks and Manufacturing Firms in Africa: Results from a Randomized Field Experiment. *The World Bank Economic Review*, 32(3), 656–675. doi: 10.1093/wber/lhw057
- Fairlie, R. W., & Robb, A. M. (2009). Gender Differences in Business Performance: Evidence from the Characteristics of Business Owners Survey. *Small Business Economics*, 33, 375–395. <https://doi.org/10.1007/s11187-009-9207-5>
- Fay, D., & Frese, M. (2001). The concept of personal initiative: An overview of validity studies. *Human Performance*, 14(1), 97–124. https://doi.org/10.1207/S15327043HUP1401_06
- Fayolle, A., & Kyrö, P. (2008). *The Dynamics between Entrepreneurship, Environment and Education*. Cheltenham, UK: Edward Elgar Publishing.
- Fernandes, D., Lynch, J. G., & Netemeyer, R. G. (2014). Financial Literacy, Financial Education and Downstream Financial Behaviors (SSRN Scholarly Paper No. ID 2333898). Rochester, NY: Social Science Research Network.
- Field, E., Jayachandran, S., Pande, R., & Rigol, N. (2016). Friendship at Work: Can Peer Effects Catalyze Female Entrepreneurship?. *American Economic Journal: Economic Policy* 2016, 8(2), 125–153, <http://dx.doi.org/10.1257/pol.20140215>
- Field, F., Pande, R., Papp, F., & Rigol, N. (2013). Does the Classic Microfinance Model Discourage Entrepreneurship among the Poor? Experimental Evidence from India. *American Economic Review*, 103(6), 2196–2226.
- Firpo, S., Fortin, N. M. & Lemieux, T. (2011). Decomposition Methods in Economics. *Handbook of Labor Economics*, 1–102.
- Fisher, J. (2006). For her it's the Big Issue: Putting Women at the Centre of Water Supply, Sanitation and Hygiene. Water, Sanitation and Hygiene: Evidence Report. Water Supply and Sanitation Collaborative Council. Retrieved from https://dspace.lboro.ac.uk/dspace-jspui/bitstream/2134/9970/20/wsscc_for_her_its_the_big_issue_evidence_report_2006_en.pdf
- Fossen, F. M. (2012). Gender Differences in Entrepreneurial Choice and Risk Aversion – A Decomposition Based on a Microeconomic Model. *Applied Economics*, 44(14), 1795–1812. <https://doi.org/10.1080/00036846.2011.554377>
- Freeman, N. (2015). *Financing Small and Medium Sized Enterprises for Sustainable Development: A View from the Asia-Pacific Region*. Jakarta: United Nations Economic and Social Commission for Asia and the Pacific. Retrieved from https://www.unescap.org/sites/default/files/2-ESCAP_FfD_SME_percent20finance_24April2015.pdf
- Gayle, A., Candace, A. M., & Christopher, W. (2012). Political instability, pro-business market reforms and their impacts on national systems of innovation. *Research Policy*, 41, 638–651.
- Gielnik, M. M., Frese, M., Kahara-Kawuki, A., Wasswa Katono, I., Kyejjusa, S., Ngoma, M., Munene, J., Namatovu-Dawa, R., Nansubuga, F., Orobia, L., Oyugi, J., Seijaaka, S., Sserwanga, A., Walter, T., Bischoff, K. M., & Dlugosch, T. J. (2015). Action and Action-Regulation in Entrepreneurship: Evaluating a Student Training for Promoting Entrepreneurship. *Academy of Management Learning & Education*, 14(1), 69–94. <https://doi.org/10.5465/amle.2012.0107>
- Giménez-Nadal, J.I., Molina, J.A., & Ortega, R. (2012). Self-employed mothers and the work-family conflict, *Applied Economics, Taylor & Francis Journals*, 44(17), 2133–2147.
- Giné, X., & Karlan, D. S. (2014). Group versus Individual Liability: Short- and Long-Term Evidence from Philippine Microcredit Lending Groups. *Journal of Development Economics*, 107, 65–83. <https://doi.org/10.1016/j.jdeveco.2013.11.003>
- Giné, X., & Mansuri, G. (2020). Money or Management? A Field Experiment on Constraints to Entrepreneurship in Rural Pakistan. *Economic Development and Cultural Change*. forthcoming.
- Glaub, M., & Frese, M. (2011). A Critical Review of the Effects of Entrepreneurship Training in Developing Countries. *Enterprise Development and Microfinance*, 22(4), 335–353. <https://doi.org/DOI: 10.3362/1755-1986.2011.035>

- Glaub, M. E., Frese, M., Fischer, S., & Hoppe, M. (2014). Increasing Personal Initiative in Small Business Managers or Owners Leads to Entrepreneurial Success: A Theory-Based Controlled Randomized Field Intervention for Evidence-Based Management. *Academy of Management Learning & Education*, 13(3). <https://doi.org/10.5465/amle.2013.0234>
- Global Entrepreneurship Research Association. (2017). *The 2016/2017 Global Entrepreneurship Monitor*. Retrieved from <http://www.gemconsortium.org/report>
- Global Entrepreneurship Research Association. (2020). *The 2019/2020 Global Entrepreneurship Monitor*. Retrieved from <https://www.gemconsortium.org/report/gem-2019-2020-global-report>
- Gneezy, U., Leonard, K. L., & List, J. A. (2009). Gender Differences in Competition: Evidence from a matrilineal and a patriarchal society. *Econometrica*, 77(5), 1637–1664.
- Goheer, N. (2003). *Women Entrepreneurs in Pakistan: How to Improve their Bargaining Power*. Geneva: ILO. Retrieved from http://ilo.org/wcmsp5/groups/public/@ed_emp/@emp_ent/documents/publication/wcms_094011.pdf
- Goldin, C., & Rouse, C. (2000). Orchestrating Impartiality: The Impact of “Blind” Auditions on Female Musicians. *American Economic Review*, 90(4), 715–741.
- Goldman Sachs Foundation. (2019). *Goldman Sachs 10,000 Women Initiative – About the Program*. Retrieved from <http://www.goldmansachs.com/citizenship/10000women/about-the-program/about-the-program-main-page.html>
- Goldstein, M., Martinez, P. G., & Papineni, S. (2019). *Tackling the Global Profitarchy: Gender and the Choice of Business Sector*. World Bank Policy Research Working Paper. <https://doi.org/10.1596/1813-9450-8865>.
- Goyal, P., & Yadav, V. (2014). To Be or Not to Be a Woman Entrepreneur in a Developing Country? *Psychosociological Issues in Human Resource Management*, 2(2), 68–78. Retrieved from https://www.researchgate.net/publication/271520855_TO_BE_OR_NOT_TO_BE_A_WOMAN_ENTREPRENEUR_IN_A_DEVELOPING_COUNTRY
- Grady, C. A., Van Nguyen, K., Van Nguyen, T., & Blatchley, E. R. (2018). Who is Being Left Behind? An Analysis of Improved Drinking Water and Basic Sanitation Access in the Vietnamese Mekong Delta. *Journal of Water Sanitation and Hygiene for Development*, wasdev2018005. <https://doi.org/10.2166/washdev.2018.005>
- Green, E., & Cohen, L. (1995). Women’s business: Are women entrepreneurs breaking new ground or simply balancing the demands of women’s work in a new way?. *Journal of Gender Studies*, 4, 297–314.
- Greene, P., Hart, M., Gatewood, E. J., Brush, C., & Carter, N. (2003). *Moving Front and Center: An Overview of Research and Theory*. Retrieved from www.usasbc.org/knowledge/whitepapers/greene.2003.pdf
- Greif, A. (1993). Contract Enforceability and Economic Institutions in Early Trade: The Maghribi Traders’ Coalition. *The American Economic Review*, 83(3), 525–548.
- Grimm, M., & Paffhausen, A. L. (2015). Do Interventions Targeted at Micro-entrepreneurs and Small and Medium-sized Firms Create Jobs? A Systematic Review of the Evidence for Low- and Middle-Income Countries. *Labour Economics*, 32, 67–85. <https://doi.org/10.1016/j.labeco.2015.01.003>
- Grogan, L., & Sadanand, A. (2013). Rural Electrification and Employment in Poor Countries: Evidence from Nicaragua. *World Development*, 43, 252–265. <https://doi.org/10.1016/j.worlddev.2012.09.002>
- Groh, M., Krishnan, N., McKenzie, D. et al. (2016). The impact of soft skills training on female youth employment: evidence from a randomized experiment in Jordan. *IZA J Labor Develop*, 5(9). <https://doi.org/10.1186/s40175-016-0055-9>

- Gupta, D. N., Poulsen, A., & Villeval, M. C. (2005). Male and Female Competitive Behavior – Experimental Evidence (SSRN Scholarly Paper No. ID 906766). Rochester, NY: Social Science Research Network.
- Ha, Ngo Ngan. 2020. *Household Budget Management and Decision-Making in the Family in the Red River Delta, Vietnam*. Working Paper. Vietnam Academy of Social Sciences. http://en.vass.gov.vn/noidung/tintuc/Lists/TinTucHoiNghiHoiThao/View_Detail.aspx?ItemID=860
- Habermehl, H. (2007). Economic Evaluation of the Improved Household Cooking Stove Dissemination Programme in Uganda. Retrieved from https://www.un.org/esa/sustdev/csd/csd15/lc/GTZ_Uganda.pdf
- Habermehl, H. (2008). Costs and Benefits of Efficient Institutional Cookstoves in Malawi. Retrieved from <http://digicollection.org/eebea/documents/s20440en/s20440en.pdf>
- Hakim, C. (1989). Identifying Fast Growth Small Firms. *Employment Gazette*, 97, 29–41. Retrieved from <http://www.statistics.gov.uk/statbase/Product.asp?vlnk=550&More=N>
- Halim, D., Johnson, H. C. & Perova, E. (2021). Preschool Availability and Women's Employment: Evidence from Indonesia. *Economic Development and Cultural Change*. Retrieved from <https://openknowledge.worldbank.org/handle/10986/35394>
- Halim, M. L. D., Ruble, D. N., Tamis-LeMonda, C. S., Shrout, P. E., & Amodio, D. M. (2017). Gender Attitudes in Early Childhood: Behavioral Consequences and Cognitive Antecedents. *Child Development*, 88(3), 882–899. <https://doi.org/10.1111/cdev.12642>
- Hallward-Driemeier, M. (2013). *Enterprising Women: Expanding Economic Opportunities in Africa*. Washington, D.C.: The World Bank. Retrieved from <http://documents.worldbank.org/curated/en/509981468193131963/pdf/782990PUB0EPI00C00PUBDATE0604020130.pdf>
- Handa, S., Seidenfeld, D., Davis, B., & Tembo, G. (2016). The Social and Productive Impacts of Zambia's Child Grant. *Journal of Policy Analysis and Management*, 35(2), 357–387. <https://doi.org/10.1002/pam.21892>
- Hani, U., Rachmania, I. N., Setyaningsih, S., & Putri, R. C. (2012). Patterns of Indonesian Women Entrepreneurship. *Procedia Economics and Finance*, 4, 274–285. [https://doi.org/10.1016/S2212-5671\(12\)00342-5](https://doi.org/10.1016/S2212-5671(12)00342-5)
- Hanna, R., Mullainathan, S., Schwartzstein, J. (2014). Learning through Noticing: Theory and Evidence from a Field Experiment. *Quarterly Journal of Economics*, 129(3), 1311–53.
- Hardy, M., & Kagy, G. (2020). It's Getting Crowded in Here: Experimental Evidence of Demand Constraints in the Gender Profit Gap. *The Economic Journal*, 130(631), 2272–2290. <https://doi.org/10.1093/ej/ueaa040>
- Heilman, M. E., & Chen, J. J. (2003). Entrepreneurship as a Solution: The Allure of Self-employment for Women and Minorities. *Human Resource Management Review*, 13(2), 347–364. [https://doi.org/10.1016/S1053-4822\(03\)00021-4](https://doi.org/10.1016/S1053-4822(03)00021-4)
- Hossain, M., Zimmerman, C., Kiss, L., et al. (2014). Working with men to prevent intimate partner violence in a conflict-affected setting: a pilot cluster randomized controlled trial in rural Côte d'Ivoire. *BMC Public Health*, 14, 339. <https://doi.org/10.1186/1471-2458-14-339>
- Hsieh, C., E. Hurst, C.I. Jones, P.J. Klenow. 2019. "The Allocation of Talent and U.S. Economic Growth." *Econometrica* 87(5): 1439-74
- Huerta, M. C., Adema, W., Baxter, J., Han, W. J., Lausten, M., Lee, R., & Waldfogel, J. (2014). Fathers' Leave and Fathers' Involvement: Evidence from Four OECD Countries. *European journal of social security*, 16(4), 308–346. <https://doi.org/10.1177/138826271401600403>
- Hughes, K. D. (2003). Pushed or pulled? Women's entry into self-employment and small business ownership. *Gender, Work and Organization*, 10, 433–454.
- Hundley, G. (2000). Male/Female Earnings Differences in Self-Employment: The Effects of Marriage, Children, and the Household Division of Labor. *Industrial and Labor Relations Review*, 54(1), 95–115. Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.897.4724&rep=rep1&type=pdf>

- Hundley, G. (2001). Why women earn less than men in self-employment. *Journal of Labor Research*, 22(4), 817–29. <https://doi.org/10.1007/s12122-001-1054-3>
- IBRD. (2011). Vietnam State and People, Central and Local, Working Together: The Rural Electrification Experience. Washington, D.C.: IBRD. Retrieved from <http://www.sddirect.org.uk/media/1353/infrastructure-womens-economic-empowerment-scoping-report.pdf>
- IFAD, FAO, & ILO. (2009). Gaps, Trends and Current Research in Gender Dimensions of Agricultural and Rural Employment: Differentiated Pathways out of Poverty. Retrieved from http://www.ipcinfo.org/fileadmin/user_upload/fao_ilo/pdf/Reports/Workshop_report/Workshop_report_Final_version_30_Sept_2009_to_be_on_line.pdf
- Ilahi, N., & Grimard, F. (2000). Public Infrastructure and Private Costs: Water Supply and Time Allocation of Women in Rural Pakistan. *Economic Development and Cultural Change*, 49(1), 45–76. <https://doi.org/10.1086/452490>
- Immyxai, S., & Takahashi, Y. (2009). Further Evidence of the Performance Contrast between Male and Female Firms in MSMEs in Lao PDR. *Journal of Asia Entrepreneurship*, V(3), 64–85.
- Inmyxai, S., & Takahashi, Y. (2010). Performance Contrast and its Determinants between Male and Female Headed Firms in Lao MSMEs. *International Journal of Business and Management*, 5(4). <https://doi.org/10.5539/ijbm.v5n4p37>
- International Finance Corporation. (2008). Voices of Cambodian Women Entrepreneurs. Washington, D.C. Retrieved from <http://documents.worldbank.org/curated/en/342171468016854477/pdf/465600WPOBox331n1Women1Entrepreneur.pdf>
- International Finance Corporation. (2010). Timor-Leste: Gender and Investment Climate Reform Assessment. Washington, D.C. Retrieved from https://www.ifc.org/wps/wcm/connect/0d6860804d7381029697b748b49f4568/IFC_GenderICReformAssessments_Timor.pdf?MOD=AJPERES
- International Finance Corporation. (2017). Women-owned Enterprises in Vietnam: Perceptions and Potential. Washington, D.C.: IFC. Retrieved from https://www.ifc.org/wps/wcm/connect/45c8b501-6239-45b2-bf4c-dae2b6d7647b/Market-study-on-Women-owned-enterprises-in-Vietnam_Eng_v1.pdf?MOD=AJPERES
- International Finance Corporation. (2018). MSME Finance Gap database. Retrieved from <https://www.smefinanceforum.org/data-sites/msme-finance-gap>
- International Finance Corporation. 2019. *Exploring the Opportunities for Women-owned SMEs in Cambodia*. Retrieved from <https://www.ifc.org/wps/wcm/connect/9e469291-d3f5-43a5-bea2-2558313995ab/Market+Research+Report+on+Women+owned+SMEs+in+Cambodia.pdf?MOD=AJPERES&CVID=mOU6fpX>
- International Finance Corporation and USAID. (2016). Women-owned SMEs in Indonesia: A Golden Opportunity for Local Financial Institutions. Washington, D.C. <https://doi.org/10.1596/25403>
- International Labour Organisation. (2009). Guide to the New Millennium Development Goals: Employment Indicators. Geneva: ILO. Retrieved from https://www.ilo.org/public/english/employment/download/mdg_en.pdf
- International Labour Organisation. (2014). Women's Entrepreneurship Development. Geneva: ILO. Retrieved from https://www.ilo.org/wcmsp5/groups/public/---ed_emp/---emp_ent/---ifp_seed/documents/publication/wcms_175471.pdf
- International Labour Organisation. (2018a). Care Work and Care Jobs for the Future of Decent Work. Geneva: ILO. Retrieved from https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_633135.pdf
- International Labour Organization. 2018b. *Global Wage Report 2018/19: What lies behind gender pay gaps*. Retrieved from https://www.ilo.org/global/publications/books/WCMS_650553/lang-en/index.htm

- International Labour Organization (2019). ILOSTAT database. Retrieved from https://www.ilo.org/ilostat/faces/wcnaveDefaultSelection?_afzLoop=299799283218449&_afzWindowMode=0&_afzWindowId=null#!_afzF_afzWindowId_afzDnull_afz26_afzLoop_afz3D299799283218449_afz26_afzWindowMode_afz3D0_afz26_adf.ctrl-state_afz3D1619aeb549_91
- Iqbal, S., Islam, A., Ramalho, R., & Sakhonchik A. (2016). "Unequal before the Law: Measuring Legal Gender Disparities across the World." Policy Research Working Paper 7803. Washington, D.C.: The World Bank. Retrieved from <http://documents.worldbank.org/curated/en/320521471975957942/Unequal-before-the-law-measuring-legal-gender-disparities-across-the-world>
- Isenberg, D. J. (2010). How to Start an Entrepreneurial Revolution. *Harvard Business Review*, June. Retrieved from https://institute.coop/sites/default/files/resources/Isenberg_percent20-percent20How_percent20to_percent20Start_percent20an_percent20Entrepreneurial_percent20Revolution.pdf
- Iversen, J., Malchow-Møller, N., & Sørensen, A. (2016). Success in Entrepreneurship: A Complementarity Between Schooling and Wage-Work Experience. *Small Business Economics*, 47(2), 437–460. <https://doi.org/10.1007/s11187-016-9732-y>
- Jain, M. (2016). Public pre-schooling and maternal labour force participation in rural India. *Oxford Development Studies*, 44(2), 246–263.
- Jann, B. (2008). The Blinder–Oaxaca decomposition for linear regression models. *The Stata Journal*, 8(4), 453–479.
- Jennings, J. E., & Brush, C. G. (2013). Research on Women Entrepreneurs: Challenges to (and from) the Broader Entrepreneurship Literature?. *The Academy of Management Annals*, 7(1), 661–713. <http://dx.doi.org/10.1080/19416520.2013.782190>
- Jones, F. L., & Kelley, J. (1984). Decomposing Differences between Groups: A cautionary note on measuring discrimination. *Sociological Methods & Research*, 12(3), 323–343.
- Jovanovic, B. (1982). Selection and the Evolution of Industry. *Econometrica*, 50(3), 649–670. doi:10.2307/1912606
- Kaboski, J. P., & Townsend, R. M. (2011). A Structural Evaluation of a Large-Scale Quasi-Experimental Microfinance Initiative. *Econometrica*, 79(5), 1357–1406. <https://doi.org/10.3982/ECTA7079>
- Kangasharju, A. (2007). Do Wage Subsidies Increase Employment in Subsidized Firms?. *Economica*, 74(293), 51–67. <https://doi.org/10.1111/j.1468-0335.2006.00525.x>
- Kapoor, M., Ranjan, P., & Raychaudhuri, J. (2012). The impact of credit constraints on exporting firms: Evidence from the provision and subsequent removal of subsidised credit. *The World Economy*, 40(12), 2854–2874. <https://doi.org/10.1111/twec.12498>
- Karlan, D., McConnell, M., Mullainathan, S., & Zinman, J. (2010). Getting to the Top of Mind: How Reminders Increase Saving. NBER Working Paper No. 16205. National Bureau of Economic Research. Retrieved from <https://www.nber.org/papers/w16205.pdf>
- Karlan, D., & Zinman, J. (2011). Microcredit in Theory and Practice: Using Randomized Credit Scoring for Impact Evaluation. *Science*, 332(6035), 1278–1284. <https://doi.org/10.1126/science.1200138>
- Karlan, D., & Zinman, J. (2018). Price and control elasticities of demand for savings. *Journal of Development Economics*, 130, 145–159. <https://doi.org/10.1016/j.jdeveco.2017.10.004>
- Kast, F., Meier, S., & Pomeranz, D. (2018). Saving more in groups: Field experimental evidence from Chile. *Journal of Development Economics*, 133, 275–294. <https://doi.org/10.1016/j.jdeveco.2018.01.006>
- Kelley, D. J., Baumer, B. S., Cole, M., Dean, M., & Heavlow, R. (2017). Women's Entrepreneurship 2016/2017 Report. Global Entrepreneurship Research Association. Retrieved from <http://www.gemconsortium.org/report>
- Khandker, S. R., Bakht, Z., & Koolwal, G. B. (2006). The Poverty Impact of Rural Roads: Evidence from Bangladesh. Washington, D.C.: The World Bank. Retrieved from <https://openknowledge.worldbank.org/bitstream/handle/10986/8333/wps38750rev0pdf.pdf?sequence=1&isAllowed=y>

- Khandker, S. R., Barnes, D. F., & Samad, H. A. (2013). Welfare Impacts of Rural Electrification: A Panel Data Analysis from Vietnam. *Economic Development and Cultural Change*, 61(3), 659–692. <https://doi.org/10.1086/669262>
- Kirkwood, J. (2009). Is a Lack of Self-confidence Hindering Women Entrepreneurs? *International Journal of Gender and Entrepreneurship*, 1(2), 118–133. <https://doi.org/10.1108/17566260910969670>
- Kite, M. E., Deaux, K., & Haines, E. L. (2008). Gender Stereotypes. In F. L. Denmark & M. A. Paludi (Eds.), *Psychology of Women: A Handbook of Issues and Theories* (2nd ed., pp. 205–236). Westport, CT: Greenwood.
- Klapper, L. F., Lewin, A., & Quesada Delgado, J. M. (2009). The Impact of the Business Environment on the Business Creation Process, Policy Research Working Paper 4937, Washington, D.C.: The World Bank. Retrieved from <http://documents.worldbank.org/curated/en/537121468149672866/The-impact-of-the-business-environment-on-the-business-creation-process>
- Klapper, L. F., & Parker, S. C. (2011). Gender and the Business Environment for New Firm Creation. *The World Bank Research Observer*, 26(2), 237–257. <https://doi.org/10.1093/wbro/lkp032>
- Klinger, B., Khwaja, A., & LaMonte, J. (2013). Improving Credit Risk Analysis with Psychometrics in Peru. Inter-American Development Bank.
- Kobeissi, N. (2010). Gender Factors and Female Entrepreneurship: International Evidence and Policy Implications. *Journal of International Entrepreneurship*, 8(1), 1–35. <https://doi.org/10.1007/s10843-010-0045-y>
- Kondo, T., Orbeta, A., Dingcong, C., & Infantado, C. (2008). Impact of Microfinance on Rural Households in the Philippines. *IDS Bulletin*, 39(1), 51–70. <https://doi.org/10.1111/j.1759-5436.2008.tb00432.x>
- Koolwal, G., & van de Walle, D. (2013). Access to Water, Women's Work, and Child Outcomes. *Economic Development and Cultural Change*, 61(2), 369–405. <https://doi.org/10.1086/668280>
- Knowles, J. C. (2013). Increasing the Productivity and Earnings of Rural Women: What Works? Washington, D.C.: UN Foundation.
- Kyegombe, N., Abramsky, T., Devries, K. M., Starmann, E., Michau, L., Nakuti, J., Musuya, T., Heise, L., & Watts, C. (2014). The impact of SASA!, a community mobilization intervention, on reported HIV-related risk behaviours and relationship dynamics in Kampala, Uganda. *Journal of the International AIDS Society*, 17(1), 19232. <https://doi.org/10.7448/IAS.17.1.19232>
- Lacovone, L., Maloney, W., & McKenzie, D. (2019). Improving Management with Individual and Group-Based Consulting: Results from a Randomized Experiment in Colombia. World Bank Policy Research Working Paper. 8854. Retrieved from <https://openknowledge.worldbank.org/handle/10986/31712>
- Lafortune, J., Riutort, J., & Tessada, J. (2018). Role Models or Individual Consulting: The Impact of Personalizing Micro-entrepreneurship Training. *American Economic Journal: Applied Economics*, 10(4), 222–245. <https://doi.org/10.1257/app.20170077>
- La Porta, R., & Shleifer, A. (2014). Informality and Development. *Journal of Economic Perspectives*, 28(3), 109–126. <https://doi.org/10.1257/jep.28.3.109>
- Lakdawala, L. (2018). From Loans to Labor: Access to Credit, Entrepreneurship, and Child Labor. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3211376>
- Langowitz, N., & Minniti, M. (2007). The Entrepreneurial Propensity of Women. *Entrepreneurship Theory and Practice*, 31(3), 341–364. <https://doi.org/10.1111/j.1540-6520.2007.00177.x>
- Leahy, C., Lunel, J., Grant, M., & Willetts, J. (2017). *Women in WASH. Enterprises: Learning from Female Entrepreneurship in Cambodia, Indonesia and Lao PDR*. The Institute for Sustainable Futures (ISF-UTS) at the University of Technology Sydney. Retrieved from https://opus.lib.uts.edu.au/bitstream/10453/122061/1/Working-Paper-6_Women-in-WASH-Enterprises.pdf

- Lechmann, D., & Schnabel, C. (2012). Why is there a gender earning gap in self-employment? a decomposition analysis with German data. *IZA Journal of European Labor Studies*, 1(6), 1–25. <https://doi.org/10.1186/2193-9012-1-6>
- Lelarge, C., Sraer, D., & Thesmar, D. (2010). Entrepreneurship and Credit Constraints Evidence from a French Loan Guarantee Program. In J. Lerner & A. Schoar (Eds.), *International Differences in Entrepreneurship* (pp. 243–273). <https://doi.org/10.7208/chicago/9780226473109.001.0001>
- Lemmon, G. T. (2012). Entrepreneurship in Postconflict Zones. Washington, D.C.: Council on Foreign Relations. Retrieved from https://www.cfr.org/content/publications/.../CFR_WorkingPaper12_Lemmon.pdf
- Lim, K. (2019). Do American mothers use self-employment as a flexible work alternative?. *Rev Econ Household*, 17, 805–842. <https://doi.org/10.1007/s11150-018-9426-0>
- Lock, R., & Smith, H. (2016). The Impact of Female Entrepreneurship on Economic Growth in Kenya. *International Journal of Gender and Entrepreneurship*, 8(1), 90–96. <https://doi.org/10.1108/IJGE-11-2015-0040>
- Lokshin, M., & Yemtsov, R. (2005). Has Rural Infrastructure Rehabilitation in Georgia Helped the Poor? *The World Bank Economic Review*, 19(2), 311–333. <https://doi.org/10.1093/wber/lhi007>
- Looney, R. (2006). Economic Consequences of Conflict: The Rise of Iraq's Informal Economy. *Journal of Economic Issues*, 40(4), 991–1007. <https://doi.org/10.1080/00213624.2006.11506971>
- Loscocco, K., & Bird, S. R. (2012). Gendered Paths: Why Women Lag Behind Men in Small Business Success. *Work and Occupations*, 39(2), 183–219. [doi:10.1177/0730888412444282](https://doi.org/10.1177/0730888412444282)
- Loscocco, K. A., Robinson, J., Hall, R. H., & Allen, J. K. (1991). Gender and Small Business Success: An Inquiry into Women's Relative Disadvantage. *Social Forces*, 70(1), 65–85. <https://doi.org/10.1093/sf/70.1.65>
- Loscocco, K., & Smith-Hunter, A. (2004). Women Home-Based Business Owners: Insights from Comparative Analyses. *Women in Management Review*, 19, 164–173.
- Love, I., Martínez Pería, M. S., & Singh, S. (2013). Collateral Registries for Movable Assets: Does Their Introduction Spur Firms' Access to Bank Finance?. Policy Research Working Paper. 6477. Retrieved from <https://openknowledge.worldbank.org/handle/10986/15839>
- Loza, E. (2011). Female Entrepreneurship Theory: A Multidisciplinary Review of Resources. *Journal of Women's Entrepreneurship and Education*, (1–2), 26–64. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1833385
- Macchiavello, R., Menzel, A., Rabbani, A., & Woodruff, C. (2015). Challenges of Change: An Experiment Training Women to Manage in the Bangladeshi Garment Sector. *Warwick Economic Research Papers*. doi: 10.22004/ag.econ.269725
- Macchiavello, R., Rabbani, A., & Woodruff, C. (2015). The market for training services: a demand experiment with Bangladeshi garment factories. *American Economic Review*, 105(5), 300–304.
- Macours, K., & Vakis, R. (2014). Changing Households' Investment Behaviour through Social Interactions with Local Leaders: Evidence from a Randomised Transfer Programme. *The Economic Journal*, 124(576), 607–633. <https://doi.org/10.1111/ecoj.12145>
- Maffoli, A., McKenzie, D. & Ubfal, D. (2020). Estimating the demand for business training: Evidence from Jamaica. *World Bank Policy Research Working Paper*. 9415.
- Malaya, M. (2006). A Gender-Based Analysis of Performance of Small and Medium Printing Firms in Metro Manila. *Journal of International Women's Studies*, 8(1), 83–95. Retrieved from <https://vc.bridgew.edu/jiws/vol8/iss1/6/>
- Malla, M. B., Bruce, N., Bates, E., & Rehfuess, E. (2011). Applying global cost-benefit analysis methods to indoor air pollution mitigation interventions in Nepal, Kenya and Sudan: Insights and challenges. *Elsevier Energy Policy*, 39, 7518–7529. doi:10.1016/j.enpol.2011.06.031
- Manolova, T. S., Brush, C. G., Edelman, L. F., Robb, A., & Welter, F. (Eds.). (2017). *Entrepreneurial Ecosystems and Growth of Women's Entrepreneurship: A Comparative Analysis*. Cheltenham, UK: Edward Elgar Publishing.

- Mannava, A., Perova, E., & Tran, P. (2020). Who Benefits from Better Roads and Why? Mixed Methods Analysis of the Gender-Disaggregated Impacts of a Rural Roads Project in Vietnam. Policy Research Working Paper. 9216. Retrieved from <https://openknowledge.worldbank.org/handle/10986/33637>
- Manning, C. (1998). *Indonesian Labour in Transition: An East Asian Success Story?* Cambridge, MA: Cambridge University Press.
- Martin, B. C., McNally, J. J., & Kay, M. J. (2013). Examining the Formation of Human Capital in Entrepreneurship: A Meta-Analysis of Entrepreneurship Education Outcomes. *Journal of Business Venturing*, 28(2), 211–224. <https://doi.org/10.1016/j.jbusvent.2012.03.002>
- Martinez, S., Naudeau, S., & Pereira, V. (2012). The Promise of Preschool in Africa: A Randomized Impact Evaluation of Early Childhood Development in Rural Mozambique. Washington, D.C.: The World Bank and Save the Children. Retrieved from http://siteresources.worldbank.org/INTAFRICA/Resources/The_Promise_of_Preschool_in_Africa_ECD_REPORT.pdf
- Martínez, C., & Perticará, M. (2017). Childcare Effects on Maternal Employment: Evidence from Chile. *Journal of Development Economics*, 126, 127–137. <https://doi.org/10.1016/j.jdeveco.2017.01.001>
- Mattis, M. C. (2004). Women entrepreneurs: Out from under the glass ceiling. *Women in Management Review*, 19, 154–163.
- McKenzie, D. (2015). Identifying and Spurring High-Growth Entrepreneurship: Experimental Evidence from a Business Plan Competition. World Bank Policy Research Working Paper. 7991.
- McKenzie, D. (2017). Identifying and Spurring High-Growth Entrepreneurship: Experimental Evidence from a Business Plan Competition. *American Economic Review*, 107(8), 2278–2307. <https://doi.org/10.1257/aer.20151404>
- McKenzie, D. (2017). Growing Markets through Business Training for Female Entrepreneurs: A Market-Level Randomized Experiment in Kenya. World Bank Policy Research Working Paper. 7993.
- McKenzie, D. (2020). Small Business Training to Improve Management Practices in Developing Countries Reassessing the Evidence for “Training Doesn’t Work”. World Bank Policy Research Working Paper. 9408.
- McKenzie, D. and C. Woodruff. 2014. “What Are We Learning from Business Training and Entrepreneurship Evaluations around the Developing World?” *World Bank Research Observer* 9(1): 48-82: doi:10.1093/wbro/lkt007
- McKenzie, D., & Puerto, S. (2021). Growing Markets through Business Training for Female Entrepreneurs: A Market-Level Randomized Experiment in Kenya. *American Economic Journal: Applied Economics*, 13(2), 297-332.
- McKenzie, D., & Woodruff, C. (2014). What Are We Learning from Business Training and Entrepreneurship Evaluations around the Developing World? *The World Bank Research Observer*, 29(1), 48–82. <https://doi.org/10.1093/wbro/lkt007>
- McKenzie, D., & Woodruff, C. (2016). Business Practices in Small Firms in Developing Countries. *Management Science*. 63(9).
- McManus, L. F. (2011). The Anatomy of a Helping Hand: Women-Owned Small Businesses and Federal Contract Procurement. *William and Mary Journal of Women and the Law*, 18(3), 625–650. Retrieved from <https://scholarship.law.wm.edu/wmjowl/vol18/iss3/7>
- McMillan, J., Woodruff, C. (1999). Interfirm Relationships and Informal Credit in Vietnam. *The Quarterly Journal of Economics*, 114(4), 1285-1320.
- Meager, R. (2019). Understanding the Average Impact of Microcredit Expansions: A Bayesian Hierarchical Analysis of Seven Randomized Experiments. *American Economic Journal: Applied Economics*, 11(1), 57-91. doi: 10.1257/app.20170299
- Meeks, R. C. (2017). Water Works: The Economic Impact of Water Infrastructure. *Journal of Human Resources*, 52(4), 1119–1153. <https://doi.org/10.3368/jhr.52.4.0915-7408R1>
- Meeks, R. (2018). Property Rights and Water Access: Evidence from Land Titling in Rural Peru. *World Development*, 102, 345–357. <https://doi.org/10.1016/j.worlddev.2017.07.011>

- Mehra, R., Patel, P., Shetty, A., Golla, A. (2012). Financial Services for Low-Income Women: Opportunities for Economic Empowerment?. ICRW. Retrieved from https://www.icrw.org/wp-content/uploads/2016/10/ICRW_Financial-Services-and-WEE.pdf
- Meier, R., & Masters, R. (1988). Sex Differences and Risk-Taking Propensity of Entrepreneurs. *Journal of Small Business Management*, 26(1), 31. Retrieved from <https://www.questia.com/read/1G1-6515339/sex-differences-and-risk-taking-propensity-of-entrepreneurs>
- Miller, C., Peck, J., & Seflek, M. (2019). Integration Costs and Missing Women in Firms. NBER Working Paper. w26271. Retrieved from <https://ssrn.com/abstract=3454372>
- Minniti, M. (2009). Gender Issues in Entrepreneurship (SSRN Scholarly Paper No. ID 1543464). Rochester, NY: Social Science Research Network. Retrieved from <https://papers.ssrn.com/abstract=1543464>
- Minniti, M. (2010). Female Entrepreneurship and Economic Activity. *The European Journal of Development Research*, 22(3), 294–312. <https://doi.org/10.1057/ejdr.2010.18>
- Minniti, M., & Naudé, W. (2010). What Do We Know About the Patterns and Determinants of Female Entrepreneurship Across Countries? *The European Journal of Development Research*, 22(3), 277–293. <https://doi.org/10.1057/ejdr.2010.17>
- Moss-Racusin, C. A., Dovidio, J. F., Brescoll, V. L., Graham, M. J., & Handelsman, J. (2012). Science Faculty's Subtle Gender Biases Favor Male Students. *Proceedings of the National Academy of Sciences*, 109, 16474-16479.
- Morris, M. H., Miyasaki, N. N., Watters, C. E., & Coombes, S. M. (2006). The dilemma of growth: Understanding venture size choices of women entrepreneurs. *Journal of Small Business Management*. 44, 221–244.
- Mu, R., & Walle, D. van de. (2011). Rural Roads and Local Market Development in Vietnam. *The Journal of Development Studies*, 47(5), 709–734. <https://doi.org/10.1080/00220381003599436>
- Muñoz Boudet, A. M., Petesch, P., Turk, C., & Thumala, A. (2013). On Norms and Agency: Conversations about Gender Equality with Women and Men in 20 Countries. *Directions in development: human development*. Retrieved from <https://openknowledge.worldbank.org/handle/10986/13818>
- Nghiem, H. S., Coelli, T., & Rao, P. (2012). The Welfare Effects of Microfinance in Vietnam: Empirical Results from a Quasi-experiment Survey. *Journal of Development Studies*, 48(5), 619–632. <https://doi.org/10.1080/00220388.2011.638051>
- Nguyen, C., Frederick, H., & Nguyen, H. (2014). Female Entrepreneurship in Rural Vietnam: An Exploratory Study. In K. V. Lewis, C. Henry, E. J. Gatewood, & J. Watson (Eds.), *Women's Entrepreneurship in the 21st Century: An International Multi-Level Research Analysis*. Cheltenham, UK: Edward Elgar Publishing.
- Niederle, M., & Vesterlund, L. (2007). Do Women Shy Away From Competition? Do Men Compete Too Much? *The Quarterly Journal of Economics*, 122(3), 1067–1101. <https://doi.org/10.1162/qjec.122.3.1067>
- Niederle, M., & Vesterlund, L. (2008). Gender Differences in Competition. *Negotiation Journal*, 24(4), 447-463. <https://doi.org/10.1111/j.1571-9979.2008.00197.x>
- Niederle, M., & Vesterlund, L. (2011). Gender and Competition. *Annual Review of Economics*, 3(1), 601-630.
- Niethammer, C. (2013). *Women, Entrepreneurship and the Opportunity to Promote Development and Business*. Washington, D.C.: The Brookings Institute. Retrieved from <https://www.brookings.edu/wp-content/uploads/2016/06/2013-BBR-Women-Entrepreneurship.pdf>
- Nordman, C. J., & Vaillant, J. (2014). Inputs, Gender Roles or Sharing Norms? Assessing the Gender Performance Gap among Informal Entrepreneurs in Madagascar (IZA Discussion Papers No. 8046). Institute for the Study of Labor (IZA). Retrieved from <https://ideas.repec.org/p/iza/izadps/dp8046.html>
- Noseleit, F. (2014). Female Self-employment and Children. *Small Business Economics*, 43(3), 549–569. <https://doi.org/10.1007/s11187-014-9570-8>

- OECD. (2003). Own-account workers – ILO. Retrieved from <https://stats.oecd.org/glossary/detail.asp?ID=1986>
- OECD. (2017). Strengthening Women's Entrepreneurship in ASEAN. OECD. Retrieved from https://www.oecd.org/southeast-asia/regional-programme/Strengthening_Womens_Entrepreneurship_ASEAN.pdf
- OECD. (2018). *SME and Entrepreneurship Policy in Indonesia 2018*. Paris: OECD Publishing. Retrieved from <https://www.oecd-ilibrary.org/docserver/9789264306264-en.pdf?expires=1550597550&id=id&accname=ocid195787&checksum=7473171CFD2BDADB1AAE5A2784080F7>
- Oh, I., Lee, J.D., Heshmati, A., et al. (2009). Evaluation of credit guarantee policy using propensity score matching. *Small Bus Econ*, 33, 335–351. <https://doi.org/10.1007/s11187-008-9102-5>
- Orhan, M., & Scott, D. (2001). Why Women Enter into Entrepreneurship: An Explanatory Model. *Women in Management Review*, 16(5), 232–247. <https://doi.org/10.1108/09649420110395719>
- Padilla-Romo, M., & Cabrera-Hernández, F. (2018). Easing the constraints of motherhood: the effects of all-day schools on mothers' labor supply. *Economic Inquiry*, 57(2), 890-909. <https://doi.org/10.1111/ecin.12740>
- Paes de Barros, R., Olinto, P., Lunde, T., & Carvalho, M. (2011). "The Impact of Free Childcare on Women's Labor Force Participation: Evidence from Low-Income Neighborhoods of Rio de Janeiro." Conference Paper, World Bank Economists' Forum.
- Parente, S., Prescott, E. (1994). Barriers to Technology Adoption and Development. *Journal of Political Economy*, 102(2), 298-321.
- Paryavi, M., Campos, F., & Santos, I. (2018). Gender and willingness to compete: lab experiments in Kenya. Draft paper.
- Patel, P. (2014). Effectiveness of Entrepreneurship Development Interventions for Women Entrepreneurs. Geneva: ILO. Retrieved from https://www.ilo.org/wcmsp5/groups/public/---ed_emp/---emp_ent/---ifp_seed/documents/publication/wcms_329356.pdf
- Patnam, M. (2013). Corporate Networks and Peer Effects in Firm Policies. Working Paper.
- Patrick, C., Stephens, H., & Weinstein, A. (2016). Where are All the Self-employed Women? Push and Pull Factors Influencing Female Labor Market Decisions. *Small Business Economics*, 46(3), 365–390. <https://doi.org/10.1007/s11187-015-9697-2>
- Petts R. J., & Knoester C. (2018). Paternity Leave-Taking and Father Engagement. *Journal of Marriage and Family*, 80(5), 1144-1162. doi: 10.1111/jomf.12494
- Prah, R. K. D., Carrion, D., Oppong, F. B., Tawiah, T., Mujtaba, M. N., Gyaase, S., Kwarteng, A., Ae-Ngibise, K. A., Agyei, O., Twumasi, M., et al. (2021). Time Use Implication of Clean Cookstoves in Rural Settings in Ghana: A Time Use Study. *Int. J. Environ. Res. Public Health*, 18, 166. <https://doi.org/10.3390/ijerph18010166>
- Premand, P., Brodmann, S., Almeida, R., Grun, R., & Barouni, M. (2012). Entrepreneurship Training and Self-Employment among University Graduates: Evidence from a Randomized Trial in Tunisia. Washington, D.C.: The World Bank. <https://doi.org/10.1596/1813-9450-6285>
- Poggesi, S., Mari, M., & De Vita, L. (2016). What's New in Female Entrepreneurship Research? Answers from the Literature. *International Entrepreneurship and Management Journal*, 12(3), 735–764. <https://doi.org/10.1007/s11365-015-0364-5>
- Porter, G. (1995). The Impact of Road Construction on Women's Trade in Rural Nigeria. *Journal of Transport Geography*, 3(1), 3–14. [https://doi.org/10.1016/0966-6923\(94\)00011-D](https://doi.org/10.1016/0966-6923(94)00011-D)
- Powell, G. N., & Greenhaus, J. H. (2010). Sex, Gender, and Decisions at the Family-Work Interface. *Journal of Management*, 36(4), 1011–1039. <https://doi.org/10.1177/0149206309350774>
- Powell, N., Swartling, Å. G., & Mihn Ha, H. (2011). The National Policy Landscape: the legacy and the present Situation. In N. Powell, Å. G. Swartling, & H. Mihn Ha (Eds.), *Stakeholder Agency in Rural Development Policy: Articulating Co-governance in Vietnam*. Hanoi: World Agroforestry Center ICRAF.

- Ray, I. (2007). Women, Water, and Development. *Annual Review of Environment and Resources*, 32(1), 421–449. <https://doi.org/10.1146/annurev.energy.32.041806.143704>
- Reuben, E., Sapienza, P., & Zingales, L. (2014). How Stereotypes Impair Women's Careers in Science. *Proceedings of the National Academy of Sciences USA*, 111, 4403–4408.
- Revinga, A., & Dooley, M. (2020). What works for women microentrepreneurs?: A meta-analysis of recent evaluations to support female entrepreneurship. Global Economy and Development Brookings Institution Working paper, 142.
- Reynolds, J., & Renzulli, L. A. (2005). Economic Freedom or Self-Imposed Strife: Work-Life Conflict, Gender, and Self-Employment. L. A. Keister (ed.). *Research in the Sociology of Work*, 15, 33–60.
- Reynolds, P. D., Camp, M. S., Bygrave, W. D., Erkko, A., & Hay, M. (2001). *The 2001 Executive Report*. Global Entrepreneurship Research Association. Retrieved from <http://www.gemconsortium.org/report>
- Rijkers, B., & Costa, R. (2012). Gender and Rural Non-Farm Entrepreneurship. *World Development*, 40(12), 2411–2426. <https://doi.org/10.1016/j.worlddev.2012.05.017>
- Sabarwal, S., & Terrell, K. (2008). Does Gender Matter for Firm Performance? Evidence from Eastern Europe and Central Asia (SSRN Scholarly Paper No. ID 1262646). Rochester, NY: Social Science Research Network.
- Sapienza, P., Zingales, L., & Maestripieri, D. (2009). Gender Differences in Financial Risk Aversion and Career Choices are Affected by Testosterone. *Proceedings of the National Academy of Sciences*, 106(36), 15268–15273. <https://doi.org/10.1073/pnas.0907352106>
- Sasakawa Peace Foundation and Dalberg Global Development Advisors. (2017). *Advancing Women's Empowerment: Growing Women's Entrepreneurship through ICT on Southeast Asia*. Retrieved from https://www.spf.org/awif/wp-content/uploads/2018/05/Womens-Entrepreneurship-and-ICT-SE-Asia_2017_en-2.pdf
- Schaner, S. (2017). The Cost of Convenience? Transaction Costs, Bargaining Power, and Savings Account Use in Kenya. *The Journal of Human Resources*. [doi:10.3368/jhr.52.4.0815-7350R1](https://doi.org/10.3368/jhr.52.4.0815-7350R1)
- Schjoedt, L., & Shaver, K. G. G. (2007). Deciding on an Entrepreneurial Career: A Test of the Pull and Push Hypotheses Using the Panel Study of Entrepreneurial Dynamics Data. *Entrepreneurship Theory and Practice*, 31(5), 733–752. <http://dx.doi.org/10.1111/j.1540-6520.2007.00197.x>
- Schutjens, V. A. J. M., & Wever, E. (2000). Determinants of New Firm Success. *Papers in Regional Science*, 79(2), 135–159. <https://doi.org/10.1111/j.1435-5597.2000.tb00765.x>
- Sen, A. 1999. *Development as Freedom*. New York: Alfred Knopf
- Sewell, S. J., & Desai, S. (2016). The Impacts of Undeveloped Roads on the Livelihoods of Rural Women. *Review of Social Sciences*, 1(8), 15–29. <https://doi.org/10.18533/rss.v1i8.40>
- Shankar, S. (2016). Bridging the “Missing Middle” between Microfinance and Small and Medium-Sized Enterprise Finance in South Asia. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.2838083>
- Shankar, A. V., Onyura, M. A., & Alderman, J. (2015). Agency-Based Empowerment Training Enhances Sales Capacity of Female Energy Entrepreneurs in Kenya, *Journal of Health Communication: International Perspectives*, 20(1), 67–75. [doi:10.1080/10810730.2014.1002959](https://doi.org/10.1080/10810730.2014.1002959)
- Sharif, M. Y. (2015). Glass Ceiling, the Prime Driver of Women Entrepreneurship in Malaysia: A Phenomenological Study of Women Lawyers. *Procedia – Social and Behavioral Sciences*, 169, 329–336. <https://doi.org/10.1016/j.sbspro.2015.01.317>
- Shinnar, R. S., Hsu, D. K., & Powell, B. C. (2014). Self-efficacy, Entrepreneurial Intentions, and Gender: Assessing the Impact of Entrepreneurship Education Longitudinally. *The International Journal of Management Education*, 12(3), 561–570. <https://doi.org/10.1016/j.ijme.2014.09.005>
- Singh, S. P., Reynolds, R. G., & Muhammad, S. (2001). A Gender-Based Performance Analysis of Micro and Small Enterprises in Java, Indonesia. *Journal of Small Business Management*, 39(2), 174–182. <https://doi.org/10.1111/1540-627X.00016>

- Sonobe, T., Suzuki, A., Otsuka, K., & Nam, V. H. (2011). KAIZEN for Managerial Skills Improvement in Small and Medium Enterprises: An Impact Evaluation Study in a Knitwear Cluster in Vietnam. Working Paper Series No. 2012/ 29. DEPOCEN. Retrieved from <http://depocenwp.org/upload/pubs/29-percent20KAIZEN-percent20for-percent20Managerial-percent20Skills-percent20Improvement.pdf><http://depocenwp.org/upload/pubs/29-percent20KAIZEN-percent20for-percent20Managerial-percent20Skills-percent20Improvement.pdf>
- Stiglitz, J. and A. Weiss. 1981. "Credit Rationing in Markets with Imperfect Information." *The American Economic Review* 71(3): 393-410
- Suri, T. Jack, W. (2016). The long-run poverty and gender impacts of mobile money. *Science*, 354(6317), 1288-1292. doi: 10.1126/science.aah5309.
- Szarka, J. (1990). Networking and Small Firms. *International Small Business Journal*, 8(2), 10-22.
- Tambunan, T. (2007). Development of SME and Women Entrepreneurs in a Developing Country: The Indonesian Story. *Small Enterprise Research*, 15(2), 31–51. <https://doi.org/10.5172/ser.15.2.31>
- Tambunan, T. (2009). Women Entrepreneurship in Asian Developing Countries: Their Development and Main Constraints. *Journal of Development and Agricultural Economics*, 1(2), 27–40. Retrieved from http://www.academicjournals.org/app/webroot/article/article1379600429_Tambunan.pdf
- Tambunan, T. (2015). Development of Women Entrepreneurs in Indonesia: Are They Being "Pushed" or "Pulled"? *Journal of Social Economics*, 2(3), 131–149. Retrieved from http://rassweb.org/admin/pages/ResearchPapers/Paper-percent206_1495886589.pdf
- Tambunan, T. (2017). Women Entrepreneurs in MSEs in Indonesia: Their Motivations and Main Constraints. *International Journal of Gender and Women's Studies*, 5(1), 88–100. <https://doi.org/10.15640/ijgws.v5n1a9>
- Teignier, M., & Cuberes, D. (2014). Aggregate Costs of Gender Gaps in the Labor Market: A Quantitative Estimate. *SSRN Journal*. <https://doi.org/10.2139/ssrn.2405006>
- Teoh, W. M.-Y., & Chong, S.-C. (2007). Theorising a Framework of factors Influencing Performance of Women Entrepreneurs in Malaysia. *Journal of Asia Entrepreneurship and Sustainability*, 11(2). Retrieved from https://www.researchgate.net/publication/268285452_THEORISING_A_FRAMEWORK_OF_FACTORS_INFLUENCING_PERFORMANCE_OF_WOMEN_ENTREPRENEURS_IN_MALAYSIA
- Terjesen, S. A., & Lloyd, A. (2015). The 2015 Female Entrepreneurship Index. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2625254
- Tewari, I., & Wang, Y. (2019). Durable Ownership, Time Allocation and Female Labor Force Participation: Evidence from China's "Home Appliances to the Countryside" Rebate. *Economic Development and Cultural Change*. <https://doi.org/10.1086/706824>
- Thébaud, S. (2015). Business as Plan B: Institutional Foundations of Gender Inequality in Entrepreneurship across 24 Industrialized Countries. *Administrative Science Quarterly*, 60(4), 671–711. doi: 10.1177/0001839215591627
- Tigges, L. M., & Green, G. P. (1994). Small Business Success Among Men- and Women-Owned Firms in Rural Areas. *Rural Sociology*, 59(2), 289–310. <https://doi.org/10.1111/j.1549-0831.1994.tb00534.x>
- Tilley, E., Bieri, S., & Kohler, P. (2013). Sanitation in Developing Countries: A Review Through a Gender Lens. *Journal of Water, Sanitation and Hygiene for Development*, 3(3), 298–314. <https://doi.org/10.2166/washdev.2013.090>
- UNICEF. (2017). UNICEF Cambodia: Girls not brides – ending child marriage in Cambodia. Retrieved from <http://unicefcambodia.blogspot.com/2017/03/by-chan-kanha-and-ream-rin-romas-is.html>
- UNICEF & World Health Organization. (2017). Progress on Drinking Water Sanitation and Hygiene: 2017 Update and SDG Baselines. Retrieved from https://www.unicef.org/publications/files/Progress_on_Drinking_Water_Sanitation_and_Hygiene_2017.pdf

- United Nations Economic and Social Commission for Asia and the Pacific. (2013). *Enabling Entrepreneurship for Women's Economic Empowerment in Asia and the Pacific*. UNESCAP. Retrieved from https://www.unescap.org/sites/default/files/Enabling_percent20women_percent27s_percent20entrepreneurship.pdf
- United Nations Economic and Social Commission for Asia and the Pacific. (2017). *Fostering Women's Entrepreneurship in ASEAN: Transforming Prospects, Transforming Societies*. UNESCAP. Retrieved from https://www.unescap.org/sites/default/files/ESCAP-FWE-ASEAN-full_0.pdf
- United Nations Economic and Social Commission for Asia and the Pacific. (2019). *Unpaid Work in Asia and the Pacific*. UNESCAP Social Development Policy Paper. Retrieved from https://www.unescap.org/sites/default/files/PP_2019-02_Unpaid_percent20Work.pdf
- United Nations Secretary-General's High-Level Panel on Women's Economic Empowerment. (2016). *Leave No One Behind: Taking Action for Transformational Change on Women's Economic Empowerment*. Retrieved from http://hlp-wee.unwomen.org/-/media/hlp_percent20wee/attachments/reports-toolkits/hlp-wee-report-2016-09-call-to-action-en.pdf?la=en
- UN Women. (2020a). *Unlocking the lockdown: The gendered effects of COVID-19 on achieving the SDGs in Asia and the Pacific*. Retrieved from <https://data.unwomen.org/publications/unlocking-lockdown-gendered-effects-covid-19-achieving-sdgs-asia-and-pacific>
- UN Women. (2020b). *Whose time to care: Unpaid care and domestic work during COVID-19*. Retrieved from https://data.unwomen.org/sites/default/files/inline-files/Whose-time-to-care-brief_0.pdf
- UN Women. (2020c). *Leveraging Digitalization to Cope with COVID-19: An Indonesia Case Study on Women-owned Micro and Small Businesses*. Retrieved from <https://data.unwomen.org/sites/default/files/documents/Publications/Indonesia-Digitalization-Women-MSBs-COVID19-EN.pdf>
- Valdivia, M. (2015). Business training plus for female entrepreneurship? Short and medium-term experimental evidence from Peru. *Journal of Development Economics*, 113, 33-51. <http://dx.doi.org/10.1016/j.jdeveco.2014.10.005>
- Valerio, A., Parton, B., & Robb, A. (2014). *Entrepreneurship Education and Training Programs around the World*. Washington, D.C.: The World Bank. Retrieved from <https://openknowledge.worldbank.org/bitstream/handle/10986/18031/9781464802027.pdf>
- Van Der Sluis, J., Van Praag, M., & Vijverberg, W. (2008). Education and Entrepreneurship Selection and Performance: A Review of the Empirical Literature. *Journal of Economic Surveys*, 22(5), 795-841. <https://doi.org/10.1111/j.1467-6419.2008.00550.x>
- Vandegrift, D., & Yavas, A. (2009). Men, Women, and Competition: An Experimental Test of Behavior. *Journal of Economic Behavior & Organization*, 72(1), 554-570. <https://doi.org/10.1016/j.jebo.2009.06.003>
- VanderBrug, J. (2013). The Global Rise of Female Entrepreneurs. *Harvard Business Review*. Retrieved from <https://hbr.org/2013/09/global-rise-of-female-entrepreneurs>
- Vanek, J. (2013). *Entrepreneurship in Informal Employment: Gender Perspective*. WIEGO. Retrieved from https://unstats.un.org/unsd/gender/Events/5.../Session_percent203_Vanek.ppt
- Varsakelis, N. (2006). Education, political institutions and innovative activity: a crosscountry empirical investigation. *Research Policy*, 35, 1083-1090.
- Venkatesh, V., Shaw, J., Sykes, T., Wamba, S. & Macharia, M. (2017). Networks, Technology, and Entrepreneurship: A Field Quasi-Experiment among Women in Rural India. *Academy of Management Journal*, 60(5), 1709-1740.
- Verheul, I., Thurik, R., Grilo, I., & van der Zwan, P. (2012). Explaining Preferences and Actual Involvement in Self-employment: Gender and the Entrepreneurial Personality. *Journal of Economic Psychology*, 33(2), 325-341. <https://doi.org/10.1016/j.joep.2011.02.009>

- Vial, V. (2011). Micro-Entrepreneurship in a Hostile Environment: Evidence from Indonesia. *Bulletin of Indonesian Economic Studies*, 47(2), 233–262. <https://doi.org/10.1080/00074918.2011.585952>
- Vietnam Women Entrepreneurs Council. (2019). About us. Retrieved from <http://www.we-apec.com/directory/vietnam-women-entrepreneurs-council>
- Wang, Q. (2015). Child Care, Work-Family Policy and Female Entrepreneurship (SSRN Scholarly Paper No. ID 2669282). Rochester, NY: Social Science Research Network.
- Wieland, A. M., Kemmelmeier, M., Gupta, V. K., & McKelvey, W. (2019). Gendered Cognitions: A Socio-Cognitive Model of How Gender Affects Entrepreneurial Preferences. *Entrepreneurship & Regional Development*, 31(3–4), 178–197. <https://doi.org/10.1080/08985626.2018.1551787>
- Willetts, J., Gero, A., Susanto, A. A., Sanjaya, R., Trieu, T. D., Murta, J., & Carrard, N. (2017). Sanitation Value Chains in Low Density Settings in Indonesia and Vietnam: Impetus for a Rethink to Achieve Pro-poor Outcomes. *Journal of Water Sanitation and Hygiene for Development*, 7(3), 445–454. <https://doi.org/10.2166/washdev.2017.141>
- Wilson, F., Kickul, J., & Marlino, D. (2007). Gender, Entrepreneurial Self-Efficacy, and Entrepreneurial Career Intentions: Implications for Entrepreneurship Education. *Entrepreneurship Theory and Practice*, 31(3), 387–406. <https://doi.org/10.1111/j.1540-6520.2007.00179.x>
- Winsborough, H. H., & Dickenson, P. (1971). Components of negro–white income differences. *Proceedings of the Social Statistics Section*. 6–8.
- Woetzel, J., Madgavkar, A., Ellingrud, K., Labaye, E., Devillard, S., Kutcher, E., Manyika J., Dobbs R., & Krishnan, M. (2015). *The Power of Parity: How Advancing Women's Equality Can Add \$12 Trillion to Global Growth*. Washington, D.C.: McKinsey Global Institute. Retrieved from https://www.mckinsey.com/~media/McKinsey/Featured%20Insights/Employment%20and%20Growth/How%20advancing%20womens%20equality%20can%20add%2012%20trillion%20to%20global%20growth/MGI%20Power%20of%20parity_Full%20report_September%202015.ashx
- Women's World Banking. (2018). Access to Finance of Women-Owned SMEs in Southeast Asia: An Assessment of Five Countries. Retrieved from <https://www.womensworldbanking.org/insights-and-impact/access-to-finance-of-women-owned-smes-in-southeast-asia-an-assessment-of-five-countries/>
- Wooldridge, J. M. (2012). *Introductory econometrics: a modern approach*. Mason, Ohio: South-Western Cengage Learning.
- World Bank (2009). *Increasing Formality and Productivity of Bolivian Firms*. Washington, DC: The World Bank. Retrieved from <https://openknowledge.worldbank.org/bitstream/handle/10986/2675/503580PUB0Box3101OFFICIAL0USE0ONLY1.pdf?sequence=1&isAllowed=y>
- World Bank. 2012a. *World Development Report 2012 : Gender Equality and Development*. World Bank. © World Bank. <https://openknowledge.worldbank.org/handle/10986/4391> License: CC BY 3.0 IGO.
- World Bank. 2012b. *Toward Gender Equality in East Asia and the Pacific : A Companion to the World Development Report*. World Bank East Asia and Pacific Regional Report. Washington, DC. © World Bank. <https://openknowledge.worldbank.org/handle/10986/12598> License: CC BY 3.0 IGO.
- World Bank. (2013). *Promoting Youth Entrepreneurship and Employment: The Case of Lao PDR* (No. 81674). Washington, D.C.: The World Bank. Retrieved from <http://documents.worldbank.org/curated/en/406571468263930377/Promoting-youth-entrepreneurship-and-employment-the-case-of-Lao-PDR>

- World Bank. (2016a). Gender Dimensions of Small-Scale Cross-Border Trade in Cambodia and the Lao People's Democratic Republic. World Bank. <https://openknowledge.worldbank.org/handle/10986/25759>
- World Bank. (2016b). *Women Entrepreneurs in Indonesia: A Pathway to Increasing Shared Prosperity*. Jakarta: World Bank. Retrieved from <http://documents.worldbank.org/curated/en/738881467782741648/pdf/AUS5568-P147245-PUBLIC-WomenEntrepreneursinIndonesia-1.pdf>
- World Bank. (2016c). Cambodia Economic Update: Enhancing Export Competitiveness The Key to Cambodia's Future Economic Success. Washington, DC: The World Bank. Retrieved from: <https://documents1.worldbank.org/curated/en/575221480949830789/pdf/108982-WP-ENGLISH-P148100-PUBLIC-FinalCEUOctoberEnglish.pdf>
- World Bank. (2017). *Lao PDR – Systematic Country Diagnostic: Priorities for Ending Poverty and Boosting Shared Prosperity*. Washington, DC: World Bank Group. <http://documents.worldbank.org/curated/en/983001490107755004/Lao-PDR-Systematic-Country-Diagnostic-Priorities-for-Ending-Poverty-and-Boosting-Shared-Prosperity>
- World Bank. (2018). *Timor-Leste – Systematic Country Diagnostic: Pathways for a New Economy and Sustainable Livelihoods*. Washington, DC: World Bank Group <http://documents.worldbank.org/curated/en/524131528837983427/Timor-Leste-Systematic-Country-Diagnostic-Pathways-for-a-New-Economy-and-Sustainable-Livelihoods>
- World Bank. (2019). World Development Indicators database. Retrieved from <https://data.worldbank.org/indicator/SL.TLF.ACTI.MA.ZS>
- World Bank. (2020). Project list database. Retrieved from <https://projects.worldbank.org/en/projects-operations/projects-list>
- World Bank. (2020a). *Women, Business and the Law 2020*. Women, Business and the Law. World Bank. [doi:10.1596/978-1-4648-1532-4](https://doi.org/10.1596/978-1-4648-1532-4)
- World Bank. (2020b). *Indonesia Systematic Country Diagnostic Update*. World Bank, Washington, DC. <https://openknowledge.worldbank.org/handle/10986/34107> License: CC BY 3.0 IGO
- World Bank and International Finance Corporation. (2019). *Unlocking the Dynamism of the Indonesian Private Sector: A Country Private Sector Diagnostic*. World Bank Group, Washington, DC. https://www.ifc.org/wps/wcm/connect/publications_ext_content/ifc_external_publication_site/publications_listing_page/cpsd-indonesia
- Xavier, S. R., Sidin, S. M., Guelich, U., & Nawangpalupi, C. (2017). *ASEAN Regional Entrepreneurship Report 2015/2016: The Context, Impact and Opportunities for Women Entrepreneurs and Startups; Key Pivots for Growth and Sustainability*. Kuala Lumpur: Universiti Tun Abdul Razak. Retrieved from <http://www.gemconsortium.org/report>
- Yadav, V., & Unni, J. (2016). Women Entrepreneurship: Research Review and Future Directions. *Journal of Global Entrepreneurship Research*, 6(1), 1–18. <https://doi.org/10.1186/s40497-016-0055-x>
- Yishay, A. B., Fraker, A., Guiteras, R., Palloni, G., Shah, N. B., Shirrell, S., & Wang, P. (2017). Microcredit and Willingness to Pay for Environmental Quality: Evidence from a Randomized-controlled Trial of Finance for Sanitation in Rural Cambodia. *Journal of Environmental Economics and Management*, 86, 121–140. <https://doi.org/10.1016/j.jeem.2016.11.004>
- Zhao, H., Seibert, S. E., & Hills, G. E. (2005). The Mediating Role of Self-Efficacy in the Development of Entrepreneurial Intentions. *Journal of Applied Psychology*, 90(6), 1265–1272. <https://doi.org/10.1037/0021-9010.90.6.1265>
- Zia, B. H. (2008). Export incentives, financial constraints, and the (mis)allocation of credit: Micro-level evidence from subsidized export loans. *Journal of Financial Economics*, 87(2), 498-527. <https://doi.org/10.1016/j.jfineco.2006.12.006>

