

Gender and Enterprise Development in Sub-Saharan Africa

A Review of Constraints and Effective Interventions

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Abstract

Female participation in entrepreneurial activities is higher in Sub-Saharan Africa than in any other region. However, women-owned businesses significantly underperform those owned by men. This paper identifies the main constraints that women face in developing their businesses in Africa and discusses how these constraints influence strategic choices in areas such as level of investment and sector of operations. The paper synthesizes the emerging lessons

about what works and what does not work to address the underlying constraints to the performance of women-owned firms. Moreover, it identifies knowledge gaps and priority research questions. The paper aims to support the development of a gender-informed policy and research agenda on enterprise development that can guide practitioners, development partners, and researchers who seek to advance women's economic empowerment in Africa.

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Gender and Enterprise Development in Sub-Saharan Africa: A Review of Constraints and Effective Interventions*

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1. Introduction

Women in Africa are more likely to be self-employed than to be wage workers because opportunities in wage employment are limited (Hallward-Driemeier, 2013). Although there is no gender gap in entrepreneurship participation in Africa, women-owned businesses significantly underperform those owned by men. Addressing the constraints that underpin these gaps in performance is critical to enable women to build businesses that can generate employment and reduce poverty. Given that female entrepreneurs tend to hire other women¹ (Cirera and Qasim, 2014), expanding the scale of women-owned businesses may also have a positive impact on wage employment of other women.

In order to understand the challenges faced by women-owned firms in Sub-Saharan Africa, we use a framework articulating three elements: (1) the set of gender-specific constraints that shape the strategies of female entrepreneurs; (2) the choices that these women-owned enterprises make; and (3) the business outcomes that reflect the performance of the firm.

We conduct a review of the literature, which suggests that a combination of contextual factors (such as legal discrimination, social norms, and gender based violence) and gender differences in endowments and preferences² influence female entrepreneurs' choices, and that in turn these strategic choices impact business performance. We review the evidence on the effectiveness of various policy options in alleviating the constraints that female entrepreneurs face. In Sub-Saharan Africa, we find only a small number of interventions that have consistently impacted the business outcomes of women-owned firms: providing access to savings accounts and in-kind/large grants. The existing literature provides only limited explanations for the lack of impact of other interventions tested on female entrepreneurs, including microfinance, cash grants for small-scale entrepreneurs, and traditional managerial training. In general terms, there is still uncertainty whether the interventions fail to meaningfully address the constraints they targeted, whether they focus on constraints that are not actually binding, or whether they do tackle important obstacles while leaving other jointly binding constraints unaddressed.

We argue here that additional research is needed to identify the constraints impacting the development of women-owned firms, and that this task is best pursued by using an array of methods including experimental and observational studies, as well as qualitative work. Reaching a better understanding of the gender-specific constraints that enterprising women in Africa face is a prerequisite to the design of effective policies.

¹ According to Cirera and Qasim (2014), this is the case even after accounting for the sector of operations.

² As discussed below, preferences can have an influence in business decisions in the context of market failures.

2. Evidence of gender gaps in enterprise performance in Africa

In Sub-Saharan Africa, entrepreneurship is very important for women's livelihoods, representing almost 50% of women's non-farm labor force participation. Women are equally represented among entrepreneurs as men (Hallward-Driemeier, 2013). This sets Sub-Saharan Africa apart from all other regions in the world, especially the Middle East and North Africa, where there is a large gender gap in participation in entrepreneurship (Hallward-Driemeier, 2011; Kelley et al., 2012).

However, even in Sub-Saharan Africa there are still important differences between businesses owned by women and those owned by men. Women entrepreneurs are very likely to work alone, while men are more likely to have employees, which is a reflection of the different sizes of their businesses. Moreover, firms owned by women tend to underperform those owned by men on a number of dimensions including profitability, survival rates, average size, and growth trajectory.

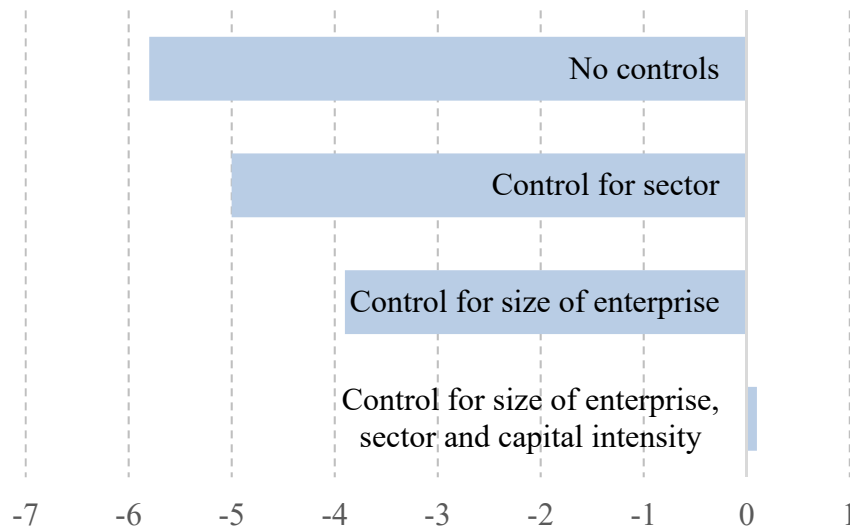
Bardasi et al. (2011) show that the average sales of women-owned firms in Africa³ are 13 percent lower than those of male-owned firms after accounting for country and sector of operations. Brixiová and Kangoye (2015) show in the context of Swaziland that monthly sales and number of employees for women-owned firms are less than half of those owned by men. Costa and Rijkers (2012) find large differences in size between male and female non-farm rural enterprises in Ethiopia. Nordman and Vaillant (2014) find that in Madagascar the level of value added is 28 percent lower in women-owned firms after controlling for firm and entrepreneur characteristics. McKenzie and Woodruff (2015) identify a positive relationship between being a male entrepreneur and the sales and profits of firms even after controlling for business practices and other factors. Hallward-Driemeier (2013)⁴ finds that the average value added per worker of firms with women ownership in Africa is 6 percent lower than that of firms owned by men before controlling for other firm characteristics.

As per Figure 1, Hallward-Driemeier (2013) suggests that the gap in value-added per worker between male- and women-owned firms in Africa can be fully explained by firm size, sector and capital intensity. This – confirmed in various studies – indicates that there is a set of important strategic choices that largely explain the gender differences in firm productivity. It also suggests that we should focus a large part of our research on exploring the underlying constraints that shape female entrepreneurs' choices regarding these core dimensions. The importance of strategic choices in business development guides the framework we use in this note, which is presented in the next section.

³ Whenever we use the term "Africa" we are referring to Sub-Saharan Africa (i.e. all of Africa, excluding North Africa, which the World Bank usually groups with the Middle East as part of MENA).

⁴ Hallward-Driemeier (2013) is based on data from the World Bank Enterprise Surveys. It should be noted, however, that World Bank Enterprise Surveys may oversample larger firms, when female-owned enterprises are more prevalent among the micro, small and medium enterprises (MSMEs). Bossuroy et al. (2013) compares the Enterprise Surveys data with that of an MSME survey based on household sampling in South Africa to conclude that the sampling mechanism leads to large firms in the first (eg: 25 percent of women-owned firms are exporters) and small firms in the latter (eg: almost no exporter in the sample), while women-owned firms represented only 13 percent of those sampled in the Enterprise Survey and 60 percent of those sampled in the MSME survey.

Figure 1: Gender gaps in labor productivity (percentage)



Source: Hallward-Driemeier (2013)

3. Underlying gender constraints to firm performance in Africa

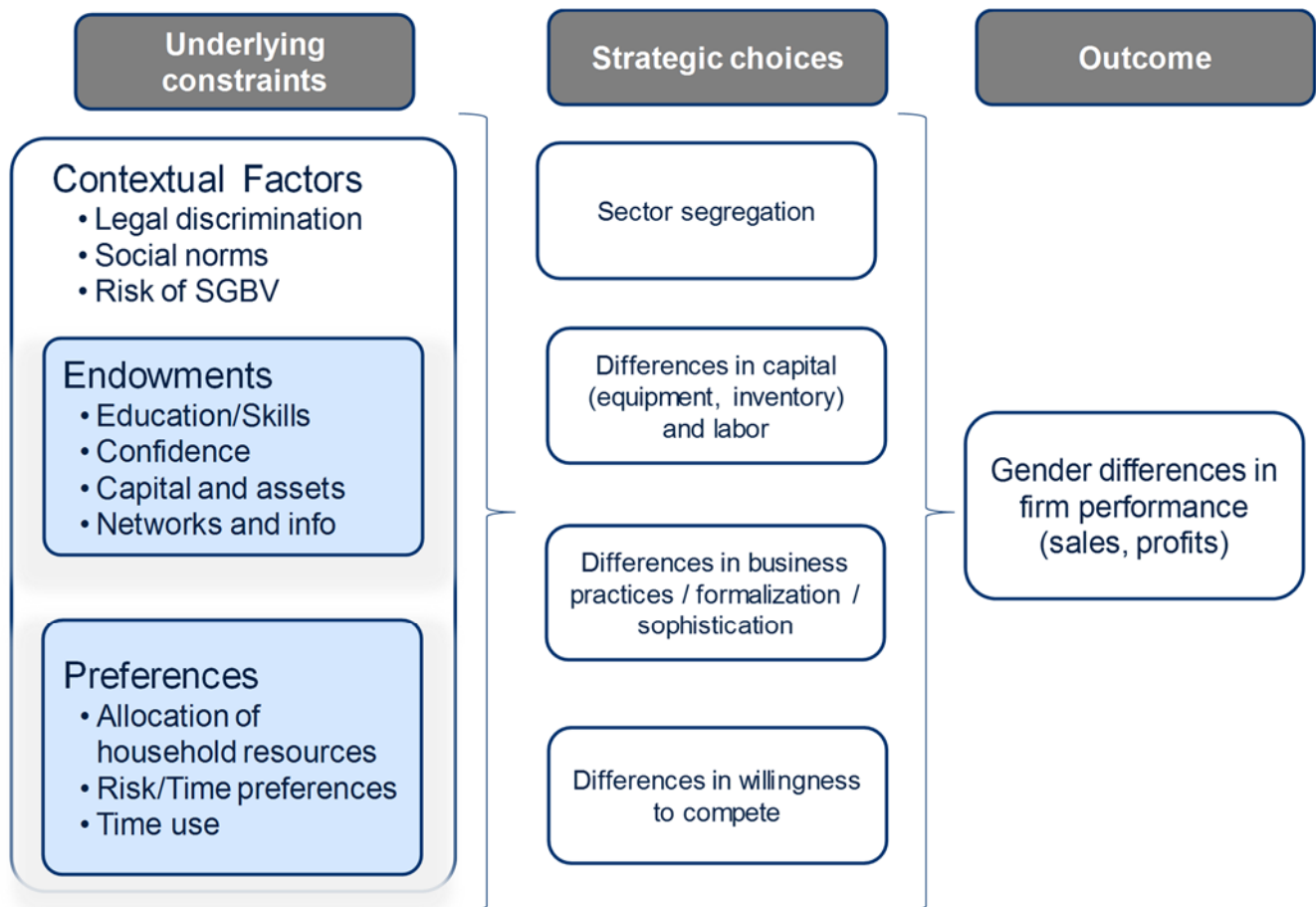
This note follows a framework articulating three dimensions in the development of women-owned firms: (1) the set of gender-specific underlying constraints that shape the strategies of female entrepreneurs; (2) the choices that these entrepreneurs make; and (3) the business outcomes that reflect these choices. This is presented in Figure 2.

Gender differences in outcomes can be explained by the systematically different choices that men and women make, which are in turn driven by gender-specific constraints. The constraints considered here are the contextual factors, gender gaps in endowments and gender differences in preferences which restrict the range of economic choices women can make and impede the development of their businesses.

The subsequent sections review the existing evidence on the gender-specific constraints faced by female entrepreneurs. These barriers impose limits on female entrepreneurs' choices regarding their level of investment and risk-taking, the decision to compete, the degree of sophistication and formalization of their activity, and the type of activities and sectors in which they engage. In terms of investment, Fafchamps et al. (2014) suggest that female business owners in Ghana channel a lower share of the capital they have access to into their activity than male owners. Nordman and Vaillant (2014) indicate that 42 to 51 percent of the gender gap in firm performance in Madagascar can be explained by differences in the capital and labor used to operate the firm. Women-owned firms tend also to adopt fewer advanced business practices such as marketing strategies and human resources management than men-owned firms (McKenzie and Woodruff, 2015). Moreover, the sector in which

a business operates remains a very strong predictor of its profitability (Hallward-Driemeier 2013; Bardasi et al., 2011; Costa and Rijkers 2012; Campos et al., 2015), and the fact that women-owned businesses largely operate in sectors in which profits are lower deserves careful attention. Similar trends in this sectoral segregation are also observed outside of Africa. In Sri Lanka, De Mel et al. (2009) show that both investment rates and returns to investment are lower in sectors characterized by a higher share of female entrepreneurs.

Figure 2: Gender constraints in enterprise performance in Africa



These categories of choices – including level of investment, business practices, decision to compete, and type of activities - considerably impact firms’ performance and outcomes. Even in those studies where the gender gap is not *fully* explained by these strategic choices, they are still the *main* sources of differences in business outcomes. For example, in Nordman and Vaillant (2014), 75 to 85 percent of the gender gap in performance is explained by sector, inputs, and the characteristics of the entrepreneur, leaving a notable share of the gender gap unexplained. This unaccounted share can be attributed to two potential reasons. First, it could be the result of measurement issues: the analysis may not account for firm characteristics associated with strategic choices, such as physical location of the

business or formality, or may use inappropriate measures of these strategic choices. Second, the unexplained part of the gender gap in performance could also be attributed to pure gender discrimination in demand. Further evidence on gender discrimination in the context of gender gaps in firm performance is important and should be at the forefront of the research agenda going forward.

To better understand the choices that women entrepreneurs make, we have to analyze the underlying gender-specific constraints that restrict those choices. While it is useful to organize these constraints by categories, we should keep in mind that they are tightly intertwined and tend to be mutually reinforcing. This dynamic of mutual reinforcement also operates between the constraints affecting entrepreneurs’ behaviors and the choices they make. It is also important to highlight that although previous studies have clearly demonstrated the existence of some of these constraints, the evidence is inconclusive or lacking for others (Figure 3).

Figure 3: Evidence of gender constraints in entrepreneurship

		Strength of evidence that gender constraints exist	
		Mixed or limited	Strong
Strength of evidence that gender constraint is binding	Limited	<ul style="list-style-type: none"> • Capital • Access to networks • Preferences for domestic expenditures over investment and its relation with time and risk preferences • Confidence 	<ul style="list-style-type: none"> • Legal discrimination • Social norms • Education and skills gaps • Time use/Disproportionate allocation of housework • SGBV
	Strong		<ul style="list-style-type: none"> • Access to assets • Biases in the allocation of household resources

In the remainder of this section, we review the strength of the evidence on each of the gender constraints identified in Figure 2.

(A) Contextual factors

The setting in which women establish their businesses plays an important role in determining their level of investment, the decision to compete, the degree of sophistication of their business and the sector of activity they select. This influence operates through multiple mechanisms: (i) by directly impacting strategic choices, and (ii) by interacting with women's endowments and revealed preferences. Within these contextual factors we distinguish between the underlying constraints arising from legal discrimination and those arising from social norms.

(i) *Legal discrimination*

Given the recent strides made in removing regulatory discrimination, business law may not be strongly binding for female entrepreneurs in Africa. While rigorous measures of the impact of legal reforms promoting gender equality in business outcomes are still lacking, African economies have adopted these reforms at a fast pace. In 2012, Mali removed legal restrictions which prevented married women from registering a business. Zimbabwe's 2013 constitutional reform ensures that customary law is no longer exempt from protection against gender discrimination.

However, even when business law is gender neutral, family law may introduce constraints to married women and their ability to manage their businesses (Hallward-Driemeier, 2013). For instance, in Cameroon, Côte d'Ivoire, Chad, the Democratic Republic of Congo (DRC), and the Republic of Congo, the law gives husbands sole control over marital property (World Bank Group, 2015). Such provisions restrict women's ability to buy, own, sell and use property. This makes it more difficult for married women to obtain loans to finance their businesses, as these loans usually require collateral in the form of property. On the other hand, work by Deininger et al. (2008) in Ethiopia indicates that joint ownership of land in marriage increases the position of women. In the context of Figure 2, marital property issues are examples of the interaction of different constraints -- here, legal discrimination interacts with differences in assets endowment, and these constraints jointly limit women's opportunities.

Even when statutory law provides for gender equality, such as with a non-discrimination clause in the constitution, women may face important restrictions if customary law takes precedence over statutory law. The 2016 Women, Business and the Law report (World Bank Group, 2015) highlights that customary law still plays a significant role in Sub-Saharan Africa and that its influence is stronger than in any other region of the World. For example, in Lesotho 89 percent of people who have ever been married did so under customary law, with just 5 percent having married under civil law (World Bank, 2015). While the Constitution of Lesotho includes clauses on non-discrimination and gender equality, it also recognizes customary law and does not consider customary law to be invalid if it violates the gender protections included in the constitution. This is a serious problem for Basotho women because customary law in Lesotho is patrilineal and inheritance is intestate, so daughters cannot inherit from their parents (World Bank, 2015).

(ii) *Social norms*

Social norms influence women's abilities to grow their business by shaping and interacting with gender differences in endowments and preferences. As discussed in Marcus and Harper (2014), girls' and women's decisions are influenced by a multitude of factors such as education, economic well-being, physical integrity (including freedom from violence and sexual and reproductive health), psychosocial wellbeing, managing and benefiting from intra-household relationships, and civic participation. Marcus and Harper (2014) suggest women take decisions in the context of descriptive norms, which correspond to socially accepted gender roles and widely shared conceptions about ideals of masculinity and femininity. Both types of norms limit women's choices, for example, by hindering their participation in male-dominated sectors or in large-scale entrepreneurship.

Additionally, social norms that derive stereotypical categorizations can be shaping women's perception of their capacities and their confidence to compete in and pursue business activities that are considered stereotypically male. Social norms may also encourage fear of retaliation if women are found to contradict societal prescriptions for female behavior (Rudman, 1998; Rudman and Glick, 1999). In fact, these fears have been argued to deter women from being assertive in competitive negotiation settings (Amanatullah and Morris, 2010; Bowles, 2012). Therefore, understanding how to change these social norms, or at least circumvent their restrictions, is critical to overcome the barriers for female entrepreneurs.

(iii) *Risk of Sexual and Gender Based Violence (SGBV)*

A growing body of literature has sought to estimate the cost of SGBV in order to better include prevention within the broader development agenda. While SGBV primarily affects the victims' physical and mental health, it creates challenges in multiple areas of their lives and is likely to have a substantive impact on their employment opportunities and earnings. The body of rigorous evidence in Africa of the relationship between SGBV and choices taken by entrepreneurs, as well as their economic outcomes, is quite limited. In a study conducted in Colombia, Ribero and Sanchez (2004) use propensity score matching to estimate the effect of SGBV on earnings. They find that victims' monthly earnings are 70 percent lower on average than the earnings of non-victims. For entrepreneurs, taking time off work due to injury may lead to loss in productivity and revenues. The toll of exposure to SGBV on their mental health, which may manifest as insomnia, anxiety and social dysfunction (Campbell, 2002), may also hinder the victims' managerial capacity. In addition, harassment is another risk that has an adverse effect on business performance (Willman, 2008).

Nonetheless, the relationship between exposure to violence and productivity is complex. A study conducted in Peru, Haiti and Zimbabwe suggests that women who were victims of SGBV were more likely to be employed than women who had not been abused (Morrison and Orlando, 2004). This suggests that greater earning opportunities could be a factor of risk when it comes to SGBV.

(B) Disparities in endowments

Possessing certain endowments can significantly impact the business choices. Therefore, gender differences in endowments can help explain the gender gap in enterprise development. Specifically, we consider how gender differences in the following endowments affect female entrepreneurs' ability to start and operate their businesses: (i) education and skills, (ii) confidence, (iii) finance and assets, (iv) social networks and information.

(i) Education and skills gaps

Throughout Sub-Saharan Africa, self-employed women have fewer years of education than self-employed men – in Ghana and Kenya, for example, this gap is larger than one year (Hallward-Driemeier, 2013). This is despite the fact that most African countries have achieved gender parity with respect to access to primary education (World Bank, 2012). However, the educational gender gap in previous cohorts still affects older generations of entrepreneurs. In addition, younger cohorts still face a gender gap in accessing higher levels of education. A number of factors may have contributed to current and past gender differences in access to education, including greater parental investment in sons' education and girls' early marriage. Women whose access to education has remained limited are likely to have lower levels of literacy and numeracy, which may adversely affect both the scope and the productivity of their business activities.

Beyond greater access to formal education, opportunities for developing entrepreneurial skills may be higher for men than for women (Morris et al., 2006). Young men may have greater opportunities to receive either formal training through specialized providers or to be trained by a member of their network. These gender gaps in access to education and skill development can help explain the systematic gender differences in certain strategic business decisions that lead to the differences in firm performance.

The gap in opportunities between young men and women is explored in a separate note covering youth employment (Chakravarty et al., 2017).

(ii) Confidence

The evidence in Africa is quite limited, but studies from outside the region have shown that women tend to be less confident than men regarding their relative abilities (Beyer, 1990; Pulford and Colman, 1997; Soll and Klayman, 2004), especially in stereotypically male domains (Grosse and Riener, 2010; Kamas and Preston, 2010; Lundeberg et al., 1994). Niederle and Vesterlund (2007) and others have found that women are less confident than men in their abilities, which explains some of the gender differences in competition entry. Kamas and Preston (2010) and Grosse and Riener (2010) also find that when individuals believe that women are better at a stereotypically female task and men are better at a stereotypically male task, the gender gap in confidence and competition entry is larger in the task that is stereotypically male.

Women and men also experience different confidence levels if they are responsible for the interests of others, as they would be as entrepreneurs, which leads to significant gaps in competition entry in a male domain (Paryavi, 2016). Therefore, beliefs about relative ability (i.e. confidence) can potentially be shaping female entrepreneurs' decisions to compete in and pursue business activities that are not in traditionally female dominated settings.

(iii) Capital and assets

Limited capital may affect women's ability to make optimal business choices. Still, the gender differences in mere access to finance – having or not a loan or a bank account - appear to be modest. The fact that the microfinance industry has focused largely on making services available to women may have limited the extent of gender disparities in credit, at least among small firms. Aterido et al. (2011) find no evidence that women are disadvantaged in terms of access to capital when controlling for firm and entrepreneur characteristics. The Global Financial Inclusion Database (Demirguc-Kunt and Klapper, 2014) shows that 6 percent of women in Africa versus 7 percent of men had been granted a loan by a financial institution in the previous year, and 4 percent of women in the region versus 5 percent of men had received a loan from a private lender in the previous year. Moreover, the percentage of women receiving a loan from any informal source was similar to that of men, and the gender gap in receiving loans is smaller in Sub-Saharan Africa than in most other regions (Demirguc-Kunt and Klapper, 2014). In terms of savings, 33 percent of men and 25 percent of women in Sub-Saharan Africa had an account in a formal institution. In addition, 13 percent of men and 10 percent of women had mobile money accounts.

However, access is only one part of the story: the conditions under which loans are granted also matter. Getting loans of smaller amount, paying higher interest rates or receiving loans for a shorter amount of time may affect the female entrepreneurs' ability to use these loans productively (Mayoux 1999; Demirguc-Kunt et al. 2008). Further research is needed to determine whether male and female entrepreneurs receive loans at the same cost and conditions.

When considering an individual's ability to start a business, the amount saved is also important. In Malawi, 68 percent of men and 47 percent of women used personal savings for the initial investment in their business. Some women need capital from their spouse and that raises constraints on the type and size of their investment. Among all female entrepreneurs included in the survey in Malawi, 23 percent used their spouse's savings to start their business, compared to only 2 percent of the surveyed men (Campos et al., 2015a).

These differences in asset ownership can significantly limit the strategic choices that women can make. The Gender, Land and Assets Surveys conducted in 2007-2012 in Uganda and South-Africa show that significant gender gaps exist in asset ownership. For instance, in Uganda, 30 percent of men surveyed owned transport-related assets compared to only 1 percent of women (Kes et al., 2011). In South Africa (Jacobs et al., 2011), men owned between six and 7.5 different types of assets on average, while women owned only four different types (solely or jointly).

Furthermore, entrepreneurs' ability to obtain finance is largely determined by their ability to provide collateral (rather than by the anticipated stream of revenues that can be generated by their business). In addition to laws that restrict women's access to and control over assets, obtaining collateral is also harder for women because their asset base is smaller, even when they have control over it. This issue is further explored in a separate paper on property rights (O'Sullivan, 2017).

(iv) Access to networks and information

Women may struggle more than men to grow their businesses if they have more limited social networks and information. Qualitative work in Ethiopia suggests the importance of family and friend networks in having enough collateral for large loans (Pierotti, 2016). The 2012 WDR on Gender Equality and Development talks about social networks in the context of informal social institutions, referring to the "system of social relationships and bonds of cooperation for mutual benefit that shape one's opportunities, information, social norms, and perceptions" (World Bank, 2012). Gendered networks may hinder the opportunities that women may have in entering into new activities or business deals.

Renzulli et al. (2000) explored gender differences in social capital in the US, and explained that women's networks tend to be narrower and more homogeneous than those of men and this is associated with lower rates of business success. In addition to potentially affecting their access to inputs such as credit, women's more limited social networks can also restrict their ability to acquire necessary skills and to reach out to potential clients. Campos et al. (2015b) investigate the differences between women working in male-dominated sectors and those in female-dominated sectors in Uganda. Their research highlights the importance of the support of mentors – mostly men – in assisting women to start activities in male-dominated sectors. This suggests that providing young women opportunities to expand their networks may allow them to find such support, which could encourage them to engage in non-traditional and possibly more profitable activities.

Gender differences in access to networks may stem from norms limiting women's ability to venture away from their home or to interact with strangers. There is limited documented evidence of this in Africa, but in India, Field et al. (2014) suggest that social norms limit women's activities when they impose restrictions on mobility or interactions with strangers. Time constraints and lower levels of education may also contribute to gender disparities in social networks.

Narrower networks may also restrict women's access to information. Campos et al. (2015b) and Alibhai et al. (2015) show that the majority of women working in female-dominated sectors are not aware that women (and men) in male-dominated sectors tend to make much higher profits. Hence, women's limited access to information contributes to gender segregation across sectors.

(C) *Constraints driven by preferences*

Not only are the choices of female entrepreneurs in Africa constrained by the context in which they operate their firms and by their level of endowments, these choices are also shaped by the preferences of both the entrepreneur herself and the other household members. In a world without market failures, standard economic theory would predict entrepreneurs to separate maximizing business profits from other decisions in their lives. Subsequently, the individual earnings from their business would supply their household with an income, with household decisions and business decisions remaining separate. However, when market failures exist and entrepreneurs for example, are not able to secure necessary credit, get access to labor inputs, or get their product into the proper markets, their decisions are influenced by their preferences and of those of other household members. This happens with market failures that are not necessarily gender specific – for example, in the absence of properly functioning credit markets, business owners have to take decisions on consumption versus (household or business) investment within the limited resources available. Therefore, in contexts where market failures exist – the norm in African countries - business choices will be constrained and shaped by the preferences of the entrepreneur herself and the other members of their household.

We review here the importance of (i) biases in the allocation of household resources, (ii) women's prioritization of domestic expenditures and its relationship to time and risk preferences, and (iii) gender differences in time available for market activities.

(i) *Biases in the allocation of household resources*

All else being equal, if we assume that there are no innate gender differences in the distribution of entrepreneurial abilities, the disproportionate allocation of resources to male-owned enterprises can be a source of inefficiency. In households where different members operate different activities, improving the overall productivity of the household requires that the allocation resources be driven by the potential returns associated with each activity rather than by the gender of the manager (Udry, 1996).

In Africa, not only do women tend to own fewer assets than men, but in many households women also face limits to their ability to make decisions (or contribute to decisions) on the use of household assets. These imbalances in bargaining power at the household level may divert the allocation of resources from the intended business investment. Women may fear that they will not be able to control any income that is generated by their entrepreneurial activities, if they face pressure from household members to share or transfer this income. Anticipating that a share of their income might be captured reduces women's incentive to invest and expand their activity. De Mel et al. (2009) find that female entrepreneurs in Sri Lanka with greater decision-making power or more cooperative husbands are more likely to invest in their businesses. Qualitative work in Ethiopia also confirms the importance of cooperative husbands in building large enough businesses (Pierotti, 2016).

In addition to these household dynamics, women may also face pressure from their extended networks. In an experiment in Uganda, in which unconditional grants were distributed to microenterprise owners,

Fiala (2014) shows that the profits of firms owned by women in the treatment group who lived near their family were even lower than the profits of firms owned by similar women in the control group (i.e. those who did not even receive any grants or other support). Nordman and Vaillant (2014) discuss the role of involuntary inefficiency effects, which occur when members of the entrepreneur's network consume part of the goods or services produced by the business, which reduces the value added for a given level of inputs.

Currently, we do not know enough about how African households allocate resources, especially when several members of the household run businesses. The limited evidence comes from studies such as an experiment conducted by Schaner in Kenya (2013), where married couples were randomly assigned different levels of subsidies on individual and joint savings accounts. The experiment shows that when the higher subsidy was assigned to a joint account, the couples were more likely to invest in livestock and household assets, while individuals were more likely to invest in their income generating activities when the higher subsidies was assigned to their individual accounts. This suggests that control over resources matters for their allocation, and therefore that households' behavior tends to follow a non-cooperative model.

Additionally, Fafchamps et al. (2014) provided grants to both male and female entrepreneurs in Ghana. Half of the beneficiaries were randomly selected to receive an in-kind grant and the other half were selected to receive a grant in cash. In-kind grants had positive impacts on profits for both male and female entrepreneurs. For women-owned firms, cash grants were not effective and there was a significant difference in the effectiveness of the in-kind and cash grants, while no such difference was observed for male-owned enterprises. If we assume that it is easier for women to shield in-kind grants than cash grants from the demands of other household members, this result is also in line with a non-cooperative model of resource allocation.

On the other hand, Nordman and Vaillant's analysis (2014) of the allocation of resources among households operating informal businesses in urban Madagascar potentially challenges the notion that households operate as non-unitary entities. They observe low within-household differences in returns to capital. This suggests an unbiased allocation of capital among household members – if returns to capital were not equal among the ventures of different household members, this would suggest that the household would gain from re-allocating capital to ventures with the highest returns to capital.

Bernhart et al. (2017) explore the impact of microfinance loans and cash grants on enterprising households. Their findings suggest that in households in which there is both a male and female enterprise, the loan tends to be invested in the male enterprise, even when the woman is the loan recipient and would likely have control over its use. If returns to capital tend to be higher in the male-owned enterprise, such choices are consistent with profit maximization at the household level. But this difference in returns to capital between female and male-owned businesses may be driven by earlier biases in the allocation of resources rather than by innate differences in managerial ability.

Moreover, when considering productivity differentials between male and female enterprises, it is important to take into account all the resources allocated by the household. Looking at the correlation between marital status and firm productivity, Nordman and Vaillant (2014) observe that among larger firms, being married is positively associated with the value added for firms owned by men but not for those owned by women. This could be because labor contributions of household members are disproportionately allocated to the male enterprise, which in turn increases the productivity of capital in the male-owned firm.

(ii) *Preference for spending on domestic goods and its relation with time and risk preferences*

Various studies suggest that spending priorities vary by gender, and that women tend to direct a higher share of the resources they control towards their children (e.g. Duflo, 2003; Duflo and Udry, 2004). Furthermore, several interpretations of the findings of Fafchamps et al. (2014) in Ghana are relevant here. It could be that distributing the grant in kind may earmark it more clearly for business investment, which would help beneficiaries overcome the lack of separation between business and household budgets. This lack of separation would affect women differently than men in the context of incomplete credit markets if women are responsible for or feel more compelled to allocate their income to household expenditures. Women who received a cash grant substantially increase both their household expenditures and transfers to household members, while the change in expenditures for men who received a similar cash grant is not significant.

Women's propensity to spend on domestic expenditures may have far reaching consequences. Just like biases in the allocation of household resources, it can affect women's time horizon but also their attitude towards risk. The need to cover a large share of the household's daily expenditures may make women more risk averse and/or make it harder for them to set money aside for long-term business investments. Evidence from lab experiments conducted in developed countries suggests that women tend to be more risk averse than men (Croson and Gneezy, 2009). Conversely, evidence on gender differences in time discount rates coming from developed countries (Dittrich and Leipold, 2014) suggests time preferences are not an important gender issue. In both cases, these differences have not thoroughly been studied in Africa. Additional research is necessary to further understand the mechanisms through which gender differences in preferences for different expenditures may play a role in business investment decisions.

(iii) *Time use/Disproportionate allocation of housework*

Women's time use is a constraint that is directly linked to the assignment of gender differentiated roles within the household. Women allocate substantially more time than men to housework and childcare, which limits the time they can spend on their entrepreneurial activities. The 2012 World Development Report highlights this trend: in South Africa, women provide 71 percent of the aggregated time spent on housework and care and in Ghana, women remain responsible for 80 percent of the housework on average, even if they contribute more than their partner to the household's earnings (World Bank, 2012). This shows that some women manage to draw substantial earnings from their activities even

when they are responsible for most of the housework. It also suggests that women could expand their economic activities if some of their time was freed, possibly through a more balanced allocation of housework and care tasks.

When considering the issue of time use, it is important to take into account not only the quantity of time available for market activities, but also women's ability to organize their time. For instance, women may need to stay at home at certain times of day even if those times would be the best for conducting business. Further research is needed to understand the role of gender differences in control over one's time, as imbalances in this area may be a factor driving women's choice of business sector and activities.

4. Addressing gender constraints to firm performance: Existing evidence on the effectiveness of several policy options

A growing literature on women's economic empowerment has explored the potential of several policy options in alleviating the constraints limiting female entrepreneurs' choices in Africa. In the previous section, we distinguished between constraints for which substantial evidence has been generated, and constraints for which the current evidence remains inadequate.

In this section, we examine interventions which have been shown to be effective in alleviating these constraints. Then, we review a number of initiatives which have not yet proven to be successful. We acknowledge though that limited revisions to the design of these interventions may increase their effectiveness. Buvinic and O'Donnell (2017) suggest that some gender oriented design features in training and access to finance interventions can yield more positive economic outcomes for women than for men.

The objective of this discussion is to be able to identify key knowledge gaps to be addressed in the future research agenda, which will be outlined in the next section. This will also be informed by some areas of interventions where there is some growing evidence, but so far most of this evidence is from outside the Africa region. There are also cases where evidence is only available for male entrepreneurs. An example of these is child care. There is growing evidence, especially from outside of the Africa region, about the impacts of child care programs. However, this evidence mostly focuses on impacts on children or on women's participation in economic activities, rather than looking at impacts on firm performance or women's ability to manage their businesses. Martinez et al. (2012) find that childcare services in rural Mozambique increased the caregiver employment rate by 26 percent. Barros et al. (2011) demonstrate that by introducing public-funded child care services in Brazil, mothers' employment increased from 36 to 46 percent, with a significant increase in household incomes (although the cost of childcare services offset these higher incomes). In Argentina, Berlinski and Galiani (2007) find that a large pre-primary school building program increased the likelihood of maternal employment by between 7 and 14 percentage points.

(A) Interventions that work

Savings accounts

Results from recent experiments suggest that providing MSMEs with access to savings accounts can have a substantial effect on their investment and growth. An experiment conducted in Kenya by Dupas and Robinson (2013) indicates that there might be a gender dimension to the effect of access to savings accounts. They find that providing female market vendors in Kenya access to savings accounts enabled large increases in business investment (over 45%), and consumption (37%), while providing such accounts to male *boda-boda* drivers in the same setting did not have any impact. However, it is not possible in this experiment to distinguish between the effects of gender and the effects of sector of operation on the impact of the intervention.

In an experiment in Kenya, participants who received a subsidy on an individual bank account (rather than a joint account) saw positive impacts on their income and assets over 2.5 years after the subsidy expired (Schaner, 2013). The results of this experiment suggest the impact of the intervention is concentrated in the subsample of participants that had an existing activity at baseline and that subsidies on savings accounts can help existing businesses grow. Schaner (2013) points to a change in mental accounting as a potential explanation for this result, but does not distinguish between the effect on male and female entrepreneurs. This work is in line with the findings of Fafchamps et al. (2014) in Ghana, which suggest that money that is explicitly earmarked for investment is more likely to be channeled into business activities. Campos, Goldstein and McKenzie (2015) show that accessing business bank accounts on top of formalization has significant impacts for women's usage of a set of financial services and for separating household and business money, although these impacts are not statistically different from those of men. Jack and Suri (2016) found that in areas where mobile payment provider M-PESA expanded more, female-headed households experienced greater increases in consumption than male-headed households. The rise in consumption came hand-in-hand with an increase in savings by female-headed households and a shift in women's occupations from subsistence farming to business and retail occupations (185,000 women moved from farming to business occupations).

These experiments suggest that providing women with access to secure savings mechanisms can be effective in helping women entrepreneurs overcome their lack of control over their income, a critical element to reduce the biases in the allocation of household resources.

In-kind and large cash grants

The returns to capital associated with in-kind and large grants seem to be positive for women entrepreneurs when this support is provided to the right group and/or through an adequate mechanism. Providing in-kind grants in Ghana – assistance in buying inventory or machinery - led to large profit impacts for women-owned firms, but only for those with larger businesses to start with (Fafchamps et al., 2014). Providing small cash grants (equivalent to two months of profits for the median firm) to a

similar group of entrepreneurs had no impact for women, while there was no statistically significant difference between in-kind and cash grants for male entrepreneurs. The authors point to a lack of separation between business and household budgets as the reason why in-kind grants were more effective than cash grants for existing women-owned enterprises. For some households, it can actually be profit maximizing at the household level that resources are diverted away from investments in women-run businesses. This may be the case if such an allocation ‘frees’ capital to be invested in other activities (male-run) where returns are higher. It should be noted however that differences in return to capital between female and male-owned firms are likely to reflect earlier decisions regarding allocations (biases can be self-perpetuating).

It is striking that two of the interventions with highest potential for existing firms - savings and in-kind grants – address similar constraints. Both saving accounts and in-kind grants (as opposed to completely fungible small-scale cash grants) may affect women’s mental accounting process and help them prioritize business investments. Both can also help women shield money from the demands of other household members or their larger family network, facilitating the allocation of resources to the women-owned business.

While small cash grants may be diverted to household expenses and/or men’s businesses, evidence suggests that larger cash grants may have significant impacts on women’s businesses. McKenzie (2015) shows that winning a large cash grant (six years of sales) in a business plan competition in Nigeria had significant positive impacts on the likelihood of a recipient operating a firm and that these impacts are larger for women than for men. McKenzie (2015) also finds equal and large positive effects for male and female-owned firms of winning these grants on employment creation, profits and sales. These results apply to both new and existing firms. Evidence from Blattman et al. (2014) is also indicative of this conclusion of the impacts of large-enough cash grants for new entrepreneurship.

Entry into entrepreneurship – as opposed to other labor opportunities - is further developed in a separate note covering youth employment (Chakravarty et al., 2017).

Skills development focused on gender-relevant content (psychosocial, influence of norms)

There is growing evidence of the importance of psychosocial skills for women entrepreneurs in Africa. The importance of socio-emotional skills on business outcomes is well-established, including self-confidence, leadership, creativity, risk propensity, motivation, resilience, and self-efficacy (Glaub and Frese, 2011). This may be particularly important for micro entrepreneurs and less experienced female entrepreneurs (Valerio et al. 2014).

An entrepreneurship program for women in South Africa found positive impact on profits and sales six months after training, as well as improved motivation and confidence (Botha et al., 2006). A program in Togo comparing personal initiative training—seeking to foster self-starting, future-oriented and persistent behavior — with managerial training found positive and significant effects on sales and profits of men and women-led micro enterprises, while managerial training did not have an impact. The impacts on profits of women-owned firms were of 40%. The gains followed from

increased business investment, expanding innovation and proactive pursuit of financing sources (Campos et al., 2017). A previous pilot experiment with small business owners in Uganda also found similar positive impact on sales of personal initiative training (Glaub et al., 2014). Participants in an innovative training program emphasizing self-esteem and entrepreneurship initiative in Ethiopia—DOT ReachUp!— reported 30% higher profits than the control group. The training increased motivation and confidence of participants (Alibhoi et al. 2016).

Mckenzie and Puerto (2017) showed also significant impacts in an impact evaluation of a five-day training program targeting female micro-entrepreneurs in rural markets in Kenya using the ILO's Gender and Entrepreneurship Together / Get-Ahead program. This program takes a gender perspective to building entrepreneurial skills by complementing basic management skills with topics such as cultural barriers to businesswomen and division of household and business activities. The study found positive effects on profits, survival and growth, which were enhanced three years after the training, suggesting the effect of the training consolidated over time. However, the evaluation did not find a significant impact on self-efficacy or other attitudes toward risk-taking, planning, or confidence in problem solving.

(B) Interventions that have had limited success

The limited impact of other types of interventions sheds light on the relative weight of different constraints and may suggest that there is a need to address multiple constraints simultaneously. It also indicates the importance of developing gender-informed interventions rather than generic interventions that fail to address the specific constraints that female entrepreneurs face.

Microfinance and small-scale cash grants

Microcredit services are one way of alleviating the capital constraint that women may face. Yet, a first round of six microfinance experiments (including in Ethiopia) has shown modest impacts on business investment and performance (Banerjee et al., 2015). One reason for the limited effects on profits is that microfinance loans tend to be used for household expenditures rather than business investments, a trend similar to that observed in the cash grant experiments. Alleviating the credit constraint only – at the available level of financing under limited access to collateral - does not seem to be sufficient to help women grow their businesses.

According to Buvinic and Furst-Nichols (2014), women who run subsistence-level firms face additional social constraints compared to similar men, thus explaining the differences in the outcomes of some loans, grants, and training interventions that favor men.⁵ One possible factor explaining the limited impact of microfinance (or grants) on women-owned enterprises is the presence of other enterprises in the household, with the capital being allocated to the highest-return enterprise, often led

⁵ Buvinic and O'Donnell (2016) have a more nuanced view of the effects of microlending for women. They acknowledge that micro-lending in itself may not be transformative, but may contribute to expanding financial freedom and encourage risk-taking over time of poor women.

by a man. Bernhart et al. (2017) reviewing household and enterprise effects of microfinance clients in India and cash grant recipients in Sri Lanka and Ghana suggest that additional capital may be invested to maximize household income. When the woman is the single entrepreneur in the household, the capital shock leads to positive returns, comparable to men's. Whereas in multiple-enterprise households, women-led enterprises experience no or little benefit.

Traditional business training programs

The evidence so far shows that while traditional business training programs can affect the business practices of the beneficiaries, their impact on firms' survival rates and profits remain limited for both men and women (McKenzie and Woodruff, 2013).

These findings may reflect the fact that skills are not a binding constraint affecting firms' growth or that there are joint binding constraints. It may also mean that training programs have been unable to equip entrepreneurs with the right skills that would allow them to expand their businesses (see McKenzie and Woodruff, 2015, which indicates the large correlation between business practices and performance). The large variance of impacts of the business training interventions may also reflect the heterogeneity of program design and implementation (Cirera and Qasim, 2014), making it difficult to assess whether all studies are examining the same problem. Field et al. (2014) evaluated a promising gender-informed training program outside of the Africa region, suggesting that the increase in mentoring and support from the right group can enhance the impacts of training. The program gave female entrepreneurs the opportunity to come with a friend to a training program in India, and the evaluation found this strategy very successful in increasing new firm investment and income.

Business formalization alone

In theory, business formalization could help increase women's control over assets, access to financial services, and access to networks. Recent impact evaluations indicate that demand for formalization tends to be limited. Bruhn and McKenzie (2013) provide an overview of the literature showing that interventions aimed at increasing formalization tend to have modest effects on business registration. Moreover, in an experiment in Sri Lanka, De Mel et al. (2012) find that formalization itself had only a limited impact on business outcomes. Benhassine et al. (2016) find in Benin that support in formalization had limited effects on registration. Campos et al. (2015a) found that a program of hand-holding substantially increased registration when separate from tax registration among both male and female firm owners, but registration alone had no effects on access to finance. Upcoming work will help understand further the relationship between formal status and performance and the importance of complementary interventions to be effective.

5. Knowledge gaps

Ignoring binding constraints when designing interventions may lead to lost time and resources. For instance, cash grants have been shown to work for male but not for women-owned enterprises. Scaling

up the distribution of cash grants to female entrepreneurs without simultaneously addressing the gender-specific constraints that they face means the program is unlikely to impact firms' performance.

When assessing the status of the evidence for each constraint and intervention, it is important to consider the following:

- When an experiment demonstrates that an intervention is effective in promoting the growth of women-owned businesses, it actually confirms two hypotheses: (i) that the constraint that was targeted is indeed binding; and (ii) that the intervention is effective in addressing the constraint.
- However, when an intervention has no detectable impact on the performance of women-owned businesses, it can be for one of these three reasons: (i) the constraint that was targeted is not binding, so addressing this constraint has no impact on business outcomes; (ii) the constraint is binding but the intervention that was tested is not an effective way of addressing it (either due to design or implementation issues); and (iii) the constraint that was targeted is important, the intervention that was tested is an effective way of addressing this constraint *but* female entrepreneurs face additional joint binding constraints. When that is the case, an intervention that relaxes only one of these constraints will not affect business outcomes. In order to design a successful intervention, it is thus important to identify all the binding constraints that women face and to design solutions that address all of them simultaneously.

Future research needs to take these issues into account in order to design effective interventions that address all of the binding constraints that female entrepreneurs face. This requires impact evaluations that compare different interventions addressing similar constraints - as a means of identifying methods of delivery that can work - as well as evaluations of combined complementary interventions that address multiple constraints simultaneously.

Furthermore, researchers should use an array of methods including qualitative and inferential research to learn about constraints women face while operating their businesses. Conducting this research *ex-ante* can maximize the cost-effectiveness of research funds by ensuring that only the best designed solutions are actually tested. Impact evaluations are important both for testing if specific barriers - eg: time use - are binding for business development, and for identifying specific solutions that can address these constraints. But in combination with developing new evidence on what works, it is critical to understand more about specific challenges women face and their relation with strategic choices. This will facilitate developing innovations that can be tested through rigorous impact evaluations. Our discussion above indicates that the differences between men and women's exposure to the constraints are not well documented. Therefore, it is important to include in the research agenda assessments of whether these differences are prevalent in Africa. This can be done through econometric analysis of large labor market and firm-level surveys - with a focus on informal enterprises - as well as qualitative studies in initial stages of developing an impact evaluation.

Research agenda

The upcoming research agenda should comprise the following elements: (i) an update on the depth of the gender gaps; (ii) documentation of constraints for which, as shown in this note, the evidence is mixed or limited; (iii) test through impact evaluations possible innovations that can overcome gender specific underlying constraints; and (iv) answer a group of broader research questions requiring a combination of multiple studies on household and non-household related issues.

(i) Update on depth of gender gaps in enterprise development in Africa

The first element of the research agenda going forward should comprise an update of the extent of the gender gaps in performance in Africa. The last comprehensive reports on gender gaps in enterprise development in Africa used data from 2010 or earlier, but there is now a growing number of more recent datasets available due to: (a) the increased number of household and MSME surveys conducted in Africa as countries' interest in and capacity to run such surveys has increased, (b) the implementation of various impact evaluations generating panel data on control groups, and (c) the push for open data. The analysis of gender gaps can include:

- Documenting the gender gaps not only in terms of business outcomes (revenues and profits), but also in terms of returns to factors of production (capital and labor).
- Estimating the share of these gaps that can be explained by firm and entrepreneur characteristics.
- Estimating the size of these gaps at different points of the productivity distribution (is the gender gap larger at the 25th or 75th percentile?).
- If there is sufficient overlap in the activities of male and female entrepreneurs, estimating these gaps within specific sectors.
- If there is a share of the gender gap that is not explained by firm and entrepreneur characteristics, assessing what could explain that remaining gap.

This work on documenting gender gaps should also include extensive descriptive analysis of gender differences in business operations. This could include looking at gender differences in firm or business-owner characteristics, business practices, and spatial dimensions of enterprises (using geographic information systems).

(ii) Documenting gender specific constraints

A second critical element of the research agenda should comprise documenting through qualitative and observational studies the depth of the constraints where evidence is more limited. As discussed above, there are areas where the evidence even at the constraint level is mostly anecdotal, or sometimes contradictory.

This descriptive work will likely not be sufficient to understand if the constraints are large determinants of the size of the gender gaps in business performance, but will be critical for learning more about the issues, improving the measurement of these problems, and developing hypotheses for future work.

The areas of focus should include:

- Differences between men and women on access to information and networks during the start-up phase and while operating their businesses. It will also be important to study the interaction of these gender gaps with household characteristics, as well as social and modesty norms⁶.
- Differences between men and women on time preferences
- Differences between men and women on attitudes towards risk
- Identifying and documenting effectively where the differences in capital prevail
- Assessing potential mechanisms of the relation between SGBV and firm development

This work on documenting constraints will support the more extensive research questions raised in (iv) below.

(iii) Impact evaluations of innovative policies

A third element of the research agenda should include testing of a comprehensive set of innovative policies that can potentially address the underlying constraints women-owned enterprises face in Africa. Considering the list of potential constraints in our framework and the knowledge gaps identified, a variety of policy options should be tested. Table 1 presents an illustrative (and non-exhaustive) list of some of the potential interventions that could be used to overcome specific constraints, and could therefore contribute towards learning about whether these constraints are binding. Most of the interventions considered jointly address several constraints, but here we highlight the main constraint that the intervention is designed to address.

⁶ Modesty norms include those associated with impacting practices like who to visit, when to go the market, who to talk to, etc.

Table 1: Innovations to be tested, by underlying constraint

Main Constraint	Question of interest with innovative intervention
Legal discrimination	<ul style="list-style-type: none"> • What is the impact of removing / improving particular gender-sensitive legislation⁷ on women’s enterprise development?
Social norms	<ul style="list-style-type: none"> • Do community-level interventions reduce the barriers associated with social norms and encourage women to prioritize investments in their businesses? Does including men in such programs facilitate women’s mobility or make it easier for women to set money aside to be invested in their business?
SGBV	<ul style="list-style-type: none"> • Do programs aimed at preventing SGBV have effects on enterprise development?
Education and skills	<ul style="list-style-type: none"> • When is the best time to deliver business skills development and access to finance interventions (should business skills be provided before or after the financing)? • Can we change business behavior through innovative technology by providing women entrepreneurs with real-time accounting, which allows for comparing their own performance with that of businesses in same sectors and locations?
Confidence	<ul style="list-style-type: none"> • Can self-esteem and confidence be taught? What is the best method of delivery (eg: mentoring, training, edutainment, etc)? How does this impact decisions to compete?
Capital and assets	<ul style="list-style-type: none"> • Can collateral requirements be replaced with psychometric tests to increase access to business loans for new women entrepreneurs and the size of the loans to those already with access? • Can we improve women’s access to business loans by allowing the use of movable assets as collateral? • Is equity investment more effective for female enterprise development than credit? • What are the effects of trade finance from cross-border traders?

⁷ Important evidence gaps remain regarding the extent to which legal reforms affect the growth of women-owned businesses and women’s economic well-being in general. This is because the adoption of legal reforms affects the whole population simultaneously, which makes it hard to assess the impact of these reforms in the context of an impact evaluation. Nonetheless, innovative design relying on gradual implementation or gradual dissemination of information may provide a way to do so.

	<ul style="list-style-type: none"> • Do micro-franchise programs help women set up small scale enterprises and encourage women to engage in non-traditional activities? • Does varying the size of grants in a business plan competition achieve the same results?
Access to networks and information	<ul style="list-style-type: none"> • Do information and mentoring programs about opportunities in high-return sectors (eg. using male mentors) help women cross over to male-dominated sectors? • Do mechanisms for connecting women-owned firms with business networks help overcome gender differences in accessing information about business opportunities? • Do supplier programs where women place joint orders through an innovative procurement mechanism increase access to networks of suppliers and reduce (gender sensitive and financial) costs of accessing them?
Biases in the allocation of resources	<ul style="list-style-type: none"> • Does conditioning cash grants on regular savings in a designated account help overcome self-control problems? • Does conditioning cash grants on participating in a household resource allocation training program increase investment in women-owned businesses? • Does relaxing the budget constraint of other household members lead to higher business investment?
Preferences for spending on domestic goods	<ul style="list-style-type: none"> • Does information alone about returns lead to further investment in business activities? Can conditionality facilitate separation of household and business decisions? • Are differences in risk preferences overcome through experimentation / games?
Time use	<ul style="list-style-type: none"> • Does providing women entrepreneurs with access to childcare services relax the time constraints they face?

(iv) Broad research questions

In addition to identifying interventions that can adequately address gender specific constraints, it is important to develop a broad research agenda with questions that will lead to multiple sub-studies using different methodologies. This research agenda can - generally speaking - be organized around issues related to the interaction between household issues and the enterprise, and those related to issues not directly connected to household dynamics.

This work will also be critical to understand which constraints need to be jointly targeted in order for an intervention to successfully foster higher profits for female entrepreneurs. Because women are likely to face multiple binding constraints, combining complementary interventions could be a fruitful approach to promoting the growth of their business.

Moreover, researchers need to take into account the specific channels through which constraints to women entrepreneurs affect business profits. For instance, it would be useful to know whether the priority of business training programs should be to provide technical knowledge on specific business practices or to build women's confidence in launching new ventures. Substantial knowledge gaps remain regarding the nature of the barriers women face and the mechanisms through which they can be alleviated.

This work requires combining inferential research with qualitative work, typically followed by testing specific hypotheses raised through rigorous impact evaluations. Some of the research questions are interrelated and it may not be possible to analyze them separately. Some of this broader research work may include:

- Investigate the drivers of households' behavior beyond simply looking at the allocation of household resources. One initial path of exploration is to estimate the difference in performance between firms of married and unmarried women, controlling for entrepreneur and household characteristics, and to track how the strategies of these two categories of female entrepreneurs differ. This type of analysis could also help understand: whether women's bargaining power within the household is correlated with their ability to grow their businesses; whether decisions are taken at the household or firm-level; who takes the decisions when it relates to women's businesses; and whether the answer to these questions is different for business owned by women and those owned by men.
- Investigate the circumstances under which household members adopt more or less cooperative behaviors. From the perspective of the individual, what are the costs associated with sharing information and pooling resources? How do these costs relate to business decisions and outcomes?

- Investigate biases in the allocation of labor (from household members or outside workers). Are there gender differences in quantity of hired labor? Are these differences driven by constraints on demand (access to resources to pay workers) or by constraints on supply (workers have a preference for/a more productive relationship with men)?
- Investigate differences in how women and men spend/invest the income generated by their businesses. What drives these differences?
- Investigate how funds from credit or grants are allocated between business investment, household consumption and transfers when a loan is received, given that the different sources of capital are fungible. A key point raised in the studies discussed in Banerjee, Karlan and Zinman (2015) is that we know little about what happens to the funds at the moment right after they are received.
- Investigate the extent to which norms impact business investment. One may also wonder how the definitions of different roles for men and women within enterprising households affect the time preferences of female entrepreneurs and their attitude towards risk. Under what conditions can social norms that constrain women's choice of activities evolve?
- Investigate the extent to which differences in social capital and access to specific networks explain potential differences in aspirations, choice of sector, and more broadly the performance gap between female and male-owned businesses. What challenges do women face in expanding their networks and accessing critical information or acquiring relevant skills?
- Investigate whether male and female entrepreneurs have different aspirations. Do they define different objectives for their businesses? To what extent are these differences explained by time constraints and/or social norms?
- Investigate how we can best screen women entrepreneurs to identify those with the most potential and to maximize the impact of government policies.
- Investigate the differences in decisions to compete with men. At what moment of women's lives do these differences become more prevalent? Are these differences associated with confidence? How do different social norms affect these decisions? What potential solutions can be identified to address these issues, especially when these are path dependent?

6. Conclusion

While women make up around half of entrepreneurs in Sub-Saharan Africa, there are large gender gaps in firm performance. There is no distinction in the innate abilities of male and female entrepreneurs to run a productive business. However, women face critical challenges when making strategic choices for the development of their businesses. Interventions to improve the performance of the private sector in Africa will be relatively limited in their impact if they do not address the gender-specific constraints that hinder the competitiveness of women's businesses.

Given the size of knowledge gaps about what works to address constraints to women's entrepreneurship, this note attempts to set priorities. Innovative policies should not only address specific challenges, such as finding solutions to alleviate the time burden that limits women's economic options, but also take into account the interaction between many of these constraints, such as limits to women's control over assets and biases in the allocation of household resources. These priorities are intended to help guide future research work on gender and enterprise development, and thus support efforts to inform policy making aimed at expanding the opportunities of enterprising women.

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