Why do SMEs matter?

The impact of small and medium-sized enterprises (SMEs) in developing countries and implications for DFIs and impact investors

Marta Bertanzetti, Shubhranka Mondal, Rania Nasir, and Matthieu Teachout

You can learn more about our work at **www.theigc.org**

DIRECTED BY

LSE

UNIVERSITY OF OXFORD

FUNDED BY

UKaid from the British people

British International Investment

Acknowledgements

We are grateful to the British International Investment (BII) team for their feedback and support. We are also grateful to Gabriel Ulyssea and Alexandra Miehlbradt for being the academic and practitioner advisors (respectively) and providing guidance and a comprehensive review of the report. We also extend gratitude to Helene Donnat, Likun (Sylvia) Tian, Ameek Singh, and Shwetha Grace Eapen for assistance with development and data analysis in the report.

Table of contents

Section 1 – Executive summary

In developing countries, small and medium-sized enterprises (SMEs) provide over 70% of jobs and contribute to nearly 35% of GDP (WTO, 2020). SMEs are traditionally backed by development finance institutions (DFIs) and impact investors under the assumption that they have large employment-generation capacities and the ability to foster equitable growth across various sectors of the economy. Nevertheless, in some instances, SMEs have been critiqued for their low levels of productivity, their limited provision of high-quality jobs, and the challenges they face in scaling production. Recent empirical evidence has uncovered mixed results in terms of the impact of SMEs, particularly when compared to large firms, and many unresolved evidence gaps persist.

This report examines key assumptions held by development practitioners – in terms of the productivity, employment-generation capacity, and inclusivity of SMEs – and assesses the extent to which they are supported by robust empirical evidence. When evidence is lacking or inconclusive, the report conducts targeted primary data analyses in an attempt to address these gaps in the existing literature. However, the scope of this report extends beyond evaluating the available evidence. It presents a novel framework for enhancing the classification of SMEs; it identifies key barriers to SMEs success and potential mitigation strategies; and offers a set of strategic recommendations tailored specifically to DFIs and impact investors.

This executive summary synthesises some of the key findings of the report by each section.

How are SMEs defined across countries and institutions?

There are four main criteria which can be used to determine whether a firm is small, medium, or large: the number of employees employed, the total value of assets held, the annual revenue, and the MSME loan size proxies. Yet there is no universal definition for an SME, and the term can refer to vastly different sized firms depending on the country, context, and institution. Development practitioners should take the varying definitions – as well as the country context – into account when designing programmes for or investing in SMEs.

What is the relative impact of SMEs on productivity, job creation, and inclusivity?

The evidence gathered in this report suggests that SMEs often play a crucial role in supplying necessary goods and services to poor and marginalised communities and remote rural regions that are often underserved by the distribution channels of large firms due to low

demand and high transaction costs. SMEs significantly contribute to job creation, with younger and smaller firms providing the largest share of job creation. However, other SME-related factors – such as job destruction, business dynamism, and how the jobs created contribute to economic growth –need to be considered when assessing SMEs' overall role in employment growth. Additionally, informal micro and small enterprises are often instrumental in providing employment opportunities to the most marginalised individuals and rural communities. Nevertheless, there is a need for further research on the extent to which larger SMEs contribute to the employment of poor and marginalised people. Finally, SMEs' contribution to aggregate output is significant due to their sheer number in developing countries; helping SMEs grow can therefore provide a substantial boost to a country's economy.

It must also be noted that large firms have been found to be more productive on average than SMEs due to their ability to take advantage of economies of scale, pay higher wages, and offer higher-quality jobs (in terms of nonpecuniary benefits and job security). Although SME growth is often an aim of developing countries, it is important to note that on average, large firms are often born large rather than grow large over time, underscoring the significant constraints on SMEs' growth in developing countries. Moreover, SMEs are typically not well integrated into global value chains (GVCs) but could potentially benefit significantly from stronger integration.

All in all, the evidence surrounding the impact of SMEs in developing economies is nuanced. Policymakers and development practitioners must thus acknowledge the fundamental heterogeneity of SMEs – as well as their wide-ranging impact – and tailor their interventions accordingly.

What barriers do SMEs face?

Firms in developing countries face multiple challenges that affect their survival and limit their growth; importantly, some of these challenges are more severe for SMEs than for larger firms. The report identifies the key barriers to SME success – including access to finance, access to infrastructure (electricity, transport, logistics, ICT, etc.), access to skilled workers, and the use of effective management practices – as well as various potential mitigation strategies.

In terms of access to finance, the effectiveness of strategies aimed at improving capital accessibility for SMEs varies significantly. This variance underscores the need for development practitioners and funders alike to evaluate their own efficacy, utilising research findings to inform best practices. What could work for micro and

small businesses may not necessarily yield similar outcomes for medium-to-large firms, for which the literature on access to finance is lacking. Nevertheless, the existing evidence highlights the need for reducing transaction and monitoring costs by leveraging, for example, digital screening facilities, and further exploring the avenue of equity-based financing.

In terms of access to infrastructure, it has been found that a lack of proper infrastructure facilities weighs more heavily on SMEs than on large firms. By adding more to the cost of production of goods and services, and to the overall cost of doing business, poor infrastructure in a particular country will often be among the most significant hindrances to SME development in that country.

Additionally, labour market frictions represent a significant challenge for SMEs in developing countries. Limited access to skilled workers as well as a scarcity of skilled labour supply represents another major constraint. While the use of subsidised apprenticeships and vocational training programmes has been shown to have a positive impact on labour market outcomes, there is a need for further research regarding the most beneficial type of programmes for SMEs.

Lastly, with regard to management practices, the literature shows that large firms in developing countries exhibit better-structured management practices in comparison to SMEs and tend to employ more experienced managers from outside the family sphere. A number of targeted interventions – including individualised management consulting services, coaching, mentoring, and peer interaction – have so far yielded positive results and better management practices in SMEs, but the way in which they are delivered plays a key role in their success.

How can we better categorise SMEs?

As mentioned, the term "SME" refers to firms of different sizes across different countries and organisations, and the impact of and barriers faced by SMEs vary with context. As such, it becomes crucial to acknowledge this heterogeneity and differentiate between the various types of SMEs that exist. Building on its findings, this report puts forth an enhanced categorisation of SMEs, which complements and expands existing SME categories. Its aim is to aid DFIs and other impact investors in better supporting SME growth by fostering an enabling environment while also identifying and strategically supporting the growth of high-performing SMEs. This enhanced categorisation is achieved by laying out matrices of the factors to look for when classifying SMEs, which include the age and size of a firm, the management capacity and aspirations of the entrepreneurs (i.e., their growth potential), and the barriers faced by different types of SMEs.

Based on these criteria, the report categorises SMEs as *subsistence firms, young shoots, rising stars*, and *established businesses.*

The above proposal is complemented by a review of the evidence around the efficacy of different tools for identifying high-performing or "winning" SMEs in developing countries. While the evidence regarding the predictive power of expert panel judgments in business plan competitions is not encouraging, a promising alternative involves leveraging peer networks within entrepreneurial communities for the identification of high-ability entrepreneurs. Nevertheless, effectively identifying high-potential entrepreneurs in a cost-effective manner remains a challenge that necessitates further research, and no universally applicable formula or fool-proof method exists that can guarantee the selection of winning SMEs.

How can impact investors better support SMEs?

Lastly, the report offers actionable recommendations for DFIs to strengthen their own capabilities in effectively supporting SMEs and outlines strategies through which DFIs can assist SMEs in overcoming growth constraints. These include:

- **Consider the heterogeneity within SMEs when making decisions**: SMEs vary significantly, not just in their definitions but also on other dimensions such as age, sector, ambition, owner characteristics, and formality. The diversity in SME characteristics influences their contextual impact and requires tailored approaches.

- **Enhance DFIs internal data collection on SMEs**: This involves enhancing existing data management systems to collect more nuanced, disaggregated and consistent data on SMEs.

- **Tailor products based on the type of SME targeted and anticipated impact**: Review products with the lens of the differential impact on SMEs and consider tailoring them to enhance the potential impact for targeted SMEs.

This report has been produced by the **International Growth Centre** (a research organisation based at London School of Economics and Political Science) in consultation with **British International Investment** (a DFI). We hope this report will help policymakers, development practitioners, and researchers to 1) better understand the nuances of the impact generated by SMEs in developing countries; 2) choose appropriate interventions to support winning SMEs; and 3) create enabling ecosystems for SMEs across developing countries.

Section 2 – Introduction

Policymakers have unlimited decisions to make with limited resources. The opportunity costs of these decisions are often higher in developing countries. Over the last few decades, there has been a growing emphasis among policymakers, impact investors, and development practitioners on supporting SMEs. These enterprises are recognised as an engine for economic growth, a means of poverty alleviation, and a vehicle for increasing employment (International Finance Corporation, 2021).[1] Nevertheless, as data collection and empirical studies have grown over time, the evidence regarding the impact of SMEs appears to be mixed, with several unresolved gaps remaining. Although SMEs play a vital role in most economies, often they are unable to benefit from economies of scale, are engaged in less productive activities, and provide fewer stable, quality jobs compared to large firms (Ciani et al., 2020; Vandenberg, Chantapacdepong, & Yoshino, 2016; Atkin et al., 2021).

Given the limited academic literature and fierce ongoing debate around the role of SMEs in developing countries, a better understanding of existing research evidence and practitioner knowledge is crucial. Accordingly, this review examines the key assumptions held by different stakeholders and investigates which are supported by rigorous empirical evidence. The aim is to help policymakers, impact investors, and development practitioners make better decisions on how best to support SMEs in developing countries.

This report combines quantitative and qualitative methods to study the impact of SMEs, the barriers they face, and their different typologies. In total, it covers evidence from over 200 academic research and practitioner papers, as well as over 30 interviews and focus groups with BII's team members, academic experts, and practitioners to understand the common assumptions surrounding SMEs. It also makes use of the World Bank Enterprise Survey (WBES) to plug gaps in the existing literature. For further information on the methodology employed, please refer to **Appendix 1**.

The report is structured as follows: It first reviews how different countries and organisations define SMEs. It then explores the impact of SMEs along the dimensions of productivity, employment, and inclusivity. This is followed by a discussion of the common constraints faced by SMEs in developing countries and possible strategies to mitigate them. Subsequently, the report puts forth a new typology that enhances the categorisation of SMEs and facilitates the identification of high-performing or "winning" SMEs. The report concludes by proposing actionable recommendations, tailored to DFIs and impact investors, and by highlighting areas for future research.

1 This resonated with several of the practitioners interviewed. Practitioners from DFIs, for example, perceived SMEs as having "higher growth and job creation potential".

Section 3 – SME definition: What are SMEs?

SMEs are a heterogeneous group of enterprises present across all sectors of a country's economy. These firms may include anything from a small cloth manufacturing unit to a salon to a call centre.

There are four main criteria which can be used to determine whether a firm is small, medium-sized, or large: the number of employees employed, the total value of assets held, the annual revenue, or the MSME loan size proxies. Importantly, the definition of an SME is subjective and varies across countries, multilateral organisations, and DFIs. For example, a 200-person tailoring unit in Pakistan might be categorised as a medium-sized enterprise by Pakistani officials, while in Nigeria the same firm would be classified as large. Similarly, there is no consistent definition used among DFIs. The Asian Development Bank (AdB), the World Bank (WB), and the International Finance Corporation (IFC) all have different cut-offs for which firms would be considered micro, small, medium, or large. Figure 1 demonstrates how the classification of a "large firm" can encompass firms of vastly different sizes depending on the definition in use.[2]

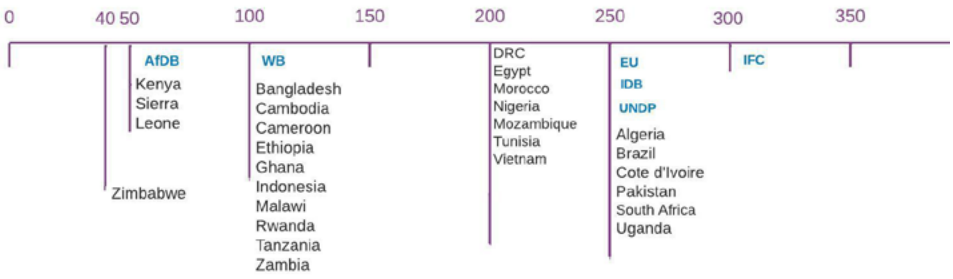


Figure 1: Illustration of what size (in terms of number of employees) constitutes a large firm for different countries' governments, multilateral organisations, and DFIs. (Source: Multiple – see Appendix 2 for more detail)

BII uses the **IFC's definition and thresholds** (detailed in **Table 1**). According to the IFC, a firm qualifies as an SME if it meets two out of the three criteria (employee, sales, and assets) or if a loan to the firm falls within the relevant micro, small, and medium enterprise (MSME) loan size proxy.[3] Therefore, based on the IFC definition, SMEs will have a range of 10 to 300 employees, a total asset value of USD 100k to USD 15 million, and/or annual revenue of USD 100k to 15 million.

2 **Appendix 2** complements Figure 1 and provides the cut-off for medium-sized firms in 35 developing countries where BII works in.

3 The MSME loan size proxies are based on the loan amount received by firms at origination and serve as a proxy when consistent reporting on the other three criteria becomes challenging. For more information, see **Table 1** and the related explanation in this **IFC document**.

Alternately, the loan size proxy for SMEs will range from USD 10,000 to USD 2 million.

Indicator	Employees	Total assets (USD)	Annual sales (USD)	MSME loan size proxy (i.e. loan size at origination)
Microenterprise	<10	<$100k	<$100k	<$10k
Small enterprise	10–49	$100k–$3 million	$100k– $3 million	<$100k
Medium-sized enterprise	50–300	$3–15 million	$3–15 million	<$1 million or $2 million[4]
Large enterprise	>300	>$15 million	>$15 million	>$2 million

Table 1: The IFC's working definition for MSMEs. (Source: IFC, 2023)

For this report, we use the IFC definition for SME classifications as this is the definition BII currently uses. Where the definition used in the literature differs from the IFC definition, we provide the relevant definition in the footnotes as well as in **Appendix 3** for reference.

KEY TAKEAWAYS

- SMEs do not share a universal definition, and the term "SME" can refer to firms with vastly different sizes depending on the context, country, and institution.
- Development practitioners should take the varying definitions, as well as the country context, into account when designing programmes for or investing in SMEs.

4 USD 2 million for more advanced countries, including Argentina, Brazil, Chile, China, Colombia, India, Korea, Mexico, Morocco, Peru, Russia, South Africa, Thailand, Tunisia, Turkey, and all EU accession countries – Poland, Hungary, Czech Republic, the Baltics, and Slovenia

Section 4 – SME impact: What is the impact of SMEs in developing countries?

As illustrated in the discussion above, definitions for SMEs in developing countries vary significantly. Importantly, as we will see in the following sections, SMEs differ not only in the way they are defined but also with regard to firm-specific factors such as age, sector, ambition, owner characteristics, and formality. Consequently, the relative impact of SMEs is likely to fluctuate widely based on the context within which they operate in.

This section covers (a) common assumptions around the impact of SMEs, especially in contrast to large firms, (b) the reliability and depth of evidence supporting the impact claims, and (c) the relevance of the evidence for policymakers, impact investors, and development practitioners. The report considers these assumptions across three dimensions: 1) productivity, 2) employment, and 3) inclusivity.

1. Firm productivity

The productivity of a firm is defined as its efficiency in converting inputs to outputs, and as such plays an important role in determining the pace at which economies grow (Syverson, 2010).[5] A large fraction of the differences in income per capita across countries can be explained by differences in the underlying productivity of firms (Hsieh & Klenow, 2010). Thus, increasing the productivity of firms in general as well as specifically supporting the growth of highly productive firms may propel countries to develop faster.

5 One can disaggregate productivity into two different measures: labour productivity (LP) and total factor productivity (TFP). LP is defined as a firm's value added per unit of labour employed. However, LP does not factor in the use of machinery and capital by the firm; this means that differences in LP across firms could simply be due to differences in capital intensity. For example, a worker using ten units of capital is likely to add more value than a worker using five units of capital. TFP reflects differences in outputs holding inputs constant (Syverson, 2010) . In other words, TFP captures differences in production across firms that cannot be explained by labour and capital, thus measuring how efficiently resources are utilised by a firm. As TFP captures the efficiency in production, it is often used to measure the differences in productivity across firms or economies.

In this section, we discuss five prevalent assumptions directly associated with SMEs' productivity when compared to that of large firms.[6]

Assumption 1a: Large firms are more productive than SMEs

Development practitioners believe that large firms are more able to take advantage of economies of scale and, therefore, are more productive than SMEs.

Verdict: True. Overall, the literature overwhelmingly concludes that large firms are, on average, more productive (Van Biesebroeck, 2005; Ciani et al., 2020).

Caveats: The key phrase in the above statement is "on average". When unpacking the data, there are significant variations in productivity both among SMEs and among large firms. Indicatively, approximately 35 percent of small firms in Africa have higher total factor productivity (TFP) than the median large firm (Van Biesebroeck, 2005). These heterogeneities can be explained by:

- **Sectoral differences**: Sectoral differences often occur in the business services sector of developed countries, where small firms present competitive advantages in "niche, high brand or high intellectual property content activities as well as the intensive use of affordable information and communications technologies (ICT)" (OECD, 2021).[7][8] Evidence emerging from developing countries generally supports this sectoral distinction, with less than 2 out of 10 large firms found to be the most productive in the services sector, against more than 6 out of 10 in the manufacturing sector (Ciani et al., 2020).

- **Country-level differences**: There is evidence suggesting that in some developing countries, such as South Africa, there are low levels of business dynamism among large firms, which fail to exploit economies of scale and may therefore not be as productive as many micro firms (Aterido et al., 2019).[9]

---

6 Note that, in discussing firm productivity here, we will not cover more complex and controversial questions around productivity/output growth, as evidence in this area is lacking for SMEs in developing countries. See **Assumption 1B** for further clarification of this matter.

7 The evidence here refers to OECD countries (plus Brazil) only, and not to developing economies.

8 Please note that the OECD definition for SMEs differs from the IFC one: microenterprises (fewer than 10 employees), small enterprises (10 to 49 employees), medium-sized enterprises (50 to 249 employees), and large enterprises (250 or more employees).

9 The Aterido et al. (2019) paper categorises large firms as firms with more than 100 employees.

Takeaway: When forming investment strategies, development practitioners should cultivate a holistic understanding of the potential productivity of firms. While firm size can serve as an indicator of productivity, with larger firms generally exhibiting higher levels of productivity, it is crucial to consider other variables. Factors such as sector- and country-specific attributes can sometimes confer advantages on SMEs. In **Section 6** of this report, we elaborate on the key factors to look out for when identifying high-growth SMEs.

Assumption 1b: In developing countries, most firms are SMEs and therefore contribute significantly to countries' aggregate output.

While smaller firms are, on average, less productive, their contribution to a country's overall level of output could be significant due to the sheer number of SMEs in developing countries. Helping SMEs grow can therefore have a substantial impact on a country's economy.

Verdict: **True.** Research shows that SMEs provide over 70%[10] of jobs and contribute nearly 35% of GDP in developing countries (WTO, 2020). Further analysis of WBES survey data reveals that a large proportion (i.e., around 70%) of firms in both South Asia and Sub-Saharan Africa are SMEs (see **Figure 2**).[11] This demonstrates the significant role of SMEs in developing countries' GDP.

Caveats: Although SMEs are responsible for a large proportion of aggregate output levels in developing countries, their role in driving economic (i.e., output) growth remains uncertain. Beck and colleagues (2005) discovered a positive and robust *correlation* between GDP per capita growth and the relative size of a country's SME sector. However, they did not find statistically significant evidence of a direct *causal* effect of SMEs on growth. Consequently, we cannot rule out the possibility that SMEs might not significantly contribute to the overall growth of an economy.

10 Please also refer to Figure 3.
11 Figure 2 does not include micro firms with fewer than five employees as this data is not covered by the WBES.

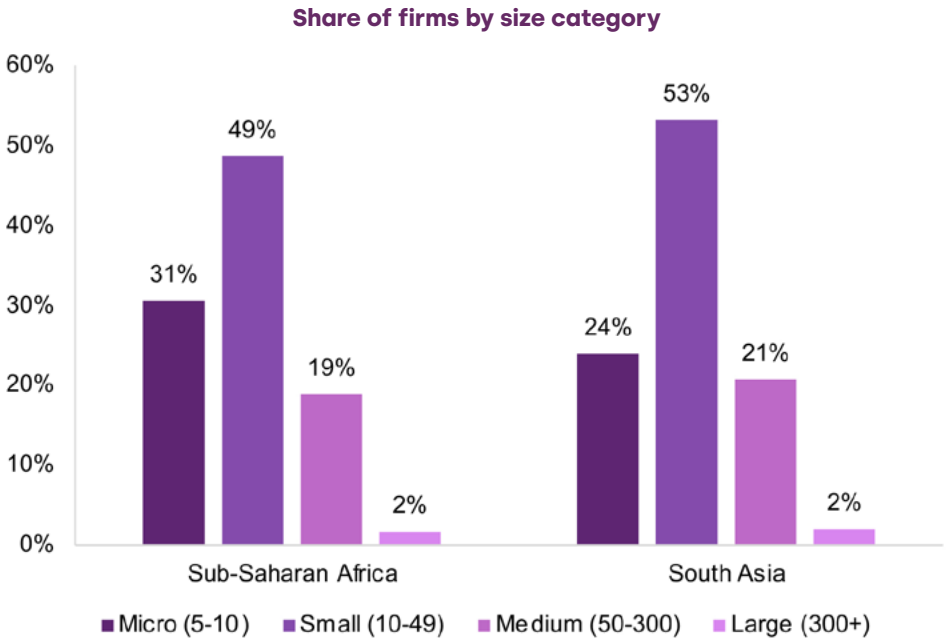


Figure 2: Share of firms by type and region. (Source: WBES)

Assumption 1c: There exists a missing middle of SMEs in developing countries

Some of the attention regarding SMEs in developing countries is driven by the assumption that developing countries typically lack medium-sized firms (the "missing middle" hypothesis). The objective of national government policies and DFIs is often to help plug this "missing middle" gap.

Verdict: False. As Figure 2 illustrates, most firms in Sub-Saharan Africa and South Asia are MSMEs (around 98%). The data does not support the hypothesis of a missing middle but rather points to a dearth of large firms in developing countries – a "missing top", as it were, with large firms typically constituting only 2% of the total (Ciani et al., 2020).[12] In fact, the number of firms gradually decreases as firm size increases: there are more micro and small businesses than medium-sized ones, and there are more medium-sized businesses in comparison to large businesses, without any abrupt shift in the pattern of business sizes (Hsieh & Olken, 2014).

12 The Ciani et al. (2020) paper defines large firms as firms with 100 employees or more. Nevertheless, their findings suggest that what is missing are "the larger of large firms", defined as those with 300+ employees (therefore aligning with the IFC definition of large firms).

Caveats: A recent World Bank study argues that the informality of firms plays a significant role in the debate – specifically, that a missing middle emerges only under the inclusion of informal businesses in a sample (Abreha et al., 2022). Although the study emphasises the importance of considering informality when examining firm growth patterns, its categorisation of large firms as those with 100 employees or more prevents a precise comparison with the definition used in this report, hindering an accurate assessment of its relevance.

Takeaway: The missing middle debate has been around for decades. The misconception stems partially from the discussion being conflated with the debate around SME financing. Arguably, SMEs in developing countries lack access to finance, creating a "missing middle" in terms of credit.[13] Moreover, the fact that the definition of SMEs varies across country borders and institutions amplifies the confusion. Existing beliefs about a missing middle also stem from predominantly arbitrary transformations that were applied to the data in prior research (Hsieh & Olken, 2014). Moreover, the discussion might be significantly influenced by the type of data collected (i.e., whether they include informal firms).

Assumption 1d: Large firms are formed by SME growth

There is a large focus on SME growth in development practitioner and policymaker circles, partly due to a belief that large firms are formed via firm growth.

Verdict: False. Evidence from across several developing countries suggests that large firms are often born large[14,15] rather than growing large over time, and size at birth is a strong predictor of firm size growth over the firm life cycle (Ayyagari, Demirguc-Kunt, & Maksimovic, 2021; Ciani et al., 2020). Accordingly, in a developing country context,

---

13 The idea is that SMEs find themselves in a credit gap, where they are too substantial for microfinance, too modest or risky for conventional bank loans, and do not possess the growth, profitability, or exit prospects typically attractive to venture capitalists. This situation results in the emergence of an underserved segment in the credit market often referred to as the 'missing middle'.

14 Scale can be considered as proxy for a bundle of other firm characteristics and strategies, such as managerial ability, ownership, and innovation (Ciani et al., 2020). Consequently, this implies that large firms are already born large or with "features of largeness" in their organisation, orientation, and capabilities that distinguish them from the typical firms in their industry from day one.

15 Ownership is a crucial determinant of firm size at origin, and it serves as a prime illustration of how, in practical terms, a firm can be classified as large (>300 employees) already at birth. When a firm is established by a foreign multinational or a very affluent or politically connected individual, the substantial resources (assets) at its disposal enable it to employ a large number of employees right from the start.

the chances of SMEs transitioning into large firms are typically not very high; only 1 in 10 small firms grows to medium size, and only 1 in 100 grows to become a large firm (Ciani et al., 2020).

Caveat: While SMEs rarely seem to grow into large firms, it is important to acknowledge that there are exceptions, such as "**gazelles**", for example.[16] Factors like the initial founding conditions of firms, the capabilities and aspirations of entrepreneurs, and higher wages can influence firm growth. In general, SMEs that successfully achieve substantial growth tend to adopt growth strategies similar to those employed by large firms right from their inception (Ciani et al., 2020). **Section 6** of this report provides tools for identifying exceptionally high-growth potential firms and understanding the prerequisites for a successful transformation.

Takeaway: Given the scarcity of large firms in developing economies, it becomes crucial to strategically foster the growth of specific growth-oriented SMEs (i.e., gazelles) as a means of large-firm creation.

Assumption 1e: SMEs contribution to global value chains is limited

Development practitioners assume that SMEs in developing countries are not well integrated into GVCs, often only functioning as input providers or remote retailers.[17]

Verdict: **True.** Although the international fragmentation of production would seem to have increased opportunities for SMEs, the participation of SMEs in GVCs is still relatively limited compared to that of large firms (Ganne & Lundquist, 2019). This may be driven by several size-related constraints that SMEs face, including challenges with production at scale, limited access to credit, informality, and difficulties in procuring cost-effective inputs while maintaining export-ready product-quality standards (Cusolito, Safadi, & Taglioni, 2016).

The under-representation of SMEs in GVCs is an opportunity for growth. There is a growing body of research illustrating the advantages and the positive productivity spillovers of firms joining GVCs (Alvarez & Lopez, 2008). While the literature largely focuses on spillovers from large firms or multinational corporations (Alfaro-Ureña, Manelici, & Vasquez, 2022),[18] a study from Uganda illustrates how small first-time exporters experience productivity gains and shift to more productive domestic suppliers when joining GVCs (Spray, 2017).

16 See Section 6: "Common categories" for an extensive definition of gazelles.
17 This assumption emerged from multiple interviews carried out with BII staff.
18 In the Alfaro-Ureña, Manelici, and Vasquez (2022) paper, large MNCs are considered to be those with >100 employees.

Caveat: In developing countries, obtaining comprehensive data on international trade by enterprise size is a complex task. This hinders in-depth analysis and often results in incomplete information, making it difficult to quantify the exact contribution of SMEs to GVCs (Ganne & Lundquist, 2019). Moreover, findings on *direct* participation might underestimate the role played by SMEs in GVCs, as SMEs can also join GVCs *indirectly* by supplying inputs to other local firms – domestic or foreign-owned – that export (Slaughter, 2013). However, evidence on indirect participation is scarce and challenging to collect, and when available, it suggests that indirect exports tend to have a lesser significance in developing countries (WTO, 2016). Lastly, in the face of declining multilateralism, regionalism and domestic redistribution aimed at generating a larger middle class may provide attractive alternatives to globalisation for driving a nation's development trajectory (Goldberg & Reed, 2020). This trend is already evident in Asia and Africa, where a regionally focused approach has gained traction through regional trade agreements like RCEP and the AfCFTA. This shift underscores the substantial contribution that SMEs could make, even beyond their involvement in GVCs.

Takeaway: While SMEs are under-represented in GVCs, the digital economy provides new opportunities for SMEs to play a more active role (WTO, 2018) – particularly in the services sector, where SMEs are most likely to engage in trade (ABAC, 2018).

KEY TAKEAWAYS: PRODUCTIVITY

- On average, large firms are more productive than SMEs, as they are more able to take advantage of economies of scale.
- SMEs' contribution to aggregate output is significant due to their sheer number in developing countries; helping SMEs grow can therefore have a substantial impact on a country's economy.
- There exists no missing middle of SMEs in developing countries, but rather a missing top of large firms.
- Large firms are often born large rather than growing large over time.
- SMEs are not well integrated into GVCs but could potentially benefit significantly from stronger integration; the digital economy presents new opportunities for SMEs to play a more active role in GVCs.

2. Employment

One primary reason SMEs have been viewed as essential to economic development is related to their contribution to overall employment in developing countries. **Figure 3** illustrates how the majority of employed labour is found within SMEs, which contribute, on average, to over 70% of the jobs in developing countries.[19]

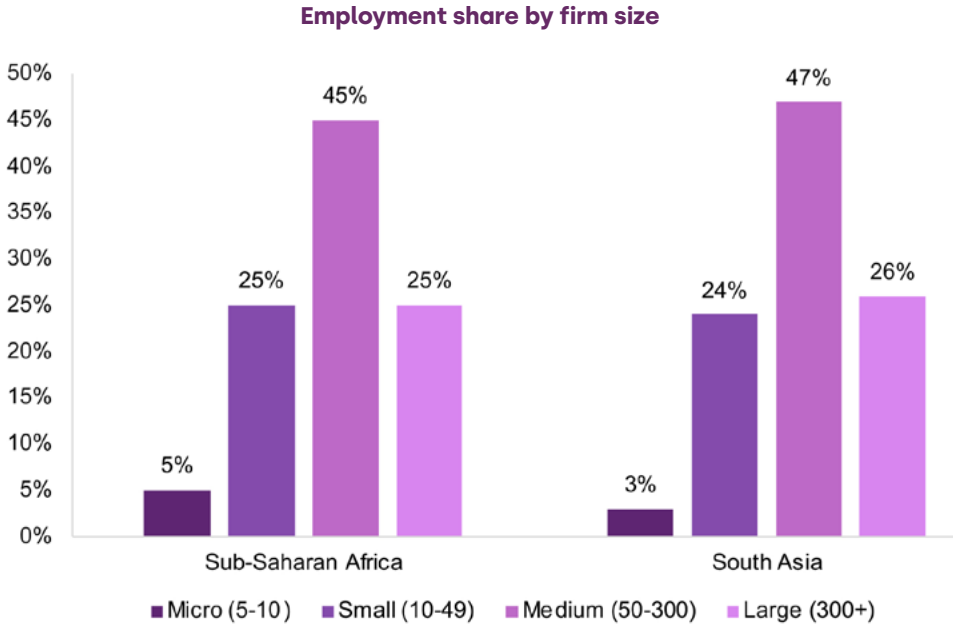


Figure 3: Employment share by firm size in Sub-Saharan Africa and South Asia. (Source: WBES)

While total employment is a useful indicator, aspects such as employment growth, wages and quality of jobs are also important to consider when evaluating the impact of SMEs. Accordingly, the following section delves into the literature to gain a comprehensive understanding of how SMEs in developing countries contribute to job creation and destruction, as well as the quality of jobs they offer. It furthermore sheds light on other factors beyond firm size that play a crucial role in employment considerations.

19 Please note that the WBES dataset does not include microenterprises with fewer than five employees and labour employed in informal firms.

Assumption 2a: SMEs create most of the jobs in the economy

Given that SMEs constitute a significant portion of firms in developing countries (as illustrated in **Figure 2**), it is often assumed that these firms are the primary drivers of job growth.

Verdict: Partially true but not the complete picture. While SMEs seem to be responsible for relatively higher levels of job creation, there are other SME-related factors – such as job destruction, business dynamism, firm age, the value-add of the jobs created on economic growth – that must be considered when assessing SMEs' overall role in employment growth.

With regard to job destruction, SMEs destroy jobs at higher rates than larger firms. Although most evidence regarding this phenomenon pertains to developed countries, evidence is emerging of similar patterns in developing countries (Reinecke, 2002; Lawless, 2014; Levinsohn, 1999).

It is equally important to consider business dynamism[20] when determining the root cause of employment growth. Do SMEs grow and therefore employ more workers over time, or is it the entry of new firms that creates job opportunities? Understanding the difference between the two can have important policy implications. Research from developed countries shows that newly entered small firms – as opposed to the growth of incumbent firms – drive the largest share of job destruction, net job change, and total job creation (Lawless, 2014). Some evidence of this phenomenon is also present in developing countries: Rijkers and colleagues (2014), for example, unveil that the bulk of net job creation is driven by the new entry of one-person firms rather than by incumbents growing over time;[21] Reinecke (2002), meanwhile, shows that the majority of new jobs in Southern Africa came into being when micro or small enterprises themselves were started.[22] This is partly because, once born, SMEs seldom grow, and post-entry these firms tend to stagnate (Rijkers, Arouri, Freund, & Nucifora, 2014; Ciani et al., 2020). Furthermore, SMEs are characterised by high rates of enterprise birth and death, making the jobs provided by SMEs less stable in nature.

20 Business dynamism relates to firm entry and exit in the economy and its impact on employment (Office for National Statistics, 2019).

21 Please note that while jump-start self-employment is the dominant driver of job creation in the Rijkers et al. (2014) paper, post-entry one-person firms are the worst performers in terms of net job creation.

22 In the Reinecke (2002) paper, small enterprises are defined as non-agricultural enterprises with 1–49 workers.

When it comes to firm age, evidence from developing countries reveals that younger firms primarily drive rates of employment growth, despite their higher exit rates (Rijkers, Arouri, Freund, & Nucifora, 2014; Ayyagari, Demirguc-Kunt, & Maksimovic, 2014). Though reliable estimates for firm age are harder to come by, this finding remains consistent with research from developed countries (Haltiwanger, Jarmin, & Miranda, 2013; Lawless, 2014). All in all, it appears that small, young firms create the most jobs in developing countries relative to large firms (Ayyagari, Demirguc-Kunt, & Maksimovic, 2014).

Because data for developing countries is limited, we use the WBES data to analyse firm growth in Africa and South Asia, disaggregated by firm size and age. **Figure 4** indicates that MSMEs that are between 0 and 4 years of age exhibit some of the highest employment growth rates when compared to more mature firms.[23]

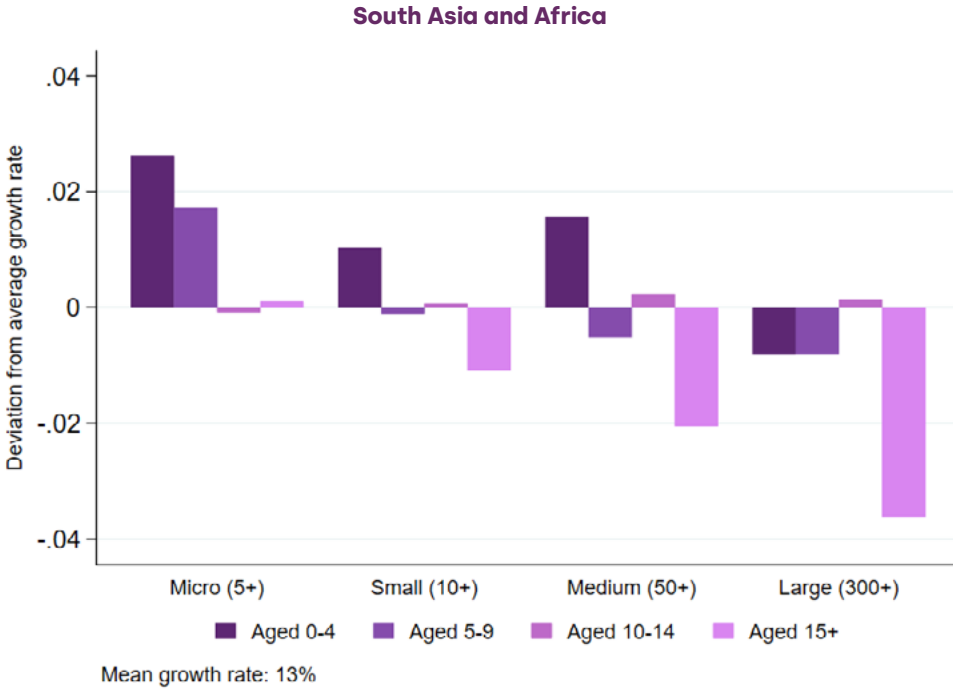


Figure 4: Firm age and employment growth rates in Africa and South Asia. (Source: WBES)

Regarding the value-add[24] of these jobs, Ayyagari and colleagues (2014) show that small firms are responsible for the largest share of job creation – even in those countries experiencing an aggregate net

23 Please note that in Figure 4, we plot deviations from the "average growth rate" of businesses. The figure does not mean that growth is negative above 15 years of age, and it does not tell us if some businesses experience very high growth.

24 Value-add refers to the contribution to the productivity/output growth of an economy.

job loss.[25] However, SMEs' contribution to productivity growth is not as significant as that of large firms, suggesting that the jobs created may not necessarily be high-growth in nature (Ayyagari, Demirguc-Kunt, & Maksimovic, 2014). As such, it is crucial to not only focus on creating more jobs but also to emphasise the promotion of more productive jobs as a catalyst for driving growth.

Inarguably, then, there exist several factors that are important in determining the relationship between SMEs and employment growth in developing countries. Consequently, we conducted an analysis to identify the probability that firms of a certain size and age, and within specific sectors and country income levels, would generate high and very high job growth over the course of five-year periods. **Table 2** reports the results of this analysis.[26] The lowest tier of medium-sized firms (50–99 employees) is by far the bracket which is the most likely to experience high and very high job growth, followed by small firms (10–49 employees). Younger firms (with an age below four years) are also very likely to experience high job growth. Firms in lower middle-income countries are more likely to experience high job growth rates than firms in low-income countries.

Takeaway: These findings hold valuable implications for development practitioners as they illustrate that SMEs are not one homogenous block, which emphasises the need for highly disaggregated data. Additionally, they reinforce the importance of firm age as a key predictor of job creation, and the necessity of collecting relevant data on this particular metric.

25 In the Ayyagari et al. (2014) paper, small firms are defined as those with <20 employees, and medium firms as those with <100 employees.

26 We used panel data from the WBES. Please note that WBES data is limited as we do not observe firms that died or were born between the two surveys. Moreover, the dataset is limited to formal firms of five employees or more, thereby excluding some microenterprises as well as all informal firms. We also restricted the sample to firms in South Asia and Sub-Saharan Africa.

Firm categorisation		Probability of experiencing high job growth[27]	Probability of experiencing very high job growth[28]
Firm size	9 employees or fewer	4.1%	0.8%
	Between 10 and 49 employees	30.7%	12.7%
	Between 50 and 99 employees	58.5%	40.8%
	Between 100 and 300 employees	16.3%	2.3%
	More than 300 employees	18.9%	18.2%
Firm sage	1 to 4 years old	37.3%	25.6%
	5 to 9 years old	24.2%	15.6%
	10+ years old	17.6%	6.0%
Income level	Low-income country	16.2%	7.6%
	Lower middle-income country	29.7%	13.3%
Sector	Manufacturing	21.3%	11.3%
	Retail	24.6%	9.8%
	Other services	9.3%	6.3%

Table 2: Probability that firms of a certain size, age, and within specific sectors and country income levels experience high and very high job growth. (Source: WBES)

27 High job growth is considered to be growth of 50% over five years.
28 Very high job growth is considered to be growth of 100% in five years.

Assumption 2b: Large firms provide higher wages and higher quality jobs

Development practitioners believe that large firms provide higher-quality jobs in terms of wage premiums, better benefits, and more stability in comparison to SMEs.

Verdict: True. Large firms pay higher wages than smaller firms in developing countries (Ciani et al., 2020; El Badaoui, Strobl, & Walsh, 2010; Reed & Tran, 2019). This link between large firms and higher wages, sometimes referred to as the large-firm wage premium, can be partially attributed to the fact that large firms attract and employ more high-skilled workers. But this is not the only reason: even after accounting for workers' characteristics and nonpecuniary benefits, large firms still pay higher wages – with a premium that remains close to 22 and 15 percent respectively, according to Ciani and colleagues (2020).[29] This remaining gap in wages can be explained by larger firms being more productive than smaller ones. Importantly, the magnitude of the wage premium is considerably higher in developing countries (Ciani et al., 2020).

Beyond higher wages, large firms in developing countries offer higher-quality jobs compared to SMEs: that is, jobs which encompass nonpecuniary benefits like health insurance, social security, and formal training (Ciani et al., 2020; ILO, 2014). Large firms are more inclined to provide formal employment contracts and offer more secure jobs (Reinecke, 2002). Enhanced job security is indeed evident in large firms, where workers are more likely to have full-time employment and are less likely to engage in additional jobs (Ciani et al., 2020).[30] This evidence aligns well with the data from developed countries (Bloom, Kretschmer, & Van Reenen, 2011; Garcia & van Soest, 2016; Haltiwanger, Hyatt, & McEntarfer, 2015).

Warning: The observation that the large-firm wage premium is generally higher at lower levels of country income suggests that higher market frictions in developing countries could be a key factor contributing to this gap (Ciani et al., 2020), which in turn might pose barriers to firm growth in terms of high labour costs (Gelb, Meyer, & Ramachandran, 2014). This raises the question of whether there exists

29 To clarify, the premium remains close to 22 percent when accounting for workers' characteristics and to 15 percent when accounting for nonpecuniary benefits.

30 While the Ciani et al. (2020) paper considers small firms to be those with <50 employees and large firms to be those with >100 employees, it also shows results disaggregated in smaller bins for firms with >100 employees, revealing that its findings are even more relevant and true for the largest of large firms. For this reason, the findings do not conflict with those of our report.

a trade-off between job quality and development for developing countries on their path to industrialisation (Ciani et al., 2020), as well as whether excessive regulation or the too-rapid improvement of job quality could "keep the industrial boom from happening" (Blattman & Dercon, 2018).

KEY TAKEAWAYS: EMPLOYMENT

- While SMEs seem to be responsible for relatively higher levels of job creation, there are other SME-related factors that must be considered when assessing SME' overall role in employment growth.
- Smaller, younger firms take the lead in creating the most jobs in developing countries.
- Large firms pay higher wages and offer higher-quality jobs in terms of nonpecuniary benefits (such as health insurance, social security, and training) and job security and stability.

3. Inclusivity

Although SMEs provide lower-quality employment in comparison to large firms, they might employ people who would not be able to obtain employment in larger firms, thus playing an important role in sustaining large parts of the population in developing countries. Poverty reduction and inclusivity are major motives for policymakers', development practitioners', and researchers' focus on the impact of SMEs. The two primary mechanisms through which firms can be inclusive and contribute to poverty alleviation are (1) by providing employment to marginalised communities and/or (2) by providing goods and services to marginalised communities.[31] In this section, we examine the available literature to understand the inclusivity potential of SMEs and leverage primary data to complement our findings.

Assumption 3a: People from disadvantaged communities are more likely to find employment in SMEs.

Some development practitioners believe that microenterprises and SMEs provide more employment opportunities to disadvantaged people; this includes people in remote regions or from marginalised communities.

Verdict: Limited evidence. Individuals living in poverty are more inclined to be self-employed or operate microenterprises, which are usually informal and on average have no paid staff (Banerjee & Duflo, 2011). Beyond micro and small enterprises and informal firms, there is limited evidence available (especially rigorous academic evidence) that directly compares SMEs of varying sizes in terms of whom they employ.

According to Altenburg and Eckhardt (2006), informal small enterprises in the poorest developing countries play a vital role in providing employment opportunities for individuals who face challenges in securing jobs in formal, modern, and registered activities. This includes elderly and disabled individuals, women with household responsibilities, people living in economically disadvantaged rural areas, those who have been laid off during economic downturns by the formal labour market, and individuals with limited skills and education (Fluitmann & Momo, 2001). In rural areas, micro and small firms have been found to be providers of most non-farm employment, which has been shown to have a much greater importance in Africa, Asia, and Latin America than previously assumed (Davis, Reardon, Stamoulis, & Winter, 2002). Finally, very small enterprises can provide informal training to the poor who

31 This includes marginalising factors such as race, gender, religion, ethnicity, disability, geography, etc.

lack access to formal education, in the form of on-the-job training and informal apprenticeships (Boehm, 1997; Liimatainen, 2002). However, these training opportunities are largely confined to low-skill activities.

When examining the specific context of women as a marginalised group, we encounter some additional evidence. The IFC (2011) estimates that, in developing countries, approximately 8 to 10 million formal SMEs are owned by women, accounting for around one-third of all formal SMEs. Female entrepreneurship is concentrated in smaller enterprises, with about one-third of very small businesses being owned by women, compared to 20 percent of medium-sized enterprises (ILO, 2015). Looking at female participation in ownership across Sub-Saharan Africa, Hallward-Driemeier (2013) found that it declines with firm size when considering sole proprietorship[32] – the share being roughly 28 percent for micro-enterprises, 20 percent for SMEs, and 15 percent for larger firms.[33] Moreover, while there is not much high-quality global data available on the subject, it is generally assumed that female entrepreneurs are more likely than their male counterparts to operate in the informal economy (ILO, 2015), with at least 30 percent of women participating globally and more than 60 percent participating in Africa (World Bank, 2013).[34]

As there is limited rigorous research on different forms of inclusivity, we partially fill the gap by using WBES data to build a picture of female employment by firm size and region (see **Figure 5**).[35]

According to data from the WBES, SMEs in both Sub-Saharan Africa and South Asia exhibit a higher share of female full-time workers in comparison to large firms. However, a notable disparity exists between the two regions in terms of female representation in large firms. In Sub-Saharan Africa, only 5 percent of the workforce in large firms is female, whereas in South Asia large firms employ a higher percentage of female workers (28%), which is only slightly lower than the share observed in small firms (see **Figure 5**). It is worth noting that the share of female workers in microenterprises appears relatively low, particularly in South Asia. This discrepancy may be attributed to the exclusion of microenterprises with fewer than five employees and the labour employed in informal firms from the WBES data.

32 Note that the author does not find significant differences by firm size except for fairly large firms (500+ employees) when considering all formal firms (and not only sole proprietorship).

33 Large firms refer here to those with 100+ employees, SMEs to those with 11–100 employees, and microenterprises to those with 1–10 employees.

34 These statistics refers to women in the non-agricultural labour force that are self-employed in the informal sector.

35 Please note that the WBES dataset does not include microenterprises with fewer than five employees and labour employed in informal firms.

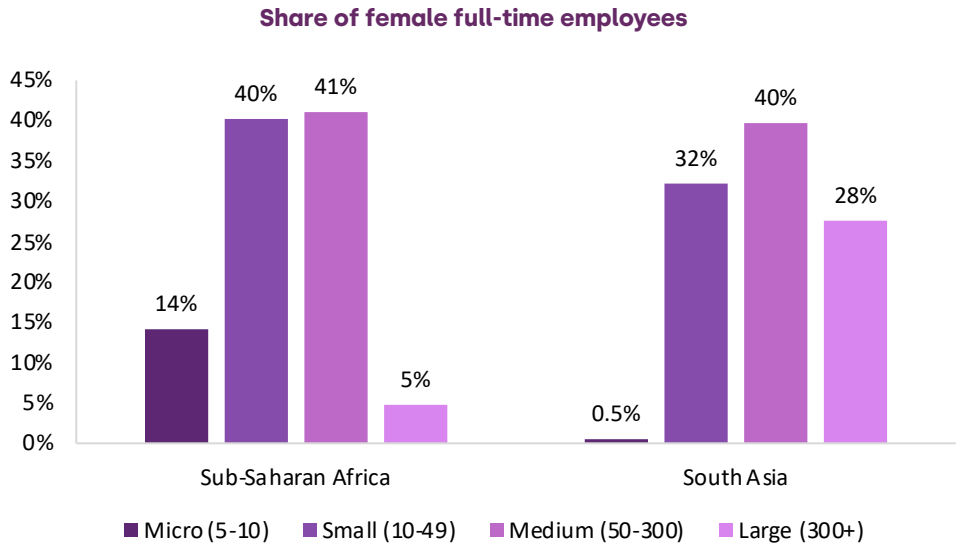


Figure 5: Share of female full-time employees by firm size and region. (Source: WBES)

Assumption 3b: SMEs provide necessary goods and services to marginalised communities and/or communities in remote locations

In many developing countries, the poorest individuals often lack access to basic goods and services such as food, water, and sanitary products. SMEs, although by no means a replacement of state provision of public services, are often believed to play a crucial role in reaching the most marginalised and remote communities with essential goods and services.

Verdict: True. Evidence from developing countries reveals that SMEs are instrumental in supplying necessary goods and services to the poor (World Bank, 2002) and to marginalised regions that are often underserved by large firms due to low demand and high transaction costs (Altenburg & Eckhardt, 2006). By catering to small-scale and dispersed local markets, SMEs bridge this gap and reach some of the most economically vulnerable consumers, thereby contributing to enhancing their economic and human capacities.

Solo (1999) collected case studies from the UNDP Water and Sanitation Programme (WSP) and concluded that small-scale private sector firms act as primary providers of basic water and sanitation to those lacking conventional access in a great range of urban areas in Africa, Asia, and Latin America. Besides basic services, SMEs also serve as significant suppliers of essential goods. According to Hemmer and Mannel (1989), about 25 percent of informal SMEs in developing countries are engaged in manufacturing low-end basic consumer products, such as food items, garments, and furniture, specifically tailored for marginalised customers.

Caveat: There is a lack of recent evidence on the role of SMEs in the provision of basic needs and services to marginalised communities: most papers, reports, and case studies date back to the early 2000s at the latest. As such, the subject requires further scrutiny.

KEY TAKEAWAYS: INCLUSIVITY

- Informal micro and small enterprises in developing countries play a vital role in providing employment opportunities for individuals from marginalised communities and rural areas. Evidence on the contribution of larger and formal SMEs is, however, rather limited.
- Female entrepreneurs are more likely to operate in the informal economy as well as in smaller formal enterprises. Evidence around female employment in SMEs is mixed and potentially influenced by regional factors.
- SMEs are instrumental in supplying goods and services to poor and marginalised communities and regions that are often underserved by large firms due to low demand and high transaction costs. By catering to small-scale, dispersed, and low-end local markets, they manage to reach some of the most economically vulnerable consumers.

The above discussions shed light on the nuanced evidence surrounding the impact of SMEs in developing economies along the dimensions of productivity, employment and inclusivity.

On the one hand, SMEs play a crucial role in supplying necessary goods and services to poor, marginalised, and remote communities that are often underserved by large firms. They significantly contribute to job creation, with younger and smaller firms experiencing the largest share of job creation. Additionally, informal micro and small enterprises are instrumental in providing employment opportunities to the most marginalised individuals and rural communities. Nevertheless, there is need for further research on the extent to which *larger* and formal SMEs contribute to the employment of poor and marginalised people. Overall, SMEs' contribution to aggregate output is significant due to their sheer number in developing countries; helping SMEs grow can therefore have a substantial impact on a country's economy.

On the other hand, large firms are on average more productive than SMEs due to their ability to take advantage of economies of scale; they also pay higher wages and offer higher-quality jobs in terms of nonpecuniary benefits and job security and stability. Large firms are often born large rather than growing large over time, underscoring the significant constraints on SME growth in developing countries. Lastly, SMEs are not well integrated into GVCs but could potentially benefit significantly from stronger integration.

Policymakers and development practitioners must acknowledge the significant heterogeneity of SMEs, as well as their wide-ranging and nuanced impact in developing countries. It is crucial to differentiate between the various types of SMEs in order to gain a comprehensive understanding of their economic role. This holistic perspective is vital for informed decision-making, as it ensures that the distinct contributions and challenges of different SMEs are duly considered. **Section 6** of this report aims to facilitate this undertaking.

	Key Assumptions	Quantity and Quality of evidence	Takeaways, Caveats & Scope for Additional Research
Productivity	a) Large Firms are more productive than SMEs **Verdict: True**		• On average, large firms are more productive than SMEs, as they are more able to take advantage of economies of scale. • While firm size can serve as an indicator of productivity, it is crucial to consider other factors, such as sector and country-specific attributes, which can sometimes confer advantages to SMEs.
	b) In developing countries, most firms are SMEs and therefore contribute significantly to a country's aggregate output **Verdict: True**		• SMEs contribution to aggregate output is significant due to their sheer number in developing countries. • Helping SMEs grow can therefore have a substantial impact on a country's economy. • Yet, SMEs role in driving economic (i.e. output) growth in developing countries remains uncertain and should be subject to further scrutiny.
	c) There exists a missing middle of SMEs in developing countries **Verdict: False**		• There exists no missing middle of SMEs in developing countries, but rather a missing top. • Existing beliefs about a missing middle stem from predominantly arbitrary transformations that were applied to the data in prior research.

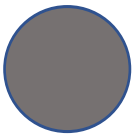
Productivity	d) Large firms are made by SMEs growing **Verdict: False**		• Large firms are often born large rather than growing large over time. • A few exceptions are present, commonly known as 'gazelles'.
	e) SMEs contribution to global value chain is limited **Verdict: True**		• SMEs are not well integrated into GVCs, yet they could potentially benefit significantly from stronger integration. • The digital economy opens new opportunities for SMEs to play a more active role in GVCs. • As comprehensive data on international trade by enterprise size are complex to come by, this hinders in-depth analysis and often results in incomplete information, making it difficult to quantify the exact contribution of SMEs towards GVCs.
Employment	a) SMEs create most of the jobs in the economy **Verdict: Partially true but not the complete picture**		• Smaller, younger firms take the lead in creating the most jobs in developing countries. • While SMEs seem to be responsible for relatively higher levels of job creation, there are other SME-related factors – such as job destruction, business dynamism, firm age, the value-add of the jobs created on economic growth - that must be considered when assessing SMEs' overall role in employment growth. • Looking at aggregate levels of total employment, SMEs tend to provide over 70% of jobs in developing countries.
	b) Large firms provide higher wages and higher quality jobs **Verdict: True**		• Large firms pay higher wages compared to SMEs • Large firms also offer higher quality jobs in terms of nonpecuniary benefits (such as health insurance, social security and training) and job security and stability. • The large-firm wage premium is generally higher at lower levels of income, which suggests that higher market frictions in developing countries could be a key factor contributing to this gap.
Inclusivity	a) People from disadvantaged communities are more likely to find employment in SMEs **Verdict: Limited Evidence**		• Informal micro and small enterprises in developing countries play a vital role in providing employment opportunities for individuals from marginalised communities and rural areas. • But evidence on the contribution of larger and formal SMEs is rather limited, hence this subject requires further research. • While female entrepreneurs are more likely to operate in the informal economy as well as in smaller formal enterprises, evidence around the share of female employment in SMEs is mixed and potentially influenced by regional factors.
	b) SMEs provide necessary goods and services to marginalised communities and/or in remote locations **Verdict: True**		• SMEs are instrumental in supplying necessary goods and services to poor and marginalized communities and remote regions that are often underserved by large firms due to low demand and high transaction costs. • But research evidence on this subject is limited and rather old, dating back to the early 2000s. As such, the subject requires further scrutiny.

Table 3: Summary of research evidence review on the impact of SMEs on productivity, employment, and inclusivity.

Section 5 – Barriers: What prevents SMEs from growing?

Firms in developing countries face multiple challenges that affect their survival and limit their growth; importantly, some of these challenges are more severe for SMEs than for larger firms. This distinct set of obstacles are known as "size-induced" failures and occur in the key areas that contribute to firm competitiveness.

The most commonly reported barriers faced by SMEs in developing countries include:

- Access to finance
- Access to infrastructure (electricity, transport, logistics, ICT, etc.)
- Access to skilled workers
- Effective management practices

In the upcoming section, we undertake a comprehensive exploration of the specific challenges encountered by SMEs, aiming to provide a thorough understanding of these issues. The primary goal is to present compelling research evidence that sheds light on the identification and resolution of the key obstacles faced by SMEs, while also advancing potential mitigation strategies. By leveraging these research insights, DFIs can effectively target these challenges, thereby fostering enhanced productivity, inclusivity, and employment prospects for SMEs in the long term.

1. Access to finance

In developing countries, SMEs cite access to finance as one of the biggest obstacles to growing their businesses (Amadasun & Mutezo, 2022; IFC, 2017). According to Wang (2016), access to finance is perceived as the *single* most significant challenge hindering SME growth.

While SMEs are more likely to be credit-constrained than larger firms, credit access has been found to be positively related to productivity and financial deepening within an economy (Kuntchev, Ramalho, Rodríguez-Meza, & Yang, 2013). Moreover, the evidence suggests that the size of the firm itself can influence the impact of accessing finance. For example, the association between finance and job growth appears to be stronger among MSMEs than among large firms (Ayyagari, Juarros, Martinez Peria, & Singh, 2021). There is extensive evidence indicating that microenterprises in developing countries

experience a substantial increase in returns when they access capital (de Mel, McKenzie, & Woodruff, 2008, 2009; Fafchamps, McKenzie, Quinn, & Woodruff, 2014; McKenzie & Woodruff, 2008). However, while the literature on access to finance is very well developed for microenterprises and small firms, it is notably lacking for medium to large firms (Atkin et al., 2021).

Below, we examine potential mitigation strategies for the constraints that SMEs face. Demand-side challenges pertain to SME customers or entrepreneurs, whereas supply-side issues revolve around the obstacles faced by financial organisations.

Mitigation strategies

The effectiveness of strategies aimed at improving capital accessibility for SMEs varies significantly, underscoring the need for development practitioners and funders to evaluate their own efficacy and utilise research findings to inform best practices. In particular, what could work for micro and small businesses may not necessarily yield similar outcomes for medium to large firms, for which the literature on access to finance is notably lacking (Atkin, et al., 2021).

Nevertheless, some valuable insights can still be gleaned from the existing evidence.

Enable higher-return investments among microenterprises through grants rather than debt financing: A considerable amount of research has found that, among microenterprises, cash or in-kind grants can generate high-return investments in the short to medium term (de Mel, McKenzie, & Woodruff, 2008; Fafchamps, McKenzie, Quinn, & Woodruff, 2014; McKenzie & Woodruff, 2008), and potentially also in the longer term (de Mel, McKenzie, & Woodruff, 2012). In contrast, traditional microcredit programmes often do not produce transformative outcomes for recipients (Meager, 2019). This can be attributed to several factors, including a lower-than-anticipated demand for microcredit (Angelucci, Karlan, & Zinman, 2015; Banerjee, Duflo, Glennerster, & Kinnan, 2015; Crépon, Devoto, Duflo, & Parienté, 2015) and no significant increase in profits for entrepreneurs who receive microcredit (Loiseau & Walsh, 2015; Tarozzi, Desai, & Johnson, 2015).

One possible interpretation of these findings is that entrepreneurs tend to pursue riskier yet more lucrative ventures when provided with a cash grant, whereas they opt for safer but lower-return investments when offered a loan (Fischer, 2013). This suggests that the terms of the loan contract matter for business outcomes, and that more *flexible* contracts (e.g., with more flexible repayment/grace periods) might lead to more innovative investments compared to standard microcredit contracts (Field, Pande, Papp, & Rigol, 2013).

Further investigate micro-equity contracts: In recent years, there has been a growing focus on equity-based financing as an alternative to loans. Unlike lenders, who bear the risk of project failure without benefiting from unexpected successes, equity investors can capture the upside when investments perform well (Quinn & Woodruff, 2019). While this makes micro-equity more appealing, its adoption might pose some implementation challenges in an environment with weak contract enforcement (de Mel, McKenzie, & Woodruff, 2019). Several experiments are currently underway to shed light on the potential of micro-equity to lift entrepreneurs' credit constraints in developing countries. Recent research from Cordaro and colleagues (2022) showcases promising findings regarding equity and hybrid debt/equity performance-contingent microfinance contracts. By offering risk-sharing mechanisms, these contracts can encourage investment, enhance profitability, and ultimately increase household consumption. Notably, both equity and hybrid contracts have been found to outperform traditional debt contracts (Cordaro et al., 2022).

On the supply side, consider reducing transaction and monitoring costs: This can be achieved, for example, by leveraging digital information[36] to decrease the cost of assessing an entrepreneur's creditworthiness (Atkin et al., 2021; Berg, Burg, Gombovic, & Puri, 2020). Digital credit holds potential not only for decreasing monitoring costs through non-conventional data for credit scoring, but also for reducing transaction costs by providing instant, automated, and remote sources of funding. Alternately, using community knowledge to identify high-growth entrepreneurs could also significantly decrease the cost of granting a loan (Hussam, Rigol, & Roth, 2022).

Delve into the potential of angel investors and venture capital: While no academic studies to date have analysed outcomes from angel and venture capital investments in developing countries, evidence from high-income countries suggests that they play an important role in funding innovation and firm growth (Kerr, Lerner, & Schoar, 2014). This implies that a model for angel and venture capital investors could be adapted to emerging markets, where angel networks are active but informal (Atkin et al., 2021).

36 An example of digital information is the employment of phone data or digital footprints (i.e., information that users leave online simply by accessing or registering on a website).

2. Infrastructure: Access to electricity

Reliable access to energy and electricity is a crucial factor for businesses operating in developing countries (Atkin et al., 2021). According to data from the WBES, a significant percentage of firms in Sub-Saharan Africa (75%) and South Asia (66%) face power cuts (see **Figure 6**). On average, businesses in Sub-Saharan Africa experience approximately 66 hours without electricity per month, while those in South Asia endure around 46 hours. These frequent outages are consistently identified by entrepreneurs as being among the primary obstacles hampering their growth and development. However, even prior to considering the *quality* of electricity, it must be noted that more than half of the population in least-developed countries – approximately 570 million people – are estimated to lack *access* to electricity altogether (UNCTAD, 2021).

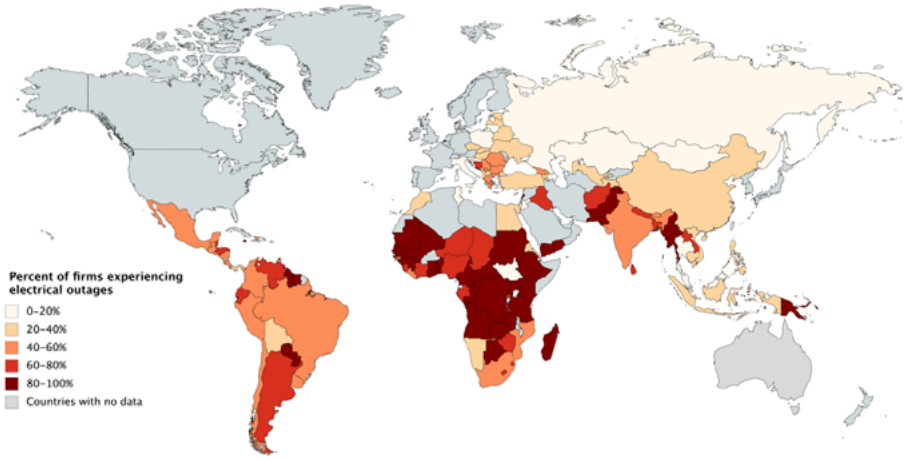


Figure 6: Percentage of firms experiencing electrical outages. (Source: Atkin et al., 2021; WBES)

There is a large body of literature on the impact of input constraints on productivity in developing countries. Evidence from Ghana, for example, estimates a 10 percent loss in MSME productivity due to power outages (Abeberese, Ackah, & Asuming, 2021).[37] In general, the key findings from the existing literature stress that:

SMEs suffer more: While all firms in developing countries suffer from electricity shortages, their effect could vary a lot across firm sizes, leaving small firms more vulnerable. In fact, while large firms may be able to mitigate shortages through alternative sources such as generators or re-optimisation strategies (Fisher-Vanden, Mansur,

37 The Abeberese, Ackah, and Asuming (2021) paper defines small firms as those with up to 30 workers and medium-sized firms as those with 31–100 workers.

& Wang, 2015), small firms are often obliged to halt production altogether.[38] Research from Hardy and McCasland (2019) highlights the significant financial burden of power outages on single-person firms, with each cut resulting in a 10% decline in weekly revenues. Moreover, significant economies of scale are present when it comes to electricity self-generation, giving large firms an advantage (Allcott, Collard-Wexler, & O'Connell, 2016).

Pricing matters: The cost of electricity also plays a crucial role in shaping the types of resources used in production and the sectoral composition of the economy (Abeberese, 2017). SMEs tend to suffer more due to the high prices of electricity and of mitigation strategies during power cuts.

Electricity access is inconsistent: In rural areas of developing countries, the primary constraint for firms is not frequent power outages, but rather the lack of access to electricity altogether (Dinkelman, 2011).

Mitigation strategies

Invest in the decarbonisation of the energy sector, sustainable energy, and green technologies: Investing in alternative, renewable sources of energy, such as solar energy or wind power, can be an effective way to address power access and production challenges. However, not all countries endowed with natural resources have the necessary technology to facilitate this transition. For example, while Sub-Saharan Africa relies on a significant proportion of renewable sources in its energy supply, these are not modern, with 85 percent of the renewable supply consisting of traditional biomass applications (World Bank, 2021). Therefore, it becomes crucial to encourage investment in infrastructure development for sustainable energy sources within many developing countries. Physical capital investment needs to be coupled with the development of complementary skills, technical know-how, and technological capabilities.

While the private sector represents the primary source of clean energy investments, the public sector remains vital in providing financing and facilitating the mobilisation of private capital, particularly in developing countries and in a post-COVID context. However, it is essential to adopt a "leave no one behind" approach in international public financial flows, given the significant distributional disparities.

38 The Fisher-Vanden, Mansur, and Wang (2015) paper considers only firms with sales revenue in excess of five million yuan (approximately USD 600,000) that consume energy in excess of 10,000 tons standard coal equivalent (SCE). According to the authors, the sample thus includes the largest energy-consuming firms in China from 1999 to 2003.

Current data reveals that only 20 percent of clean energy investment funds are directed to the countries that require them the most (IEA, IRENA, UNSD, World Bank, WHO, 2021).

Invest in more efficient and decentralised electricity distribution systems: Addressing distribution challenges is equally important in developing countries. Traditional structures are oriented towards large, centralised electricity generators; yet substantial grid extension and upgrading are necessary. Interestingly, the research uncovers a significant willingness to pay for reliable electricity. Ghanaian MSMEs, for instance, express a willingness to pay an additional 12 percent for uninterrupted electricity, meaning that there is room to invest in grid enhancements even if it entails higher electricity prices (Abeberese, 2022).[39]

On the other hand, decentralised energy solutions – such as battery storage systems, generators, and other off-grid innovative technologies – hold the potential for promoting greater equity and inclusivity in the power sector while also spurring rural electrification, whereby the costs of grid extension remain prohibitive (UNCTAD, 2017). Generators are equally relevant to mitigating the impact of power outages, although evidence shows this varies by firm size. While large firms can avoid outage-related productivity losses through generators (Allcott, Collard-Wexler, & O'Connell, 2016), MSMEs seem to be unable to efficiently use them given the substantial economies of scale in energy production (Abeberese, Ackah, & Asuming, 2021).[40] As generators are often too costly for microenterprises and SMEs, facilitating generator-sharing programmes among MSMEs could be a solution that spreads the high fixed cost (Abeberese, 2022).[41]

Adopt re-optimisation strategies: In response to electricity scarcity, substituting material inputs for energy by buying energy-intensive inputs from other manufacturers (i.e., shifting from *make* to *buy*) could be an effective strategy to reduce the impact of power cuts (Fisher-Vanden, Mansur, & Wang, 2015).[42] Nevertheless, re-optimisation might be more feasible for larger firms compared to smaller ones. An equally effective variant of this strategy consists of simply shifting production from more to less electricity-intensive products (Abeberese, Ackah, & Asuming, 2021). When outages follow a reasonably regular pattern, another form of re-optimisation consists of planning ahead and changing production time (e.g., by planning evening shifts) (Scott, Darko, Lemma, & Rud, 2014).

39 In the Abeberese (2022) paper, SMEs are defined as firms with at most 100 workers (small firms: up to 30 workers; medium-sized firms: 31–100 workers).
40 The Abeberese, Ackah, and Asuming (2021) paper defines small firms as those with up to 30 workers and medium-sized firms as those with 31–100 workers.
41 Ibid.
42 See footnote 38.

3. Infrastructure: Transport, logistics, and ICT

The existence of robust and well-developed networks of roads, railways and waterways is vital for the growth of firms in a country. Another equally important element is the communication infrastructure, such as the internet, that enables enterprises to promote their products and wholesalers to find new suppliers (Atkin et al., 2021).

Infrastructure conditions are key determinants of firm performance (Atkin et al., 2021). By contrast, the lack of proper development of a country's infrastructure is often considered to be among the most significant hindrances to SME development, in that it adds more to the cost of production of goods and services and the overall cost of doing business (Khan, 2022; Obokoh & Goldman, 2016). Transportation, together with energy supply, is often cited as the major infrastructure problem plaguing the business sector in developing countries, including SMEs (Obokoh & Goldman, 2016). The presence or absence of these facilities significantly influences the competitiveness, profitability, and overall performance of SMEs due to their direct and indirect impact on operational costs. The indirect effect of inadequate access to roads and communication facilities manifests as increased charges imposed by raw material suppliers, who pass on the additional transportation costs to SMEs (Obokoh & Goldman, 2016).[43] Importantly, infrastructure-related hurdles are a greater problem for SMEs located in rural areas and suburban cities, which suffer disproportionately from the lack of access to proper transportation networks. This can hamper their ability to reach customers, suppliers, and other entrepreneurs in the region.

Roads, railways, airports, and ports are pivotal for firms' involvement in international trade. Moreover, physical infrastructure and the transport network are traditionally known to shape the pattern of specialisation and development of industrial clusters within countries (Coşar & Fajgelbaum, 2016; Storeygard, 2016).

Mitigation strategies

Reduce transport costs: Research indicates that the transportation costs for identical goods over comparable distances are significantly higher in Sub-Saharan Africa when compared to high-income countries such as the United States (Atkin & Donaldson, 2015). Therefore, internal transport costs can be lowered by investing in more efficient

43 In the paper, SMEs are defined as those businesses operating in the formal manufacturing sector with the number of employees not above 300 or their capital base not above 200 million Nigerian Naria.

transportation means in many developing countries (Atkin, et al., 2021). An example is provided by a study conducted by Ghani and colleagues (2016), where the impact of transportation costs on productivity in India's manufacturing sector were investigated. The findings reveal that the reduction in transportation costs resulted in a spatial realignment of production, with a shift towards districts located closer to efficient transportation. This relocation facilitated the doubling of new firm entry rates and the expansion of existing firms. The improved transportation infrastructure not only reduced input costs but also enhanced market accessibility, thereby redirecting output towards more productive firms.

Improve maritime transport: As over 90 percent of the world's trade transits by sea, improving a country's port facilities becomes crucial. Port congestion and long waiting times for shipping vehicles as well as poor port infrastructure are some of the common challenges in maritime trade in developing countries. To this end, the digitalisation of maritime supply chains could greatly enhance the performance, efficiency, and resilience of maritime transport (World Bank, 2020). Specifically, the establishment of a highly effective digital ecosystem would significantly streamline operations and promote seamless data exchange among shipping lines, port services, cargo handling operations, clearance agencies, and other transportation networks.

Provide cheaper air freight services: Air travel can play an important role in transporting goods across developing countries and more so for landlocked countries. Yet the demand for air freight is limited by cost: typically, air freight is 4 to 5 times more expensive than road transport and 12 to 16 times more expensive than sea transport (World Bank, 2009). To facilitate air freight, countries should improve operations at their airports and liberalise access for foreign airlines (World Bank, 2009). Evidence shows that the enhanced connectivity of an airport has a positive effect on local economic activity (Campante & Yanagizawa-Drott, 2018).

Encourage private sector participation in infrastructure provision: Public–private partnership (PPP) approaches to mobilising private sector financing and expertise represent a promising avenue of mitigation; however, PPPs require strong institutional frameworks and sound partnership management practices (World Bank, 2014). In developing countries, the limited expertise on structuring projects that are able to yield an acceptable risk–return combination for private stakeholders represents a significant deterrent for private sector participation. To tackle this issue, multilateral development banks increasingly provide project preparation facilities to help structure viable projects, together with risk mitigation through*inter alia* political risk insurance, credit guarantees, and subordinated debt (Zhang & Klyuev, 2017).

Invest in digital infrastructure: The expansion of digital technologies, fast internet access, and online market platforms have the potential to greatly enhance the export capacity of developing countries and increase the productivity and employment rates of existing firms (Hjort & Poulsen, 2019). E-commerce platforms, digitally enabled delivery and logistics services, and product aggregators can enable SMEs to participate in wider markets both nationally and internationally. Jensen and Miller (2018) found that the introduction of mobile phones in Kerala, India, improved knowledge sharing among fishermen about the quality and price of boats, increasing demand for productive builders while reducing demand for less productive ones. As a result, productivity in the boat-building industry increased by over 25 percent. Finally, the COVID-19 pandemic has generally boosted demand for the digital economy and enhanced the role of digital platforms. This highlights the need to strengthen the digital ecosystem and ICT infrastructure for SMEs, through substantial investments in fibre networks, cloud computing, digital financial services, and digital skills (Lukonga, 2020).

4. Access to skilled labour force

Well-functioning labour markets and the availability of skilled labour are integral to firm growth in developing countries. Conversely, labour market frictions slow down structural transformation, trap workers in poverty, and lower the productivity of firms (Donovan & Schoellman, 2022).

Developing countries may face a scarcity of skilled labour supply. Research suggests that workers in these countries acquire skills on the job at a slower pace compared to those in developed countries, resulting in diminished productivity for host firms (Atkin et al., 2021). Lower-quality schooling also contributes to the dearth of skilled labour.

On top of the scarcity of skilled labour, there is a small but growing body of evidence on whether firms in developing countries are also constrained in *accessing* labour. The literature has mainly focused on matching either unskilled or semi-skilled workers, and most of the research has focused on outcomes for workers rather than firms. Nevertheless, what transpires is that, while search-and-matching frictions are low in *unskilled* labour markets (de Mel, McKenzie, & Woodruff, 2019; Blattman & Dercon, 2018; Menzel & Woodruff, 2019; Alfonsi et al., 2020), there appear to be significant constraints in access to *skilled* workers. It is important to note that, even if labour markets seem to function well for unskilled workers, high turnover rates suggest that firms may not understand how to select the right workers (Menzel & Woodruff, 2019; Blattman & Dercon, 2018) – for

example, by focusing on technical skills rather than non-cognitive abilities. The presence of constraints in accessing skilled labour in developing countries is evidenced by mismatches between manager skills and firm needs. Importantly, labour markets for managers might have much larger consequences for firms: evidence reveals that mismatches of CEO types in developing countries are a potentially significant source of lower productivity (Bandiera, Hansen, Pratt, & Sadun, 2017; Woodruff, 2018).

Overall, it is crucial to understand what steps can be taken to reduce search-and-matching frictions for SMEs seeking skilled employees, and what kind of labour training programmes can better equip workers with enhanced skills that benefit host firms.

Mitigation strategies

Subsidise apprenticeships: Research suggests that subsidised apprenticeship programmes have the potential to enhance the skills of young and inexperienced workers, presenting them with an opportunity to improve their productivity and gain early labour market experience. Additionally, participating in apprenticeships signals valuable information about workers' skills to potential future employers (Pallais, 2014). From the perspective of firms, subsidising apprenticeships can help alleviate credit constraints that hinder their ability to hire and train workers independently. It is important to acknowledge, however, that even when fully subsidised, apprenticeships require significant time investment from managers and other employees involved in training apprentices (Atkin et al., 2021).

Develop vocational training: Vocational training programmes yield favourable returns on investment for youth and contribute to positive labour market outcomes. Evidence from a field experiment in Colombia shows a positive and significant impact on the employment and earnings of disadvantaged individuals participating in a subsidised vocational training programme, with the impact persisting over the long run (Attanasio, Guarin, Medina, & Meghir, 2017). Interestingly, in a labour market experiment in Uganda, vocational training was found to yield outcomes almost twice as large as those associated with apprenticeship programmes (Alfonsi et al., 2020). This is because these vocational training programmes provided participants with a formal certificate validating their acquired skills, which acted as a credible credential. Credentials afford individuals greater long-term labour market mobility and a faster re-entry into employment compared to apprentices without certified skills (Alfonsi et al., 2020).

Despite the encouraging evidence, Jensen (2010) reveals that the perceived returns on vocational training programmes are lower than their actual returns. Moreover, it is worth noticing that there might be adverse selection in the crowded market for vocational training, and this could significantly alter their impact (Atkin et al., 2021).

> ***Caveat:*** The current literature primarily concentrates on improving labour market outcomes for unemployed youth through vocational training and apprenticeships, but there remains limited evidence regarding the most beneficial type of programmes for *firms*. It will be important to assess firms' demand for skill-upgrading programmes as well as what the focus of such programmes should be (i.e., should they be sector-specific or job-type-specific? should they be aimed at improving soft skills or hard skills?).

Develop skill certification programmes: Skill certifications allow jobseekers to better signal their skills, in turn helping tackle matching frictions and search costs in the skilled labour markets of developing countries. As discussed above, Alfonsi and colleagues (2020) attribute the greater labour mobility of vocationally trained workers to the certification that vocational training provides. There are several other recent experiments exploring the impact of skill certification, which confirm that certification can improve job matching and benefit workers by increasing their chances of getting hired as well as their earnings (Bassi & Nansamba, 2019). Additionally, firms may experience efficiency gains and expanded production, leading to the creation of new positions (Atkin et al., 2021). While most experiments focus on the worker's perspective, improved outcomes for workers are a necessary condition for certification having a positive effect on firms (Woodruff, 2018).

Two additional promising avenues for lowering search-and-matching frictions are represented by **small monetary incentives for submitting a job application** and **transport subsidies**. Evidence from Ethiopia reveals that credit and time constraints disproportionately affect job applicants with higher abilities. Accordingly, providing a small monetary incentive for job applications has been found to enhance the quality of the applicant pool, yielding results comparable to those that would arise from doubling the offered wage (Abebe, Caria, & Ortiz-Ospina, 2019). Franklin (2018) randomly assigned transport subsidies to high-skilled unemployed youth in Ethiopia and found that these subsidies increased job search intensity and enabled individuals to find permanent employment.

5. Effective management practices

Extensive evidence now demonstrates that management practices[44] play a significant role in explaining the variations in performance and productivity among firms across countries and over time (Bloom & Van Reenen, 2010; Bloom, Genakos, Sadun, & Van Reenen, 2012; Bloom, Sadun, & Van Reenen, 2016; McKenzie & Woodruff, 2017). As such, poor management practices can substantially limit SME growth in developing countries.

The way firms are managed varies considerably from firm to firm and from country to country, with indications of weaker management practices in developing countries compared to developed ones (Bloom, Genakos, Sadun, & Van Reenen, 2012). Furthermore, data from the WBES highlights that, on average, large firms exhibit more well-structured management practices than SMEs in developing countries (Ciani, et al., 2020). Large firms also tend to employ more experienced managers and are more inclined to hire external managers rather than relying solely on family members, which is deemed critical for firm growth (Akcigit, Alp, & Peters, 2021).

Nevertheless, it is essential to understand the boundary between management practices that are universally superior and those that may be effective only in specific contexts. While Bloom and colleagues (2012) make a compelling case for certain management practices being universally advantageous, the effectiveness of other practices may vary depending on country and sector context.

The body of literature concerning ways to enhance management practices among business owners is extensive, and we discuss effective mitigation strategies below. Importantly, since the entrepreneurial skills and capabilities of business owners are considered a prerequisite for successfully implementing these practices, interventions may yield more favourable outcomes if they are targeted at high-ability entrepreneurs (Atkin et al., 2021). This points to the need for tools that can identify such individuals (examples of which we will explore in **Section 6**).

44 Bloom and Van Reenen (2007) developed a set of survey questions defining and grouping management practices into four areas – *operations* (three practices), monitoring (five practices), *targets* (five practices), and *incentives* (five practices) – which laid the foundation for all subsequent studies. The set of questions was adopted by the United States Census Bureau and implemented as the Management and Organizational Practices Survey (MOPS) in 2010, the first large-scale survey on the topic. Based on MOPS and in collaboration with Bloom and Van Reenen, the World Bank Enterprise Surveys (WBES) modified these questions and implemented them as part of its standard Enterprise Surveys. For more detailed information, refer to Bloom and Van Reenen (2007) and Ciani et al. (2020, Box 1.2, pp. 19–21).

Mitigation strategies

Provide training for entrepreneurs: Management training programmes for entrepreneurs have yielded mixed results in terms of their impact on the adoption of best business practices and overall business performance. While McKenzie and Woodruff (2014) found limited evidence of improved performance for micro and small businesses following training, more recent experiments have shown positive effects on the adoption of better management practices and subsequent enhancements in employment and other business outcomes (Higuchi, Mhede, & Sonobe, 2019; Anderson, Chandy, & Zia, 2018; McKenzie & Puerto, 2017; Brooks, Donovan, & Johnson, 2018; Valdivia, 2015; Martínez, Puentes, & Ruiz-Tagle, 2018).

It is important to note that McKenzie and Woodruff's (2014) findings do not imply that training does not matter. In a subsequent study, they demonstrated that the business practices covered in most training programmes are indeed correlated with higher firm performance (McKenzie & Woodruff, 2017), suggesting that merely teaching best business practices directly might not be the most effective way of having firms implement them. In other words, the *delivery* of training programmes matters a great deal, and a standard classroom setting is not necessarily the best approach to encourage uptake. A study conducted in Togo found that training on entrepreneurial psychology had a greater impact on the profitability and sales of microenterprises compared to standard business training (Campos et al., 2017). Furthermore, more focused training programmes targeting a specific business skill and delivered to a selected group of entrepreneurs demonstrated a greater positive effect in a randomised control study conducted in South Africa (Anderson, Chandy, & Zia, 2018). It is plausible, then, that the appropriateness of the training approach depends on the specific context.

Invest in individualised management consulting services: Individualised consulting has proven effective in improving the performance of firms of various sizes, although it can be expensive. A study conducted among large textile factories in India revealed that consulting services focused on improved management led to notable enhancements in worker output, firm profits, and inventory levels, along with reduced quality-defect rates (Bloom, Eifert, Mahajan, McKenzie, & Roberts, 2013). Similarly, consulting provided to MSMEs in Mexico resulted in improved profitability, record-keeping, and marketing, with lasting effects on employment growth even after five years (Bruhn, Karlan, & Schoar, 2018).[45]

45 In line with the Mexican Ministry of the Economy, the Bruhn, Karlan, and Schoar (2018) paper defines microenterprises as having up to 10 full-time employees;

Despite the positive outcomes, firms appear hesitant to invest in individualised consulting. Several potential reasons might contribute to this hesitancy: 1) limited awareness among firms regarding the positive returns of such programmes; 2) challenges in identifying high-quality consulting providers in a market prone to adverse selection; 3) concerns about sharing the internal data and proprietary information required by management consulting engagements; and 4) financial constraints or limited access to credit (Atkin et al., 2021). To address some of these challenges, simplifying and reducing the cost of management interventions could be a potential solution. Additionally, it is worth considering that individualised consulting may be more viable and relevant for higher-growth and innovation-oriented segments within the small-firm spectrum (Woodruff, 2018).

Foster coaching, mentoring, and peer interactions: An effective approach to improving management practices in small and medium-sized firms involves fostering peer interactions, coaching, and mentoring. Field experiments conducted by Fafchamps and Quinn (2018) and Cai and Szeidl (2017) have demonstrated the potential of bringing entrepreneurs together to create networking opportunities and facilitate knowledge sharing. Fafchamps and Quinn (2018) found that linking firms or providing them with information about each other positively influenced their knowledge of certain business practices. Similarly, Cai and Szeidl (2017) discovered that SME owners who participated in randomly formed business associations experienced improvements in their knowledge of management practices, leading to increased revenues and profits through enhanced business-relevant information.[46] These interventions hold promise because their impact is comparable to that of the expensive consulting services proposed by Bloom and colleagues (2013), and achievable at a lower cost. The research suggests, moreover, that the most beneficial peer relationships are those where firms share certain characteristics, such as suppliers or production techniques, but are not direct competitors (Cai & Szeidl, 2017).

small enterprises as having between 11 and 50 full-time employees in the manufacturing and services sectors and between 11 and 30 full-time employees in the commerce sector; and medium-sized enterprises as having up to 100 full-time employees in the service and commerce sectors and up to 250 full-time employees in the manufacturing sector.

46 In the Cai and Szeidl (2017) paper, there is not a clear definition of the size bins for SMEs. The only information provided is that, among the 2820 microenterprises and SMEs forming part of the experiment, the average firm size was about 36 employees, with a standard deviation of 86.

Finally, mentorship programmes also show potential. One-on-one mentorship initiatives for microenterprise owners in Kenya (Brooks, Donovan, & Johnson, 2018) resulted in positive effects on profits. The mentors – successful business owners from the same community and sector – provided localised and tailored information, highlighting the advantages of customised guidance for individual businesses.

Incubators and accelerators: Business hubs offer various benefits to startup businesses, particularly through the proximity they provide to like-minded entrepreneurs. These hubs bring together multiple firms, reducing the costs associated with peer interactions and mentoring. On the other hand, accelerators focus on distinct cohorts of young firms, aiming to accelerate their growth within a limited time frame; their emphasis is on mentoring and networks rather than the provision of basic infrastructure. Importantly, assessing the impact of accelerators on management practices and business outcomes is challenging. This is due to their selective enrolment of ventures with high growth potential, which makes it difficult to isolate the effects of accelerator services alone. A valuable exception is StartUp Chile, which provides an "entrepreneurship school" to around 20 percent of its selected participants, thus enabling researchers to address selection effects. The evidence from Gonzalez-Uribe and Leatherbee (2017) on this school indicates that it significantly improves venture performance.

Key Barriers	Quantity and Quality of evidence	Takeaways & Mitigation Strategies
a) Access to finance		• The effectiveness of strategies aimed at improving capital accessibility for SMEs varies significantly, underscoring the need for practitioners and funders to evaluate their own efficacy and utilize research findings to inform best practices • Lack of evidence for medium to large firms **Mitigation strategies:** • Grants rather than debt financing enable higher-return investments among microenterprises • Micro-equity contracts should be further investigated • From the supply side, reducing transaction and monitoring costs could be another potential avenue • Research is needed to delve into angel investors and venture capital potential
b) Infrastructure: Access to electricity		• SMEs suffer more from electricity shortages, often obliged to halt production as mitigation strategies are less feasible **Mitigation strategies:** • Investing in the decarbonisation of the energy sector, sustainable energy and green technologies • Investing in more efficient and decentralized electricity distribution systems, facilitating generator-sharing programs • Adopting re-optimisation strategies

c) Infrastructure: Transport, Logistics and ICT		• The presence or absence of transport and communication infrastructure significantly influences the competitiveness, profitability and overall performance of SMEs due to their direct and indirect impact on operational costs. • Infrastructure-related hurdles are a greater problem for SMEs located in rural areas and suburban cities **Mitigation strategies:** • Reducing transport costs • Improving maritime transport, especially by leveraging highly effective digital ecosystem to streamline operations • Providing cheaper air freight services by liberalizing access for foreign airlines • Encouraging private sector participation in infrastructure provision through PPPs • Investing in digital infrastructure, including fast internet access/fiber networks, online market platforms, cloud computing, digital financial services and digital skills
d) Access to skilled labour force		• Workers in developing countries acquire skills on the job at a slower pace, resulting in diminished productivity for firms • On top of the scarcity of skilled labour, there appear to be significant constraints in access to *skilled* workers **Mitigation strategies:** • Subsidized apprenticeships • Vocational training ***Caveat:*** There remains limited evidence regarding the most beneficial type of programmes for *firms*. • Skill certification programmes that allow jobseekers to better signal their skills • Small monetary incentives for submitting a job application • Transport subsidies
e) Effective management practices		• Weaker management practices are found in developing countries compared to developed one, and in SMEs compared to large firms • As the entrepreneurial skills and capabilities of business owners are considered a prerequisite for successfully implementing effective management practices, interventions may yield more favourable outcomes if they are targeted at high-ability entrepreneurs **Mitigation strategies:** • Training to entrepreneurs have yielded mixed results, and the delivery of the training seems to matter a lot • Individualized management consulting services, although may be more viable for higher-growth and innovation-oriented SMEs • Coaching, Mentoring and Peer Interactions • Incubators and Accelerators

Table 4: Summary of research evidence review on barriers to SME success and potential mitigation strategies

Section 6 – Typology

As the term "SME" refers to firms of different sizes across different countries and organisations, and the impact of and barriers faced by SMEs vary by context too, it becomes crucial to acknowledge this heterogeneity and to differentiate between the diverse types of SMEs that exist. To help operationalise the findings of the previous sections and ensure the distinct contributions and challenges of different SME types are duly considered, in this section we aim to answer the following questions:

1. What are common categories of firms that practitioners use?
2. How can we spot winning SMEs?
3. How can we categorise SMEs to better meet DFI targets?

Accordingly, we will propose a categorisation of SMEs that incorporates relevant findings from the previous sections in order to aid DFIs, policymakers, and other development practitioners in their efforts to support SME growth. The ultimate objective is two-fold: 1) enable DFIs to foster an enabling environment for SME growth and 2) strategically support the growth of high-performing SMEs through diverse financial instruments and tailored technical assistance.

Common existing categories

Subsistence enterprises

Subsistence enterprises are the most common category of firms in developing countries. These are mostly firms with fewer than 10 employees, generally run by the entrepreneurs and their immediate family members. They are businesses formed mostly as a way of making a living (Lerner & Schoar, 2010). Subsistence entrepreneurs often start a business as an alternate form of employment when they cannot find appropriate jobs in the market, and they are therefore neither interested in nor prepared for sustained growth. Due to their low risk-taking capacity and low growth motivation, these firms tend to remain small, exhibiting low growth and low rates of innovation (Woodruff, 2018). Nevertheless, subsistence enterprises are an important means of self-employment and extended family support.

Formal and informal enterprises

Firms can be either formal or informal. Formal enterprises pay entry fees and are registered through the country's business registration processes; they are liable for tax compliance and operate under government regulations. Formal entrepreneurs are often educated and tend to perceive greater profitability in operating larger formal firms as opposed to smaller informal ones (La Porta & Shleifer, 2014). Informal businesses, by contrast, are typically small and inefficient, earn lower profits, and are run by poorly educated entrepreneurs (Ulyssea, 2020). They do not comply with the relevant country laws and regulations and are not registered with the tax authorities. In many developing countries, high business registration costs, challenging formalisation procedures, and/or the perceived advantage of non-compliance with tax obligations drive many businesses into operating within the informal economy (IFC, 2007). Interestingly, simply reducing registration costs does not lead to the substantial transition of informal firms into the formal sector (La Porta & Shleifer, 2014; Ulyssea, Bobba, & Gadenne, 2023).

Gazelles

High-growth-potential enterprises, or "gazelles", refer to the small subset of SMEs that are young and exhibit substantial growth rates. According to the OECD (2012), these firms are up to 5 years of age, experience an average annualised growth in employees greater than 20% over a three-year period, and have 10 or more workers. Additionally, they have a strong risk-taking capacity and aspiration to grow their businesses. Gazelle entrepreneurs often have significant experience as well as more financial and management training and education compared to subsistence entrepreneurs.

Small and growing businesses

Small and growing businesses (SGBs) are defined as commercially viable businesses with 5 to 250 employees that have significant potential and ambition for growth (ANDE & IGC, 2018).[47] They are more than subsistence enterprises but, unlike many large firms, frequently lack the access to finance and knowledge resources required for growth. They typically seek growth capital ranging from USD 20,000 to USD 2 million. SGBs have the potential to create a pro-growth business environment and instill a spirit of entrepreneurship within the economy. They create jobs and provide innovative or much-needed goods and services, and can therefore accelerate the economic development of a country.

47 This definition of SGBs is taken from the SGB Evidence Fund, a joint IGC–ANDE research initiative.

Established businesses

Established businesses are enterprises that have been operating for more than five years and are well-established within their respective industries. They are typically medium-sized and their rate of growth is moderate and influenced by the dynamics of established and competitive industries. They tend to face a relatively high proportion of external barriers to growth, such as changing regulations and competition from other firms, as opposed to internal barriers to growth. They have a track record of stability, indicating their ability to survive and sustain their operations over time, and they are important sources of employment for moderately and low-skilled workers. They are often characterised by their presence in traditional "bread and butter" sectors such as manufacturing, retail, and other established industries that form the backbone of a country's economy.

The above categories often overlap. For example, gazelles can be SGBs, and subsistence enterprises are often informal firms. However, each distinct business type has different aspirations and faces different constraints; accordingly, each requires different types of support.

Tools for identifying winning SMEs

Identifying high-performing or "winning" SMEs is crucial for DFIs, policy makers, and other development practitioners due to these SMEs' high growth capacity and their consequent potential to accelerate the economic development of a country. However, accurately predicting the success of businesses has proven very challenging, even in the most predictable of circumstances and even for highly skilled experts in venture capital firms (Woodruff, 2018). Presently, there is no universally applicable formula or foolproof method for identifying high-potential entrepreneurs or guaranteeing the selection of winning SMEs. Nevertheless, some valuable insights can be gleaned from the existing literature to inform decision-making.

Evidence regarding the predictive power of expert panel judgments in business plan competitions is not encouraging. Surprising insights can be derived from the literature on business plan competitions, which aim to identify entrepreneurs with high potential before providing them with support. Kahneman and Klein (2009) have shown that expert predictions on business performance are more accurate when experts have extensive experience making similar judgments and have access to feedback on the accuracy of their predictions, which are often challenging conditions to fulfil. Fafchamps and Woodruff (2017), meanwhile, found that baseline survey information outperforms expert judgments in predicting growth outcomes. McKenzie and Sansone

(2017) highlight the fact that human-made predictions regarding business plan performance have no correlation with actual business performance, and modern machine-learning methods do not offer noticeable improvements. Their findings align with those of Fafchamps and Woodruff (2017) in the sense that baseline data in their study outperformed expert panels, but neither seemed to predict growth with much accuracy.

A promising alternative involves leveraging peer networks within entrepreneurs' communities for the identification of high-ability entrepreneurs. Tapping into peer networks has a longstanding history in development entrepreneurship, as exemplified by the group lending model pioneered by Mohammad Yunus and Grameen Bank. Hussam and colleagues (2022) found that randomly distributed cash grants to entrepreneurs yielded higher returns on capital for entrepreneurs ranked highly by their peers. Moreover, community rankings outperform machine learning predictions and any prediction gleaned from the hard data of baseline surveys. However, peer ranking is likely to be much more costly than machine learning techniques. Importantly, peers engage in sustained personal interaction with those they evaluate, which suggests that the establishment of sustained interactions may be a crucial mode of improving the predictive ability of panel judges during business plan competitions. Finally, although Hussam and colleagues (2022) primarily focused on subsistence microbusinesses in their sample, their approach may also have implications for larger and higher-growth-potential firms.

Other improved predictive techniques could involve the employment of psychometric measures to forecast enterprise outcomes. Much of the existing research in this domain focuses on the narrower question of whether personality traits can predict loan repayment. While psychometric measures do appear to be predictive for loan repayment (Dlugosch, Klinger, Frese, & Klehe, 2018), when it comes to the selection of entrepreneurs it seems that entrepreneurial *ability* is a more reliable predictor of firm growth.[48] Notably, Fafchamps and Woodruff (2017) and McKenzie and Sansone (2017) demonstrate that measures of ability exhibit predictive power for growth, while Fafchamps and Woodruff (2017) find no significant impact associated with attitude measures. Interestingly, Hussam and colleagues (2022) show that several psychometric measures display only weak predictive capabilities for returns on capital, with the exception of two specific traits: optimism and achievement. Optimism is found to negatively predict marginal returns, while individuals with an achievement-oriented attitude tend to experience higher marginal

48 This ability is typically assessed through a combination of tests measuring fluid reasoning, numeracy, educational attainment, and similar factors.

returns. It is plausible that researchers simply have not properly captured in surveys the attitudes that matter for growth (Woodruff, 2018).

In conclusion, effectively identifying high-potential entrepreneurs in a cost-effective manner remains a challenge that necessitates further research. Additionally, it is essential to investigate the potential influence of discrimination biases in selection processes, whether the panels consist of experts or community members. For instance, entrenched gender-based roles and societal norms may hinder the recognition and realisation of certain high-ability entrepreneurs, limiting their opportunities for success.

Proposed typology

The frequently used categories delineated in the previous section are useful in highlighting certain characteristics of SMEs. However, the categorisation of SMEs can be enhanced by incorporating the evidence and findings presented in this report. This involves taking into account the age and the size of a firm and the management capacity and aspirations of its entrepreneurs (i.e., their growth potential), as well as factoring in the types of barriers faced by different SMEs. This approach allows us to identify various sub-categories of firms, their stages of growth, and their individual financial demands. In this way, DFIs and impact investors can gain a more comprehensive understanding of the SME landscape, make more informed assessments, and ultimately better target SMEs. The proposed typology integrates the insights derived from extensive research and interactions with development practitioners, as well as interviews conducted specifically for this report.

To sum up, we re-look into the categorisation of firms in developing countries by taking into account:

A. Age of the firm

B. Size of the firm (i.e., number of employees)

C. Aspiration/motivation levels of the entrepreneur (i.e., growth potential)

D. Type(s) of barrier faced

The proposed typology of SMEs arrived at through the use of these criteria is described in detail below. It consists of four main types: subsistence firms, young shoots, rising stars, and established businesses.

Subsistence firms

As outlined above, subsistence firms typically consist of up to 10 employees and are primarily managed by entrepreneurs and their immediate family members. These businesses are often informal in nature and emerge as an alternative source of employment when suitable job opportunities are scarce in the market. They serve as a means of self-employment and also provide extended support to the entrepreneur's family. However, subsistence firms encounter various *internal* obstacles that hinder their growth, such as inadequate management practices and weak business models, as well as a few *external* barriers like high labour search costs and a lack of access to reliable electricity. They often lack the capacity to take risks and have limited aspirations for growth. As a result, subsistence firms tend to remain small in scale and demonstrate low rates of growth and innovation. These types of firms can be found at different stages of the age spectrum.

Young shoots

Young shoots are defined as firms that are typically under five years of age and employ on average between 10 to 50 employees – or, they may have fewer than 10 employees but have demonstrated remarkable employment growth of four times or more within their initial five years of operation.[49] Unlike subsistence firms, young shoots exhibit very high growth potential and high risk-taking capacity: accordingly, a key differentiating factor lies in the entrepreneurs' profile and their transformational aspirations. The primary challenges faced by young shoots pertain to *internal* factors, such as establishing effective hiring practices and implementing basic management structures. *Externally*, access to reliable electricity can also present a significant obstacle for these businesses. Entrepreneurs in young shoot enterprises often handle multiple critical tasks themselves, leaving little room for delegation. Consequently, they could greatly benefit from mentorship or coaching, as traditional management consulting services are often costly and challenging to implement for firms of this nature. It is worth noting that young shoots generally experience high returns on capital, making access to finance a valuable opportunity for their continued development. These businesses typically undergo a stabilisation phase during their initial years (referred to as Stage I) and, if successful,

49 This approach ensures that firms with fewer than 10 employees but significant employment growth are not overlooked. Particularly in developing countries with notable challenges, achieving growth from two to eight or nine employees within the first five years represents a significant achievement. Relying solely on stock measures of employees would be misleading and would not capture the growth potential of these firms, as they would be simply classified as "subsistence enterprises".

transition into a subsequent stage where they might start to grow and become profitable (Stage II).

Rising stars

Rising stars represent firms that have successfully advanced beyond Stage II of young shoots' growth phase while still maintaining their status as young enterprises. These businesses are usually less than five years old and employ on average between 50 and 100 individuals. Rising stars experience very high growth and play a vital role in driving employment creation, fostering innovation, and promoting productivity growth. To sustain their upward trajectory, these firms need to shift their focus from short-term strategies to long-term planning and secure additional working capital for expansion. To this end, engaging in management consulting can yield long-term benefits and further their endeavours. Unlike young shoots, rising stars encounter more *external* than internal barriers, particularly in terms of market competition and infrastructure. For instance, a lack of adequate transport infrastructure disproportionately affects rising stars as they are more likely to establish connections with customers and suppliers located farther away, either within the country or across international borders.

Established businesses

Established businesses are enterprises that have been operating for more than five years. They have a workforce ranging from 10 to 300 employees[50]. These firms are less risky business than young shoots and rising stars, but also experience relatively slower growth; yet they exhibit a high rate of resilience. Established businesses encounter a combination of *internal* and *external* barriers to growth, but the external barriers tend to be more pronounced. Factors such as market competition, changing regulations, and transport infrastructure pose significant challenges to their expansion. While these firms generally have access to an ample supply of unskilled labour, they often face constraints in securing skilled labour. In order to remain competitive amid changing market dynamics and regulations, established businesses need to prioritise innovation and adaptability. As with rising stars, management consulting can have a positive impact on their ability to navigate these challenges.

The above categories and overall typology are illustrated in **Figure 7** and summarised in **Table 5**.

50 This can be further disaggregated into established *small* businesses (10-50 employees) and established *medium* businesses (50-300 employees).

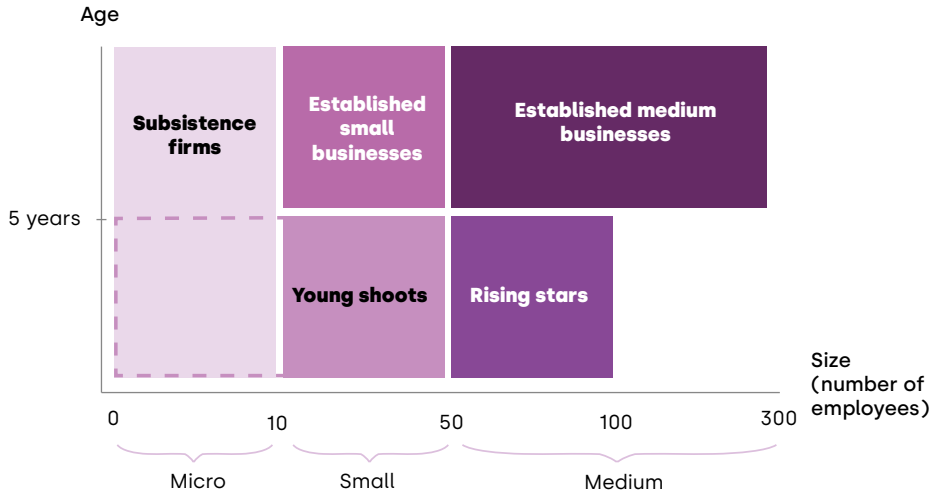


Figure 7: Proposed SME typology

Firm type	Age	Number of employees	Types of barriers faced	Traits
Subsistence firms	At all ages	Up to 10	**Largely internal** Internal: • Inadequate management practices • Weak business models External: • Labour search costs • Access to reliable electricity	Low risk-taking capacity, low levels of growth aspiration
Young shoots	Below 5 years	10–50 [can also have <10 employees but demonstrated remarkable employment growth of four times or more within their five years of operation]	**Largely internal** Internal: • Establishing effective hiring practices • Implementing basic management structures External: • Access to reliable electricity	High growth potential, high risk-taking capacity
Rising stars	Below 5 years	50–100	**Largely external** External: • Market competition • Infrastructure (especially transport)	Very high growth, medium to high risk-taking capacity, key to job creation

Established businesses	Above 5 years	10–300 [10-50: established *small* businesses; 50-300: established *medium* businesses]	**Internal and external** (but external more pronounced) Internal: • Skilled labour shortages External: • Market competition • Changing regulations • Transport infrastructure	Low growth potential, low risk-taking capacity

Table 5: Summary of characteristics by firm type

Section 7 – Conclusions: How can impact investors better support SMEs?

After summarising key highlights from the report, this section provides an applied perspective on the ways impact investors can think about better supporting SMEs. This is structured into two parts: firstly, we offer practical recommendations for DFIs to enhance their own systems; secondly, we explore strategies through which DFIs can assist SMEs in overcoming growth constraints. The section closes by outlining future avenues for SME research.

Summary of key highlights

This report reveals crucial insights into the impact of SMEs on productivity, employment, and inclusivity, the barriers they face, and the ongoing quest on how best to categorise SMEs and identify high-potential entrepreneurs. Hereafter, we provide a concise summary of the key takeaways, shedding light on each of these dimensions.

1. **SME Heterogeneity:**

- SMEs do not have a universally agreed definition, and the term "SME" can refer to firms with vastly different sizes depending on the context, country, and institution.

- The evidence surrounding the impact of SMEs in developing economies is nuanced. It would be useful for policymakers and development practitioners to consider the heterogeneity of SMEs – as well as their wide-ranging impact – and tailor their interventions accordingly.

2. **SME Productivity Impact:**

- SMEs' contribution to aggregate output is significant due to their sheer number in developing countries; helping SMEs grow can therefore provide a substantial boost to a country's economy.

- However, on average, large firms tend to be more productive than SMEs due to their ability to leverage economies of scale.

- Large firms are often born large rather than growing large over time, underscoring the significant constraints on SMEs' growth in developing countries.

- Importantly, there exists no missing middle of SMEs in developing countries, but rather a missing top of large firms.

3. **SME Employment Impact:**

- Despite destroying jobs at higher rates than large firms, SMEs contribute to positive net job creation, with younger and smaller firms taking the lead in creating the most jobs in developing countries. In particular, SMEs that are between 1–4 years old and have 50–99 employees have the most job growth potential.

- However, large firms generally pay higher wages and offer higher-quality jobs in terms of nonpecuniary benefits, job security, and stability.

4. **SME Inclusivity:**

- Informal micro and small enterprises are often instrumental in providing employment opportunities to the most marginalised individuals and rural communities.

- Nevertheless, there is a need for further research on the extent to which larger SMEs contribute to the employment of poor and marginalised people.

- SMEs also serves as vital suppliers of essential goods and services to poor and marginalised communities and remote rural regions.

5. **Challenges for SMEs in Developing Countries:**

- Firms in developing countries face multiple challenges that affect their survival and limit their growth, with some challenges being more pronounced for SMEs than for larger firms.

- These challenges include:

    1. **Limited access to finance**. Strategies to improve finance access for SMEs vary in effectiveness and should be based on research findings to establish best practices.

    2. **Inadequate infrastructure**, leading to increased production costs and operational challenges.

    3. **Limited access to skilled workers**. Targeted interventions like subsidized apprenticeships and vocational training can help but require further research.

    4. **Limited use of effective management practices**. Targeted interventions such as management consulting, mentoring and peer interactions have shown promise in improving SME management practices. Importantly, the way in which they are delivered plays a key role in their success.

6. SME Categorisation:

- This report puts forth an enhanced categorisation of SMEs by considering multiple dimensions when classifying SMEs.
- By considering firm age, size, the management capacity and aspirations of the entrepreneurs (i.e., their growth potential), and the barriers faced by different types of SMEs, the report categorises SMEs as *subsistence firms*, *young shoots*, *rising stars*, and *established businesses*.
- This approach can help identify different SME financial demands and assist DFIs and impact investors in making more informed assessments and, ultimately, better targeting SMEs.
- Nevertheless, identifying high-potential entrepreneurs in a cost-effective manner remains a challenge that necessitates further research, and no universally applicable formula or fool-proof method currently exists that can guarantee the selection of winning SMEs.

How can DFIs enhance SMEs support: Actionable recommendations for changes within DFIs

Below, we provide actionable recommendations that impact investors will find useful when seeking to better support and target SMEs.

- **Consider the heterogeneity within SMEs when making decisions:** SMEs differ not only in the way they are defined but also with regard to firm-specific factors such as age, sector, ambition, owner characteristics, and formality. Consequently, the relative impact of SMEs is likely to fluctuate widely based on the context within which they operate, and the distinct contributions and challenges of different SMEs need to be considered.
- **Enhance DFIs internal data collection on SMEs:** This involves enhancing existing data management systems to collect more nuanced and disaggregated data on SMEs. This evidence review has demonstrated that SMEs differ along many dimensions; as such, the data collected on SMEs should be significantly more nuanced and consistent.
- **Tailor products based on the type of SME targeted and anticipated impact:** Given the nuanced impact products can have on SMEs based on their categorisation, it would be useful for DFIs to review their products and consider tailoring them to enhance the potential impact for targeted SMEs.

How can DFIs enhance SMEs support: Addressing key barriers to SMEs

We know that the high uncertainty and risk perception associated with SMEs contribute to the barriers outlined in **Section 5**, which include SMEs lacking (1) access to finance; (2) access to infrastructure (electricity, transport, logistics, ICT, etc.); (3) access to skilled labour; and (4) access to appropriate management practices.

From an impact investor's perspective, enhancing access to finance for SMEs is the primary mechanism for their intervention, though other barriers could also be addressed to some extent. It is possible to consider enhancing access to finance for SMEs through the lenses presented below, which also track back to the typologies of SMEs presented in **Section 6**. Each lens varies in terms of complexity, feasibility, and how targeted each can be in terms of encouraging and creating specific impacts.

- **Directly**: An impact investor's support of specific segments or financial products can target different types of SMEs. The support will vary according to the characteristics of the financial product and the businesses utilising the type of financing. For instance, it could include supporting the microfinance sector/SME banks to reach the "subsistence" category of SMEs; supporting venture capital to target "rising star"; or supporting private credit funds/ SME funds to reach "established" SMEs.

- **Indirectly through structuring**: An investor can use different pools of capital (e.g., concessional capital) to achieve specific impact objectives, or reduce the risk perception associated with financing SMEs. As an example, BII has used a concessional pool of capital to develop a guarantee programme to increase SME lending, focusing on developing countries in Africa.

- **Ecosystem development**: An investor can target business models that enable or support the SME ecosystem: for example, procurement and sourcing models, online marketplaces, and alternative financiers targeting SMEs as their core client base.

- **Building**: An investor can develop a bespoke platform or investment vehicle to specifically target the constraints faced by SMEs in key geographies.

The second barrier outlined in **Section 5** – increasing access to infrastructure – is indirectly addressed by impact investors that invest in infrastructure. This is the most challenging in terms of the direct or clear impact on SMEs as it is harder to control, target, and measure, but it is still important to consider as there may be wider implications of an impact investor's SME-focused investment strategy.

The third and fourth barriers – develop appropriate management practices and employee capacity – can be addressed to an extent through technical assistance and ecosystem development. Technical assistance can take the form of individual projects, such as helping financial institutions create more tailored credit risk models to boost SMEs lending. It can also involve broader initiatives at the country- or macro-level, aimed at enhancing SME financing by clarifying financing options, thus improving understanding among financial institutions and investors.

Areas for future research

While a large body of evidence exists on the financing gap faced by SMEs, the evidence on the relative impacts and diverse typologies of SMEs is a newer area of research – and one that is relatively challenging to assess given the varying definitions for SMEs utilised across institutions, countries, and academic papers. From the perspective of an impact investor, it can also be challenging to assess the impact of supporting SMEs due to the intermediated and sometimes indirect nature of the impact. While this report seeks to contribute to this emerging body of literature, several key dimensions require further attention and may become the focus of future research:

- **Assessing the direct impact of investments** that support SMEs with their growth trajectory, scale, or depth of impact, and evidencing which models and modes consistently deliver high reach and depth of impact.

- **Understanding how different types of SME finance create different impacts**. For example, it is still unclear whether the overall commercial and impact returns are higher through broad-based SME investments that reach SMEs at scale in an untargeted way, or through targeted investments that reach SMEs in lower volumes but target high performing SMEs.

- **Evaluating the general equilibrium effects of interventions aimed at supporting SMEs in developing countries**. It is important to consider that programmes benefiting a specific group of firms may generate negative spillovers for other firms, as demand is typically not highly elastic. If these interventions are to be implemented on a larger scale, this question cannot be ignored (Atkin et al., 2021).

- **Further investigating the potential of new forms of capital** (such as micro-equity, angel investors, and venture capital) **and new finance practices** (such as digital data, artificial intelligence, psychometric profiling) to address the financing challenges faced by SMEs in developing countries, as well as examining strategies for DFIs to develop innovative contracts and products tailored to the unique needs of SMEs.

Appendices

Appendix 1: Methodology

In order to conduct a critical and comparative evidence review of the impact of SMEs, we have taken a holistic approach to ensure we factored in different perspectives around this issue. We (1) carried out a comprehensive review of the literature that directly provides answers to the questions provided in the request for proposal (RfP); (2) held consultation with practitioners, policymakers, and academics; and (3) conducted a streamlined data analysis exercise to fill the gaps on questions that the existing body of evidence does not yet provide answers to. More detail on each stream of work is provided below.

1. Comprehensive literature review

As a first step, we conducted a datamining exercise into a dataset we have assembled for the IGC of 32,000 publications from the top journals in economics and development economics, to identify the academic papers most relevant to answer the questions in the RfP. For example, through a quick search into this database, we identified 401 papers that referred to SMEs in their abstract and 576 papers that had classified their work under the JEL code of L25 (Firm performance: Size, diversification, and scope). We merged these academic papers with the dataset of papers provided by BII as well as with additional policy and practitioner papers recommended during the consultation process outlined in step 2.

Next, we filtered the available papers and narrowed them down to around 200 of the most relevant papers, which formed our primary research matrix. The matrix mapped out the research papers that answered our key questions and dilemmas on the subject, providing succinct summaries of key insights from each paper. The literature matrix helped us to also formulate the primary structure of the report and identify key questions to which existing papers did not provide a clear answer. We discussed these questions with both academics and development practitioners in step 2 below and conducted a streamlined primary data analysis to address the gaps in step 3.

2. Consultations

As a second step, we conducted several rounds of consultations with academics and development practitioners.

On the academic side, we leveraged IGC's network of frontier researchers to hold consultations with a wide range of academics that work in this space. We solicited their opinion on the specific questions asked by BII, and the SME characteristics and mechanisms the review should target, as well as questions considered essential to address

the underlying assumptions around the impact of SMEs. Academics were primarily asked to recommend seminal papers in this space that address each of the hypotheses or questions provided in the RfP.

Additionally, we conducted around 30 focus group discussions and interviews with development practitioners – these included representatives from BII and independent practitioners known for their expertise working on SMEs in developing countries. The purpose of these consultations was to understand the perspective of individuals and organisations actively engaged in this space and identify the key policy (i.e., primarily non-academic) papers that these organisations usually refer to when thinking about the development impact strategy of their work with SMEs. These consultations provided an opportunity to gather practical experiences, valuable insights, and expert perspectives from practitioners, enhancing our understanding of the specific challenges related to the research questions across various aspects. Focus group discussions with BII's investment and impact team were instrumental in shaping our understanding of the various financial instruments and their usage among SMEs in developing countries.

3. Primary data analysis

As a last step, we conducted streamlined primary data analysis to fill the gaps on questions that the existing body of evidence does not yet provide answers to. As part of this process, we leveraged the WBES datasets. We combined the data analysis exercise with the literature review to provide a comprehensive understanding of the comparative impact of SMEs in Africa and South Asia.

Following the completion of the aforementioned steps, we proceeded to draft the final report. The initial draft was subjected to a comprehensive review by Gabriel Ulyssea, an associate professor of economics at the University College London and our academic advisor. Subsequently, the paper underwent further evaluation by BII's team, who provided additional suggestions regarding short- and long-term strategies to support SMEs in developing countries. Lastly, the report was authored by the IGC and reviewed by both IGC's and BII's teams to present a comprehensive analysis of the impact of SMEs in developing countries, the obstacles they encounter, and the most effective approaches for classifying and supporting them.

Appendix 2: Country-specific definitions of SMEs

Governments define SMEs based on their own economies and industries. Below, we have provided a list of countries that BII works in, the cut-off for medium sized firms in those countries, and the source of the definition.

Country	Max # of employees for a medium-sized enterprise	Source(s)
Algeria	250	Ciani et al. (2020)
Bangladesh	100	Ciani et al. (2020)
Brazil	250	Ciani et al. (2020)
Cambodia	100	Ciani et al. (2020)
Cameroon	100	Institut National de la Statistique (INS), Recensement Général des Entreprises (RGE 2016), 2018, pp. 67–74 [Retrieved from SME Finance Forum – **MSME Economic Indicators 2019 Database**]
China	Depends on the industry: 200 for Wholesale, Warehouse; 300 for Retail, Accommodation, Restaurant, Software, Tenancy, Other; 1000 for Heavy Industry, Transportation, Postal, Property management; 2000 for Information	OECD (2018), "China", in Financing SMEs and Entrepreneurs 2018: An OECD Scoreboard, **https://doi.org/10.1787/fin_sme_ent-2018-en** [Retrieved from SME Finance Forum – **MSME Economic Indicators 2019 Database**]
Congo (Democratic Republic)	200	Adam Smith International (2014), "Congolese Ministry of SMEs – Definition of MSMEs", in Mapping the Financial Sector in DRC and Identifying Opportunities for Access to Finance Subcomponent, p. 6, **https://static1.squarespace.com/static/5bc4882465019f632b2f8653/t/5c0aa09a562fa712d48c8989/1544200351421/A2F+Sector+mapping%2C+February+2014.pdf**
Côte d'Ivoire	200	Institut National de la Statistique, **http://www.ins.ci/n/REPARTITIONDESENTREPRISESSELONLEURTAILLE.pdf** [Retrieved from SME Finance Forum – **MSME Economic Indicators 2019 Database**]
Egypt	200	Ciani et al. (2020); Financial System Development, GIZ, December 17, 2015, Central Bank of Egypt, **https://fsd-mena.org/news/whats-micro-whats-small-egypt-unifies-enterprise-definition/**
Ethiopia	100	Ethiopian Ministry of Finance and Economic Development, **www.mofed.gov.et** [Retrieved from SME Finance Forum – **MSME Economic Indicators 2019 Database**]

Country	Max # of employees for a medium-sized enterprise	Source(s)
Gabon	Defines enterprise size by turnover and investment: an SME must have an annual turnover of less than €3M and an investment of less than €1.5M	Gabonese Government Decree No. 637/PR/MECIT, dated 16 May 2011, Implementation of the Investment Charter, cited in Oxford Business Group (2016), Gabon's Legal Framework Amended to Incentivise PPPs, Section 2B, **https://oxfordbusinessgroup.com/reports/gabon/2016-report/economy/structures-in-place-changes-to-legislation-incentivise-public-private-partnerships**
Ghana	100	Ciani et al. (2020)
India	Defines enterprise size by turnover and investment: for a medium-sized enterprise, investment in Plant and Machinery or Equipment must not exceed 50 crore rupees and turnover must not exceed 250 crore rupees	Government of India, Ministry of Micro, Small & Medium Enterprises, New Definition of MSME, Notification of 1 June 2020, in Gazette of India, **https://msme.gov.in/sites/default/files/MSME_gazette_of_india.pdf**
Indonesia	100	Ciani et al. (2020)
Kenya	50	Ciani et al. (2020)
Madagascar	200	Institut National de la Statistique de Madagascar (INSTAT) [Retrieved from SME Finance Forum – **MSME Economic Indicators 2019 Database**]
Malawi	100	Ciani et al. (2020)
Malaysia	Depends on industry: varies from 75 in service industry to 200 in manufacturing industry	Economic Census 2015, Profile of Small and Medium Enterprises, Department of Statistics, Malaysia, **http://www.smecorp.gov.my/index.php/en/sme-annual-report-2015-16?id=2150** [Retrieved from SME Finance Forum – **MSME Economic Indicators 2019 Database**]
Mauritius	Defines enterprise size by turnover: maximum 50 million MUR for a medium enterprise	The Mauritius Chamber of Commerce and Industry, **https://www.mcci.org/en/our-services/business-resources/mcci-sme-marketplace/legislation-on-smes/#:~:text=A%20Small%20Enterprise%20is%20defined,more%20than%2050%20million%20MUR** [Retrieved from SME Finance Forum – **MSME Economic Indicators 2019 Database**]
Morocco	200	Ciani et al. (2020)
Mozambique	200	Ciani et al. (2020)

Myanmar	Depends on the industry – service: 100; manufacturing: 300; labour intensive or mainly in piecework business: 600; wholesale, retail; other: 60	Myanmar Government, Small and Medium Enterprises Development Law, 2015, p. 9, **https://www.doca.gov.mm/sites/default/files/SMEs%20Development%20Law%201%202015.pdf**
Nepal	Defines enterprise size by value of fixed assets: less than NPR 500 million for medium-sized enterprises	Kharel & Dahal (2020), Small and Medium-Sized Enterprises in Nepal: Examining Constraints on Exporting, ADBI Working Paper 1166, Tokyo: Asian Development Bank Institute, p. 6, **https://www.adb.org/sites/default/files/publication/623281/adbi-wp1166.pdf**
Nigeria	200	Ciani et al. (2020)
Pakistan	250	Ciani et al. (2020)
Rwanda	100	Ciani et al. (2020)
Senegal	Defines enterprise size by annual revenue: less or equal to 2M FCFA for a medium-sized enterprise	Sarr (2019), Particularity of informal Senegalese SMEs and challenges of their formalization, International Journal of Business and Social Science 10(10), 4, **https://ijbssnet.com/journals/Vol_10_No_10_October_2019/11.pdf**
Sierra Leone	200	Kanu & Conteh (2015), Small and medium scale enterprises (SMEs) as agent of national development in Sierra Leone, International Journal of Science and Research, 6(3), 1, **https://www.ijsr.net/archive/v6i3/ART20171386.pdf**
South Africa	250	South African Department of Small Business Development, Revised Schedule 1 of the National Definition of Small Enterprise in South Africa, Government Gazette, No. 42304, March 2019, p. 2, **https://www.gov.za/sites/default/files/gcis_document/201903/423041gon399.pdf**
Tanzania	100	Ciani et al. (2020)
Tunisia	200	SME definition by the Tunisian National Statistics Institute and the Investment Law, cited in OECD (2018), The SME Policy Index, The Mediterranean Middle East and North Africa, 2018 Interim Assessment of Key SME Reforms, Chapter 13, **https://www.oecd-ilibrary.org/sites/9789264304161-17-en/index.html?itemId=/content/component/9789264304161-17-en**
Uganda	250	Ciani et al. (2020)

Country	Max # of employees for a medium-sized enterprise	Source(s)
Vietnam	200	Vietnam's National Assembly, Vietnam: Support for Small- and Medium-Sized Enterprises, Library of Congress Law, Law on Support for Small- and Medium-Sized Enterprises, 2017, **https://www.loc.gov/item/global-legal-monitor/2017-07-18/vietnam-support-for-small-and-medium-sized-enterprises/#:~:text=The%2035%2Darticle%20Law%20defines,that%20is%20not%20more%20than**
Zambia	100	Zambia Ministry of Commerce, Trade and Industry, The Micro, Small and Medium Enterprise Development Policy, November 2008, p. 16, **https://www.boz.zm/Micro-Small-and-Medium-Enterprise-Development-Policy-2008.pdf**
Zimbabwe	75	FinScope MSME Survey 2012, **https://finmark.org.za/system/documents/files/000/000/448/original/FinScope_Zimbabwe_Broch13FNL.pdf?1614943378**; Zimbabwe Revenue Authority (ZIMRA), **https://www.zimra.co.zw/index.php?option=com_phocadownload&view=category&id=23:legislation&Itemid=112** [Retrieved from SME Finance Forum – **MSME Economic Indicators 2019 Database**]

Appendix 3: SME definitions used in the cited literature

As mentioned in **Section 3**, there is no homogenous definition of SMEs, and the definition used in the cited literature often differs from the IFC definition endorsed in this report. Where available, we have provided a summary of SME definitions by paper in the table below.[51]

Country	Author	Definition criteria	Micro-enterprises	SMEs	Large firms
Firm size matters: Growth and productivity growth in African manufacturing	Van Biesebroeck (2005)	Employment	<=5	Small: 6–24 Medium: 25–99	>100
MSME Day 2020	WTO (2020)	Employment	<=10	10–250	>250

51 Please note that we included only the papers where a definition of SMEs, or at least a cut-off for medium-sized firms, is provided or could be deduced from the sample description and discussion.

Country	Author	Definition criteria	Micro-enterprises	SMEs	Large firms
SMEs, growth, and poverty: Cross-country evidence	Beck et al. (2005)	Employment	Not defined	<250	>250
Are large firms born or made? Evidence from developing countries	Ayyagari, Demirguc-Kunt, & Maksimovic (2021)	Employment	<5	Small: 5–19 Medium: 20–99	>100
The digital economy, GVCs and SMEs	Ganne & Lundquist (2019)	Employment	0–9	Small: 10–49 Medium: 50–249	>250
Inclusive global value chains – Policy options for small and medium enterprises and low-income countries	Cusolito, Safadi, & Taglioni (2016)	Employment	<20	<100	>100
The effects of joining multinational supply chains: New evidence from firm-to-firm linkages	Alfaro-Ureña, Manelici, & Vasquez (2022)	Employment	<3	<100	>100
American companies and global supply networks: Driving US economic growth and jobs by connecting with the world	Slaughter (2013)	Employment	Not defined	<500	>500
World Trade Report 2016: Levelling the playing field for smes	WTO (2016)	Employment	<10	10–250	>250
World Trade Report 2016: The future of world trade: How digital technologies are transforming global commerce	WTO (2018)	Employment	<10	Small: 10–50 Medium: 50–250	>250
Small enterprises, big challenges: A literature review on the impact of policy environment on the creation and improvement of jobs within small enterprises	Reinecke (2002)	Employment	1–9	10–49	>50

Country	Author	Definition criteria	Micro-enterprises	SMEs	Large firms
Age or size? Contributions to job creation	Lawless (2014)	Employment	0–20	Small: 21–50 Medium: 51–250	>250
Which firms create the most jobs in developing countries? Evidence from Tunisia	Rijkers, Arouri, Freund, & Nucifora (2014)	Employment	Not defined	<200	>200
Who creates jobs? Small versus large versus young	Haltiwanger, Jarmin, & Miranda (2013)	Employment	Not defined	<500	>500
The formal sector wage premium and firm size	El Badaoui, Strobl, & Walsh (2010)	Employment	Not defined	<100	>100
The large-firm wage premium in developing countries	Reed & Tran (2019)	Employment	Not defined	<100	>100
Can productivity in SMEs be increased by investing in workers' health? Taking stock of findings on health protection of workers in small and medium-sized enterprises and their impacts on productivity	ILO (2014)	Employment	1–10	Small: 10–50 Medium: 50–250	>250
Are family-friendly workplace practices a valuable firm resource?	Bloom, Kretschmer, & Van Reenen (2011)	Employment	Not defined	Small: <50 Medium: 50–10,000	>10,000
New job matches and their stability before and during the crisis	Garcia & Van Soest (2016)	Employment	1–9	Small: 10–49 Medium: 50–249	>=250
Cyclical reallocation of workers across employers by firm size and firm wage	Haltiwanger, Hyatt, & McEntarfer (2015)	Employment	Not defined	Small: 0–50 Medium: 50–499	>=500

Country	Author	Definition criteria	Micro-enterprises	SMEs	Large firms
Skills and work in the informal sector: Evidence from Yaoundé, Cameroon	Fluitmann & Momo (2001)	Employment	0–20	Not defined	Not defined
Private sector development strategy: Directions for the World Bank Group	World Bank (2002)	Employment	1–4	Small: 5–19 Medium: 20–99	>=100
What are the biggest obstacles to growth of SMEs in developing countries? – An empirical evidence from an enterprise survey	Wang (2016)	Employment	Not defined	<100	>100
Influence of access to finance on the competitive growth of SMEs in Lesotho	Amadasun & Mutezo (2022)	Employment	1–5	6–50	>50
Are women more credit constrained? Experimental evidence on gender and microenterprises returns	de Mel, McKenzie, & Woodruff (2009)	Capital, Employment	Capital: <=1000 USD; Employee: no paid employee (self-employment)	Not defined	Not defined
Microenterprise growth and the flypaper effect: Evidence from a randomized experiment in Ghana	Fafchamps, McKenzie, Quinn, & Woodruff (2014)	Employment	No paid employee	Not defined	Not defined
Experimental evidence on returns to capital and access to finance in Mexico	McKenzie & Woodruff (2008)	Employment	No paid employee	Not defined	Not defined
Returns to capital in microenterprises: Evidence from a field experiment	de Mel, McKenzie, & Woodruff (2008)	Capital, Employment	<100,000 Sri Lankan rupees (1000 USD); No paid employee	Not defined	Not defined

Country	Author	Definition criteria	Micro-enterprises	SMEs	Large firms
How do electricity shortages affect industry? Evidence from India	Allcott, Collard-Wexler, & O'Connell (2016)	Employment	Not defined	<100	>100
How does electricity insecurity affect businesses in low and middle income countries?	Scott, Darko, Lemma, & Rud (2014)	Employment	<5	Small: 5–19 Medium: 20–99	>100
Infrastructure deficiency and the performance of small- and medium-sized enterprises in Nigeria's liberalised economy	Obokoh & Goldman (2016)	Employment, Capital	Not defined	<300 employees; <200 million Naira	>300 employees; >200 million Naira
Vocational training for disadvantaged youth in Colombia: A long-term follow-up	Attanasio, Guarin, Medina, & Meghir (2017)	Employment	Not defined	<200	>200
Why do management practices differ across firms and countries?	Bloom & Van Reenen (2010)	Employment	Not defined	Small: <100 Medium: 100–5000	Large: >5000
Management practices across firms and countries	Bloom, Genakos, Sadun, & Van Reenen (2012)	Employment	Not defined	Small: <100 Medium: 100–5000	Large: >5000
Management as a technology?	Bloom, Sadun, & Van Reenen (2016)	Employment	Not defined	Small: <50 Medium: 50–4999	>=5000
Lack of selection and limits to delegation: Firm dynamics in developing countries	Akcigit, Alp, & Peters (2021)	Employment	1–4	5–99	>=100
Does management matter? Evidence from India	Bloom, Eifert, Mahajan, McKenzie, & Roberts (2013)	Employment	Not defined	<100	100–1000

Country	Author	Definition criteria	Micro-enterprises	SMEs	Large firms
OECD Compendium of Productivity Indicators 2021	OECD (2021)	Employment	<10	Small: 10–49 Medium: 50–249	>=250
Entrepreneurship at a glance 2012	OECD (2012)	Employment	<10	Small: 10–49 Medium: 50–249	>=250
Making It Big: Why Developing Countries Need More Large Firms	Ciani et al. (2020)	Employment	Not defined	<100	>=100
Firm dynamics, job outcomes, and productivity: South African formal businesses, 2010–14	Aterido et al. (2019)	Employment	Not defined	<100	>100
Deconstructing the missing middle: Informality and growth of firms in Sub-Saharan Africa	Abreha et al. (2022)	Employment	Not defined	<100	>=100
Who creates jobs in developing countries?	Ayyagari, Demirguc-Kunt, & Maksimovic (2014)	Employment	Not defined	Small: <20 Medium: 20–99	>=100
Enterprising women; Expanding economic opportunities in Africa	Hallward-Driemeier (2013)	Employment	1–10	11–100	>100
Productivity losses and firm responses to electricity shortages: Evidence from Ghana	Abeberese, Ackah, & Asuming (2021)	Employment	Not defined	Small: <=30 Medium: 31–100	>100

Country	Author	Definition criteria	Micro-enterprises	SMEs	Large firms
Electricity shortages and firm productivity: Evidence from China's industrial firms	Fisher-Vanden, Mansur, & Wang (2015)	Sales Revenues, Energy	Not defined	Not defined	>5 million yuan ($600,000) and that consume energy in excess of 10,000 tons standard coal equivalent (SCE)
The impact of consulting services on small and medium enterprises: Evidence from a randomized trial in Mexico	Bruhn, Karlan, & Schoar (2018)	Employment	1–10	Small: 11–50 (manufacturing and services) & 11–30 (commerce) Medium: 30(50)–100 (service and commerce) & 50–250 (manufacturing)	>100 (services and commerce) >250 (manu-facturing)

References

ABAC (2018). *Realizing the Untapped Potential of MSMEs in APEC: Practical Recommendations for Enhancing Cross-Border Trade.* Los Angeles: University of California, Marshall School of Business.

Abebe, G., Caria, S., & Ortiz-Ospina, E. (2019). The selection of talent: Experimental and structural evidence from Ethiopia. *American Economic Review, 111*(6), 1757–1806.

Abeberese, A. (2017). Electricity cost and firm performance: Evidence from India. *Review of Economics and Statistics, 99*(5), 839–852.

Abeberese, A. (2022, August 15). *How can small and medium enterprises cope with power outages?* Retrieved from Energy for Growth Hub: https://energyforgrowth.org/article/how-can-small-and-medium-enterprises-cope-with-power-outages/

Abeberese, A., Ackah, C., & Asuming, P. (2021). Productivity losses and firm responses to electricity shortages: Evidence from Ghana. *World Bank Economic Review, 35*(1), 1–18.

Abreha, K., et al. (2022). Deconstructing the missing middle: Informality and growth of firms in Sub-Saharan Africa. *World Bank*.

Akcigit, U., Alp, H., & Peters, M. (2021). Lack of selection and limits to delegation: Firm dynamics in developing countries. *American Economic Review, 111*(1), 231–75.

Alfaro-Ureña, A., Manelici, I., & Vasquez, J. P. (2022). The effects of joining multinational supply chains: New evidence from firm-to-firm linkages. *The Quarterly Journal of Economics, 137*(3), 1495–1552.

Alfonsi, L., Bandiera, O., Bassi, V., Burgess, R., Rasul, I., Sulaiman, M., & Vitali, A. (2020). Tackling youth unemployment: Evidence from a labour market experiment in Uganda. *Econometrica, 88*(6), 2369–2414.

Allcott, H., Collard-Wexler, A., & O'Connell, S. D. (2016). How do electricity shortages affect industry? Evidence from India. *American Economic Review, 106*(3), 587–624.

Altenburg, T., & Eckhardt, U. (2006). *Productivity enhancement and equitable development: Challenges for SME development.* Vienna: UNIDO – United Nations Industrial Development Organization.

Alvarez, R., & Lopez, R. A. (2008). Is exporting a source of productivity spillovers? *Review of World Economics, 144*, 723–749.

Amadasun, D. O., & Mutezo, A. T. (2022). Influence of access to finance on the competitive growth of SMEs in Lesotho. *Journal of Innovation and Entrepreneurship, 11*.

ANDE & IGC (2018). *A Research Agenda for the Small and Growing Business Sector: Summarizing the Current Evidence and Research Needs.* The Aspen Institute.

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.

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, 71*(1), 151–82.

Aterido, R., et al. (2019, March). *Firm Dynamics, Job Outcomes, and Productivity: South African Formal Businesses*, 2010-14. World Bank Policy Research Working Papers. Retrieved from https://openknowledge.worldbank.org/handle/10986/31447

Atkin, D., & Donaldson, D. (2015). *Who's Getting Globalized? The Size and Implications of Intra-National Trade Costs*. National Bureau of Economic Research.

Atkin, D., Donaldson, D., Rasul, I., Teachout, M., Verhoogen, E., & Woodruff, C. (2021). *IGC Evidence Paper: Firms, Trade, and Productivity.* London: International Growth Centre (IGC).

Attanasio, O., Guarin, A., Medina, C., & Meghir, C. (2017). Vocational training for disadvantaged youth in Colombia: A long-term follow-up. *American Economic Journal: Applied Economics, 9*(2), 131–43.

Ayyagari, M., Demirguc-Kunt, A., & Maksimovic, V. (2014). Who creates jobs in developing countries? *Small Business Economics, 43*, 75–99.

Ayyagari, M., Demirguc-Kunt, A., & Maksimovic, V. (2021). Are large firms born or made? Evidence from developing countries. *Small Business Economics 57*, 191–219.

Ayyagari, M., Juarros, P., Martinez Peria, M. S., & Singh, S. (2021). Access to finance and job growth: Firm-level evidence across developing countries. *Review of Finance*, 1473–1497.

Bandiera, O., Hansen, S., Pratt, A., & Sadun, R. (2017). *CEO Behavior and Firm Performance.* Harvard Business School.

Banerjee, A., & Duflo, E. (2011). *Poor Economics: A Radical Rethinking of the Way to Fight Global Poverty.* New York: Public Affairs Press.

Banerjee, A., Duflo, E., Glennerster, R., & Kinnan, C. (2015). The miracle of microfinance? Evidence from a randomized evaluation. *American Economic Journal: Applied Economics, 7*(1), 22–53.

Bassi, V., & Nansamba, A. (2019). *Screening and Signaling Non-Cognitive Skills: Experimental Evidence from Uganda.* SSRN.

Beck, T., et al. (2005). SMEs, growth, and poverty: Cross-country evidence. *Journal of Economic Growth*, 199–229.

Berg, T., Burg, V., Gombovic, A., & Puri, M. (2020). On the rise of fintechs: Credit scoring using digital footprints. *The Review of Financial Studies, 33*(7), 2845–2897.

Blattman, C., & Dercon, S. (2018). The impacts of industrial and entrepreneurial work on income and health: Experimental evidence from ethiopia. *American Economic Journal: Applied Economics, 10*(3), 1–38.

Bloom, N., & Van Reenen, J. (2007). Measuring and explaining management practices across firms and countries. *The Quarterly Journal of Economics, 24*(1), 203–24.

Bloom, N., & Van Reenen, J. (2010). Why do management practices differ across firms and countries? *Journal of Economic Perspectives, 24*(1), 203–24.

Bloom, N., Eifert, B., Mahajan, A., McKenzie, D., & Roberts, J. (2013). Does management matter? Evidence from India. *The Quarterly Journal of Economics, 128*(1), 1–51.

Bloom, N., Genakos, C., Sadun, R., & Van Reenen, J. (2012). Management practices across firms and countries. *Academy of Management Perspectives, 26*(1), 12–33.

Bloom, N., Kretschmer, T., & Van Reenen, J. (2011). Are family-friendly workplace practices a valuable firm resource? *Strategic Management Journal, 32*(4), 343–67.

Bloom, N., Sadun, R., & Van Reenen, J. (2016). *Management as a Technology?* National Bureau of Economic Research.

Boehm, U. (1997). *Kompetenzanforderungen und Kompetenzerwerb im informellen Sektor: Ein Überblick über empirische Forschungsergebnisse.* Germany.

Brooks, W., Donovan, K., & Johnson, T. R. (2018). Mentors or teachers? Microenterprise training in Kenya. *American Economic Journal: Applied Economics, 10*(4), 196–221.

Bruhn, M., Karlan, D., & Schoar, A. (2018). The impact of consulting services on small and medium enterprises: Evidence from a randomized trial in Mexico. *126*(2), 635–687.

Cai, J., & Szeidl, A. (2017). Interfirm relationships and business performance. *The Quarterly Journal of economics, 133*(3), 1229–1282.

Campante, F., & Yanagizawa-Drott, D. (2018). Long-range growth: Economic development in the global network of air links. *The Quarterly Journal of Economics, 133*(3), 1395–1458.

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.

Ciani, A., Hyland, M. C., Karalashvili, N., Keller, J. L., Ragoussis, A., & Tran, T. T. (2020). *Making It Big: Why Developing Countries Need More Large Firms.* Washington, DC: World Bank Group. doi:10.1596/978-1-4648-1557-7

Cordaro, F., Fafchamps, M., Mayer, C., Meki, M., Quinn, S., & Roll, K. (2022). *Microequity and Mutuality: Experimental Evidence on Credit with Performance-Contingent Repayment.* Cambridge, MA: NBER.

Coşar, A. K., & Fajgelbaum, P. D. (2016). Internal geography, international trade, and regional specialization. *American Economic Journal: Microeconomics*, 24–56.

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.

Cusolito, A. P., Safadi, R., & Taglioni, D. (2016). *Inclusive Global Value Chains – Policy Options for Small and Medium Enterprises and Low-Income Countries.* OECD/World Bank.

Davis, B., Reardon, T., Stamoulis, K., & Winter, P. (2002). *Promoting Farm/Non-Farm Linkages in Developing Countries: Case Studies from Africa and Latin America.* Rome: FAO.

de Mel, S., McKenzie, D., & Woodruff, C. (2008). Returns to capital in microenterprises: evidence from a field experiment. *The Quarterly Journal of Economics, 123*(4), 1329–1372.

de Mel, S., McKenzie, D., & Woodruff, C. (2009). Are women more credit constrained? Experimental evidence on gender and microenterprises returns. *American Economic Journal: Applied Economics, 1*(3), 1–32.

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*(6071), 962–966.

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 Mel, S., McKenzie, D., & Woodruff, C. (2019). *Micro-Equity for Microenterprises.* Washington, D.C:: World Bank.

Dinkelman, T. (2011). The effects of rural electrification on employment: New evidence from South Africa. *American Economic Review, 101*(7), 3078–3108.

Dlugosch, T., Klinger, B., Frese, M., & Klehe, U. (2018). Personally-based selection of entrepreneurial borrowers to reduce credit risk: Two studies on prediction models in low- and high-stakes settings in developing countries. *Journal of Organizational Behavior, 39*(5), 612–628.

Donovan, K., & Schoellman, T. (2022). *The Role of Labour Market Frictions in Structural Transformation.* Oxford Development Studies.

El Badaoui, E., Strobl, E., & Walsh, F. (2010). The formal sector wage premium and firm size. *Journal of Development Economics, 91*, 33–47.

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.

Fafchamps, M., & Woodruff, C. (2017). Identifying gazelles: Expert panels vs. surveys as a means to identify firms with rapid growth potential. *The World Bank Economic Review, 31*(3), 670–686.

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.

Field, E., Pande, R., Papp, J., & Rigol, N. (2013). Does the classic microfinance model discourage entrepreneurship among the poor? Experimental evidence from India. *American Economic Review, 103*(6), 2196–2226.

Fischer, G. (2013). Contract structure, risk sharing, and investment choice. *Econometrica, 81*(3), 883–939.

Fisher-Vanden, K., Mansur, E. T., & Wang, Q. J. (2015). Electricity shortages and firm productivity: Evidence from China's industrial firms. *Journal of Development Economics, 114*, 172–188.

Fluitmann, F., & Momo, J. M. (2001). *Skills and Work in the Informal Sector: Evidence from Yaoundé, Cameroon.* International Training Centre of the ILO Occasional Papers, ILO, Turin.

Franklin, S. (2018). Location, search costs and youth unemployment: Experimental evidence from transport subsidies. *The Economic Journal, 128*(614), 2353–2379.

Ganne, E., & Lundquist, K. (2019). The digital economy, GVCs and SMEs. In WTO & World Bank, *Global Value Chain Development Report 2019: Technological Innovation, Supply Chain Trade and Workers in a Globalized World* (pp. 121–139). Washington, D.C.: World Bank Group.

Garcia, N. A., & van Soest, A. (2016). *New Job Matches and Their Stability before and during the Crisis.* Center for Economic Research, Tilburg University, Tilburg.

Gelb, A., Meyer, C. J., & Ramachandran, V. (2014). *Development as Diffusion: Manufacturing Productivity and Sub-Saharan Africa's Missing Middle.* Washington DC: Center for Global Development.

Ghani, E., Goswami, A., & Kerr, W. (2016). Highway to success: The impact of the golden quadrilateral project for the location and performance of Indian manufacturing. *Economic Journal (Royal Economic Society), 126*(591), 317–357.

Goldberg, P. K., & Reed, T. (2020). *Demand-Side Constraints in Development: The Role of Market Size, Trade, and (In)Equality.* NBER Working Paper Series.

Gonzalez-Uribe, J., & Leatherbee, M. (2017). The effects of business accelerators on venture performance: Evidence from Start-Up Chile. *The Review of Financial Studies, 31*(4), 1566–1603.

Hallward-Driemeier, M. (2013). *Enterprising Women; Expanding Economic Opportunities in Africa.* Washington, DC: World Bank.

Haltiwanger, J., Hyatt, H., & McEntarfer, E. (2015). *Cyclical Reallocation of Workers across Employers by Firm Size and Firm Wage.* National Bureau of Economic Research, Cambridge, MA.

Haltiwanger, J., Jarmin, R. S., & Miranda, J. (2013). Who creates jobs? Small versus Large versus Young. *The Review of Economics and Statistics, 95*(2), 347–361.

Hardy, M., & Mccasland, J. (2019). *Lights Off, Lights On: The Effects of Electricity Shortages on Small Firms.* Washington, D.C.: World Bank.

Hemmer, H.-R., & Mannel, C. (1989). On the economic analysis of the urban informal sector. *World Development, 17*(10), 1543–1552.

Higuchi, Y., Mhede, E. P., & Sonobe, T. (2019). Short-and medium-run impacts of management training: An experiment in Tanzania. *World Development, 114*, 220–236.

Hjort, J., & Poulsen, J. (2019). The arrival of fast internet and employment in Africa. *American Economic Review, 109*(3), 1032–79.

Hsieh, C. T., & Klenow, P. J. (2010). Development accounting. *American Economic Journal: Macroeconomics*.

Hsieh, C. T., & Olken, B. A. (2014). The missing "missing middle". *Journal of Economic Perspective, 28*(3).

Hussam, R., Rigol, N., & Roth, B. (2022). Targeting high ability entrepreneurs using community information: Mechanism design in the field. *American Economic Review, 112*(3), 861–98.

IEA, IRENA, UNSD, World Bank, WHO (2021). *Tracking SDG 7: The Energy Progress Report.* Washington, D.C.: World Bank.

IFC (2007). *Designing a Tax System for Micro and Small Businesses: Guide for Practitioners.* Washington, DC: The World Bank Group.

IFC (2011). *G20 Global Partnership for Financial Inclusion: Strengthening Access to Finance for Women-Owned Small and Medium-Sized Enterprises (SMEs) in Developing Countries.* Washington, DC.

IFC (2017). *MSME Finance Gap: Assessment of the Shortfalls and Opportunities in Financing Micro, Small, and Medium Enterprises in Emerging Markets.* Washington, D.C.

IFC (2021, March). *Small Business, Big Growth: How Investing in SMEs Creates Jobs.* Retrieved from https://www.ifc.org/wps/wcm/connect/2c499fd9-a2e8-4fac-9833-145620746fc4/IFC_SME_Report_2021_FA_digital.pdf?MOD=AJPERES&CVID=nCL6R9f

IFC (2023). Website. https://www.ifc.org/en/home

ILO (2014). *Can Productivity in SMEs Be Increased by Investing in Workers' Health? Taking Stock of Findings on Health Protection of Workers in Small and Medium-Sized Enterprises and Their Impacts on Productivity.* Geneva: International Labour Office, Social Protection Department.

ILO (2015). *Small and Medium-Sized Enterprises and Decent and Productive Employment Creation.* Report IV for the International Labour Conference, 104th session, Geneva.

Jensen, R. (2010). The (perceived) returns to education and the demand for schooling. *The Quarterly Journal of Economics, 125*(2), 515–548.

Jensen, R., & Miller, N. (2018). Market integration, demand, and the growth of firms: Evidence from a natural experiment in India. *American Economic Review, 108*(12), 3583–3625.

Kahneman, D., & Klein, G. (2009). Conditions for intuitive expertise: A failure to disagree. *American Psychologist, 64*(6), 515–526.

Kerr, W. R., Lerner, J., & Schoar, A. (2014). The consequences of entrepreneurial finance: Evidence from angel financings. *Review of Financial Studies, 27*(1), 20–55.

Khan, M. (2022). Barriers constraining the growth of and potential solutions for emerging entrepreneurial SMEs. *Asia Pacific Journal of Innovation and Entrepreneurship, 16*(1), 38–50.

Kuntchev, V., Ramalho, R., Rodríguez-Meza, J., & Yang, J. S. (2013). *What Have We Learned from the Enterprise Surveys Regarding Access to Credit by SMEs?* Washington, D.C.: World Bank.

La Porta, R., & Shleifer, A. (2014). Informality and development. *Journal of Economic Perspectives, 28*(3), 109–126.

Lawless, M. (2014). Age or size? Contributions to job creation. *Small Business Economics, 42*, 815–830.

Lerner, J., & Schoar, A. (2010). Introduction, *International Differences in Entrepreneurship.* Chicago, IL: University of Chicago Press.

Levinsohn, J. (1999). Employment responses to international liberalization in Chile. *Journal of International Economics, 47*(2), 321–344.

Liimatainen, M. (2002). *Training and Skills Acquisition in the Informal Sector: A Literature Review.* Geneva: ILO.

Loiseau, J., & Walsh, C. (2015). Where credit is due. *J-PAL and IPA Policy Bulletin*, 1.16.

Lukonga, I. (2020). *Harnessing Digital Technologies to Promote SMEs and Inclusive Growth in the MENAP Region.* IMF.

Martínez, A., Puentes, E., & Ruiz-Tagle, J. (2018). The effects of micro-entrepreneurship programmes on labour market performance: experimental evidence from Chile. *American Economic Journal: Applied Economics, 10*(2), 101–24.

McKenzie, D., & Puerto, S. (2017). *Growing Markets Through Business Training for Female Entrepreneurs: A Market-Level Randomized Experiment in Kenya.* Washington, DC: World Bank.

McKenzie, D., & Sansone, D. (2017). *Man vs. Machine in Predicting Successful Entrepreneurs: Evidence from a Business Plan Competition in Nigeria.* Washington, DC: The World Bank.

McKenzie, D., & Woodruff, C. (2008). Experimental evidence on returns to capital and access to finance in Mexico. *The World Bank Economic Review, 22*(3), 457–482.

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.

McKenzie, D., & Woodruff, C. (2017). Business practices in small firms in developing countries. *Management Science, 63*(9), 2967–2981.

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.

Menzel, A., & Woodruff, C. (2019). *Gender Wage Gaps and Worker Mobility: Evidence from the Garment Sector in Bangladesh.* National Bureau of Economic Research.

Obokoh, L., & Goldman, G. (2016). Infrastructure deficiency and the performance of small-and medium-sized enterprises in Nigeria's liberalised economy. *Acta Commercii, 16*(1), 1–10.

OECD (2012). *Entrepreneurship at a Glance 2012.* Paris: OECD Publishing.

OECD (2021). *OECD Compendium of Productivity Indicators 2021.* Paris: OECD Publishing, https://doi.org/10.1787/f25cdb25-en. Retrieved from OECD iLibrary: https://www.oecd-ilibrary.org/industry-and-services/oecd-compendium-of-productivity-indicators_f25cdb25-en

Office for National Statistics (2019). *Business Dynamism in the UK Economy: Quarter 1 (Jan to Mar) 1999 to Quarter 4 (Oct to Dec) 2019*. Retrieved from Office for National Statistics: https://www.ons.gov.uk/businessindustryandtrade/changestobusiness/businessbirthsdeathsandsurvivalrates/bulletins/businessdynamismintheukeconomy/quarter1jantomar1999toquarter4octtodec2019#:~:text=Business%20dynamism%20relates%20to%20measures,allows%20new%2

Pallais, A. (2014). Inefficient hiring in entry-level labour markets. *American Economic Review, 104*(11), 3565–99.

Quinn, S., & Woodruff, C. (2019). Experiments and entrepreneurship in developing countries. *Annual Review of Economics, 11*, 225–48.

Reed, T., & Tran, T. T. (2019). *The Large-Firm Wage Premium in Developing Countries*. World Bank Policy Research Working Paper No. 8997.

Reinecke, G. (2002). *Small Enterprises, Big Challenges: A Literature Review on the Impact of Policy Environment on the Creation and Improvement of Jobs within Small Enterprises.* Geneva: ILO.

Rijkers, B., Arouri, H., Freund, C., & Nucifora, A. (2014). Which firms create the most jobs in developing countries? Evidence from Tunisia. *Labour Economics, 31*, 84–102.

Scott, A., Darko, E., Lemma, A., & Rud, J.-P. (2014). *How Does Electricity Insecurity Affect Businesses in Low and Middle Income Countries?* ODI.

Slaughter, M. J. (2013). *American Companies and Global Supply Networks: Driving US Economic Growth and Jobs by Connecting with the World.* Washington D.C.

Solo, T. M. (1999). Small-scale entrepreneurs in the urban water and sanitation market. *Environment and Urbanization, 11*(1).

Spray, J. (2017). *Export Transitions, Productivity, and the Supply Chain: Assessing the Influence of EAC Trade Costs Reductions in Exports and Export Supply Chains (F-43404-UGA-1).* International Growth Centre.

Storeygard, A. (2016). Farther on down the road: Transport costs, trade and urban growth in Sub-Saharan Africa. *The Review of Economic Studies, 83*(3), 1263–1295.

Syverson, C. (2010). *What Determines Productivity?* National Bureau of Economic Research (NBER) Working Paper, 15712.

Tarozzi, A., Desai, J., & Johnson, K. (2015). The impacts of microcredit: Evidence from Ethiopia. *American Economic Journal: Applied Economics, 7*(1), 54–89.

Ulyssea, G. (2020). Informality: Causes and consequences for development. *Annual Review of Economics, 12*, 525–546.

Ulyssea, G., Bobba, M., & Gadenne, L. (2023). Informality. *VoxDevLit, 6*(1).

UNCTAD (2017). *The Least Developed Countries Report 2017.*

UNCTAD (2021). *Over Half of the People in Least Developed Countries Lack Access to Electricity*. Retrieved from https://unctad.org/topic/least-developed-countries/chart-july-2021#:~:text=In%20a%20quarter%20of%20the,million%20people)%20completely%20without%20access.

Valdivia, M. (2015). Business training plus for female entrepreneurship? Short and medium- term experimental evidence from Peru. *Journal of Development Economics, 113*, 33–51.

Van Biesebroeck, J. (2005). Firm size matters: Growth and productivity growth in African manufacturing. *Economic Development and Cultural Change*.

Vandenberg, P., Chantapacdepong, P., & Yoshino, N. (2016). *SMEs in Developing Asia: New Approaches to Overcoming Market Failures.* Tokyo: Asian Development Bank Institute.

Wang, Y. (2016). What are the biggest obstacles to growth of SMEs in developing countries? – An empirical evidence from an enterprise survey. *Borsa Istanbul Review, 16*(3), 167–176.

Woodruff, C. (2018). *Addressing Constraints to Small and Growing Businesses.* International Growth Centre.

World Bank (2002). *Private Sector Development Strategy: Directions for the World Bank Group.* Washington, D.C:: World Bank.

World Bank (2009). *Air Freight: A Market Study with Implications for Landlocked Countries.* Washington, DC: World Bank.

World Bank (2013). *Female Entrepreneurship Resource Point – Introduction and Module 1: Why Gender Matters.* Retrieved from https://www.worldbank.org/en/topic/gender/publication/female-entrepreneurship-resource-point-introduction-and-module-1-why-gender-matters

World Bank (2014). *Building Integrated Markets within the East African Community: EAC Opportunities in Public–Private Partnership Approaches to the Region's Infrastructure Needs.* Washington, D.C.: International Bank for Reconstruction and Development/ World Bank.

World Bank (2020). *Accelerating Digitization: Critical Actions to Strengthen the Resilience of the Maritime Supply Chain.* Washington, DC: World Bank.

World Bank (2021, June 7). *Report: Universal Access to Sustainable Energy Will Remain Elusive Without Addressing Inequalities.* Retrieved from https://www.worldbank.org/en/news/press-release/2021/06/07/report-universal-access-to-sustainable-energy-will-remain-elusive-without-addressing-inequalities

WTO (2016). *World Trade Report 2016: Levelling the Playing Field for SMEs.* Geneva: WTO.

WTO (2018). *World Trade Report 2018: The Future of World Trade, How Digital Technologies are Transforming Global Commerce*. Geneva: WTO.

WTO (2020). *MSME Day 2020*. Retrieved from World Trade Organisation: https://www.wto.org/english/tratop_e/msmesandtra_e/msmesday20_e.htm

Zhang, T., & Klyuev, V. (2017, January 12). Roads to stronger growth in low-income countries. Retrieved from IMF Blog: https://www.imf.org/en/Blogs/Articles/2017/01/12/roads-to-stronger-growth-in-low-income-countries