The Journal of Technology Transfer
https://doi.org/10.1007/s10961-025-10213-x

RESEARCH

Does Africa need entrepreneurial ecosystems thinking?

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Accepted: 25 April 2025

Abstract
Does Africa need Entrepreneurial Ecosystems (EE) thinking? This paper argues that EE thinking is not a priority for Africa. The data is clear that Africa already has too many entrepreneurs. Further boosting the number of entrepreneurs in Africa seems like a step in the wrong direction. Instead, Africa should support the "right" kind of entrepreneurs, while reducing the total number of entrepreneurs. Two theories suggest that EE theory is the opposite of what African development needs: first, lessons from the technological catch-up that worked well for the development of South East Asia; and second, Schumpeterian growth theory which makes policy recommendations conditional on a country's distance-to-frontier.

Keywords Entrepreneurial ecosystems · Large firms · Missing middle · Distance to frontier · Africa

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Published online: 27 May 2025

1 Introduction

The modern world is characterized by economic inequality. A well-known distinction is made between the wealthy ‘Global North’ and the poorer ‘Global South’. A closer look highlights that it is Sub-Saharan Africa (SSA), in particular, that stands out as having low levels of GDP per capita (see Figure OSM-1).

Taking a broader historical view, East Asia has closed the gap relatively rapidly since about 1950, moving fast to reduce its poverty (Figure OSM-2). Many of the recent “growth miracles” (e.g. Japan, South Korea, Taiwan, Singapore, China, Malaysia) come from South/East Asia. However, in Africa, still an estimated 37% of the population live in extreme poverty.

How to best spur sustainable development? There is a large literature analysing economic development (Lucas, 1988) but the quest to find the one silver-bullet to economic, and broader, concepts such as sustainable development remain, as of now, elusive. Recently, scholars have argued that the Entrepreneurial Ecosystems (EE) approach is a useful conceptual lens for stimulating economic development in Africa[1] (e.g. the notion of “entrepreneurship-led development in Africa” in Nkwontwana and Stam, 2023). In a nutshell, EE is a theory that is regionally-bounded, yet agnostic to industry. It emphasizes how 10 inputs are mapped into a single output (productive entrepreneurship, usually proxied in terms of High-Growth Firms), and the focal agent is the entrepreneur (see e.g. Stam and Van de Ven, 2021; Wurth et al., 2022). There have been several special issues of academic journals dedicated to the theme (Friedrich, 2016; Marks et al., 2022; Honig et al., 2024). In this context, an index of African Entrepreneurial Ecosystems[2] has been launched (see Naude, 2024 for a critique) in order to rank and—potentially relying on future editions—track the development of EEs in the region over time. This paper discusses the potential role and usefulness of the EE framework for driving sustainable development with an application to Africa.[3]

Analysing historical “catch-up” events in East Asia and insights from Schumpeterian growth theory, the policy choices and industrial strategies based on those two paradigms stand in stark contrast to the EE approach. We acknowledging that there is no silver-bullet to foster sustainable development, but we argue that there is no reason to believe that today’s low and lower-income countries in Africa will make progress with its economic development by doing the opposite of what worked elsewhere (e.g. by focusing on small firms rather than large firms). Thus, this paper makes the case that, although EE may arguably have a minor role for Africa, EE thinking seems not to be the most useful approach.

We have no doubts that Entrepreneurial Ecosystems scholars have the best of intentions when suggesting that Africa, and in particular Sub-Saharan Africa (SSA), pursue development through the EE approach. However, even well-intentioned policy interventions can (and often do) lead to disaster. It is crucially important that any policy recommendations

[1] We use the term “Africa”, following e.g. Nkwontwana and Stam 2023, although we are aware of the enormous heterogeneity among the peoples, nations and economies of Africa. Furthermore, our analysis may be applicable more generally to countries outside of the group of high-income economies.

[2] Available here: https://africa.ecosystem.build/

[3] There are of course many differences between Africa and other regions. We do not wish to suggest that there is only one route that Africa should or must take. There may be several alternative paths for economic development that are highly context-specific.

addressing economic development should be effective and efficient compared to the available alternatives.

This paper is organised as follows. Section 2 reviews the academic literature that calls for more entrepreneurship in Africa. EE theory (introduced in Sect. 3) is compared to insights from the literature of technological catchup (Sect. 4) and the Schumpeterian growth models which make policy recommendations conditional on a country's distance-to-frontier (Sect. 5; Aghion & Howitt, 2006). We continue to assess the link between GDP and self-employment in Sect. 6, while Sect. 7 concludes.

2 Entrepreneurship scholars suggest that Africa needs more entrepreneurship

Sprinkled throughout the entrepreneurship literature, one often finds references to beliefs that entrepreneurship can be a path for the economic development of Africa.

> "Sadly, Africa is still the poorest region on earth. Given the importance of self-employment for the African economic development, entrepreneurship offers a great hope for changing the development, for the better, in many African countries." Friedrich (2016, page ix)

Note that, due to ambiguities in the entrepreneurship literature, the word "entrepreneurship" can mean anything from self-employment to successful innovation in large firms (Nightingale & Coad, 2014), although here the author specifically equates entrepreneurship with self-employment. Friedrich explains why self-employment matters:

> ""Small- and medium-sized businesses (SMEs) are the backbone of the economy of all African countries. They are responsible for more than 50 per cent of the GDP and by far more than 50 per cent of the employment of these countries." (Friedrich, 2016, page ix)

A first reaction is that the "backbone" analogy is not helpful. Firms are not bones, and SMEs (especially micro firms) do not provide disproportionate gains in terms of strength and structure to the national economy. If anything, SMEs and the self-employed are the atomistic grains of sand, blown about by the winds, operating at the "interstices" (Penrose, 1959, p223) that fill up the cracks between the boulders that are large firms.

A second reaction to the above quote is that it highlights how inefficient SMEs are: they require "far more than 50 per cent of the employment" to produce around 50% of the GDP. This implies that large firms (i.e. non-SMEs)[4] can produce around 50% of the GDP with far less than 50% of employment. As such, economic development would suggest a structural change to divert employees to jobs in large firms.

[4] The regulatory threshold for distinguishing between large firms and SMEs varies by country. According to the EU, large firms have 250 or more employees, while SMEs have up to 249 employees. In the USA and Canada, large firms are those with 500 or more employees. According to the World Bank's definition, and according to the threshold taken by many (but not all) sub-Saharan African countries, large firms are those with 100+employees (see Ciani et al., 2020, Figure I.1 on page 3).

Similarly, confusion between "what is", and "what should be", can be found in Kansheba and Wald (2020, p954):

> "The service sector is equally important even to developing economies, for example it contributes up to nearly 60% of Sub-Saharan Africa's GDP. Thus promoting entrepreneurial ecosystems in this sector may contribute significantly to economic growth and development."

We disagree with this idea: simply because the services sector takes a large share of the economy does not mean that growing it further (by promoting entrepreneurship) would be the path of economic development.[5]

Sheriff and Muffatto (2015, p17) observe that "entrepreneurs are omnipresent" in Africa, and that "a broad process to develop entrepreneurship ecosystems initiatives is suggested alongside the crucial roles that governments and other stakeholders should play which implies that a National Entrepreneurship Mission might be necessary." The idea of a "National Entrepreneurship Mission" resonates with the idea of "entrepreneurship-led development in Africa" in Nkwontwana and Stam (2023).

Many similar statements arguing that entrepreneurship is a major driving force for African economic development can be found, for example:

> "In order to improve the economic conditions and poverty issues in Africa, small businesses can play a vital role because small and medium enterprises (SMEs) have been generally regarded as the driving force of economic growth and poverty reduction. They have been the means through which accelerated economic growth and rapid industrialization have been achieved … Any strategy for poverty alleviation in Africa must include support, encouragement, and promotion (SMEs)." (Okpara, 2011, p157)

Enthusiasm for the role of entrepreneurship in African development is reported in Harris and Menzel (2023, p817), referring to the work of influential thinker in the area of Entrepreneurial Ecosystems, Daniel Isenberg:

> "Isenberg's (2010) seminal essay "The Big Idea: How to Start an Entrepreneurial Revolution" started with the story of Rwanda's rise from 143rd to 67th on the ease of doing business ranking offered by the World Bank, citing Rwanda's president, Paul Kagame, to emphasise that 'entrepreneurship is the most sure way of development'."[6]

Note that Isenberg published this in a business practitioner journal (i.e. Harvard Business Review), not in a development economics journal. A common theme seems to be that Entrepreneurship scholars venturing into the area of recommending strategies for African devel-

[5] An exception to the East Asian growth miracles would be the case of India, which benefitted from "Service-led growth" (Aghion et al., 2021). In the case of India, however, service-led growth corresponds to high-value-added service sectors such as software, IT, banking, and finance, which do not correspond closely to the industrial structure of SSA.

[6] Whether such jumps in the World Bank Ease of Doing Business ranking improve entrepreneurial outcomes is not clear, however, this ranking was discontinued after data irregularities were found. Source:

https://www.worldbank.org/en/news/statement/2021/09/16/world-bank-group-to-discontinue-doing-business-report [last accessed 13th February 2025].

opment have neglected the literature on Development Economics (Naude, 2010). Another factor that contributes to interest in promoting entrepreneurship as a development strategy for Africa could be the availability of research funding from philanthropists such as South African billionaire Allen Gray, who is a primary funder of research into Entrepreneurial Ecosystems in Africa.[7] Needless to say, Allen Gray's beliefs about entrepreneurship as a development strategy for Africa are not necessarily based on the Development Economics literature, but could be influenced by personal ideology.

3 A brief introduction to entrepreneurial ecosystems theory

3.1 Introduction to EE

Entrepreneurial Ecosystems (EE) is a theory of regional advantage that emerged from practitioners rather than from academics (Stam, 2015). The unit of analysis in EE theory is a geographical region, such as a NUTS-2 or NUTS-3 subnational region. EE theory is agnostic to industry, instead it encompasses all firms in a region regardless of their industry. As such, EE can be distinguished from the theory of 'Clusters', because Clusters are sector-specific whereas EEs are sector-agnostic (e.g. Harris & Menzel., 2023).

The EE approach describes how a certain number of inputs are converted into EE outputs (Mason & Brown, 2014). According to a popular framework (Stam and Van de Ven, 2021), the 10 EE inputs are: Physical infrastructure, Demand, Intermediaries, Talent, Knowledge, Leadership, Finance, Formal institutions, Culture, and Networks. An emphasis is placed on the interdependent nature of the 10 inputs, which co-evolve and interact to produce the EE output. The main output of an EE is productive entrepreneurship, which is often proxied by the regional share of High-Growth Firms (HGFs; Coad & Srhoj, 2023; Coad et al., 2025). The ultimate outcome of an EE is aggregate value creation.

A noteworthy characteristic of EE is the explosive growth in research attention that it has received in recent years. Relatedly, EE thinking is being applied to a diverse range of contexts, including the areas of economic development strategies for low-income countries such as in Sub-Saharan Africa.

3.2 EE policy recommendations

Inspired by the success of Silicon Valley, and interested in recreating the success of Silicon Valley in their own regions, policymakers have turned to EE thinking (Feldman & Oh, 2024). The EE approach, similar to its predecessor, the Clusters approach, has remained skeptical about public involvement and leadership, suggesting that the role of governments should be limited (Feldman & Oh, 2024). A problem facing EE policy is that the EE approach is under-theorized, slippery, and fragmented, leading to a lack of clear recommendations (Candeias & Sarkar, 2024). As such:

[7] See for example https://africa.ecosystem.build/ which is funded by the Allen Gray Centre for African Entrepreneurship, as part of its drive for "entrepreneurial ecosystem development in Africa" https://agcae.africa/ [last accessed 6th February 2025].

> “the lack of existing guidance leads policymakers to rely on a combination of “what seemed obvious, what had already been done … and what appeared to be best practice elsewhere”” (Candeias & Sarkar, 2024, p97)

which in practice often ends up with policies that simply seek to promote more entrepreneurship.

Nevertheless, a number of recommendations can be made, drawing on the EE framework that is based on 10 inputs, an emphasis on the interactions between these inputs, and the central role of the entrepreneur. At a basic level, EE policy recommendations could potentially be as simple as strengthening one input (such as Physical Infrastructure) in order to support productive entrepreneurship (the EE output). Focusing on EE inputs in isolation, however, is not expected to be the most valuable application of EE theory (Feldman & Oh, 2024). A more distinctive aspect of EE policy is not just to focus on EE inputs taken individually, but to focus on the inputs as a group, in particular focusing on their interdependent nature. A key theme of EE policy recommendations involves strengthening interdependencies and interactions to create an auspicious environment for entrepreneurs to thrive, creating new jobs and new value added.

The key EE inputs are the 10 EE inputs mentioned above, i.e. Physical infrastructure, Demand, Intermediaries, Talent, Knowledge, Leadership, Finance, Formal institutions, Culture, and Networks. EE’s explanation of economic growth occurs from the mechanism of 10 interacting EE inputs that boost productive entrepreneurship that ultimately leads to economic growth and well-being. Anything outside the EE scheme, we could claim, is implicitly not important for an EE-based explanation of economic development. For example, EE contains a long list of inputs that it considers relevant, but it does not seem to have a strong position regarding Industrial Policy. We interpret this as if EE implicitly considers that Industrial Policy is not an important part of the EE solution.

EE policy is vulnerable to two problems (Candeias & Sarkar, 2024). A first problem comes from trying to replicate best practices from elsewhere (such as Silicon Valley). This is obviously a problem for SSA, which faces different development challenges compared to the regions where EE thinking is usually applied. For example, Technology Transfer Offices at research universities have a useful role to play in the EEs of developed countries (O’Kane et al., 2021), but are probably less relevant in SSA. A second problem is that a fragmentary approach (targeting only a subset of segments/actors in the EE) is not expected to succeed, because the 10 EE inputs are interdependent and complementary (Candeias & Sarkar, 2024). EE policy seems to require a coordinated broad-based effort across many domains in order to build on intuitions regarding the interdependent nature of the EE inputs.

The EE literature has recognized that SSA should not try to copy what worked in Silicon Valley (Nkwontwana and Stam, 2023). However, EE continues to focus on making recommendations for SSA’s economic development that are based around entrepreneurship. The following sections present some leading theories of economic development, that argue that an economic policy centering on entrepreneurship does not seem to be most promising for lagging regions such as SSA.

4 The East Asian growth miracles versus EE

This section contrasts the path taken for the astonishing pace of development in the East Asian growth miracles, with concepts of development policy from the EE approach.

At a general level, the East Asian and South-East Asian growth miracles allow us to observe some "obvious similarities, such as export-led growth, a commitment to education, and economically progressive government policies that enable rather than restrict business." (Hobday, 2013, p132). Looking at the details, however, one notices considerable heterogeneity, such that there was no representative case of an East Asian growth miracle. For example, South East Asian countries (e.g. Singapore, Malaysia, Thailand) put more emphasis on FDI and (MNC) subsidiaries to lead export growth, whereas East Asia (Korea, Taiwan, Hong Kong) put more emphasis on local firms to lead industrialization (Hobday, 2013, p136). In Singapore, the government believed that local capitalists were not capable enough to lead industrialization, and entrusted the task to foreign firms (Hobday, 2013, p136).

4.1 The importance of large firms for economic development

In the context of Entrepreneurial Ecosystems in developing countries, Audretsch et al. (2022, p3) argue that the average size of a firm can be used as a proxy for its quality. In other words, large firms are higher-quality, and small firms are lower-quality. Firm size is associated with productivity, since larger firms benefit from economies of scale. There is a large empirical literature in both high- as well as medium-and low-income countries that documents a robust positive link between firm size and total factor productivity (Ayyagari et al., 2014; Haltiwanger et al., 2013; Poschke, 2018). In a sample of 32 countries, Freund and Pierola (2015) show that the top five export superstars account for 30% of all non-oil exports. Moreover, only a small fraction of firms in an economy engage in exporting (usually up to 15% of firms), and those that do tend to be larger and more productive, as accessing new markets entails significant costs (Melitz, 2003). Not only are larger firms more productive, but they also have benefits for the local economy in terms of positive spillovers (Matray, 2021) which help to stimulate regional growth (Moretti, 2021). Alfaro-Urena et al. (2022) show considerable benefits for domestic firms that become suppliers to large multinational firms, while Balsvik (2011) and Csáfordi et al (2020) show more productive firms also create knowledge spillovers through labor mobility resulting in increased productivity growth of other domestic firms. Relatedly, Audretsch et al. (2022, p14) write that "in the context of developing countries, a very different actor or organization, large foreign corporations engaged in inward foreign direct investment, may provide the source of investments to enhance human capital and worker skills." As such, large firms have an important role. The context of the East Asian growth miracle gives a valuable illustration of the important role that large firms can play for economic development. Section 6 also presents evidence linking firm size with firm outcomes in Africa.

4.2 The East Asian growth miracle was a story about large firms

Recent success stories of economic development from East Asia involve (i) state-supported (ii) large firms with a major role for the (iii) exporting of (iv) high technology goods (e.g. Taiwan, Korea, Japan, China, Malaysia), involving (v) scale economies, a key role of (vi)

FDI & (vii) MNCs (e.g. Taipei, Shenzhen, Penang in Malaysia, all in short-cycle IT), (viii) external/foreign knowledge, and often from (ix) industrial policy targeting specific sectors. This is almost the complete opposite of EE!

In contrast, EE thinking appears to give (i) little role to state support, (ii) focuses on small entrepreneurial firms and self-employment, in iii) small-scale local markets with (iv) no sector focus, and (v) lack of scale economies (because of the small size of entrepreneurial firms in SSA), paying little attention to (vi) FDI and (vii) large multinational corporations, emphasizing (viii) local heroes rather than external/foreign knowledge, and (ix) neglecting industrial policy because EE is a sector-agnostic theory.

These ideas are summarized in Table 1. In the following paragraphs, we expand upon the reasoning in Table 1. EE does not always present explicit statements for its relative neglect of certain factors (such as neglect for the role of industrial policy), although we argue that a lack of discussion of such topics in the EE literature implies that such topics are considered to have low importance.

The East Asian growth miracles featured an important role for state support, such as the case of the development of South Korea (Amsden, 1989), or Singapore (Audretsch & Fiedler, 2023), or China with its government-led five-year plans.

> "The conventional view holds that the role of government should decrease as a country's development progresses and that government intervention should be phased out as an economy matures into a high-income economy." (Lee, 2024, p210).

There may be exceptions to a linear phasing-out of government intervention, but in general government involvement should be higher for less-developed countries embarking on a catch-up trajectory (Lee, 2024). Large firms, rather than SMEs, have an important role to play:

> "South Korea and Taiwan became high-income economies not by having thousands of SMEs but rather by growing a few large firms, such as Samsung and Taiwan Semicon-

Table 1 Policy recommendations for catchup: EE versus the East Asian growth miracle. *Source*: our elaboration. See text for details

	East Asian growth miracle	Entrepreneurial ecosystems
Role for state support	Important	Not important
Focal firms	Large firms	Small firms
Role of exporting	Important	Not important
Sector specialization	Yes, in particular high-tech goods such as short-cycle IT	No, agnostic to sector
Scale economies	Important	Not important
Role of Multinational Corporations	Important	Not important
Foreign Direct Investment	Important	Not important
Role of external/foreign knowledge	Important	Not important
Industrial policy targeting specific sectors	Important	Not important EE is agnostic to sector

> ductor Manufacturing Company (TSMC), which incorporated many small suppliers into their networks." (Lee, 2024, page xii)

> "although latecomer economies tend to have only SMEs at the initial stage, it is critical to generate and establish big businesses during the catch-up stage. During the final stage, SMEs will emerge and grow, interacting with and following big businesses. It is also necessary for a latecomer to generate more big businesses than is normally expected from an economy of its size as a prerequisite for achieving growth beyond the middle-income stage." (Lee, 2024: page 12)

> "When South Korea started industrialization in the early 1960s, its growth potential was seriously constrained by the extremely low amount of savings available for investment. Given the limited size of the financial resources available, a reasonable solution was to concentrate in the hands of several large firms. In other words, the government sought to promote a few large firms first to expedite economic growth." (Lee, 2024, page 176)

SSA may indeed face issues of government failure and corruption,[8] which limit the effectiveness of top-down planning, but we argue that the response would be to strengthen the quality of institutions to reduce corruption and state capture, rather than to discard the lessons of the East Asian growth crisis and instead embrace a development strategy built around entrepreneurship.

Large firms in catchup countries not only boost growth, but also enhance the stability of economic growth (Lee et al., 2013). Choi et al. (2024) assess and quantify the role of top-firms during Korea's growth miracle (1972–2011). They show that the productivity growth of a few large firms had a sizeable impact on real GDP and highlight the contribution of those firms to economic growth. In fact, according to their assessment, those firms should be treated as superheroes, not as supervillains.

Another advantage is that these large businesses will later on provide a fertile ground for the subsequent appearance of SMEs:

> "Once a country achieves success in generating a critical mass of big businesses, these big businesses tend to serve as an umbrella and generator of startups and SMEs in diverse ways, including enabling spin-offs, providing venture capital, and purchasing the products of SMEs. In other words, in emerging economies, it is big businesses that tend to facilitate the growth of startups and SMEs" (Lee, 2024, page 213)

Large firms could help develop a network of SMEs, and provide these SMEs with legitimacy, discipline, quality checks, and learning opportunities. An SME tightly integrated into Samsung's supplier network can be expected to have higher managerial and technical capabilities than a stand-alone SME such as a barber or nail salon. As such, prioritizing SMEs rather than large firms for lagging countries corresponds to getting things the wrong

[8] Transparency International data highlights high scores for Africa on the Corruption Perception Index: https://www.transparency.org/en/cpi/2023?gad_source=1&gclid=Cj0KCQiAvvO7BhC-ARIsAGFyToXT-8mrV0G-0V7qsd4SxrGg_acUaVWIMb3Tub7NzrEOukHOWYcz4_caAiP3EALw_wcB [last accessed 6th February 2025].

way around. Large firms also have an advantage in maneuvering amid institutional voids (Khanna & Palepu, 2006).

The catchup success of East Asian countries involved an important role for exporting, as a way of boosting sales and also as a way of integrating into supply chains and learning from technologically advanced countries. In this context, the choice of technological sector matters (Lee & Lim, 2001). Korea, for example, focused on short-cycle IT, while Taiwan focused on producing semiconductor chips with an emphasis on exploiting economies of scale (Lee, 2024). Narratives of technological catchup in the East Asian growth miracles also make frequent mention of the importance of the transfer of external/foreign knowledge, with government attempts to stimulate Foreign Direct Investment (FDI) and collaborative agreements with Multinational Corporations (MNCs). MNCs have been shown to help develop new local clusters of innovation (Crescenzi et al., 2022), foster domestic supplier growth (Alfaro-Urena et al., 2022) and knowledge spillovers other domestic firms (Balsvik, 2011). Industrial policy played an important role in the catchup of the East Asian growth miracle countries (Lee, 2024), and continues to play an important role, although there may not always be agreement between scholars on the details (Chang & Andreoni, 2020; Rodrik & Stantcheva, 2021).

The EE approach stands in stark contrast to the historical accounts of East Asian success stories (see Table 1). In some areas, EE explicitly takes the opposite approach, in terms of its emphasis on small firms (not large firms exploiting scale economies) by way of its focus on entrepreneurs as the focal agents of change. EE as a development strategy for Africa does not always emphasize the importance of exporting, or external/foreign knowledge, but focuses instead on "locally-embedded narratives" (Nkontwana & Stam, 2023, page 1), with the focus on within-region resources. In some cases, we could consider that the EE approach's neglect of certain themes is only implicit, because these themes do not feature among the main EE inputs: such could be the case of state support, exporting, MNCs, and FDI. That said, scholars have noted that "the role of multinational enterprises in entrepreneurial ecosystems remains underexplored" (Rizvi et al., 2025, p1),[9] and some authors have a mistrust of MNCs and prefer to entrust development strategies to SMEs:

> "In contrast to the classical gains of multinational corporations, micro, small, and medium-sized enterprises (MSMEs) are better suited to serve the developmental needs of poor countries in Africa, Asia, and Latin America" (Abate & Sheferaw, 2023, p1)

EE theory explicitly avoids considerations of sector. EE is agnostic to sectors (Harris & Menzel, 2023; Spigel & Harrison, 2018), and as a consequence we can consider that EE does not emphasize an important role for industrial policy (see e.g. Criscuolo & Lalanne, 2024 and Juhász et al., 2023, for a review of the recent revival of the industrial policy literature).

Development economists have long argued that industrialisation provides a viable path for economic development, since a growing manufacturing sector provides ample room to provide jobs in countries with a young and growing demography, and also enables steady learning-on-the-job and upskilling (see e.g. Rodrik, 2016; Chang & Andreoni, 2020). A manufacturing sector can offer growth opportunities in related upstream and downstream sectors (Aghion et al., 2021), and manufacturing is linked to unique opportunities for R&D

[9] While the EE perspective has generally neglected the role of MNCs, an exception is Rizvi et al (2025).

investment, exporting, and productivity growth (Coad & Vezzani, 2019). Resurging interest into the topic of industrial policy suggests that targeted sectoral and transformational government policies can contribute to broad based industrial development, as Lane (2022) documents for the case of the heavy and chemical industry (HCI) drive in Korea. A national strategy of economic development and catch-up through manufacturing has worked well in the past (e.g. for China) although it may be the case (to some extent) that "the ship has sailed" or "the window of opportunity has closed", such that development strategies focusing on the manufacturing sector may no longer be as effective as before, especially in the case of SSA (Naude, 2017).

4.3 Specificities of the African case

Africa is different from East Asia, of course. It would be naive to suggest that Africa should perfectly imitate the East Asian playbook, but it would also be naive to suggest that Africa can learn nothing from East Asia.

We admit that previous successful development strategies from other countries might not fit exactly to the SSA context. That said, doing the opposite of what has evidently worked in many other regions (i.e. by following EE thinking) is arguably even less likely to work. Note that the East Asian growth miracle approach to development is based on the detailed study of real-world success stories, which cannot be said for the EE approach, which at present seems to be based on little more than optimism around a "chaotic concept" (Harrison, 2023).

There is a research gap in understanding the role of large African companies to foster structural change, as opposed to the well-documented cases in East Asia (Muzafar, 2025). This includes taking into account the role of Africa's resource endowments, as well as historical legacies (Nunn, 2007), and the influence of those firms to concentrate economic and political power and influence local policies, and ways to maximise the positive spillovers of those firms to the local economies.

One possible lesson for Africa is as follows. Africa enjoys valuable natural resources, but their efficient exploitation, through mining and agriculture, has required scale-intensive large firms that have appeared in the form of FDI from foreign multinationals. There are concerns that these large foreign-owned corporations lead to an oligarchic economic structure[10] in which they dominate the economy, extracting and exporting wealth abroad, while neglecting to share the gains with the local economy.[11] As such, an appropriate development path for Africa could be to renegotiate the licenses of FDI from foreign MNCs, to allow more opportunities for profit sharing, local input requirements, employment of the local population, and plans for ongoing upskilling and technological upgrading. This strategy of establishing conditions to local entry (regarding deliberate technological and economic upgrading) was actually a contributing factor of the East Asian growth miracles. For example, the Taiwanese government carefully negotiated the terms of FDI, and attached export

[10] See https://www.dailymaverick.co.za/opinionista/2024-12-18-south-africa-has-an-oligarchy-problem/ [last accessed 10th April 2025].

[11] In this context, necessity entrepreneurship is prevalent, and local firms that start small will rarely grow. The domination of some sectors by foreign-owned multinationals has led to concerns about profit repatriation, resource exploitation, and limited integration with local value chains (Muzaffar, 2025), and they may potentially lack incentives to raise domestic demand through local development. We are grateful to an anonymous reviewer for these insights.

targets and local-content rules, to the investment plans of MNCs (Hobday, 2013, p139) and it may be one way in which Africa could learn from the East Asian success stories.

5 Distance to frontier, firm size and Schumpeterian growth policy

5.1 Schumpeterian growth theory

The notion of "creative destruction" has been actively incorporated in Schumpeterian growth theory (Aghion et al., 2014). In contrast to more standard models of economic growth, the Schumpeterian framework allows the analysis the many microeconomic issues (e.g. related to innovation, business dynamism, market structure) that interact with growth, including policies, incentives and organisations.

Regarding growth policies, the Schumpeterian growth theory offers a theoretical framework based on the idea that growth-enhancing policies and institutions are not a "one-size-fits-all" package, but that the appropriate policies and institutions depend upon a country's level of technological development (Acemoglu et al., 2006; Aghion & Howitt, 2006; Aghion et al., 2014). As such, Schumpeterian growth theory differs from the Washington consensus view, according to which the same policies should be recommended everywhere (Aghion et al., 2014). A prominent author in this area is Philippe Aghion: no stranger to Entrepreneurship research, as evidenced by his receipt of the Global Award for Entrepreneurship Research (GAER) in 2016.[12]

The literature on Schumpeterian growth models suggests that "optimal" growth policies depend on a country's distance to the world technological frontier. Countries far from the frontier benefit from a clearer view regarding the path for "catching-up": laggard countries are uniquely positioned to grow rapidly through technological diffusion and spillovers, by imitating best-practice and adopting technologies from elsewhere. This has been labelled as an "advantage of backwardness" (Gerschenkron, 1962). Countries at the frontier have slower growth, on average, and their growth involves the expensive and uncertain activities of innovation and R&D investment in order to grow by pushing forward the global technology frontier. As such, the "appropriate growth policy" differs for lagging and leading countries (Aghion & Howitt, 2006).

Schumpeterian growth theory has a wide range of implications, besides the distinction between imitation and innovation. Higher education (especially graduate school education) is expected to be more growth-enhancing in frontier regions and countries, whereas basic education (primary, secondary, and perhaps undergraduate education) is more growth-enhancing in lagging regions (Aghion et al., 2014; Lee & Kim, 2009).[13] Tertiary education is observed to be more positively correlated with productivity growth in countries that are closer to the world technology frontier (Vandenbussche et al., 2006). Trade openness is also observed to be especially growth-enhancing in countries that are closer to the technological frontier, whereas a protectionist industrial strategy might be more appropriate for lagging

[12] See https://www.e-award.org/award-winners/ (last accessed 6th February 2025).

[13] WEF recommends that improving basic education is an urgent challenge for SSA: https://www.weforum.org/stories/2024/01/why-the-world-must-look-to-africa-for-education-innovation [last accessed 6th February 2025].

regions (Aghion et al., 2014). Intellectual Property (IP) rights are also more relevant as a country approaches the world technological frontier (Kim et al., 2012).

Entrepreneurship clearly fits into the distance to frontier approach of Schumpeterian growth models. Economies that are far away from the technology frontier follow an investment-led growth strategy with high average size and age of firms, but little selection of high-skill entrepreneurs (Acemoglu et al., 2006). Economies closer to the technology frontier with less scope for growth via imitation should switch to an innovation-based strategy, featuring an important role for younger firms, less emphasis on investment and scale economies, better selection of entrepreneurs, and an emphasis on equity finance (Aghion et al., 2014). Innovative entrepreneurship is crucially important for the economic growth of countries at the world technological frontier, where firms seek to innovate to push forwards the bounds of the frontier. Further away from the frontier, the emphasis is on large firms rather than young new entrepreneurial firms. This was already clear when reflecting on the European experience, where relatively backward economies could catch up by imitating and adopting technologies developed elsewhere, in combination with large-scale industrial investments (Gerschenkron, 1962). In the historical case of catchup by lagging European countries, support for entrepreneurship was not a relevant factor:

> "It would seem that adverse social attitudes towards entrepreneurs and entrepreneurships do not emerge as a major retarding force upon the economic development of European countries in the nineteenth century." (Gerschenkron, 1962, p70).

In contrast, "entry is more growth-enhancing in countries or sectors that are closer to the technological frontier" (Aghion 2017, p15). Relatedly, entry costs and barriers to entrepreneurial entry are less important for the economic growth of lagging countries:

> "while high entry barriers do not appear to be detrimental to growth in countries far below the world frontier, they indeed become increasingly detrimental to growth as the country approaches the frontier." (Aghion et al., 2014, p543).

Schumpeterian growth theory would therefore recommend that Africa should not prioritize an economic growth strategy built around entrepreneurship. Harking back to Sect. 2, and the case of Rwanda's president, Paul Kagame, who stressed that "entrepreneurship is the most sure way of development", Schumpeterian growth theory would strongly disagree. In fact, following up on Kagame's development strategy for Rwanda based on entrepreneurship, it was later observed that "Rwanda does not have high entrepreneurship outputs, but has one of highest quality institutions in Africa" (Nkwontwana and Stam, (2023, p12)), which could potentially be seen as a red flag, because investing in EE inputs did not lead to high EE outputs.

In addition, Schumpeterian growth theory would recommend that Africa should focus on improving management capabilities (Aghion et al., 2021; p. 144). Relatedly, development experts have identified the strengthening of management capabilities as a priority for SSA (Ciani et al., 2020, page xiii; Naude, 2017). Figure 1 shows management practices are quite low in Africa (as measured according to the well-known World Management Survey), and represent another way forward that is outside the EE conceptual lens (see e.g. Teece, 2007, on the distinction between management capabilities and entrepreneurial capabilities).

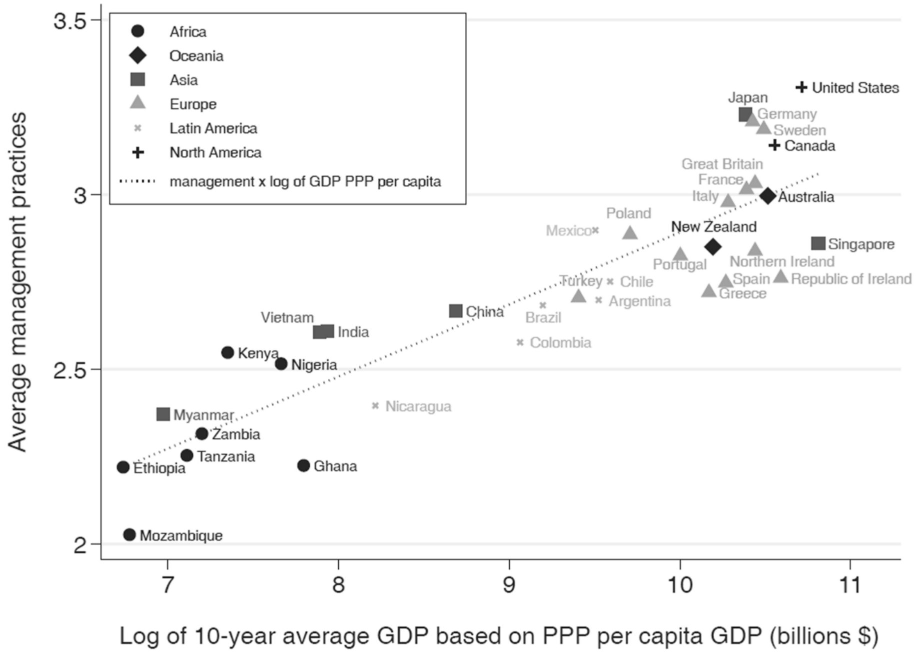

Fig. 1 Economic growth and management practices. *Note*: World Management Survey (WMS, April 2013 version) based on Aghion et al., (2021; p. 145)

Finally, imitation-driven growth would place considerable efforts into improving literacy, numeracy and technical skills that enable workers to absorb, adapt and implement technology from abroad. This way, an educated workforce can make technology diffusion more efficient. EE frameworks emphasize the number of highly educated individuals (Leendertse et al., 2022), however, what seems to be needed in many countries in Africa, particularly least developed, is improved enrolments and quality of primary and secondary school education.[14]

Overall, it seems at the moment unclear how the policy implications stemming from Schumpeterian growth theory should be reconciled with the conceptual lens of Entrepreneurial Ecosystems.

5.2 The economic complexity approach

How far are African countries from the frontier? A useful indicator to measure the distance to frontier is the Economic Complexity Index (ECI) provided by Hidalgo and Hausmann (2009). Schetter (2022) shows that the ECI correlates closely with other micro-founded rankings of technological distance to the frontier. As such, the higher the ECI, the closer the respective economy ranks towards the world's technological frontier. Figure 2 plots the ECI value for 133 countries in seven world regions, based on the classification provided by the World Bank for 2021. What stands out is that the production complexity is on average the

[14] See https://www.weforum.org/stories/2024/01/why-the-world-must-look-to-africa-for-education-innovation/ [last accessed 14 May 2025].

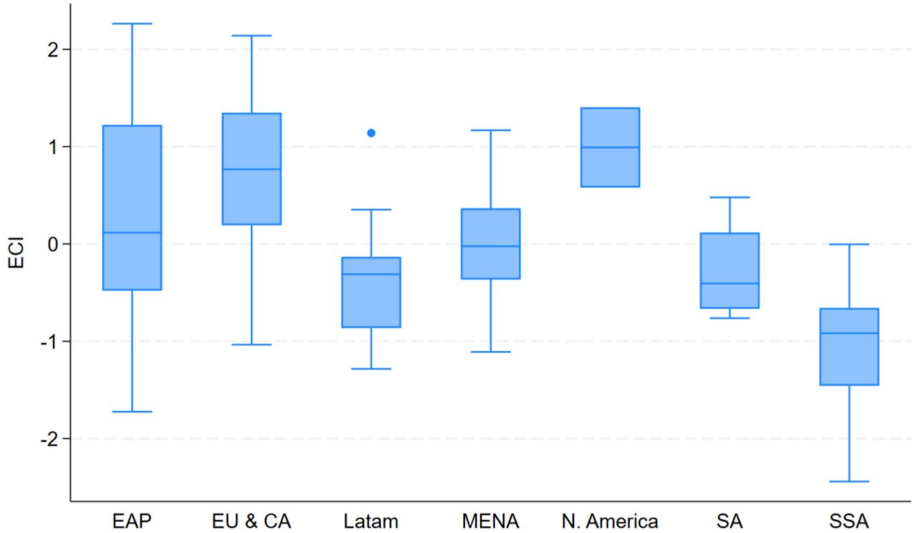

Fig. 2 Economic Complexity Index (ECI) for 7 world regions. Note the low score for sub-Saharan Africa. *Note*: EAP (East Asia and Pacific), EU & CA (European Union and Central Asia), Latam (Latin America and the Caribbean), MENA (Middle East and North Africa), SA (South Asia) and SSA (Sub-saharan Africa), data provided by: https://atlas.cid.harvard.edu/rankings (downloaded: 9.7.2024)

lowest in Sub-Saharan Africa. In other words, the technological distance to the frontier is highest for that world region. Based on the reasoning of Acemoglu et al. (2006), the focus for SSA should indeed be on creating larger enterprises and pursuing an investment-led growth model. Cote d'Ivoire serves as an illustrative example. Cote d'Ivoire mostly exports raw materials, such as cocoa beans, petroleum oils, natural rubber, gold, cashew nuts, and palm oil.[15] Building on state intervention and foreign direct investment, however, they could seek to climb up the value chain and enter into more complex activities by taking steps in the processing of raw materials, and diversifying into related activities (Domnick, 2019).

Reflections on the economic complexity and the ECI are reminiscent of the theme to "Structural Change," which has repeatedly been identified as the single most important binding constraint on development (Naude, 2011, Table A1). A major challenge for the economic development of poor countries is the structural change that comes from shifting productive resources from low-productivity sectors (e.g. self-employment, agriculture) to different, more productive sectors (e.g. large firms, high-tech manufacturing).

5.3 Venture-capital backed firms

Another possibility to look at the distance-to-frontier would be to analyse the amount of innovative firms with high-growth potential that receive venture capital (VC) funding.

There are only a very limited number of firms in a given economy receiving venture capital financing. Despite their low number, those firms are found to spur innovation (Schnitzer and Watzinger, 2022), entrepreneurship (Samila and Sorensen, 2011) and play an outsized role for aggregate economic outcomes such as economic growth (Akcigit et al., 2022).

[15] See e.g. https://atlas.hks.harvard.edu/countries/384/export-basket [last accessed 7th Feb 2025].

Given their relevance, the EE literature has used VC-funded firms as a proxy to operationalise the output, "productive entrepreneurship" (Leendertse et al., 2022).

As such, the amount of VC-invested could also be used as a proxy to measure a country's distance to frontier. How do VC-investments in Africa fare in a global comparison?

Figure 3 depicts the share of VC investment over the period 2020–2023 for different regions. The picture that emerges is similar to previous evidence. Africa attracted less than 1% of global VC capital during 2020–2023. Furthermore, those investments are highly concentrated within Africa: around 75% of those funds were invested in only four countries (South Africa, Nigeria, Egypt and Kenya).

The low numbers[16] compared to other regions seem to suggest that there are significant issues for those types of companies in Africa, and the continent is on average relatively distant-to-the-frontier. This evidence is also in line with Schumpeterian growth models that emphasise that equity financing is more growth enhancing in more frontier countries (Aghion et al., 2014).

6 Empirical evidence: why boosting entrepreneurship per se should not be a priority for Africa

6.1 Lack of large firms in Africa

Entrepreneurs and small businesses owners "dominate the economic life of most developing nations" (Gollin, 2008, p. 219). Recent estimates from the World Bank report that:

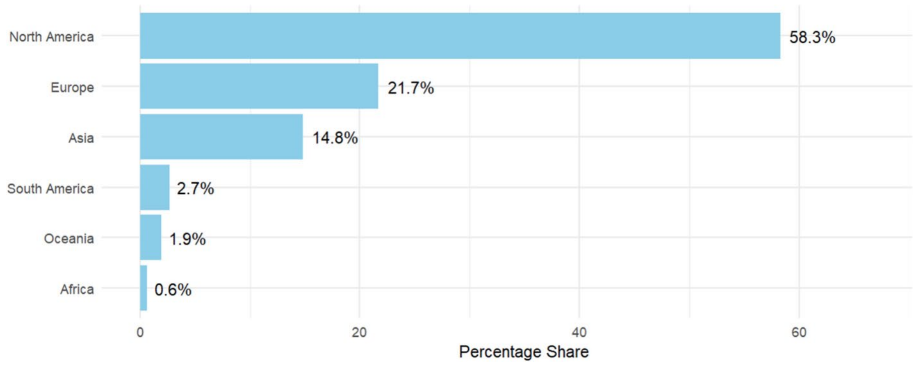

Fig. 3 Share of VC investment per region (2020–2023). Source: our elaboration, based on data from dealroom.co

[16] It is important to note that the amount of VC funding does not allow to distinguish between demand or supply issues (i.e. too little potentially VC- backable firms or limited access to finance). Importantly, we do not suggest that there is no room for successful and growing VC investments in Africa, which clearly exists. We only point out that VC-investment patterns seem to suggest that African economies are distant-to-the-frontier, based on the logic of Schumpeterian growth models.

> "as of 2020, there were about 12.7 million firms with more than one worker, and about 240 million own-account businesses in which the proprietor constituted the sole employee. Eighty percent of micro businesses are informal" Cruz et al., (2025, page 3).

The main problem facing African economies is not a lack of small entrepreneurial firms, but a lack of large firms. Africa does have some large firms, but not very many. Figure 4 shows that there is a positive relationship between the average size of establishments (in logarithms) in the manufacturing sector, and GDP per capita (in logarithms), for a sample of 134 countries. On average, Sub Saharan Africa (red dots) has a lower GDP and a smaller average firm size than the rest of the sample. Moving away from the average firm and taking into account the firm size distribution, empirical evidence suggests that Africa has a large share of (very) small firms and only a disproportionately small number of large(r) firms (Ciani et al., 2020).

While we must always be aware that correlation does not equal causality, nevertheless Fig. 4 is highly suggestive that it is not a lack of small firms that is holding back SSA. If anything, we would expect the opposite.

Large firms confer a number of benefits on an economy. First, large firms are more productive, on average: van Biesebrock (2005) uses survey data for manufacturing firms in nine sub-Saharan African (SSA) countries, and reports that large firms in those countries are more productive on average. Second, evidence for South Africa also suggests that large firms are better net-job creators than smaller ones (Kerr et al., 2014). Third, large firms are more likely to be formal firms, while SMEs are more likely to be informal. Informal SMEs have low productivity levels, and a conservative development strategy would probably not involve boosting the share of low-productivity firms. Fourth, large firms are more likely to be exporters. Van Biesebroeck (2005a, 2005b) presents empirical evidence for nine African

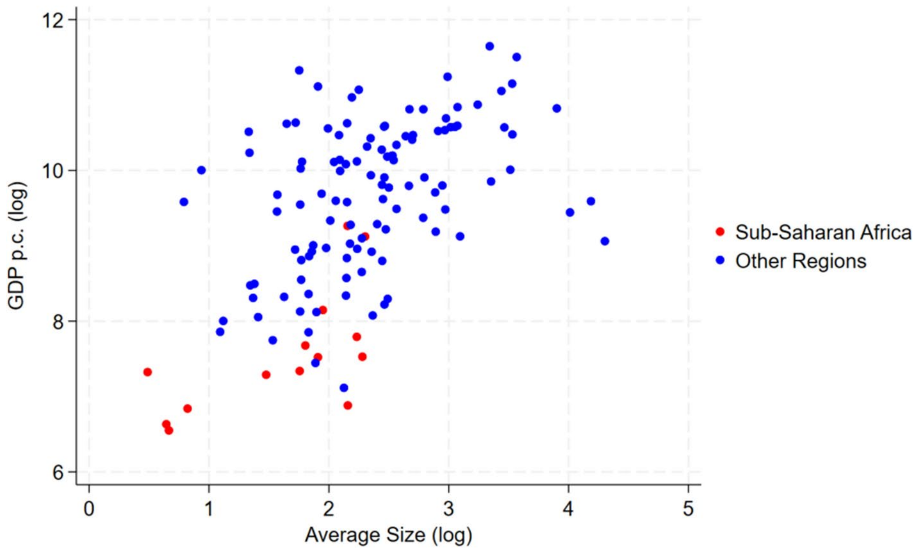

Fig. 4 Average size of manufacturing establishments, and GDP per capita. Source: Restuccia and Bento (2021), own illustration, downloaded 11.7.2024

countries that suggests that indeed exporting raises productivity. Fifth, large firms can help develop networks with local SMEs, providing opportunities for sales growth and technological learning:

> "The fact that lower-income countries lack large firms is a handicap for an ecosystem of firms, constraining the growth and survival of smaller enterprises and, ultimately, the growth and survival of healthy markets that work for all." (Ciani et al., 2020, page 2).

We conclude this section by noting that development economists have stressed the important role of large firms for economic growth and development (Ciani et al., 2020), but it seems that Africa lacks exactly those kinds of firms. In the cases where African countries have large firms, there seem to be strong advantages.

6.2 The problem of the "missing middle"

A classic concept in development economics is the "missing middle" of the firm size distribution of developing countries. The "missing middle" is the phenomenon that appears when there are too few medium-sized firms.[17] More recently, scholars have noticed that the gap in the firm size distribution is not simply due to a lack of medium-sized firms, but that there is also a "missing top" (Ciani et al., 2020), which corresponds to a lack of both mid-sized and large firms (Hsieh & Olken, 2014).

A missing middle is a problem because it suggests that small firms are prevented from growing into the category of medium-sized firms. Given the positive relationship between productivity and firm size, a lack of medium-sized firms suggests that productivity is being kept below its potential. A missing middle in developing countries could also imply that SMEs continue as small, informal firms, rather than registering as formal businesses. As such, the missing middle could contribute to the scenario (for example, observed in South Africa) where the economy is dominated by a small number of oligarchic large firms.[18] Appropriate policy responses could seek to reduce informality by reducing registration costs, and removing obstacles to firm growth (such as bureaucratic barriers and access to finance).

A missing middle therefore signals a lack of opportunities for post-entry growth. As a result, the few large firms that can be found in SSA countries tend to be large at birth (Ayyagari et al., 2021). Ciani et al., (2020, p64) confirm that "large firms have often been medium or large at origin" for a number of countries, including Ethiopia, Ghana, Mozambique, Tanzania, and Zambia. Figure 5 compares high-income countries with low-income countries. The share of large firms that were born small is much higher in high-income countries, because such firms grow after entry. In low-income countries, however, large firms are much more likely to have started out with a large size at birth.

[17] https://blogs.worldbank.org/en/developmenttalk/missing-middle-or-too-much-informality [last accessed 29 January 2025].

[18] https://www.dailymaverick.co.za/opinionista/2024-12-18-south-africa-has-an-oligarchy-problem/ [last accessed 6th February 2025].

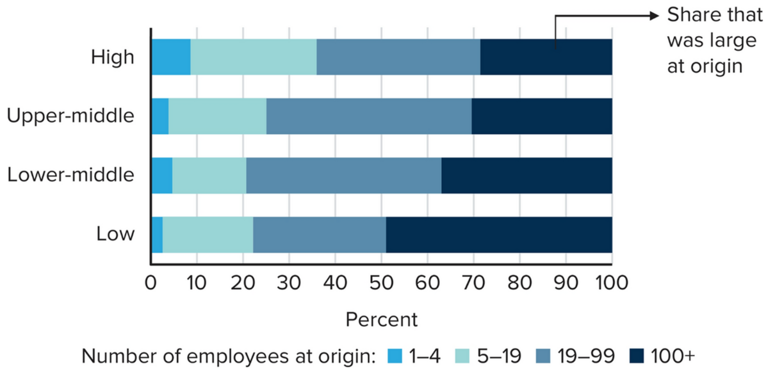

Fig. 5 Large firms are more likely to be large at birth, in developing countries. *Notes*: Share of large firms, by origin size and country income level. *Source*: Based on Bruhn and Xu (2019), cited in Ciani et al., 2020, p74

6.3 Negative relationship between entrepreneurship and per capita income

On the occasion of receiving the 2009 Global Award for Entrepreneurship Research (GAER), Shane (2009) explains at length why encouraging more people to become entrepreneurs is a bad public policy. An important tradeoff relates to the quantity vs quality of entrants. While some entrepreneurs are innovative job creators, many others (especially in the context of developing countries) are "entry mistakes … "revolving door" start-ups doomed to early failure and generating only precarious and temporary jobs." (Vivarelli, 2013, p1464). Entrepreneurs are generally overoptimistic, which results in excessive entry by low-quality entrants (Santarelli & Vivarelli, 2007), that may cause problems for high-quality types by lowering the average quality of the pool of entrants (De Meza, 2002). A study of OECD countries shows that the USA actually has low entry rates overall (Bartelsman et al., 2005), and hints that the USA's economic success is not due to the entry rate but due to post-entry growth. Furthermore, in the case of Africa, "[m]any of the 'self-employed' may just be the unemployed 'in disguise.'" (The Economist, 2025).

Henrekson and Sanandaji (2014, their Figure S6; see Fig. 6 above) show a clear negative relationship between the rates of self-employment and GDP per capita, highlighting that entrepreneurship is associated with *lower* economic outcomes overall. "Poor countries have low wage employment and high self-employment", as later confirmed by Poschke (2025, p.1).

Similarly, Cruz et al (2025) focus on African countries, and show that self-employment (own-account firms) is negatively correlated with GDP per capita, while firms with 100+ workers are positively correlated with GDP per capita (see Fig. 7).

Furthermore, the negative relationship between small-scale production and per-capita income holds not only across a cross-section of countries, but also within countries over time (Ciani et al., 2020, page 48).

Of course, correlation does not imply causation, although these graphs are hard to reconcile with notions that total entry rates are the fountain of economic development. Instead, we argue that the crucial factor is quality rather than quantity of entrants.

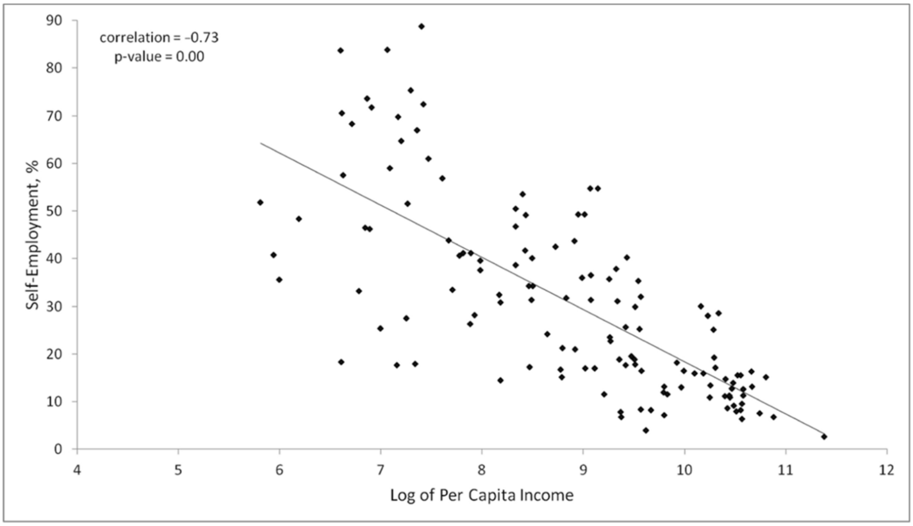

Fig. 6 negative relationship between self-employment rates and log of per capita income. *Source*: Henrekson and Sanandaji (2014, Figure S6)

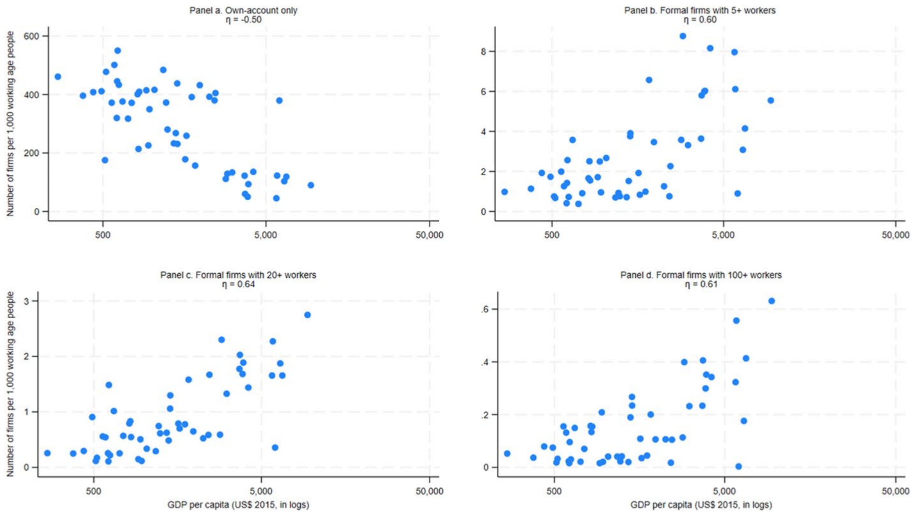

Fig. 7 Density of firms and GDP per capita, for the year 2020. *Source*: Cruz et al (2025)

Policy initiatives to stimulate entry (by lowering the requirements of firms at entry) have generally had disappointing economic outcomes because of encouraging more entry of poor-performing small-scale entrepreneurs (e.g. Santarelli & Vivarelli, 2007; Branstetter et al., 2014).

A crucial point is the distinction between necessity entrepreneurship (e.g. the escape from unemployment) and opportunity entrepreneurship (which corresponds to the pursuit of high-potential innovative ideas to exploit market opportunities), as put forward by Reynolds et al (2001). Africa already has the world's highest entrepreneurship rates (AfDB/OECD/UNDP, 2017, Chapter 6), although most of these entrepreneurs will be necessity entrepreneurs rather than opportunity entrepreneurs (Quatraro & Vivarelli, 2015). What is missing in Africa is large firms (Hsieh & Olken, 2014; Van Biesebroeck, 2005a, 2005b). African firms have a hard time with post-entry growth, because of many problems such as lack of growth finance, lack of skilled employees, and also factors such as lack of reliable electricity. One way of addressing the problem of a lack of large firms (and, relatedly, the lack of small firms scaling up and growing larger) could be to remove the barriers to post-entry growth. There is a large literature on the positive impact of tackling firm size distortions (due to growth obstacles) in order to boost productivity (e.g. Garicano et al., 2016).

7 Conclusion

Large firms play an important role for economic development, as highlighted by research by the World Bank:

> "large firms in low- and middle-income countries provide higher-quality jobs in both pecuniary and nonpecuniary terms. On average, larger firms provide not only higher wages but also formal jobs, secure jobs, and benefits that smaller firms do not. In addition, the wage premium in large firms tends to be higher in lower-income countries. Finally, large firms appear to be more inclusive. That is, the large-firm wage premium tends to be higher for workers with less education." Ciani et al., (2020, p25).

As a result, economic development in Sub Saharan Africa should arguably focus on large firms:

> "A central insight of the development literature is that long-term national income growth implies a transition from self-employment to wage employment and shifts in production from small toward larger, more productive firms" (Ciani et al., 2020, page 38).

As such, development economists would be puzzled by recommendations of entrepreneurship scholars that Africa should focus its development strategy on entrepreneurship and self-employment. This paper goes against some recent thinking by showing that entrepreneurship rates in Africa are the highest in the world, and arguing that Africa could benefit by engaging in policies that will lead to a lasting reduction in self-employment and small businesses. In the case of the East Asian growth miracles (Sect. 3), success came after doing the opposite of what EE seems to recommend. Schumpeterian growth theory (Sect. 4) that explicitly accounts for "creative destruction"—and hence includes entrepreneurial activity—suggests that entrepreneurship-led growth is appropriate for countries at the world technological frontier, but that it is not appropriate for low-income countries such as in SSA. It seems unclear to us how policy implications from those two frameworks can be reconciled with EE theory.

African development should not seek to closely copy the details of the East Asian growth miracles, for several reasons. First, there is considerable heterogeneity among the rapid growth experiences of East Asian and South-East Asian countries, such that there is no single representative case (Hobday, 2013). Second, closely copying what worked elsewhere would be counterproductive, because windows of opportunity are continually opening and closing. If Africa were to closely follow the East Asian model, for example, it would seek a large-scale entry into electronics manufacturing, which could be catastrophic considering that it would now be competing directly with scale-intensive incumbent East Asian countries in a confrontation that could lead to overcapacity and low margins. Instead, Africa should loosely follow some general principles from the East Asian case, such as basic and technical education, a relatively stable macroeconomy for business planning, a reasonably efficient infrastructure, a relatively effective government, and a strategic plan for gradually upgrading the technological base of the economy. One potential window of opportunity opening for African development could be that digital communication technologies could offer new opportunities for democratic mobilization and transparent governance.

Instead of imitating what worked in East Asia, Africa should critically assess its current circumstances and institutional resources and focus on alleviating the bottlenecks to development. Lack of entrepreneurship is not a limiting factor (Naudé, 2010). Instead, Africa could harness the power of spillovers and learning opportunities from FDI and MNCs to strengthen its economic structure with mid-sized and large firms.

History warns us that focusing on SMEs can lead economic development policies into problems. Policy initiatives to support small firms have often ended up being counterproductive, as they put growing firms at a disadvantage (Quatraro & Vivarelli, 2015, p281). One example would be the case of India in the mid-1970s, where Indian policy makers believed that SMEs were the driving force behind job creation and economic growth. Hence, SMEs benefitted from preferential status in certain markets, with about 1′000 manufacturing products restricted for SMEs, to the detriment of large firms. This led to a pattern of economic production dominated by SMEs rather than large firms. According to conservative estimates, an estimated 7% additional increase in jobs was foregone as a result (Ciani et al., 2020, p58).

Development strategies should also consider economic inequalities. Entrepreneurship is an activity that disproportionately favours those who were more wealthy at the start (e.g. Frankish et al., 2014), and furthermore inequality is increased because the returns to entrepreneurship are highly skewed, with many failures occurring alongside a small number of astronomical successes. Those who suggest "entrepreneurship-led development" (in Africa or elsewhere) should not overlook the difficult task of showing that such a plan can actually (i) decrease inequality, and (ii) avoid disproportionately benefitting the wealthy. At present, the debate still seems far from addressing these two concerns, as long as high taxes are considered as a case of “unfavorable policy” (Nkontwana & Stam, 2023, page 21) rather than an indispensable redistributive tool to address inequalities.

Entrepreneurship scholars should be cautious about making policy recommendations to poor countries who have limited funds, limited government capacity to implement interventions, and cannot afford to make mistakes.

EE theory is doing some things right. For example, EE seeks to develop theory by discussing with actual stakeholders, and developing local narratives to better adapt to local conditions, rather than resolving problems through armchair theorizing (Nkwontwana and Stam, 2023). However, the main problem is to place entrepreneurship at the centre of Africa’s development strategy. One possible objection from EE scholars is that the word "entrepreneurship" has a slippery meaning. For example, Dennis (2011, p99) writes that entrepreneurship is innovative by definition. Other scholars define entrepreneurship only in terms of firms that are profitable (see Nightingale & Coad, 2014). In the EE literature, we can see the following definition of entrepreneurship:

> "A firm exhibiting a meteoric rise in key performance criteria, such as innovation and/or growth (or anticipated growth, such as venture capital financed), is classified as entrepreneurial." (Audretsch et al., 2022, page 3)

Furthermore, entrepreneurship sometimes also corresponds to successful innovation taking place in large firms (Audretsch et al., 2022). If "entrepreneurship" means cases of innovation-driven economic success, including activities undertaken by employees in large firms, then it is a tautology to say that lagging countries need more entrepreneurship. Such tautologies are unhelpful. To say that low-income countries need more entrepreneurship, and then to argue that "Aha, by 'entrepreneurship' we mean innovative profitable large firms", this is misleading to laymen and policymakers who generally think that "entrepreneurship" refers to self-employment and small business. Policymakers would often interpret calls to support entrepreneurs as the need to implement policies that end up supporting the self-employed. As such, it seems irresponsible to use such ambiguous language. Terms such as "entrepreneurial ecosystems" mean different things to different people, unfortunately, although we hope that scholars will soon converge around a unique definition to enhance clear communications and knowledge accumulation. We close with the following challenge to entrepreneurship and EE scholars: they should correct for such semantic ambiguities by clearly stating that Africa has, if anything, too many entrepreneurs, and lacks large firms, and should strive for an economic structure with lower total entrepreneurship.

Supplementary Information The online version contains supplementary material available at https://doi.org/10.1007/s10961-025-10213-x.

Acknowledgements We are very grateful to Richard Harrison, Alexander Klein, Keun Lee, Wim Naudé, and Christian Seitlinger for valuable comments and to Victor Ponferrada for support with the dealroom.co data. The opinions expressed herein are those of the authors and do not necessarily reflect those of the European Commission. The usual caveat applies.

Author contributions All authors wrote the main manuscript text and contributed equally.

Funding Alex Coad gratefully acknowledges financial support from the Japan Society for the Promotion of Science, Grant-in-Aid for Scientific Research (A: B1K401072101; and B: 21H00719).

Data availability No datasets were generated or analysed during the current study.

Declarations

Conflict of interest The authors declare no competing interests.

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