



THE LEAST DEVELOPED COUNTRIES REPORT 2018



CHAPTER

5



Policies for transformational entrepreneurship



THE ENTREPRENEURIAL STATE TAILORS SUPPORT

ACCORDING TO STAGES OF FIRMS' LIFE CYCLE



CHAPTER 5

Policies for transformational entrepreneurship

A. Introduction	109
B. Policy principles	109
1. Policy coherence: A whole-of-government approach	109
2. Entrepreneurship policy principles and main features	109
3. Framework of national-level policy options	115
C. Entrepreneurship policies	116
1. Microenterprises and small enterprises	118
2. Medium-sized and large enterprises	116
3. Promoting formalization	119
4. Support across the enterprise life cycle	120
5. Repositioning female and youth entrepreneurship	121
D. Entrepreneurship within general economic policies	123
1. Provision of finance	123
2. Building technological capabilities	126
3. Digitalization and e-commerce readiness	128
4. Entrepreneurship education and skills development	138
E. Entrepreneurship and the developmental State	129
1. The entrepreneurial role of the State	129
2. Public investment and infrastructure	131
3. The role of State-owned enterprises	132
4. Strengthening public–private sector dialogue	132
F. Summary and conclusions	134
Notes	136

A. Introduction

Entrepreneurship, by nature complex and multifaceted, has the potential to drive structural transformation and sustainable development. Yet not all types of enterprises contribute equally (or always positively) to structural transformation. Harnessing entrepreneurship for these related purposes thus requires policies, not to promote enterprise creation for its own sake, but rather to support and sustain the high-growth and innovative enterprises central to economic structural transformation. In addition to entrepreneurial talent and capabilities, this requires effective entrepreneurship policies, institutions and reward structures to influence firms' trajectories over time, support their sustainability and maximize their contribution to both structural transformation and sustainable development.

This chapter suggests policies to strengthen entrepreneurship's contribution to structural transformation in LDCs. Section B begins with a discussion of the overall principles which should guide the formulation and implementation of entrepreneurship policies in LDCs. Section C explains the priority areas for entrepreneurship policy. Section D analyses the facets of overall economic policies that are especially pertinent to entrepreneurship development. Section E presents the concept of the entrepreneurial State and its role in entrepreneurship development in LDCs. The last section summarizes and outlines the chapter's conclusions.

B. Policy principles

1. Policy coherence: A whole-of-government approach

Enterprises are affected, directly and indirectly and to varying degrees, by most areas of government policy. They are also major players in the delivery of many development goals and in strategies for agricultural and rural development; and they depend on the success of development strategies for the expansion of markets, availability of human resources, access to finance, infrastructure and public services.

Entrepreneurship policy thus needs to be an integral part of a wider set of strategies and policies for structural transformation and sustainable development. The policy suggestions provided in this chapter should therefore be considered in conjunction with those of previous editions of *The Least Developed Countries Report*, as summarized by UNCTAD (2018a) in *Achieving the Sustainable Development Goals in the Least Developed Countries: A Compendium of Policy Options*.

LDCs are advised to focus their entrepreneurship policies on the objective of structural transformation

Coordination and coherence are essential to exploit the synergies between entrepreneurship policy and broader economic development policies and maximize their economic and social benefits. This requires a whole-of-government – that is, a systemic and holistic – approach, with strong commitment at the highest level and coordination across ministries and in partnership with the private sector and civil society stakeholders, including academia, non-governmental organizations and community organizations. One institution or ministry should be given the lead responsibility for implementing and revising the entrepreneurship strategy and coordinating functions across the different ministries and agencies involved, as well as engaging in the development of strategies in other policy areas to ensure consistency and coherence (UNCTAD, 2012a).

2. Entrepreneurship policy principles and main features

Formulation of entrepreneurship policies in LDCs should be guided by the fact that entrepreneurship is fundamental to structural transformation, which is, in turn, required for achieving sustainable development (as shown in chapter 1). For entrepreneurship to reach its optimal socially desirable outcome, LDCs are advised therefore to focus their entrepreneurship policies on the objective of structural transformation of their economy. The main goal of such policies should not be entrepreneurship per se or even the positive side-effects of entrepreneurship, such as job creation, inclusiveness, industrialization or poverty eradication. Rather, by successfully targeting structural transformation, national policies will also achieve these other socially desirable targets.

As already argued in this report, not all types of enterprises contribute equally to structural transformation. On the contrary, it is typically high-growth entrepreneurship that has the highest impact. A review of the experience of countries that have successfully fostered development of high-growth entrepreneurship can thus yield useful lessons and principles for LDCs on formulating entrepreneurship policies. As there is scant research and literature on the effectiveness in LDCs and Africa of high-growth entrepreneurship development programmes (which excludes cooperative models and social enterprises),

Entrepreneurship programmes based on selectivity can help build credibility

this section presents cases studies conducted in four very successful countries: Finland, the Republic of Korea, Chile and India (boxes 5.1 to 5.4). While the levels of development of these other developing and developed countries differ from that of LDCs, their experiences can nonetheless provide valuable pragmatic and actionable insights into the principles that should govern the design, formulation and implementation of entrepreneurship development programmes.

The four case studies demonstrate the potential role of government-led initiatives, and political sponsoring, backed by effective communication strategies, in shaping entrepreneurial culture, stimulating entrepreneurship and encouraging investment in innovative start-ups. Government-certified entrepreneurship programmes based on selectivity that establishes milestones to be achieved at each stage of development and links rewards to performance can also help to build international credibility and branding, helping to attract FDI by building a reputation for quality investments.

The experiences of Finland and the Republic of Korea, in particular, highlight the benefits of broad-based, holistic and diverse entrepreneurship development programmes that bring together stakeholders from Government, the private sector, academia, civil society and the international community, to exploit synergies and complementarities among multiple actors. All four case studies underline the need for entrepreneurship development to be rooted in a systemic approach underpinned by public-private sector dialogue and collaboration. The Government of the Republic of Korea, for example, gathered a wide range of opinions and suggestions from the private sector in preparing the creative economy action plan and established a creative economy joint task force, including representatives of venture companies, SMEs and large companies, to institutionalize private sector participation (UNCTAD, 2013d). In an LDC context, consultative mechanisms can be fostered and matched by public-sector governance reforms that emphasize transparency, information sharing and accountability.

In Finland, the Young Innovative Company and Vigo Accelerator programmes highlight the need for complementarity between programmes, to ensure financing for enterprises at different stages of development. For instance, a first programme may

target linking entrepreneurs with venture capitalists to mobilize seed capital so as to translate ideas into businesses, while at a later stage a different programme links up growing firms with capitalists in order to expand into new markets. In the cases of both Finland and the Republic of Korea, there were complementarities across initiatives, and efforts stressed linking venture capitalists with new entrepreneurs and new entrepreneurs with older experienced entrepreneurs (business angels) who could mentor and coach them.

Complementarity is also needed between entrepreneurship development programmes that promote commercialization of ideas and inventions into products and trade policies that provide market opportunities. For example, the Make in India initiative aims at developing market outlets for start-ups in India, complementing the role of the Start-up India initiative in nurturing innovation. Rwanda operates a Made in Rwanda trade policy with the objective of promoting domestic market development and support national economic transformation. In particular, the goal of the Made in Rwanda is to increase the competitiveness of the country's economy and improve the trade balance by both recapturing parts of the Rwandan market from imports and improving the ability of Rwandan producers to compete in export markets in order to create productive jobs in dynamic and resilient firms (Rwanda, 2017).

The case of Chile illustrates the importance of maintaining the continuity of programmes in the face of domestic political change, but also of flexibility when flaws in programme design become apparent. The Start-up Chile programme kept its mission unchanged and received sustained increases in budget, despite changes in Government. Likewise, the Scale programme under Start-up Chile was established to address the low retention rate among graduating entrepreneurs. Vesting responsibility in a single autonomous agency with a clear mandate can help to ensure independence from political interference. Independence, transparency and accountability are important to avoid capture by vested interests: decisions on the selection of firms and their continuation in support programmes should be objective and impartial to the extent possible, for example, through use of external panels, as in Finland, or strengthening of governance mechanisms for development.

Research and development plays an important role at all stages of a firm's life cycle. In addition to the radical innovations that lead to new start-ups, incremental innovations are important to help existing firms to grow and survive. Clusters of learning, innovation

Box 5.1 Finland: A history of high-growth entrepreneurship policy

Experiences from Finland in designing high growth-entrepreneurship policy indicate that policy can have an impact on new firm growth if it is correctly designed. In addition, they indicate that policy initiatives that are highly selective based on growth motivation, that stage support according to the achievement of milestones and that solicit active public–private collaboration can be effective in facilitating the growth of new ventures.

Economic development, including structural transformation, relies on dynamism in firms, and dynamism implies innovation. Since not all new firms contribute equally to the economy, there should be a focus on new and innovative firms. Yet gaps in finance and skills, including difficulties in acquiring finance and operational resources, constrain the growth of such firms. In Finland, for example, insufficient numbers of experienced professionals opt for entrepreneurship. Policies in Finland have been effective in addressing gaps in finance and skills in the entrepreneurial system and thereby assisting new and innovative firms to grow more quickly.

Entrepreneurship policies in Finland are distinct from others as they have a strong systemic approach, that is, policy programmes are not designed and implemented in isolation, but rather to support and complement each other. In addition, policy planning and implementation are carried out with close coordination between government officials, the venture capital industry and entrepreneurs. There are two key programmes, namely the Young Innovative Company programme of the Finnish Funding Agency for Technology and Innovation and the Vigo Accelerator programme of the Ministry of Employment and Economy, in operation since 2007 and 2009, respectively. The two programmes complement each other.

The Young Innovative Company programme provides a combination of capacity-boosting for growth and bridging services. It offers financial support for contracting expert services for business planning, developing growth strategy and strengthening managerial competencies. It facilitates networking between participants and links with domestic and international venture capitalists, in addition to promoting the exchange of experiences and good practices. The programme acts as a branding mechanism that provides participants with credibility. Selection into the programme is done by the Finnish Funding Agency for Technology and Innovation upon the recommendation of an external panel made up of new venture experts and venture capitalists. Upon selection, the Finnish Funding Agency for Technology and Innovation sets customized milestones for each participant and continuity in the programme is conditional upon these milestones being met. In the first phase, participants must demonstrate an ability to compete in international markets and, at the end of the phase, participants must present their progress to an evaluation panel made up of venture capital investors, business angels and company directors. In subsequent phases, participants must be able to attract external funding and engineer and sustain rapid growth. By emphasizing selectiveness, growth motivation, capacity-building, hands-on support, networking, public–private collaboration and the use of performance milestones, the Young Innovative Company programme exhibits all of the essential characteristics of a high-growth entrepreneurship policy initiative.

The focus of the Vigo Accelerator programme is on supporting a high-growth talent pool of new entrepreneurs through a pool of venture capital teams, from which actors participate in the projects of new entrepreneurs. Sufficient funds must be forthcoming from both the public and private sectors. The system is supported by research institutions, large firms and educational institutions that provide a flow of technological and other innovations, and performs well, reaping social and economic returns and resulting in the creation of new high-growth firms if all of the constituents are in alignment.

The Vigo Accelerator programme is closely connected to the Young Innovative Company programme. Vigo Accelerators are private firms that invest in and help manage high-potential growth ventures, providing experience, expertise and hands-on managerial support to their portfolio of firms. They invest their own funds by taking equity stakes in their portfolio firms and are expected to help raise additional equity financing from other investors. There are dedicated public sector agencies to provide coordination services and favour Vigo Accelerators in their search for public support, such as support under the Young Innovative Company programme. Similar to the latter, the Vigo Accelerator programme was designed and is implemented with continuous public–private sector dialogue. By connecting new entrepreneurs with experienced entrepreneurship professionals, the Vigo Accelerator programme encourages the development of portfolio firms and elicits increased interest from investors. Empirical analysis supports the hypothesis that participants in the Young Innovative Company programme achieve superior performance because they participated in the programme and not simply because the right firms selected themselves into the programme. The superior performance can be ascribed to a self-confidence effect and to certification.

Finland has also actively promoted technical and vocational education and training and the concept of lifelong learning. Entrepreneurship education has also been integrated at all levels of schooling. Denmark, Finland, Norway and Sweden have established a model in entrepreneurship education that may be distinguished from those of other countries and includes the following common features: cross-ministerial cooperation; a key role for junior achievement and young enterprise organizations; the full autonomy of educational institutions in implementing entrepreneurship education, provided they are compliant with the national qualification framework or steering documents; intensive engagement with business; entrepreneurship education embedded at all levels and types of education; and the role of teachers as facilitators.

Sources: Clement et al., 2016; Rannikko and Autio, 2015.

Venture capitalists are major actors in the entrepreneurship development framework

and creativity involving universities, schools, research and vocational institutes and experimental laboratories can help to sustain a flow of new ideas into firms throughout their life cycle. All four countries considered have networks of stakeholders that support entrepreneurship development. Clusters can usefully be nurtured for economic sectors identified as priorities in national development plans and industrial policies, as in the case of the Creative Economy Valley in Pangyo, south of Seoul (UNCTAD, 2013a).

All case studies make it clear that venture capitalists are major actors in the entrepreneurship development framework. In an LDC context, this calls for a clear resource mobilization strategy that identifies sources of seed capital from the public and private sectors, including measures to attract domestic, regional and international venture capital, anchored within an overall financial development strategy.

Entrepreneurship development programmes should also include an exit strategy for start-ups and enterprises that fail. In the Republic of Korea, the creative economy plan, led by the Small and Medium Business Administration, is based on creating a virtuous cycle of “starting, growing, investment recovery and restarting”. The third plank of the programme is to improve systems to increase leniency towards failure and easing restart. The Small and Medium Business Administration is intended to reform systems that have blocked entrepreneurs’ attempts at restarting (UNCTAD, 2013a).

The approach of Chile, though it has limitations, is noteworthy for seeking to attract entrepreneurial talent internationally (chapter 3). The country’s success reveals that national entrepreneurial capacities can be strengthened by harnessing the expertise and creativity of foreign entrepreneurs who can transfer knowledge, skills and expertise to locals. Start-up Chile has a social impact component that aims at changing and improving Chilean entrepreneurial culture. Foreign beneficiaries of Start-up Chile are required to engage with the local business ecosystem by conducting activities that generate social impact. The return value agenda, an innovative scoring

Box 5.2 Republic of Korea: Revitalizing the economy through small and medium-sized enterprises

In the Republic of Korea, the limitations of an economic development model heavily based on large industrial groups started to become apparent in the 1990s. Since then, the Government has paid increasing attention to the role that SMEs can play in industrial and technological policies and as part of developing new engines of growth in the Republic of Korea, emphasizing the creation of start-ups and the strengthening of existing SMEs.

The Government has institutionalized a system for certifying and promoting venture firms. The Special Law to Promote Venture Capital Companies was enacted in 1997 and a rule for certifying venture firms was set up by the Small and Medium Business Administration, defining certified venture firms on the basis of investment criteria, research and development expenditure and business assessment. In addition, the Government designates and supports innovative firms that have been active for at least three years and assessed as innovative, according to criteria based on the Oslo Manual of OECD and Eurostat and including capabilities in technology innovation, commercialization and managing innovation, as well as innovation performance. Such firms are eligible for a range of policy support packages. This government-endorsed system of certifying venture and innovative firms achieves the following three major goals as part of policies to support SMEs: policy support is effectively targeted towards firms that are eligible, willing and able to follow policy guidance; support serves as a signalling and advertising mechanism with regard to the direction of government policy; and the system provides a set of incentives for firms to voluntarily develop into the type of enterprises the Government wishes to support in order to implement its industrial and technological vision.

The Small and Medium Business Administration has a central role in supporting SMEs and start-ups, and is supported in the delivery of its functions by the following ministries: Ministry of Culture, Sports and Tourism; Ministry of Education; Ministry of Employment and Labour; Ministry of Science, ICT and Future Planning; Ministry of Strategy and Finance; and Ministry of Trade, Industry and Energy. In the Republic of Korea, support policies for start-ups cover the life cycle of a business and consist of two parts, namely research and development and commercialization. Six stages are identified in the process, from identifying to commercializing ideas, namely business ideas, concept development, research and development planning, research and development, commercialization and marketing. The first four stages, given the requirement for research and development support, are coordinated by the Ministry of Science, ICT and Future Planning; the final two stages are coordinated by the Ministry of Strategy and Finance. The Small and Medium Business Administration is involved in diverse areas, including direct funding programmes for start-up research and development, business model development, financial support for operations, indirect support policies to improve the business environment and infrastructure for start-ups. Support policies of the Ministry of Science, ICT and Future Planning are centred on promoting and commercializing ICT-based innovations, enhancing infrastructure for nurturing ideas and facilitating commercialization; other ministries focus on more specific areas

Box 5.2 (continued)

related to start-ups and ventures that fall under their substantive mandates. For example, the Ministry of Trade, Industry and Energy supports start-ups in the area of energy.

In 2013, the Republic of Korea established a creative economy initiative, Action Plan for Creative Economy, and measures to establish a creative economic ecosystem, based on the following six strategies: properly compensate for creativity and create an ecosystem that promotes the creation of start-ups; strengthen the role of ventures and SMEs in the creative economy and their ability to enter global markets; create growth engines to pioneer new markets and new industries; foster global creative talent that has the spirit to rise to challenges and pursue dreams; strengthen the innovation capacity of science, technology and ICT, which form the foundation of a creative economy; and promote a creative economic culture together with the population. The initiative led to three programme initiatives, namely the online Creative Economy Town, Centres for Creative Economy and Innovation and the Idea Innovation Six Months Challenge Platform. The latter was designed to accelerate the start-up process over a full cycle in six months in 2015, to facilitate 100 start-ups, selected from 1,000 ideas submitted by citizens and aspiring entrepreneurs, through the Creative Economy Town and the Centres for Creative Economy and Innovation. The platform aimed to provide intensified support by start-up specialists over a six-month period in the areas of business model development, application and registration of intellectual property rights and preparation of business plans. Specialists were also employed by the Centres for Creative Economy and Innovation and a dedicated firm to provide support for the commercialization of ideas. Once the ideas were identified, the platform accelerated the commercialization process by providing systematic support through networking by critical stakeholders in the process of establishing a new business, namely government ministries, public research institutes, universities, private holding companies, special districts for research and development and other individual firms, all with clearly defined roles.

Sources: Chiang, 2016; Jung and Kim, 2017; OECD and Eurostat, 2005; UNCTAD, 2013d.

Box 5.3 Chile: Harnessing immigration for entrepreneurship

Start-Up Chile was launched by the Government in 2010 as an initiative to “change the nation’s culture towards entrepreneurship and to position Chile as the hub of innovation for Latin America” (see www.startupchile.org/economic-impact/). The Production Development Corporation, which developed the Start-Up Chile initiative, was established in 1939; its main objective is to anticipate and plan the next stage of development in Chile.

In each round, 100 start-ups are chosen from worldwide applications for the six-month programme. The chosen start-ups each receive \$40,000 in equity-free funding, a one-year temporary visa, office space and opportunities for mentoring and coaching. Chile has one of the fastest business registration processes globally. The start-ups must then earn 4,000 social capital points, by hosting workshops, mentoring local entrepreneurs, teaching classes and organizing hackathons. More than 1,200 start-ups from 72 countries have graduated from the Start-up Chile programme and participants have raised over \$100 million and created more than 1,500 jobs. In addition, over 200,000 nationals of Chile have benefited from community outreach activities organized by the start-ups. However, it has been difficult to find local venture capitalists and to retain programme participants in Chile. To address these issues, the Government has developed the Scale programme, which initially offered about \$100,000 in new financing to three out of 30 graduates upon completion of a three-month programme. The funding is equity free, but recipients must incorporate in Chile and operate a business there. Since then, 50 countries have emulated the example of Chile and set up similar programmes.

Since 2016, the new goals of Start-Up Chile have been to ensure that Chile remains a world hub for technological innovation and known as a driver of technological enterprises that have positive impacts on the domestic economy. Chile has three distinct accelerator programmes, as follows: S Factory is a pre-accelerator for start-ups led by women entrepreneurs, providing two groups of 20–30 companies per group each year with four months of training and about \$15,000 in funding; Seed is an acceleration programme for companies with a functional product and early validation; and follow-on funds are destined for leading performance companies incorporated in Chile seeking to expand in Latin America and globally.

In 2016, Start-Up Chile conducted a survey to measure the economic impact of the programme. Based on a response rate of 71 per cent, the survey indicated that 51.1 per cent of start-ups accelerated by the programme were still active in 2016. Of the 51.1 per cent of surviving start-ups, 55.4 per cent were Chilean. The retention rate was 34 per cent, that is, after participation in the programme, start-ups remained in Chile to run operations. Start-ups had collectively raised \$30.5 million in capital, 29 per cent of which was from public funds and 71 per cent, private sources. An estimated 5,162 job positions had been created worldwide, with 30 per cent in Chile; average monthly salaries ranged from \$1,216 to \$2,280 (see www.startupchile.org/). Chile was ranked third in the Global Accelerator Report 2016 of Gust in terms of the value of investments generated from start-ups, behind the United States and the United Kingdom, and sixth in terms of the number of start-ups accelerated, behind the United States, the United Kingdom, France, Israel, Mexico and Brazil.

Sources: Egusa and O’Shee, 2016; Gust, 2016; The Economist, 2012b; West and Karsten, 2015.

LDCs can do more to attract high-skilled diaspora entrepreneurs



system, was set up to measure the social impact that entrepreneurs generate, in organizing keynotes, workshops, mentorships and events related to entrepreneurship and innovation, when they approach the local community.

Some countries, including India, have earmarked FDI as a pillar of their entrepreneurship programmes, while Ireland runs a global diaspora policy. Among LDCs, Bangladesh and Ethiopia recognized their diasporas as assets to be harnessed in their entrepreneurship development agendas. Examples of measures to attract the diaspora (chapter 3) include allowing for dual citizenship, operating diaspora support programmes, allowing the diaspora to have local bank accounts in foreign currency and actions to reduce fees on remittances.

Box 5.4 India: In search of creative disturbers to foster a culture of entrepreneurship and innovation

India provides an example of the launch of a broad and diverse set of initiatives to nurture innovation across a number of sectors, engaging with academia, industry, investors, small and large entrepreneurs, non-governmental organizations and the most underserved sections of society, with a particular focus on women. The Government seeks to bring women to the forefront of the national entrepreneurial system by providing access to loans, networks, markets and training. According to the Global Accelerator Report 2016 of Gust, India ranked tenth in terms of the value of investments generated from start-ups and of the number of start-ups accelerated. Four national initiatives are described in this box.

Start-up India

This initiative was launched in 2016, and aims to promote entrepreneurship by mentoring, nurturing and facilitating start-ups throughout their life cycles. An action plan published by the Government describes the three component pillars, namely simplification and handholding; funding support and incentives; and industry–academia partnerships and incubation. The initiative is based on a 360-degree approach to enable start-ups and includes a free four-week online learning programme. Nationwide research parks, incubators and start-up centres have been set up through a network of industry and academic bodies. In addition, a fund of funds has been created to help start-ups gain access to funding. Mechanisms to accompany the initiative include online recognition of start-ups, a learning programme, facilitated patent filing, easier compliance norms, relaxed norms of public procurement for start-ups, incubator support, innovation-focused programmes for students, funding support, tax benefits and the addressing of regulatory issues. The action plan includes a set of promotional slogans intended to flag the key advantages of the initiative to investors, such as “ecosystem without the trappings of the system”; “no tunnel – only light”; “disturbers wanted”; and “incubators available”.

Make in India

This initiative was launched in 2014, and aims to promote the transformation of India into a global design and manufacturing hub. There are four component policies, as follows: promoting national manufacturing; attracting foreign direct investment; stimulating the generation and commercialization of intellectual property rights; and stimulating new initiatives, including the creation of industrial corridors and 21 new nodal cities. Among other measures, the initiative ensures the replacement of obsolete and obstructive frameworks with transparent and user-friendly systems, to facilitate the procurement of investments. The Government aims to harness local public procurement policies to promote the manufacturing and utilization of locally made goods and services in its manufacturing development.

Atal Innovation Mission

This initiative is designed to promote a culture of innovation and entrepreneurship and to serve as a platform for the promotion of world-class innovation hubs, grand challenges, start-up businesses and other self-employment activities, in particular in technology-driven areas. Atal tinkering labs have been created across the country, serving as workspaces in which students can use tools and equipment to gain hands-on training in the concepts of science, technology, engineering and mathematics. In addition, Atal incubation centres have been created to build innovative start-up businesses as scaleable and sustainable enterprises. The nationwide centres provide incubation facilities with appropriate physical infrastructure, including capital equipment and operating facilities, as well as access to sectoral experts, business planning support, seed capital, industry partners and training, to encourage innovative start-ups.

Box 5.4 (continued)

Digital India

This initiative aims to modernize the economy of India to make all government services available electronically; to transform India into a digitally empowered society and knowledge economy, with universal access to goods and services; and to enable the country to harness the benefits of digitalization for its transformation. There are nine component pillars, including building broadband highways, ensuring universal access to mobile connectivity, electronic governance, electronics manufacturing and the electronic delivery of services.

Sources: Global Entrepreneurship Summit, 2017; Gust, 2016.

Digitalization and local public procurement can be harnessed to sustain entrepreneurship development. Both India and the Republic of Korea have identified the ICT sector as having the potential to stimulate entrepreneurship in new economic sectors. LDCs must position themselves to increasingly benefit from the business opportunities enabled by ICT, either to support structural transformation in economic sectors such as agriculture and manufacturing, or as a stand-alone economic sector (UNCTAD, 2017a). Local public procurement programmes can also stimulate demand for SME products and services, but must be matched by proper procurement laws and regulations to avoid political capture.

An international review of best practices commissioned by the Ministry of Trade and Industry of Finland (Autio et al., 2007) identified a number of key principles for policies towards high-growth SMEs:

- A high level of selectivity, particularly at the later stages of venture development.
- Requirement of strong growth motivation on the part of participants.
- Proactivity in identifying prospective growth firms.
- Consistency in addressing managerial motivation and skills.
- Close collaboration with private sector service providers.
- An image of professionalism and competence and a degree of exclusivity.

- Sustained and focused development efforts.
- Tailored management development activities that encompass experience sharing and interactivity.
- Linking participation and grants to growth aspirations and achievement of milestones.
- Acceptance of casualties.
- Involvement of seasoned managers with experience in rapid growth.

3. Framework of national-level policy options

Policies aimed at establishing, nurturing or strengthening entrepreneurship for structural transformation in LDCs need to be a combination of vertical and horizontal policies. Vertical policies are targeted towards specific sectors, activities or (types of) enterprises that contribute significantly to structural transformation and form the core of entrepreneurship policies (as defined strictly), which are discussed in section C of this chapter. Horizontal policies potentially affect all sectors, economic activities and firms. Section D focuses on entrepreneurship in horizontal policies, rather than on an overall discussion of horizontal policies. These different types of policies, strategies and programmes need to be designed and put in place by a developmental State which incorporates the specific features of an entrepreneurial State. Table 5.1 sets out a framework of national-level policies that promote transformational entrepreneurship in LDCs. The framework is consistent with the UNCTAD Entrepreneurship Policy Framework.

Table 5.1

Framework of policy options for transformational entrepreneurship in the least developed countries

Entrepreneurship policy	Entrepreneurship dimension of general economic policies	Entrepreneurial State
<ul style="list-style-type: none"> • Absorbing survivalist entrepreneurs into wage employment • Supporting enterprise growth 	<ul style="list-style-type: none"> • Providing finance • Building technological capabilities 	<ul style="list-style-type: none"> • Providing public investment and infrastructure • Establishing a role for State-owned enterprises
<ul style="list-style-type: none"> • Promoting formalization and formal–informal linkages • Supporting enterprises throughout their life cycles • Repositioning women's and youth entrepreneurship 	<ul style="list-style-type: none"> • Enhancing digitalization and e-commerce • Enhancing education and skills development 	<ul style="list-style-type: none"> • Ensuring public–private dialogue

Source: UNCTAD secretariat.

Note: Policies can be at the macrolevel, mesolevel or microlevel and mesolevel policies can build on the UNCTAD Entrepreneurship Policy Framework (annex 3).

The expansion of dynamic firms plays a critical role in structural transformation

The UNCTAD Entrepreneurship Policy Framework was itself formulated to support the design of initiatives, measures and institutions that promote entrepreneurship, particularly the emergence of new entrepreneurs and establishment of start-up businesses, in the context of overall economic and entrepreneurship development policies.¹

C. Entrepreneurship policies

Policies for entrepreneurship development are not about unwavering support for the creation of new enterprises, which is not automatically beneficial. Economic contributions depend on the nature of the enterprises created. Nor is enterprise creation the only, or the most important, means through which entrepreneurship can contribute to structural transformation – expansion of existing enterprises is also critical. Structural transformation is thus best served by a balanced mix of interlinked enterprises of different sizes, rather than the indiscriminate proliferation of microenterprises and small enterprises. This requires policymakers to differentiate between the various types, sizes and stages of the life cycle of enterprises and to devise and implement programmes and measures tailored to their varied characteristics and distinct contributions to the process of structural transformation.

Entrepreneurship policies should also incorporate the following elements:

- Selection of firms to receive support made on the basis of independent, transparent and accountable criteria, to the degree possible, and free from vested interests and political interference;
- Adoption of time-bound rewards, advantages and incentives, linked to performance and clearly communicated to stakeholders.

1. Microenterprises and small enterprises

As discussed in chapter 2, a large proportion of enterprises in LDCs are microenterprises driven by necessity rather than choice, and a large portion operates in the informal sector. Some entrepreneurs in this situation may discover a talent for entrepreneurship by opportunity and go on to develop enterprises that will contribute positively to structural transformation. However, “many informal entrepreneurs would gladly close their businesses to work as employees in the formal sector if offered

the chance, even if wages in the formal sector are taxed while income in the informal sector is not. Few of them have this opportunity” (La Porta and Shleifer, 2014).

Far from promoting structural transformation, low-potential, necessity-driven enterprises tend to act as a brake on the process. Rather than devoting scarce resources to supporting survivalist entrepreneurs with low potential, policies should be oriented towards either nudging them towards opportunity-driven ventures or absorbing them into other, more productive, economic activities, through employment creation by more dynamic and transformational enterprises.

Creation of decent jobs is thus an important objective of entrepreneurship policies. Labour-intensive public sector works programmes as part of large-scale infrastructure development programmes can also play an important role in employment creation, especially in rural areas, helping to kick-start a virtuous circle of increasing incomes, rising demand and economic diversification as part of a wider programme of rural economic transformation (UNCTAD, 2013a; UNCTAD, 2015a) and agricultural modernization. Other relevant policies to absorb labour include promoting the development of labour-intensive services such as tourism and use of local content policies, such as local content in goods and personnel, as well as accelerating the implementation of a national employment policy that includes developing early apprenticeship schemes to improve skills development among youth, enforcing bans on child labour, improving information on labour market employment opportunities and enacting government-sponsored employment migration programmes for a variety of skills with countries that are short on labour.

Differentiation among opportunity-driven microenterprises and small enterprises is also important. As discussed in chapter 2, many are me-too enterprises, operating in existing economic activities with existing business models and technologies. While such enterprises can be useful in providing employment opportunities, their contribution to structural transformation is limited. Priority in the allocation of scarce public resources should instead be given to more dynamic and innovative enterprises that create spillover effects that benefit less dynamic enterprises, while also offering quality employment as a viable option to unsuccessful microentrepreneurs. The expansion of dynamic enterprises plays a critical role in structural transformation, both directly and through its contribution to the employment creation needed to absorb survivalist entrepreneurs. Empirical evidence (mainly from developed countries) shows

that most net job creation comes from a few rapidly growing firms. In general, half to three-quarters of new jobs are generated by high-growth firms, representing just 4–6 per cent of all enterprises (OECD, 2013a).

2. Medium-sized and large enterprises

While entrepreneurship policies are often preoccupied with enterprise creation and microenterprises and small enterprises, enterprise expansion and larger enterprises are also critical to structural transformation. In addition to their direct contribution, through increasing productivity and shifting production patterns, and their contribution to employment creation, larger firms play a key role in fostering entrepreneurial skills and innovation capabilities through “intrapreneurship” – the ability of managers to act entrepreneurially within the firm. Policies should therefore aim at establishing a balanced enterprise ecosystem that includes firms of all sizes and types. Furthermore, larger enterprises, as well as microenterprises and SMEs should be supported across their life cycle. This is true also for State-owned enterprises with the potential to catalyse structural transformation.

Linkages. Linkages between microenterprises and SMEs and larger enterprises should also be promoted, to foster national and regional value chains, strengthen domestic supply capacities and open up opportunities for upgrading and growth of microenterprises and SMEs (chapter 3). The UNCTAD Empretec business linkages programme has assisted LDCs such as Uganda and Zambia in creating these types of linkages. In addition, fiscal, consumption and productive linkages are central to industrialization and economic development (Böhme and Thiele, 2012).

Policy measures to foster linkages between microenterprises and SMEs and larger enterprises include the promotion of business clusters through spatial development initiatives and clustering and through networking and alliances, as well as use of strategic local content policies in the extractive sector to build linkages between large multinationals and domestic enterprises, including to support new and nascent local supply chains to boost domestic economic complexity (chapter 3).

Clustering. The establishment of special economic zones and industrial parks offers a means for Governments to relieve limitations on firms’ productivity, by addressing multiple soft and hard infrastructure resource constraints holistically (African Development Bank et al., 2017) but, as discussed in chapter 3, they are not a panacea. If tailored to

Policies should aim at a balanced enterprise ecosystem

the key supply-side bottlenecks faced by producers, and geared to promoting both continued innovation and emergence of business clusters, these tools can generate positive spillover effects, especially in countries with significant infrastructural gaps. They help to develop business clusters, which are a physical concentration of firms producing similar or complementary products or requiring similar skills, technologies or inputs, including suppliers of specialized inputs and infrastructure. Such positive spillover effects hinge, however, on the gradual establishment of a dense network of linkages among businesses and between businesses and supportive institutions, in terms of upstream/downstream activities and of know-how and knowledge diffusion. This explains the importance of connecting special economic zones and industrial parks with governmental and other institutions (e.g. universities, standard-setting agencies, think tanks, vocational training providers and trade associations) that provide specialized training, education, information, research and technical support (Porter, 1998), and with the wider economy outside of economic zones and industrial parks.

Business clusters promote coordination, cooperation and competition among participating firms, facilitating exchanges of information and technology, recruitment of specialized personnel, sharing of overhead costs and joint funding of facilities. By helping to build mutual trust and reputation, they also favour local sourcing of inputs and help to lower transaction costs. There is some evidence that such effects can increase firms’ productivity, efficiency and flexibility and promote continuing innovation, allowing firms to survive and grow.

Other potential benefits of business clusters include lowering the perceived risks of entry and exit for firms, enhancing their voice in seeking improved services and quasi-public goods and enabling them to access larger markets and exploit division of labour to operate at a larger scale. Successful clusters tend to attract entrepreneurial talent and attention from Governments, investors and the private sector (UNIDO, 2013b).

Support for revitalization of business clusters to LDCs from the UNIDO (2013b) cluster development programme includes:

Networks under South–South cooperation can boost LDC firms' growth

- Building trust, to enable cluster stakeholders with different or conflicting interests to work together.
- Improving cluster governance to improve sustainability, by instilling norms and values that facilitate joint actions and sustain collaboration over time.
- Promoting business networks among entrepreneurs with shared commercial interests and objectives, horizontally (among similar enterprises) and vertically (through buying and selling relationships).
- Institutional capacity-building, to strengthen the capacity of supporting institutions to provide efficient and effective services and enhance their dialogue and collaboration with entrepreneurs.

Networking and alliances. Alliances between local SMEs and large multinationals can offer opportunities for growth and expansion to local SMEs. An alliance is formed by firms coming together under some contractual arrangement. Well-known types of contractual arrangements include: (a) subcontracting, which involves buying supplies from another firm and working closely on detailed specifications for

a complex product; (b) licensing, which includes permission to manufacture a product under licence, distribute a product and include a product in another design; (c) joint venture, which involves the creation of a third firm to manufacture or market a product, with equity usually shared by the partners; (d) strategic alliance, which is essentially a joint venture without the creation of a third firm and with no equity involved; and (e) consortium, which is usually a group of firms joining together to purchase components or equipment that they will share (Hussain, 2000). Bangladesh and Uganda (box 5.5) are two LDCs that have used licensing arrangements and joint ventures with foreign multinationals to develop a local pharmaceuticals industry of medium-sized to large enterprises.

The formation of networks among firms under South–South cooperation arrangements and firms sharing a regional economic community could offer possibilities for growth and expansion of LDC firms, as an alternative policy option to global value chains (chapter 3).

Local content policies in the extractive sector can also boost entrepreneurship and structural transformation, as in Angola, by increasing value added in the sector and building linkages between transnational corporations and domestic enterprises. The use of local content policies in the natural resources sector is far from new: 90 per cent of resource-rich

Box 5.5 Bangladesh and Uganda: Pharmaceuticals industry in the least developed countries

Bangladesh has succeeded in building a technological base for pharmaceutical production, namely the production and sale of generic medications. Two large pharmaceutical companies in Bangladesh, BPL and Square, are examples of companies that have succeeded in both the domestic and export markets. Both of these private sector initiatives built their capacity at the early stage through technical collaboration with multinational corporations operating in Bangladesh and, in some instances, by gaining expertise from India, and followed up such capacity-building under licencing arrangements, as well as marketing and contract manufacturing, to branch off on their own.

Uganda has had a measure of success in building technological capacities in the domestic manufacturing production of pharmaceuticals. For example, Quality Chemicals, a local pharmaceutical company, has been producing drugs for the treatment of HIV/AIDS and malaria since 2009. As a result of its joint venture with Cipla Pharmaceuticals in India, Quality Chemicals transformed from a local distributor of imported drugs to the largest local producer of drugs of importance to public health, providing an example of South–South technology transfer. The firm also exports to other countries in the region. The Government of Uganda played a key role in facilitating the joint venture, not only by adopting a variety of incentives to attract the initial investment, but also through an agreement to invest a 23 per cent stake as part of Quality Chemical's local equity to allow the plant to be completed as intended in 2008. The most significant feature of the joint venture was the focus on the tacit know-how and skills training that Cipla Pharmaceuticals was expected to provide, which was central to ensure the sustainability of the venture and to promote the entrepreneurial base of Uganda. The joint venture envisaged not only training for scientists, chemists and other management personnel, but also training in organizational issues. The Government of Uganda provided the salaries for experts from Cipla Pharmaceuticals to conduct this skills transfer over 3 to 5 years.

These examples may not be replicable in the short to medium term in all LDCs, depending on national human capital and technological bases. However, they demonstrate how the coupling of entrepreneurship policy with industrial policy and policies for science, technology and innovation can lead to the establishment and development of new sectors and to entrepreneurship development in LDCs.

Source: UNCTAD, 2011a.

countries employ some form of local content policies, and many are reviewing or revising mining and investment codes and contracts to enhance mining's contribution to economic development. However, there are cautionary tales as well as success stories. Political patronage and politicization can derail the success of local content policies (Hansen et al., 2014). Key ingredients for success include clear alignment of local content policy objectives with entrepreneurship development and structural transformation objectives; careful identification of opportunities, gaps and weaknesses; close attention from the start to feasibility and the capacity-building required to widen the scope for local procurement over time; and independent monitoring and evaluation mechanisms to ensure the accountability of public institutions and other stakeholders (Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development, 2018). Local content policies' effectiveness may be enhanced by the establishment of specialized institutions, funded by the State and/or transnational corporations, to provide technical and financial support to capacity-building by SMEs.

3. Promoting formalization

An element of entrepreneurship policy is promoting formalization of informal enterprises. In many LDCs, there are linkages between the formal and informal sectors, for example in urban West Africa (Böhme and Thiele, 2012). Such linkages can benefit the formal sector, for instance by reducing the cost of certain inputs. The informal sector can also be a seed-bed for creativity, promoting innovation and new ventures (Williams and Gurtoo, 2017). Moreover, as discussed in chapter 2, the informal sector can provide a testing ground for new business models.

A gradualist approach to formalization, informed by each economy's specific conditions, may therefore be appropriate, aiming at maximizing the contribution of enterprises currently in the informal sector to structural transformation. This means encouraging and easing transition of these enterprises into the formal sector, so as to facilitate public support where appropriate, improve their access to finance and business services and thus increase their productivity and contribution to structural transformation.

This requires ensuring that informal entrepreneurs understand the formalization process, and that they find it easy and desirable (UNCTAD, 2014f). Lack of awareness of the rules and procedures involved, and fear that they will be too onerous, can be major deterrents to formalization. Clear and easily understandable information should therefore

90 per cent of resource-rich countries have local content policies

be made available to entrepreneurs on registration procedures and the advantages and disadvantages of alternative legal regimes, including step-by-step guides. Microfinance institutions, non-governmental organizations, small trader associations, churches, schools and colleges and other community institutions can provide useful channels to deliver such information (UNCTAD, 2014f).

Formalization procedures should be made as simple and inexpensive as possible, for example by creating a one-stop-shop or using e-government tools. Accessible and strategically located physical one-stop-shops, with manual information processing, can greatly facilitate formalization. An increasing number of countries have special schemes for individual entrepreneurs. Small business schemes usually include a single tax system, combining the income tax, value added tax and social contributions, and a forfait payment.² Small-taxpayer units can be created in areas where business is conducted, such as the Bloc Management System³ introduced by the Rwanda Revenue Authority in 2009 (UNCTAD, 2014f).

Another key part of promoting formalization is publicizing the benefits, such as improved access to credit and investment, greater opportunities to sell to other formal businesses and public entities, opportunities for international trade, the ability to rent or buy premises and so forth. Benefits can also be reinforced, for example by linking social protection (health care, retirement benefits, unemployment protection, etc.) with formalization or extending it to non-wage operators and their families, where this is not already the case (UNCTAD, 2014f).

In addition to understanding, ease and desirability of the process, formalization depends on informal firms attaining an adequate level of productivity for survival in the formal sector. Public provision of managerial training, entrepreneurship education and skills development programmes for informal entrepreneurs, coupled with business support services, may help to address the issue: there is evidence that the most important determinant of low productivity among informal firms is limited human capital of their managers (La Porta and Shleifer, 2008),⁴ which may even be the most important constraint to formalization at the enterprise level (La Porta and Shleifer, 2014).

Informality can hamper the development of the formal enterprise sector

A vicious circle often operates in LDCs. Large segments of poor, uneducated, vulnerable people work in the informal sector, which produces cheap, low-quality goods (or in some cases deals with cheap, inferior imports) and has low productivity and wages that consequently keep demand for such goods high and depress demand for the higher-priced, higher-quality products manufactured by the domestic formal sector, endangering the viability of formal sector firms. These are standard predictions arising out of demand-driven dualism theories (La Porta and Shleifer, 2014). This vicious circle highlights the role that macro-level policies should play on the informality–formality issue in LDCs (e.g. demographic policies to slow down population growth, trade policies to limit cheap, poor quality imports and create export outlets for goods manufactured in the formal sector, and urban and rural development policies).

Pending operationalization of such macrolevel policies, specific measures to foster formal–informal linkages and raise productivity and wages in the informal sector could contribute towards enhancing the survival and viability of formal firms. Raising productivity and wages in the informal sector for a period of time can stimulate demand for the goods produced by formal firms and help sustain survival and growth in the formal entrepreneurship sector for a while (African Development Bank et al., 2017). These measures are, however, of secondary importance to the central objective of fostering transformational entrepreneurship, especially in the formal sector.

4. Support across the enterprise life cycle

Support to enterprises comprises several forms and instruments, including technical assistance, credit, development of technological capabilities, skills development, regulatory change, etc., as analysed throughout this chapter. It should reflect the life cycle of a firm – starting, sustaining and scaling up businesses and managing their end. Patterns of resource use and risk–return profiles differ between the start-up and maturity stages of a business, giving rise to differences in the scope, magnitude and duration of the support needed. Support should be sufficiently sustained to allow enterprises to grow and withstand market cycles and fluctuations, with clear performance-related criteria for an enterprise's entitlement to support as well as for eventual removal of that support.

Promoting the creation of start-up businesses can make a major contribution to structural transformation and inclusive and sustainable development, if the outcome leads to the establishment of high-growth, innovative and dynamic enterprises. This requires an effective entrepreneurship strategy. A valuable starting point for LDCs in formulating such a strategy is the UNCTAD Entrepreneurship Policy Framework, the basis of the long-standing role of UNCTAD in advising developing countries on policymaking in this area. The Framework is aimed at supporting the design of initiatives, measures and institutions to promote entrepreneurship, particularly the emergence of new entrepreneurs and establishment of start-up businesses, within the context of overall economic and entrepreneurship development policies (table 5.1). Among LDCs, this has involved UNCTAD technical assistance to Ethiopia, the Gambia and the United Republic of Tanzania in the preparation of their respective national entrepreneurship strategies.

Policies are thus also needed to ensure that start-ups survive and mature, particularly by addressing the many obstacles firms in LDCs face, including a weak business climate, insufficient financing, skills, deficient infrastructure (e.g. energy and ICT) and gender biases, as well as specific constraints that rural enterprises face (chapter 4).

In some respects, the end of the life cycle can be as informative as its beginning for the rest of the economy. Entrepreneurial failures can contribute to structural transformation as well as successes, by providing information about what does and does not work in the local economic and social context. Thus, successful entrepreneurship development strategies are those that maximize learning from such failure by promoting informational spillovers and supporting a process of entrepreneurial discovery, rather than those that do not consider enterprise failure. High rates of entry and exit of enterprises are often associated with economic vibrancy, while failed first-movers can sometimes lead to the emergence of an entirely new set of industries (Aldrich and Fiol, 1994). Entrepreneurs who persist in the face of failures may develop knowledge that enhances their abilities (Forbes, 2017).

Thus, rather than denying the possibility of failure, entrepreneurship development programmes should include an exit strategy for enterprises that fail to minimize costs and maximize benefits. Particularly where cultural attitudes towards failure impede entrepreneurial creativity, entrepreneurship education in schools could promote experiential learning that emphasizes the role of learning from failure in fostering subsequent success.

5. Repositioning female and youth entrepreneurship

As noted in chapter 4, microenterprise and SME development policies in many LDCs have special measures for women and youth. Such policies may be beneficial, but their purpose needs to be carefully considered.

Special measures to promote women's and youth entrepreneurship are often directed towards social goals such as poverty reduction and empowerment of youth and women, without a clear link to the goal of structural transformation. From an economic development perspective, however, such approaches are likely to be suboptimal: it may be preferable to address instead barriers that young people and women face in accessing waged employment, that is, to promote the labour market's absorption of the survivalist entrepreneurs among them. While support to women's and youth entrepreneurship may also be motivated by a perception that they are intrinsically more successful as entrepreneurs than other population groups, the empirical evidence for this view is unclear. The observation that views of entrepreneurship become progressively more favourable as one moves from evidence-based analysis to public policy (Nightingale and Coad, 2014) applies equally to women's and youth entrepreneurship. If the premise is incorrect, this raises questions about the long-term impacts of youth and women's entrepreneurship strategies, not only on the optimality of such uses of public resources, but also on the effects on youth and women's welfare.

Special measures for women and young entrepreneurs are more appropriate to address the particular barriers they face in accessing the inputs and resources required for successful entrepreneurship, such as gender-based constraints to inputs and resources that arise from discriminatory laws, customs and practices (UNCTAD, 2015a). There are gender-based differences in factors that motivate engagement in entrepreneurial activity, and influence its outcomes, and in linkages between entrepreneurial outcomes and economic growth, innovation and employment (Hafer, 2017; Minniti and Naudé, 2010). There is also evidence that young people are constrained in entrepreneurial activities by more limited human, social and financial capital, despite higher rates of latent entrepreneurship (OECD, 2013b).

Entrepreneurship strategies can usefully address such constraints directly when aligned to the goal of structural transformation, ensuring that policies to foster high-impact, high-growth, innovative entrepreneurship take into account the particular barriers faced by women and youth.

By targeting structural transformation, **entrepreneurship policies** address the challenges of



Appropriate measures in this context may include:

- Entrepreneurial skills programmes tailored to the specific barriers women face and delivered to women-only groups of beneficiaries.
- Support to the formation of women-focused venture capital investments (e.g. offering matching funds for investment in women-owned or women-led start-ups, early-stage and expansion-stage ventures) (OECD and European Union, 2017).
- Reforming laws that discriminate against women in their access to collateral, such as land and other resources, and designating a lead agency to enforce compliance with the laws.
- Ensuring equal access to quality education, including entrepreneurship education, between males and females.
- Providing subsidized child care to allow women more time to engage in entrepreneurial activities.
- Granting women entrepreneurs preferential access to credit in economic sectors vital to structural transformation (e.g. as a mandated requirement imposed on commercial banks by a central bank).
- Women-only credit guarantee schemes and incubator and accelerator programmes (as in the case of the S factory in Chile — see box 5.3).
- Establishing platforms for dialogue between women entrepreneurs, civil society and Government, to allow women to express their concerns and seek consensual solutions.
- Creating and sponsoring business networks and support groups for women entrepreneurs.

Sociocultural constraints to female entrepreneurship require a change in mindset, and will take longer to address. One potential policy instrument is use of media-based and education campaigns on women's

Constraints to women's entrepreneurship hamper rural transformation

rights both in urban and rural areas. Multi-faceted interventions may also be needed. A pilot programme in Uganda sought to overcome the social obstacles impeding female entrepreneurs by combining the hard skills of vocational training with education on marriage and reproductive health. After two years, programme participants were 72 per cent more likely to engage in income-generating activities, including self-employment, while rates of marriage and childbearing at a young age fell considerably (Siba, 2016).

Constraints to women's entrepreneurship are a particular obstacle to the transformation of rural economies in LDCs (UNCTAD, 2015a). Promoting the role of women in non-farm rural activities could help to create a new female entrepreneurial class, adding to the dynamism and diversification of rural economies. Since 2014, UNCTAD has proposed the establishment of female rural entrepreneurship for economic diversification as an international support measure, aimed at supporting the development and consolidation of women's non-agricultural enterprises in rural areas. While gender-related constraints to rural women's entrepreneurship vary considerably between local contexts, appropriate support activities include: funding for the initiation and expansion of individual and collective enterprises led by women in rural areas; training in enterprise management and production skills, particularly in traditionally male occupations (taking account of low female literacy rates where appropriate); promoting and facilitating the consolidation of existing microenterprises run by women and the establishment of women's

cooperatives and collectives; promoting networking and collaboration among new and existing rural women's enterprises and facilitating mutual learning and sharing of experiences; and developing and/or disseminating appropriate mobile phone applications and other technologies (e.g. production methods and equipment) to meet the needs of rural enterprises and supporting their local adaptation and use.

Similarly, youth entrepreneurship in high-growth and transformative economic sectors and activities can be promoted through public policy measures tailored to address the specific challenges young entrepreneurs face (OECD, 2017b). Evidence-based needs assessments are needed to inform policy and programme design. Screening mechanisms, such as entrepreneurship contests, within a coherent programme for structural transformation can help to identify young people with entrepreneurial potential (section D.2). Entrepreneurship education, coaching and mentoring programmes are important, but should clearly communicate the risks of entrepreneurship, as well as confer the necessary skills. Continued public support should be clearly linked to performance benchmarks and their impact on structural transformation.

Digitalization is of particular relevance to youth entrepreneurship in LDCs, given the greater use of the Internet among young people (chapter 4). Youth entrepreneurship programmes should therefore include measures to help young people harness ICT for high-growth entrepreneurship, such as integrating digital entrepreneurship courses in school and university curricula. Conversely, the gender gap in Internet use in LDCs indicates a need for policies to increase the ability of women to exploit opportunities for digital-based entrepreneurship, including adult education courses for women on ICT and awareness-raising campaigns on its benefits.

Box 5.6 Rwanda: Finance for business development, innovation and research

In March 2018, the Government of Rwanda and the African Development Bank signed an agreement for a \$30 million loan to finance the establishment of the Rwanda Innovation Fund. The objective of the fund is to stimulate structural transformation through research and development in innovative market-oriented products and processes in all economic sectors, by providing equity financing for technology-enabled SMEs; training technology-oriented entrepreneurs in business planning and management; and increasing awareness of and sensitization to intellectual property rights. The aim of the fund is to provide patient institutional growth capital and deep business support to invest in and develop world-class innovative businesses in Rwanda and East Africa. The fund is expected to support more than 150 companies and invest in about 20 opportunities at the early-growth stage, as well as to create more than 2,000 direct jobs and 6,000 indirect jobs over its 10-year life cycle. A national research and innovation fund is also being developed, to support joint research and development projects between private businesses and public entities.

Source: African Development Bank, 2018.

D. Entrepreneurship within general economic policies

1. Provision of finance

The UNCTAD Entrepreneurship Policy Framework recommends a set of actions to address access to finance (annex 3), aimed at improving the availability of financial services on appropriate terms, promoting funding for innovation, building the capacity of the financial sector to serve start-ups and encouraging responsible borrowing and lending, as well as improving financial literacy among entrepreneurs.

National development banks, with their long history and widely recognized role in development, are an important instrument for financing structural transformation. The Addis Ababa Action Agenda states that “national development banks... can play a vital role in providing access to financial services. We encourage both international and domestic development banks to promote finance for micro, small and medium-sized enterprises, including in industrial transformation, through the creation of credit lines targeting those enterprises, as well as technical assistance” (United Nations, 2015b).

National development banks can support the entrepreneurial State (section E) by providing equity and loan financing to public–private ventures and for the establishment of State-owned enterprises to catalyse the creation of new economic sectors; providing long-term financing for infrastructure development; providing preferential credit to SMEs in priority sectors; and facilitating SMEs’ access to long-term finance through guarantee mechanisms. National development banks should be involved in financial inclusion strategies to address the obstacles to enterprises’ access to finance.

There have been failures as well as successes among national development banks, which are affected by some of the concerns surrounding State-owned enterprises, such as political patronage and interference (section E), as well as lack of prudential regulation and supervision and insufficient capital. Identifying lessons learned, best practices, regulatory and governance frameworks are important.

The State can play a useful role as a co-provider (with the private sector) of venture capital to entrepreneurs for research and development and innovative activities in designated sectors, and by providing guarantees against risks in the early stages of innovative activity. The Rwanda Innovation Fund is a recent example (box 5.6). Public venture capital can also be targeted more broadly towards higher-productivity, higher

The State together with the private sector can provide venture capital

value added activities, as in the case of the Venture Capital Trust Fund of Ghana, established in 2004. This revolving fund provides funding to enterprises in priority sectors such as agriculture, pharmaceuticals, ICT, tourism and energy, through tax-exempt intermediary institutions established in partnership with private and public sector institutions (Sackey, 2013).

Such financing by an entrepreneurial State (section E) should set the direction and route of change, by shaping and creating markets, and focus on the sectors and entrepreneurs expected to generate the greatest value added and productivity growth. Capital should be patient and provided over a sufficiently long enough period for enterprises to build capabilities and become profitable.

Financial risks can be limited by a portfolio approach, spreading investment across a range of firms in different sectors (Mazzucato, 2013). Since public venture capital funding can be undermined if decision-making is marred by factors such as political affiliation (Afful-Dadzie et al., 2015), selection criteria must be objective, enforced by an independent panel, and performance should be properly monitored and evaluated, with exit strategies in case of failures.

Public support can also be targeted towards entrepreneurship, microenterprises and SMEs and larger enterprises through specialized State-owned agencies, funded by cost-sharing between the domestic and international private sector and the State. A few LDCs propose the creation of such enterprise support agencies in their microenterprise and SME development policies or national industrial policies. Such agencies should be given clear mandates and well-defined roles, matched by sufficient funding and human resources, with clear and time-bound goals (chapter 4).

Sovereign wealth funds can also be an important source of sustained, long-term financing for industrialization and entrepreneurship development programmes. More LDCs earning substantial natural resource rents should aspire to create a sovereign wealth fund to channel the revenues generated into supporting entrepreneurship for structural transformation. The sovereign wealth fund of Timor-Leste, for example, was among the six best performing in 2017, as measured by the resource governance index of the Natural Resource Governance Institute. However,

in some cases opacity in transactions and absence of appropriate mechanisms for transparency and accountability can lead to mismanagement. A clear separation is also needed between the Government as a promoter of investments and as owner of the sovereign wealth fund. Moreover, capacity-building is needed to allow the sovereign wealth fund to operate as an expert professional investor and appraise prospective investment opportunities independently (Sharma, 2017).

Well-managed sovereign wealth funds can also serve to attract additional long-term private investments in sectors that are strategic for entrepreneurship and structural transformation, such as infrastructure (section E and chapter 3). Consideration could be

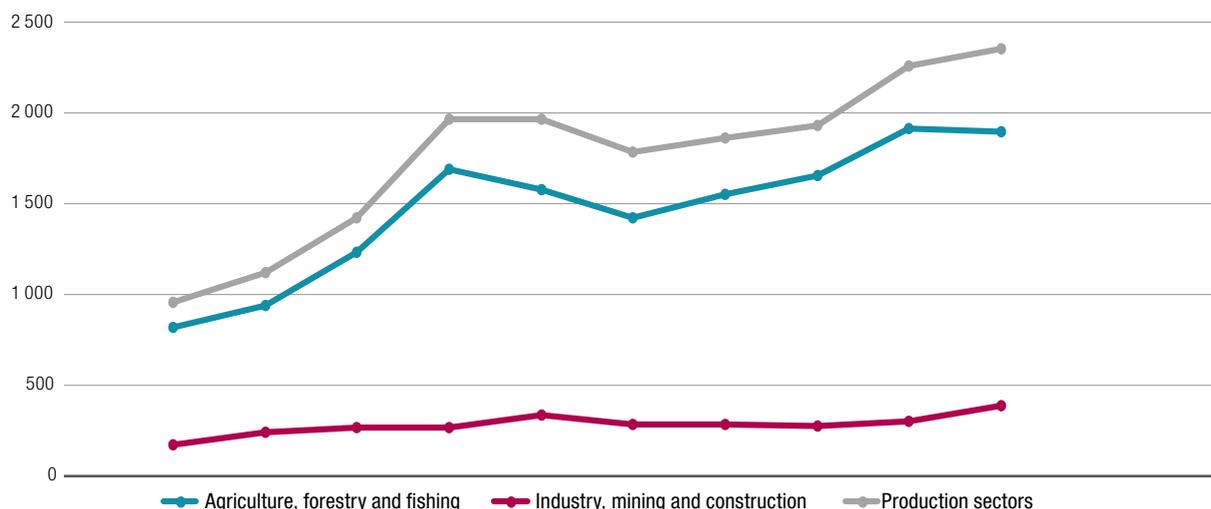
given to policies to attract investment from international sovereign wealth funds and other sources, such as establishment of a sovereign development fund or strategic investment fund to channel funding into strategic economic sectors. The National Investment and Infrastructure Fund in India provides an example (Sharma, 2017). Senegal has set up a strategic investment fund to attract international institutional investors to develop sectors such as energy. Clear investor protection clauses and dispute settlement mechanisms can help to increase the confidence of private investors (Hove, 2016).

The financial sustainability of public support to businesses is an important consideration. The fiscal burden on LDC Governments could be eased

Figure 5.1

Official development assistance disbursements to the least developed countries, by sector, 2007 to 2016

(Millions of dollars; constant 2016 prices)



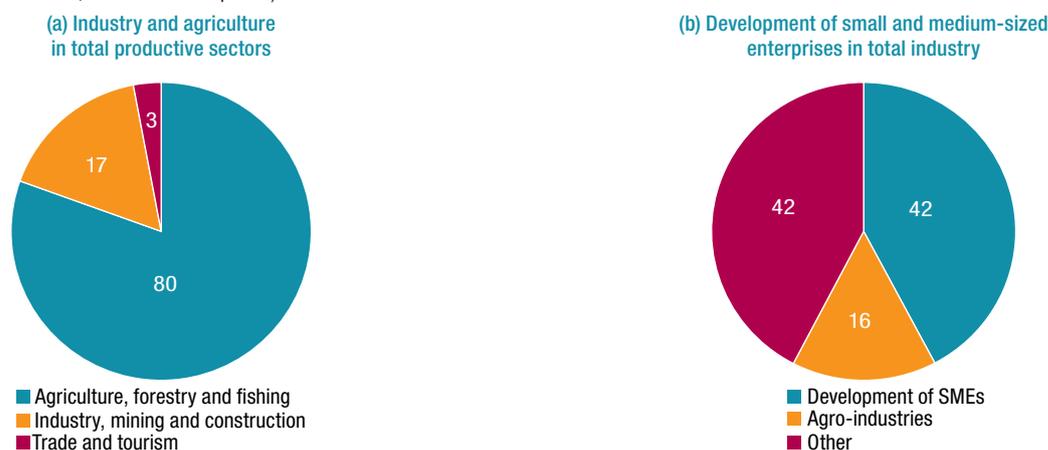
Source: UNCTAD secretariat calculations, based on OECD Development Assistance Committee database.

Note: Data availability by country varies by year.

Figure 5.2

Official development assistance disbursements to the least developed countries, 2016

(Millions of dollars; constant 2016 prices)



Source: UNCTAD secretariat calculations, based on OECD Development Assistance Committee database.

through mechanisms for cost-sharing between the State and the private sector. Other possible funding sources include domestic resource mobilization, official development assistance, loans from regional and international development banks, South–South development finance, capital market development and innovative sources of finance, such as diaspora finance, crowdfunding and impact financing (United Nations, 2017b).

Apart from domestic resources, entrepreneurship development in LDCs can potentially also benefit from external public financing. Official development assistance allocations to productive sectors (in terms of disbursements), such as industry and agriculture, have increased in real terms since 2007 in LDCs (figure 5.1). Total official development assistance to LDCs grew on average 4.8 per cent per year over the period 2007 to 2016, while growth in the productive sectors of agriculture and industry averaged more than 10 per cent per year. The share of official development assistance allocated to productive sectors in LDCs continues to remain low, at only 5.1 per cent in 2016, with the lion's share (about 80 per cent) allocated to agriculture, forestry and fishing (figure 5.2 (a)). A greater allocation of official development assistance towards both productive sectors and industrial development could benefit entrepreneurship development.

SME development accounts for 42 per cent of total official development assistance for industry, while agro-industry receives 16 per cent (figure 5.2 (b)). There is a case for an increase in official development assistance allocations to industrial development, and particularly to fostering linkages between microenterprises and SMEs and large enterprises and to agro-industrial development.

In broader terms and in the medium term, reducing dependence on official development assistance through improved domestic resource mobilization can help LDCs achieve a less donor-driven approach towards entrepreneurship and development in general (UNCTAD, 2009; UNCTAD, 2018a).

Beyond national borders, developmental regionalism could support entrepreneurship for structural transformation in LDCs in Africa (UNCTAD, 2013e) and Asia, through spatial development initiatives such as regional business clusters, regional development projects and infrastructure corridors, thereby increasing market opportunities for enterprises by facilitating participation in regional value chains (as an alternative to GVCs) and improving competitiveness. Landlocked LDCs, in particular, should engage in regional transport and transit facilitation projects with their coastal neighbours to expand market opportunities for their firms. The Ethiopia–Djibouti

Greater allocation of official development assistance to productive sectors could benefit entrepreneurship

corridor is one example. UNCTAD is currently assisting these two LDCs to improve the corridor's governance and logistical performance through the Diagnostic Trade Integration Study process under the Enhanced Integrated Framework.

The Belt and Road Initiative in Asia is an example of developmental regionalism in practice, within the context of South–South cooperation, with the potential to increase the connectivity of Asian LDC enterprises globally. Developmental regionalism can be supported through involvement of the private sector in regional integration initiatives, including communication on trade and regional integration to enterprises and establishment of consultative mechanisms with the private sector to identify bottlenecks to accessing regional markets (UNCTAD, 2010).

South–South cooperation helps enterprises in LDCs to access the skills, knowledge, technology and finance they need to strengthen their competitiveness. South–South development finance can be mobilized to fund the implementation of the national entrepreneurship strategies, while South–South technical assistance can support the strengthening of implementation capacities in entrepreneurship and niche exporting development strategies. South–South trade can help LDCs reduce their export dependence on competitive developed markets and on North-led GVCs. Cooperation agreements on intellectual property rights and technology transfer can enable indigenous enterprises in LDCs to build technological capabilities and access the patents needed to produce certain goods locally, while agreements on dumping and counterfeit goods can shield local enterprises from unfair competition from development partners in the South. In addition, South–South cooperation can be harnessed to build capacities of LDCs to comply with export non-tariff measures to developed markets. As noted in chapter 4, failure to meet international quality standards is a constraint to SME competitiveness in some LDCs.

In international trade and investment negotiations, LDCs must remain vigilant to maintain their policy space (both at the World Trade Organization and in regional and bilateral trade agreements) in order to be able to industrialize through use of infant industry provisions, public procurement measures and local content requirements; remain watchful

LDCs can strengthen domestic and regional value chains to foster entrepreneurship



of restrictive rules of origin and non-tariff measures on their niche exports (UNCTAD, 2018a), especially in agro-processing, as seen in chapter 3; and build capabilities to develop their own standards with which importers should comply, so as to avoid unfair imported competition from undermining national development. In e-commerce, LDCs are advised to seek to negotiate with one voice on the imposition of tariffs on digitally traded imports, to prevent such imports from harming their local industrial and entrepreneurship development (UNCTAD, 2017h).

As discussed in chapter 3, integration into GVCs should not be at the expense of development of national supply chains and generation of opportunities for local entrepreneurial activities. On the one hand, policies are needed for ensuring that GVCs do not weaken or undermine local entrepreneurship while on the other hand, policies should continue to support the development of niche local productive capacities both in the tradable and non-tradables sectors, including high-value services in tourism, and the fostering of intersectoral linkages. Examples of such policies include: applying selective incentives to diversify FDI away from commodity extraction and towards commodity-based industrialization; extending entrepreneurship development support programmes to rural areas that focus on agro-processing and local value added activities; strategically using rules of origin in regional integration agreements to support development of regional value chains (as an alternate or stepping stone to GVCs, matched by expansion of domestic supply chains); incentives to support intraregional FDI (such as easing restrictions on movement of capital, goods, labour and services in regional trade protocols to support regional value chains); greater use of local content requirements in FDI (regional and global) to promote local entrepreneurship; and building linkages between the extractive sector and the rest of the local economy.

2. Building technological capabilities

In order to survive, upgrade along value chains (chapter 3) and seize opportunities from advances in ICT, firms need to build their technological capabilities through acquisition, local adaptation and deployment of foreign technologies (which requires technology absorptive capacity) and through indigenous innovation nurtured by national innovation ecosystems.

Specific policy instruments to foster such technological capabilities include incentives for firm-level innovation (e.g. grants, loans and tax credits for research and development) and government procurement policies, which have met with much success in other developing countries such as Thailand; government-funded training for SMEs on harnessing new technologies; provision of technology-related information, e.g. through mobile applications; sponsoring participation of firms in technology fairs; and establishing public research centres within universities to support innovation in particular sectors (UNCTAD, 2015e).

Public support to research and development can help promote the elaboration and deployment of locally appropriate technologies in areas such as renewable energy and off-grid solutions for rural areas, to ease constraints to rural entrepreneurship (UNCTAD, 2017a). Such support may include grants to universities and research centres and the establishment of training centres (UNCTAD, 2011b), as well as provision of equity capital for rural and community-based energy start-ups involved in the development and application of such technologies.

Technological capability-building must be accompanied by support to translate technologies into business ideas and support for their commercialization. The UNCTAD Entrepreneurship Policy Framework recommends approaches such as public innovation awards to promote the commercialization of high-technology ideas by early-stage enterprises. A few countries, including LDCs such as Togo, organize entrepreneurship tournaments to identify and reward the entrepreneurs with the greatest potential.

Many developing countries seek to kick-start high-growth entrepreneurship through accelerator programmes, business incubators, science parks and technology research hubs, to provide a range of core support services and infrastructure, targeted business development programmes, mentoring and advice on access to finance and intellectual property, in order to promote survival among technologically intensive firms. Such support programmes are often situated close to universities and research institutes, to facilitate access to technological advice

(UNCTAD, 2012a). In LDCs, accelerator programmes and business incubators can target start-ups, and/or firms that provide services such as ICT to other firms, in priority economic sectors. Ideally, these support programmes should be implemented as part of a coherent entrepreneurship programme targeting structural transformation in LDCs. This would help to enhance their effectiveness and contribution to development.

Promoting technological progress also requires coherence and coordination between industrial policy and science, technology and innovation policies. Policy inconsistencies and incoherence can arise from slow or ineffective policy transitions, institutional resistance and inertia, and insufficient policy competence and foresight. Measures to improve coherence include improving alignment of policy frameworks in these areas; linking new policies to existing initiatives and agency mandates; identifying and eliminating duplication; ensuring that policy changes are appropriately funded, with transparent budgets, and adequately staffed; jointly establishing schedules and milestones for policies in both areas; establishing monitoring and evaluation frameworks; and ensuring an appropriate balance of funding between capital and recurrent expenses (UNCTAD, 2015e).

Intellectual property rights policy should ensure that patent rights reward risk-bearing inventors and innovators, while clearly defining the conditions for such patents, to be transferred to encourage further innovative activity. Incentives to move technology from the laboratory to commercialization can also be strengthened by giving researchers and innovators preferential access to cost-effective patent information and protection (UNCTAD, 2012a). However, a pro-competitive innovation system depends on intellectual property right policies interfacing with competition policies (chapter 4).

LDCs such as Madagascar have a vast potential to tap into medicinal plants to kick-start pharmaceutical,

Governments can foster technological learning through policy directives and regulation

cosmetics and fragrance industries. Processing medicinal plants can be a profitable opportunity for SMEs, as this does not require enormous investments in terms of capital or machinery and can also be environmentally friendly (Gurib-Fakim, 2011). In order to commercialize biodiversity and harness its potential for entrepreneurship and creation of value added, a series of obstacles need to be lifted. These barriers include lack of publicly supported research and development and indigenous innovation, ignorance of the patenting mechanisms and skills and financing gaps to translate research from academia into marketable products (Rasoanaivo, 2011). Public funding (including venture capital) to support research and development and innovation in nascent firms can contribute to overcoming some barriers.

LDC Governments can also foster technological capacity-building through non-market mechanisms such as policy directives, regulatory requirements and South–South cooperation mechanisms. Bangladesh is an example of a country that made use of regulatory requirements and policy directives (e.g. the National Drug Policy of 1982), in addition to technology transfer at early stages to support development of its local pharmaceuticals industry (Amin and Sonobe, 2013). The exemption that allows LDCs to delay patent protection for pharmaceutical products under the Agreement on Trade-Related Aspects of Intellectual Property Rights of the World Trade Organization until 2033 can provide an opportunity to develop manufacturing of generic versions of drugs that are patent-protected elsewhere (UNCTAD, 2011a), but this requires adequate investments in domestic technological capabilities. UNCTAD had been supporting LDCs since 2005 to establish domestic intellectual property regimes that facilitate

Box 5.7 UNCTAD eTrade for all initiative

The eTrade for all initiative, launched in 2016, seeks to raise awareness, enhance synergies and increase the scale of existing and new efforts by the development community to strengthen the ability of developing countries, particularly LDCs, to engage in and benefit from e-commerce, by addressing the following seven policy areas: e-commerce readiness assessment and strategy formulation; ICT infrastructure and services; trade logistics and trade facilitation; payment solutions; legal and regulatory frameworks; e-commerce skills development; and access to financing. Demand-driven assessments are carried out to provide a basic analysis of the current e-commerce situation and identify opportunities and barriers. In addition to assisting LDCs in identifying areas in which they could benefit from assistance by development partners, the reports prepared under the initiative are a valuable input to the involvement of countries in discussions related to e-commerce and digital trade, such as at sessions of the Intergovernmental Group of Experts on E-Commerce and the Digital Economy, as well as under the work programme on e-commerce of the World Trade Organization.

Source: UNCTAD secretariat.

LDCs should participate in global e-commerce as producers

increased access to affordable medicines and, where feasible, support the creation of local or regional pharmaceutical production and supply capacities, including in cooperation with investors.

3. Digitalization and e-commerce readiness

As noted in chapter 4, LDCs need to position themselves to benefit from the increasing business opportunities afforded by ICT, both as a catalyst for structural transformation and as a sector in its own right. Digital entrepreneurship is a key part of the twenty-first century landscape, with the global e-commerce market amounting to \$22 trillion (UNCTAD, 2017e). Nevertheless, few LDCs currently identify ICT as a policy priority in their microenterprise and SME development policies (chapter 4).

While digitalization can transform the way enterprises operate, there is a widening gap between developed and developing countries in the use of digitalization to enhance manufacturing competitiveness (UNCTAD, 2017h), and digitalization in developed markets poses a direct threat to the sustainability of industrialization in developing countries, including LDCs (Banga and te Velde, 2018). Bridging this digital gap is essential for LDCs to avoid further marginalization in the global economy. However, significant additional investment is needed to increase its deployment and contribution to transformative development.

Supporting digitalization, by helping enterprises to harness ICT and engage in the global digital and knowledge-based economy, thus merits much greater policy support. The State has a leading role in this process, as a co-investor in innovative forms of investment partnerships. At the same time, a broad range of other investors should also be present, e.g. angel investors, venture capitalists, capital markets and private equity (UNCTAD, 2017g). In light of the high rates in business failure characteristic of the ICT sector, equity finance has advantages over debt financing in funding ICT start-ups and scaling-up, as it provides incentives for investors to provide other forms of support, such as entrepreneurial coaching and assistance in economic networking and discovery.

As discussed in chapter 4, LDCs are advised to put in place e-readiness policies to enable domestic firms to access national, regional and global e-commerce

markets, and leverage the market opportunities to improve their competitiveness, viability and profitability. E-readiness policies for entrepreneurship and structural transformation in LDCs can be mainstreamed into the Action Matrix of Diagnostic Trade Integration Studies, to facilitate resource mobilization from the international community. The UNCTAD eTrade for all initiative offers technical assistance to LDCs to formulate e-readiness policies and improve their ability to use and benefit from e-commerce (box 5.7).

E-readiness policy actions include developing a national e-commerce strategy aligned with other strategies; conducting a market assessment for the national ICT industry; strengthening the capacity of national customs authorities and postal services to clear and deliver parcels more efficiently; developing secure online payments services, e-commerce and consumer protection laws, as well as regulations for the ICT sector and e-commerce awareness programmes for firms; designing training programmes for firms on e-commerce and use of ICT tools, including e-commerce in trade-promotion activities; reducing Internet tariffs for firms; supporting education and training of ICT professionals at universities; and promoting and facilitating access to finance for e-commerce start-ups.⁵ Establishing and enforcing taxation of e-commerce transactions can also generate fiscal revenues to fund structural transformation and the attendant projects of the entrepreneurial State (section E). Entrepreneurship development and building productive capacities are central to ensuring that LDCs participate in the global e-commerce market as producers, not merely as consumers. Development of local e-commerce platforms, including rural e-commerce can help to counter restrictions imposed by global e-commerce companies on participation of local vendors on their platforms. In Bangladesh, several e-commerce sites (e.g. clickbd.com) are targeting the domestic market (UNCTAD, 2015d).

4. Entrepreneurship education and skills development

Entrepreneurship education policies focus on developing transferable skills that can contribute to firms' survival and growth, aiming both to strengthen individuals' desire and capacity to become entrepreneurs and to develop and foster an entrepreneurial culture (UNCTAD, 2012a). This includes soft skills (attitudes), such as persistence, networking and self-confidence, as well as hard skills, such as business planning, financial literacy and managerial skills.⁶

The impact of traditional approaches to business training, focusing on hard skills, is limited, according to a number of studies (Campos et al., 2017; Cooney, 2012; Gibb, 1987). UNCTAD provides technical assistance in development of soft skills through its Empretec training workshops, emphasizing 10 personal entrepreneurial competencies (opportunity-seeking and initiative, persistence, commitment, demand for efficiency and quality, taking calculated risks, goal-setting, information-seeking, systematic planning and monitoring, persuasion and networking and independence and self-confidence). A study based on a randomized control trial, with a sample of 1,500 microentrepreneurs in Lomé, suggests that psychology-based entrepreneurial training may be more effective in helping entrepreneurs to remain profitable than traditional approaches and may be particularly effective among women: profits among female-owned businesses receiving personal initiative training increased by 40 per cent, compared with only 5 per cent for those receiving traditional business training (Campos et al., 2017).

Entrepreneurial skill development could benefit from a shift in emphasis on memorization and rote-learning towards experiential learning, problem-solving, team-building, risk-taking, critical thinking and student involvement in community activities. Such reforms are already taking place in a few LDCs. Since 2016, Rwanda has made a major shift towards more interactive, student-centred learning. All secondary school students are required to take an entrepreneurship course encompassing: active, hands-on “scripted learning activities”, emphasizing entrepreneurship skills; a “skills lab pedagogy”, with class time structured in a laboratory format; and “student business clubs” that start and run school-based businesses.⁷ However, such changes further increase the need for expanded education budgets, to reduce class sizes, develop tailored materials and train teachers.

Further mechanisms to improve entrepreneurial education include:

- Scholarships for potential entrepreneurs (e.g. selected from accelerator programmes or entrepreneurship contests) to pursue university training in entrepreneurship abroad, followed by internships in the countries of study.
- Apprenticeships for local entrepreneurs in foreign start-ups and for foreign entrepreneurs in local start-ups, taking advantage of the LDC services waiver under the General Agreement on Trade in Services of the World Trade Organization.

Structural transformation rests on building a developmental State with entrepreneurial approach

- Mentoring programmes between experienced entrepreneurs (business angels) and new entrepreneurs.
- Promotion of greater uptake of science, technology, engineering and mathematics among secondary and tertiary students, particularly girls and women.
- Greater use of local languages and local context in content design to improve learning effectiveness.
- Development of tailored online content based on digitalization.

E. Entrepreneurship and the developmental State

1. The entrepreneurial role of the State

Structural transformation in LDCs rests on the building of a developmental State and the promotion of development governance, oriented to solving common national development problems, creating new national development opportunities and achieving common national development goals (UNCTAD, 2009). A developmental State is a “State that puts economic development as the top priority of government policy and seeks to design policies and institutions to promote this goal” (Mkandawire, 2001).

The four major functions of successful developmental States are to provide a vision; support the development of institutional and organizational capabilities to implement the vision; coordinate economic activities to ensure co-evolution of different sectors and different parts of the economic system; and manage conflicts (UNCTAD, 2009). In this context, the extent to which a developmental State assumes its entrepreneurial functions is particularly critical to support the process of innovation and technological upgrading which support structural transformation, in line with national industrial and entrepreneurship policies.

An entrepreneurial State is entrepreneurial in its approach to development, rather than simply engaging in entrepreneurship. It may be defined in terms of ambition in approach and ability and willingness to:

In LDCs capabilities required for a developmental and entrepreneurial State can be acquired gradually

- Envision and guide the direction of change across public agencies and departments as well as nationally.
- Undertake mission-oriented public investments and actions that create and shape markets rather than merely “fixing” them.
- Make long-term investments, including in capital-intensive areas characterized by high risk or extreme uncertainty, which the private sector tends to avoid.
- Provide patient, long-term capital when needed to support sectors and technologies with long lead-times (Mazzucato and Perez, 2014).

In an LDC context, the private sector is weakened by the lack of institutional support and by information and coordination failures, seriously impairing its ability to provide the innovation required for structural transformation, in the absence of a proactive developmental State. The entrepreneurial State approach is thus particularly pertinent in LDCs. The role of Governments needs to extend beyond correcting market failures and ensuring a business-enabling environment, given that, as recognized by the international community, “structural constraints, particularly infrastructural bottlenecks, and institutional constraints have limited the growth of the private sector in least developed countries”. This is consistent with the Istanbul Programme of Action’s advocacy of “a dialogue between the private sector and government and strengthen[ing of] public–private partnerships with a view to ensuring that policies address key constraints” (United Nations, 2011).

While public sector capabilities are limited in many LDCs, the capabilities required for a developmental and entrepreneurial State can be acquired gradually. This requires reform of public sector governance and strengthening the institutional framework to ensure transparency, accountability and independence of public sector institutions. A pragmatic, strategic, incrementalist and evolutionary approach is called for, undertaking a limited number of institutional reforms depending on the context, building on islands of excellence, promoting policy learning and nurturing political coalitions for change. The Governments of East Asian countries, for example, had limited technical capacities when they embarked on their

industrialization and development processes, but built them over time as the process unfolded. Their strategy was to focus on building a few strategically important agencies, rather than seeking to improve government effectiveness across the board (UNCTAD, 2009).

Thus, LDC Governments need to increase public sector capabilities in parallel with progressively increasing engagement in entrepreneurial State activities aimed at fostering innovation and technological capabilities in the enterprise sector and supporting high-growth, high-productivity activities in economic sectors considered vital to structural transformation. This is in line with the incrementalist approach advocated by UNCTAD for building developmental States in LDCs (UNCTAD, 2009).

The role of the entrepreneurial State includes, but extends far beyond, improvements to regulatory regimes. Within the regulatory sphere, start-ups can be facilitated by simplifying procedures and lowering costs for registration (e.g. through online access and one-stop-shops) and improving regimes for licensing, labour market regulation, property registration, credit regulation, corporate governance, tax administration, trade and investment, contract enforcement, dispute settlement, production and environment standards, competition, public procurement and governance (Economic Research Institute for ASEAN (Association of Southeast Asian Nations) and East Asia, 2014).

Regulatory review and regulatory impact analysis can help to ensure that existing and new legislation and regulations are not unduly burdensome, but allow enterprises to thrive, for example by establishing clear property rights, reducing the cost of dispute resolution, increasing the predictability of economic interactions and providing parties to contracts with certainty and protection from abuse. LDC Governments could create an entity to assess, monitor and revise business regulations on a regular basis, in consultation with the private sector, similar to the Accounting and Corporate Regulatory Authority of Singapore (Economic Research Institute for ASEAN and East Asia, 2014). The UNCTAD e-regulations and e-registration programme has helped LDCs to clarify, publicize and simplify business registration procedures. In the United Republic of Tanzania, for instance, the e-regulations system is an “online database that provides investors and entrepreneurs with full transparency on investment-related procedures in [the United Republic of] Tanzania: at each step, the system tells where to go, who to see, what to bring, what to pay, what to get, what is the legal justification and who to complain [to] in case there is a problem”.⁸

Beyond this, however, enhancing the effectiveness of enterprises as agents of structural change requires a range of policies at the macrolevel, mesolevel and microlevel, together with entrepreneurship development programmes based on incentives and well-defined selection, exit and performance criteria, designed to stimulate transformational entrepreneurship. In addition to measures to improve access to finance, promote technological capabilities among firms, enable firms to exploit opportunities for digitalization and promote entrepreneurial skills development within education systems, as previously discussed, policies should also address the infrastructure constraints entrepreneurs face in LDCs, e.g. through public investment, an area where the entrepreneurial State has a critical role to play.

2. Public investment and infrastructure

A key role of the entrepreneurial State in an LDC context is to undertake public investments oriented towards structural transformation. This is particularly important in LDCs, where critical shortcomings in infrastructure require complementary and interdependent investments in multiple sectors to relieve binding constraints to entrepreneurship. Energy and ICT, in particular, are critical to development, while also offering important entrepreneurial opportunities (UNCTAD, 2017a). Transport and trade facilitation infrastructure also need to be improved, especially in rural areas.

Considerable public investment is needed in the energy sector in LDCs, to boost enterprises' access to quality energy services through both grid-based national electrification programmes and decentralized energy solutions. In many LDCs, the potential of energy renewables, especially in non-hydropower, remains largely unexploited and could be harnessed through public investments. This is a clear case of transformative, mission-oriented public investment, as private investment in energy supply is deterred by a combination of irreversibility associated with large sunk and fixed costs,⁹ substantial front-loading, long lead times and high risks (UNCTAD, 2017a).

Box 5.8 Rwanda: Public–private partnerships in the information and communications technology sector

In 2014, the Government of Rwanda and [Republic of] Korea Telecom established a joint venture company within a public–private partnership to deploy a high-speed broadband network that aimed to cover 95 per cent of the population in three years. As principal shareholders, Korea Telecom aimed to provide expertise and funding of around \$140 million; the equity investment of the Government of Rwanda included the assignment of its national fibre-optic network assets (over 3,000 km), spectrum and a wholesale-only operator licence. The public–private partnership model was used to address the aim of the Government to rapidly deploy high-speed mobile broadband across the country. Korea Telecom built the network and acted as a wholesaler, selling capacity to existing mobile operators and Internet service providers. In 2015, the unique fourth generation approach won a global award for innovation in business models.

Sources: International Telecommunication Union, 2018; Tumbewaze, 2013.

The LDC entrepreneurial state undertakes public investment for structural transformation

However, the scale of energy requirements in LDCs means that public investment, even if supported by official development assistance, needs to be complemented by private financing (UNCTAD, 2017a). This is likely to require innovative public–private finance mechanisms, including cooperation partnerships between the State, domestic and international private sectors and the donor community. A key objective is to exploit the complementarities between public and private investment, to ensure that public investment catalyses additional private investment in areas that would otherwise be underfinanced (UNCTAD, 2014e).

Although LDCs have made impressive strides in ICT access as discussed in chapter 4, significant additional public and private investments are needed in order to broaden deployment of ICT-based technologies further and boost their effective utilization by enterprises for transformative development purposes. The State has a lead role to play in the process and should act as a co-investor in innovative forms of investment partnerships.

Rwanda is an LDC that has earmarked ICT, both as an enabler of entrepreneurship development and knowledge-based structural transformation and as a sector which can boost entrepreneurship on its own. Rwanda displays many characteristics of an entrepreneurial State in harnessing the ICT sector for entrepreneurship and structural transformation. As discussed in chapter 4, Rwanda has committed to developing a world-class Internet and mobile telecommunications infrastructure and prepares five-year National Information Communication Infrastructure policy plans. The aim is to become an ICT hub for the East African Community. The country has also been successful in mobilizing public–private partnerships to improve its ICT infrastructure, acting

State-owned enterprises contribute to transformational entrepreneurship

as a co-investor (box 5.8). Execution of the Smart Rwanda Master Plan 2015–2020 relies on use of public–private partnerships, with the Government involved by “providing support through regulation and policy, strategy and arbitration management, setting guidelines and providing seed capital” (Rwanda, 2015).

3. The role of State-owned enterprises

State-owned enterprises¹⁰ also have a role to play in boosting entrepreneurship for structural transformation in LDCs. Motivations for establishing and running State-owned enterprises include increasing access to public services; providing public and merit goods; generating public funds; limiting private and/or foreign control of the economy; and promoting industrialization and economic development by sustaining priority sectors, launching new industries or controlling the decline of sunset industries (OECD, 2005; Price Waterhouse Cooper, 2015). State-owned enterprises in network industries such as energy and water supply, ICT services and transportation, in particular, can enhance efficiency and affordability of such services to enterprises and thus support competitiveness. At the same time, development-oriented State-owned enterprises such as national development banks (see section D) can be an important means of supporting industrial, entrepreneurship and innovation policies. State-owned enterprises also play a particularly important role in the extractive sector.

State-owned enterprises have been used successfully to create new economic activities, e.g. to promote economic diversification in Chile (UNCTAD, 2006b; UNCTAD, 2014e) and industrialization in Singapore (Price Waterhouse Cooper, 2015). According to the OECD (2015b):

If the Government of a low-income country embarks on a strategy of catch-up industrialization, a case can certainly be made for establishing [State-owned enterprises] to carry out key functions: very likely, there is no domestic entrepreneurship available to fill the void, and unless the country in question is particularly large, the interest of foreign investors to participate may be limited. In addition, if the Government’s ambition is to follow a development path already trod by

numerous comparable nations, it is relatively easy to hammer out a strategy and provide the [State-owned enterprises] with company-specific objectives toward the fulfillment of the strategy. Experience also shows, however, that some crucial conditions generally need to be met for such [State-owned enterprise]-based strategies to be successful.

Specifically, these conditions are:

- A competent bureaucracy empowered to exercise the ownership function effectively, reward success and punish failure, without condoning impunity among managers who are politically connected.
- Clearly defined developmental objectives, separate from social objectives.
- Insulation from political interference.
- Engagement in areas free of concentrations of commercial, financial and other market powers, to avoid elite capture.
- Dismantling or divestiture of the State from State-owned enterprises when their usefulness diminishes, as the country approaches middle-income level (OECD, 2015b).¹¹

According to Price Waterhouse Cooper (2015), “[State-owned enterprises] are likely to remain an important instrument in any Government’s toolbox for societal and public value creation given the right context”, but only if they satisfy “four Cs”: clarity (a clear understanding of their purpose, objectives and roles); capacity (time and resources to fulfil this role); capability (the necessary expertise and experience for management); and commitment to integrity (serving the purpose of societal or public value creation). Fulfilment of these conditions can be supported by State-owned enterprise governance frameworks underpinned by performance and learning feedback mechanisms, monitoring and evaluation frameworks and sunset clauses or exit plans.

4. Strengthening public–private sector dialogue

Among the lessons learned from the experiences of Chile, Finland and the Republic of Korea (section B) on successful entrepreneurship development programmes are the importance of collaboration, consultation and dialogue between the public and private sectors. Beyond use of public–private partnerships in infrastructure development (section 2 above), this means revitalizing the relationship between the public sector (including subnational authorities in decentralized systems) and the private sector, cultivating a culture of public–private

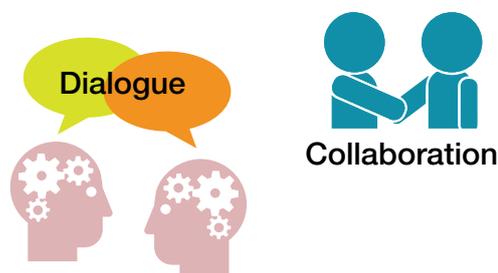
dialogue and establishing mechanisms for dialogue, consultation, debate, information-sharing and trust-building. Public–private dialogue comes in many forms. It can be structured or ad hoc, formal or informal, wide-ranging or focused on specific issues. Tangible benefits include the policy reforms it can precipitate, improvement in the investment climate and building of an atmosphere of mutual trust and understanding between the public and private sectors (Herzberg and Wright, 2013).

Regular working meetings between the State and the private sector, backed by work plans encompassing agreed areas of negotiations and milestones for progress, could help to foster a culture of public–private dialogue. Formation of one or more coordinating bodies representing private enterprises, meeting regularly to adopt common positions on key issues, could contribute to the success of such meetings, while ad hoc participation of civil society and academia may also be beneficial.

Examples of successful consultative public–private mechanisms include Barbados and Mauritius. Business Mauritius (a coordinating body founded by the private sector in 1970 as the Joint Economic Council) meets regularly with the Government to express its views on the development strategy and to defend the interests and current demands of the private sector, allowing bottlenecks in programme implementation to be identified and resolved. Barbados has had a public–private sector alliance and dialogue mechanism in place since the 1990s (Economic Commission for Latin America and the Caribbean, 2010). The country's Social Compact is a tripartite mechanism for consultation, negotiation and agreement on a common shared development vision, social protocols and policy between the State, employers' organizations and trade unions.

What constitutes effective State–business relations when it comes to successfully implementing industrial policies (for entrepreneurship and structural transformation) and what factors are driving it are not well known (Economic Commission for Latin America and the Caribbean, 2010; te Velde, 2013b). However, it has been argued that effective State–business relations can address market, coordination and government failures and can reduce policy uncertainty (te Velde, 2010). A large survey of firms in some sub-Saharan African countries (Qureshi and te Velde, 2013) indicates that firms derive growth benefits from being a member of a business association, consistent with the fact that business associations lobby on their behalf (in addition to direct lobbying) and provide relevant information (te Velde, 2013b). There is emerging evidence that

Entrepreneurship
development programmes
should be **underpinned by**



between the **public**
and **private** sectors

effective State–business relations can raise firm-level productivity, both in the formal and informal sectors and that strategic coordination with the private sector can provide a “helping hand” to Government, by identifying concrete public actions to foster more rapid enterprise growth and provide feedback on what works and what does not (Lemma and te Velde, 2017). Strategic interactions with the private sector can also guide Governments in identifying new areas of comparative advantage, new sectors of economic activity and future strategic direction. For instance, the flower industry's potential in Ethiopia was revealed by the private sector (Gebreeyesus, 2017).

The successful practice of industrial policy requires new approaches towards government–business coordination, according to recent research (Page and Tarp, 2017). Such new approaches involve strengthening coordination within the public sector itself as well as between the public and private sectors, while emphasizing commitment (to the coordination agenda), focus (on addressing constraints to firms' performance and by creating localized enabling environments), experimentation and feedback. Designating a champion within Government to promote industrial policy (and entrepreneurship), minimizing donor-driven influences on national institutional settings, setting clear and transparent rules to guide private–public sector interactions, and keeping public–private dialogue open to new entrants should be part of the new approach in State–business relations (Page and Tarp, 2017).

Reinvigorating public–private collaboration in LDCs and improving on developmental governance require strengthening the capabilities of both the public and private sectors. Ideally, strengthening and building up institutional, managerial, technological and policy capacity in the public and private sectors should take

place in parallel, through a process of continuous learning (UNCTAD, 2009).

F. Summary and conclusions

This chapter has put forward the main elements that an LDC developmental State with an entrepreneurial role can implement in order to foster transformational entrepreneurship, which contributes to leading these countries towards sustainable development. Policy analysis is clustered around three axes, as summarized below.

First, entrepreneurship policy:

- Entrepreneurship policies are most effective if focused on the central goal of structural transformation and need to be consistent with other components of government development strategies and policies (e.g. industrial policy, science, technology and innovation policy, macroeconomic policy, etc.).
- Public support to firms should target transformational entrepreneurship (high-growth, high-impact and innovative enterprises), which contributes most to structural transformation. It needs to be sustained throughout a firm's life cycle and tailored to the changing needs and characteristics of firms along their growth trajectory.
- Survivalist entrepreneurship is best absorbed into waged employment.
- Entrepreneurship policies should incorporate the following elements:
 - > Selection of firms for support based on independent, transparent and accountable criteria.
 - > Adoption of time-bound rewards, advantages and incentives, linked to performance and clearly communicated to stakeholders.
 - > Establishment of a balanced enterprise ecosystem which includes firms of all sizes and types.
- Gradual formalization of dynamic informal enterprises can be promoted by launching multichannel formalization campaigns that publicize the benefits of formalization and by reinforcing these benefits.
- Entrepreneurship policies need to foster linkages between firms of different sizes, stages of maturity and sectors, inter alia, by means of business clusters, networking and alliances. Greater attention needs to be given to the development of domestic supply chains in both the tradables

and non-tradables sectors, within an intersectoral linkages approach.

- The best developmental contribution of youth and women's entrepreneurship is achieved by directing them towards promoting structural transformation, rather than towards reducing poverty and empowerment. Special barriers faced by women and youth entrepreneurs need to be addressed through targeted measures, rather than entrepreneurship policies.

Second, entrepreneurship dimensions of general economic policies:

- Deficiencies in financing of firms can best be addressed through national development banks, innovation funds, sovereign wealth funds, official development assistance and South-South cooperation.
- Creating clusters of learning, innovation and creativity involving universities, schools, research and vocational institutes and experimental laboratories allows sustaining a flow of new ideas into firms throughout their life cycle and enables the growth of transformational firms.
- The growing digital economy offers opportunities for entrepreneurship development which should be harnessed by policy, including ICTs as an economic sector per se, as an instrument of the productive transformation of other sectors and as an enabler of producers' access to wider markets through e-commerce.
- Entrepreneurship education and skills development should be introduced in both mainstream and specialized education programmes.

Third, the entrepreneurial State:

- The entrepreneurial State has an entrepreneurial approach to development, which envisions and guides the direction of economic change, and undertakes mission-oriented public investments and actions that create and shape markets. It goes beyond "fixing" markets and ensuring a business-enabling environment. It is particularly pertinent to fostering entrepreneurship in LDCs.
- Public investment in infrastructure plays a key role in addressing bottlenecks to entrepreneurship development. It can be boosted through the strategic and judicious use of public-private partnerships.
- Development-oriented State-owned enterprises can be an instrument of implementation of national industrial policies and national entrepreneurship strategies, by providing public and merit

goods, generating public funds, promoting industrialization, sustaining priority sectors and launching new industries.

- Entrepreneurship development programmes can best be underpinned by dialogue and

collaboration between the public and private sectors, which allows for identification of obstacles to entrepreneurship development and discussion of actions to eliminate or attenuate them.

Notes

- 1 The main features of the UNCTAD Entrepreneurship Policy Framework are outlined in annex 3.
- 2 Under a forfait system, tax assessment can be negotiated between the taxpayer and the tax authority. Typically the tax authority first specifies the tax amount based on available information such as the taxpayer's gross receipts, number of employees and the like. The taxpayer can accept or challenge the tax assessment and if the assessment is challenged, the tax payer has to provide means of verification (Taube and Tadesse, 1996).
- 3 See http://www.rra.gov.rw/fileadmin/user_upload/block_management.pdf.
- 4 Similar findings have been reported among formal firms globally (Gennaioli et al., 2013).
- 5 See, for example, Bhutan and Nepal, available at <http://unctad.org/en/Pages/Publications/ETrade-Readiness-Assessment.aspx>, and Rwanda (UNCTAD, 2017g).
- 7 Financial literacy can be defined as “the ability to use knowledge and skills to manage one’s financial resources effectively for lifetime financial security. As operationalized in the academic literature, financial literacy has taken on a variety of meanings; it has been used to refer to knowledge of financial products, knowledge of financial concepts, having the mathematical skills or numeracy necessary for effective financial decision-making and being engaged in certain activities such as financial planning” (Hastings et al., 2013).
- 8 See <https://www.povertyactionlab.org/> (accessed June 2018).
See <http://tanzania.eregulations.org/> (accessed June 2018).
- 9 Sunk costs are costs that have already been incurred and cannot be recovered, while fixed costs are costs that do not vary according to production levels.
- 10 There are various definitions of State-owned enterprises. This report adopts the OECD (2005) definition of entities in which the Government is a shareholder with at least a significant minority stake (at least 10 per cent).
- 11 Similarly, privatization of State-owned enterprises should also be carefully handled to avoid political capture and rent seeking (Gonzalez et al., 2018).