SME COMPETITIVENESS OUTLOOK 2022

Connected services, competitive businesses

5 Thought leaders

6 Business voices

International Trade Centre

TRADE IMPACT FOR GOOD

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Connected services, competitive businesses

About the Report

Four services sectors are key to an economic transformation. This report calls them 'connected services.'

Transport and logistics, financial services, information and communication technologies, and business and professional services contribute directly to economic growth – with an increasing share of output, trade and jobs.

These sectors also contribute indirectly, making other firms more competitive by connecting them to global value chains and digital innovations. For example: in regions with high-quality connected services, 44% of all companies export, compared with 19% of firms where the quality of connected services is lower.

Connected services spur inclusive growth that is favourable for small businesses, including those led by women and young people. Yet most small firms in developing countries do not access them easily.

This report explores the measures that companies, business support organizations and policymakers must take to help connected services flourish – to benefit all firms, foster more prosperous economies and build more inclusive societies.

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Acronyms

Unless otherwise specified, all references to dollars ($) are to United States dollars.

BPO	Business process outsourcing
BSO	Business support organization
FDI	Foreign direct investment
GDP	Gross domestic product
ICT	Information and communication technologies
ISO	International Organization for Standardization
IT	Information technology
ITC	International Trade Centre
ITU	International Telecommunication Union
LDC	Least developed country
NTM	Non-tariff measure
OECD	Organisation for Economic Co-operation and Development
R&D	Research and development
SIDS	Small island developing states
SME	Small and medium-sized enterprise
STAN	Structural analysis database
STRI	Services Trade Restrictiveness Index
TiVA	Trade in value added
WDI	World Development Indicators
WTO	World Trade Organization

Connected services, competitive businesses

Foreword

From a refugee camp in Africa, Abubakar provides digital bookkeeping services to clients all over the world. During the height of pandemic restrictions, Felipe's freight booking app kept essential goods moving in Latin America. From her living room, environmental consultant Liu runs a small online company that helps other small businesses in Asia turn their waste into revenue streams.

People like Abubakar, Felipe and Liu remind us that from crises come opportunities. With their entrepreneurial spirits they have created new businesses, generated jobs and provided ways to overcome some of the biggest challenges of our time – conflict, COVID-19 and climate change.

But there is something else that unites these three entrepreneurs: they provide critical services.

Services are hard to grasp. We drive, wear and sleep in products made by industry. We eat the products of the land. But services sometimes seem invisible, even though they are everywhere. This is because they are intangible – you don't touch them, and often you don't even own them. Also, they are increasingly incorporated into something else.

This SME Competitiveness Outlook, and other publications like it, are perfect examples. Their value does not merely come from their physical properties. It derives from all the highly specialized services that went into creating them: researching, writing, editing, translating, designing and printing. The dozens of people who perform these services usually do not all meet in person, but technology allows them to work seamlessly together to give you, a reader they also usually never meet, something valuable.

The production of this report embodies two trends that are reshaping services. First, they account for a growing share of the value of whatever is produced. Second, they are increasingly supplied using digital technologies.

But not all services are the same. A set of four activities – which ITC has dubbed the 'connected services' – are at the forefront of these trends. Financial services, ICT, transport and logistics, and business and professional services are the connective tissue that links various parts of a supply chain, and are spearheading digital innovation.

This report finds that connected services are valuable in their own right. Employment is growing rapidly in these sectors, particularly in low-income countries. They also export more, attract more investment from abroad and reinvest a larger share of their revenue in innovation.

However, it is their contribution to overall competitiveness that makes connected services critical. Our research shows that firms in all sectors are more competitive when they have access to high-quality connected services. Such services provide the key ingredients all firms need to prosper: efficient payment solutions and innovative financing, reliable digital and physical connectivity, and cutting-edge business expertise, as the businesses ran by Abubakar, Felipe and Liu illustrate.

Connected services also make our societies more equal. Through connected services, small businesses integrate into international value chains, and adopt digital technologies to produce and engage with buyers, suppliers and support institutions more efficiently. This way, trade becomes more inclusive, with the resulting gains more broadly distributed. As we rebuild, this services-led approach to development can help countries leapfrog and transform their economies.

Recognizing the catalytic role of connected services, ITC has been reinforcing its offer on these core elements. We have recently launched Switch ON, our strategy to enable small businesses to trade digitally. It brings together our diverse programmes such as ecomConnect, which helps businesses go online and use digital trade channels, and FastTrackTech, which supports digital service providers, such as financial technology firms, to expand their services to small businesses.

Our programmes targeted at refugees and internally displaced people, women-owned and youth-led services enterprises help them build skills to expand their digital presence, and connect to other services providers and global markets through online platforms.

Finally, we help countries enact the necessary regulatory reforms, and implement trade strategy solutions to foster an enabling business environment for connected services.

Services can turbocharge economic transformation. To do so, they must be connected. Through this report, ITC aims to help our partners better grasp the nature of connected services, and understand how to make them more accessible to all firms, to foster more prosperous and inclusive economies.

Pamela Coke-Hamilton

Executive Director
International Trade Centre

Connected Services

- are critical to **supply chains** and
- are frontrunners in the use of **digital technologies**.

Transport and logistics

Financial services

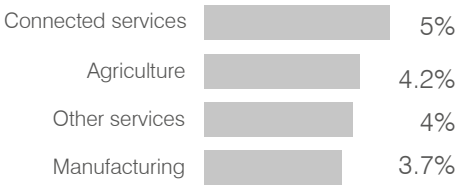
Information and communication technologies

Business and professional services

DIRECT EFFECT

Faster growth

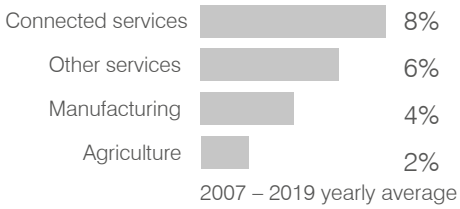
in value added



2005 – 2018 yearly average

Rising employment

in low income countries



2007 – 2019 yearly average

INDIRECT EFFECT

Logistics services

improve inventory management and timely delivery

78% of companies with access to high-quality services **vs.** 36% of companies with access to low-quality services

have good inventory management practices

Financial services

support innovation

46% of companies with access to high-quality services **vs.** 31% of companies with access to low-quality services

often create new products or processes

ICT services

help connect to buyers, suppliers

58% of companies with access to high-quality services **vs.** 35% of companies with access to low-quality services

have a website

All companies more competitive

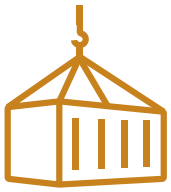
More jobs, innovation, exports, output **in connected services**

More jobs, innovation, exports, output **in all sectors**

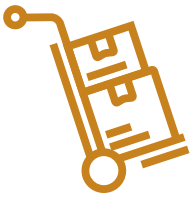
economic transformation

Small services firms are

more export ready and more competitive



The **export gap** between small and large firms in services is **half** that of manufacturing



To start exporting, small services firms need to improve **4 out of 9 business operations**

(compared with 7 out of 9 in manufacturing)

Good connected services **help firms to export**

44% of firms export

in regions with **strong** connected services

vs.

19% of firms export

in regions with **weak** connected services

A services-led transformation can be **more inclusive** for

small companies

9 out of 10

services firms are SMEs

(compared with 8 out of 10 in manufacturing)

women

44%

of workers are women*

(compared with 37% in manufacturing)

youth

16%

of firms are led by young people

(compared with 10% in manufacturing)

For **more competitive** connected services, firms must:

Grow networks
Manage relationships

Innovate to deliver quality services

Deepen staff skills

Use finance to diversify products and markets

with the help of business support organizations and governments

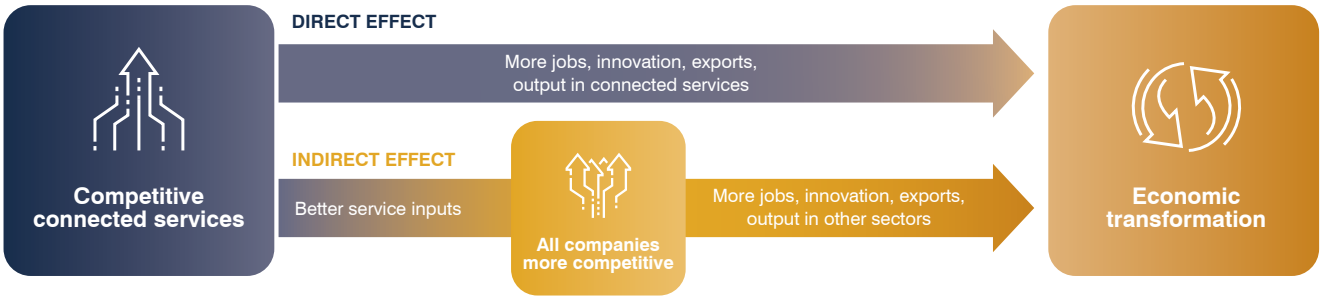
* includes finance and business services in a sample of developing countries

Executive Summary

Four sectors are key to a services-led economic transformation. This report names them 'connected services.'

Transport and logistics, financial services, information and communication technologies (ICT), and business and professional services contribute directly to economic growth and development with an increasing share of output, trade and jobs. They also contribute indirectly by making all firms more competitive and connecting them to global value chains and digital innovations.

Connected services transform economies, directly and indirectly



Source: ITC.

Small business success requires access to good-quality connected services.

Small firms' success depends partly on access to good-quality connected services. This is particularly true of small businesses in services sectors, which seem more export ready than those in manufacturing.

And when small services firms are more competitive and trade more, they create better, higher-paying jobs, notably for the women and youth that are disproportionately represented in the sector.

Unfortunately, most small services firms in developing countries do not have easy access to connected services. This report explores the nature of connected services, and the measures that companies, business support organizations and policymakers must take to help them flourish – to benefit all companies, foster more prosperous economies and build more inclusive societies.

What are connected services?

Connected services are: financial services, ICT, transport and logistics, and business and professional services.

During the industrial revolution, the textiles and clothing industry led economic transformation. It was built upon new ways of organizing production, such as the apparel assembly line, and new technologies, such as the cotton gin.

In more recent times, the way of organizing production is the international supply chain, and technologies are digital. The connected services are at the centre of these contemporary economic trends. Why is this so?

- First, they are critical to supply chains, in which services now provide a greater share of value – a process known as 'servicification.'
- Second, they are frontrunners in using digital technologies, which enable services once viewed as local to be offered across borders.

These four services sectors are at the centre of contemporary economic trends.

Four services subsectors add higher value to exports and are more digitally intensive: financial services, ICT, transport and logistics, and business and professional services. Though all four are export and digitally intensive, the digitalization process drives ICT and finance in particular. Servicification of value chains embeds business and professional services and transport.

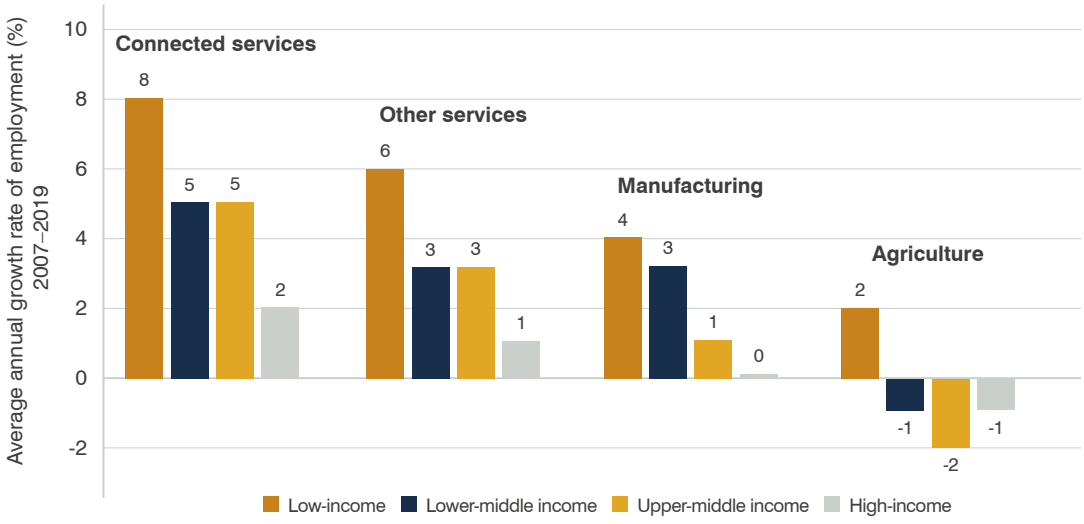
Why are connected services critical?

The rapidly increasing output, jobs and exports in connected services directly contribute to economic growth.

Connected services directly contribute to economic growth – with more output, jobs and exports.

Employment growth in connected services occurs across all levels of economic development, and especially in low-income countries that start from a lower base. Between 2007 and 2019, employment in connected services grew by about 8% a year in low-income countries. In contrast, employment in manufacturing grew less than 4% per year during the same period, while growth in agriculture was only 2%. Digitalization and servicification trends are leading connected services to hire workers to meet growing demand.

Employment grew faster in connected services



Source: ITC, based on International Labour Organization Statistics (ILOSTAT).

As the glue that connects firms in supply chains and spread digital innovation, connected services increase the competitiveness of all firms.

Connected services also export more and are expanding fast. Whereas 26% of connected services firms surveyed by ITC export, the figure was 15% for firms in other services. Between 2005 and 2018, the value added to total exports by connected services grew faster than value added by manufacturing. In LDCs, export growth of connected services outpaced that of other services between 2007 and 2019, and was faster than in the rest of the world.

The indirect effects of connected services make them even more critical. By being the glue that connects firms within supply chains and spreading digital innovation, connected services increase the competitiveness of all firms.

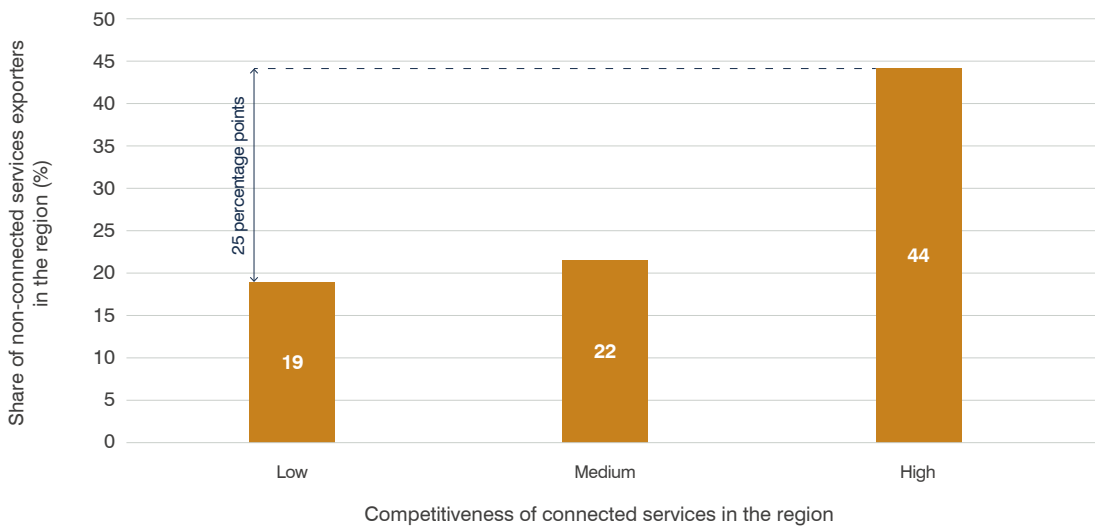
Connected services source products and services from other sectors, stimulating economic activity that feeds into value chains, or backward linkages. Significantly, they also stimulate economic activity by supplying services to other sectors, creating forward linkages.

When firms begin to outsource activities to specialized connected services firms, they become more competitive. Companies that used good logistics services had better inventory management and more often delivered their goods on time, according to data from the ITC Competitiveness Survey. Similarly, those that were able to access high-quality banking services were 15 percentage points more likely to succeed in developing new products or processes. Finally, firms with better access to the internet were much more likely to have information on potential buyers and suppliers than those without it.

Moreover, companies in regions with competitive connected services tend to be more competitive, and companies that are more competitive have a higher propensity to export, ITC analysis shows. The share of companies that export was 25 percentage points higher when there were competitive connected services firms nearby.

In regions where connected services were strong, 44% of all firms exported, versus 19% where services were weak.

Regions with strong connected services have more exporters



Source: ITC, based on ITC SME Competitiveness Surveys.

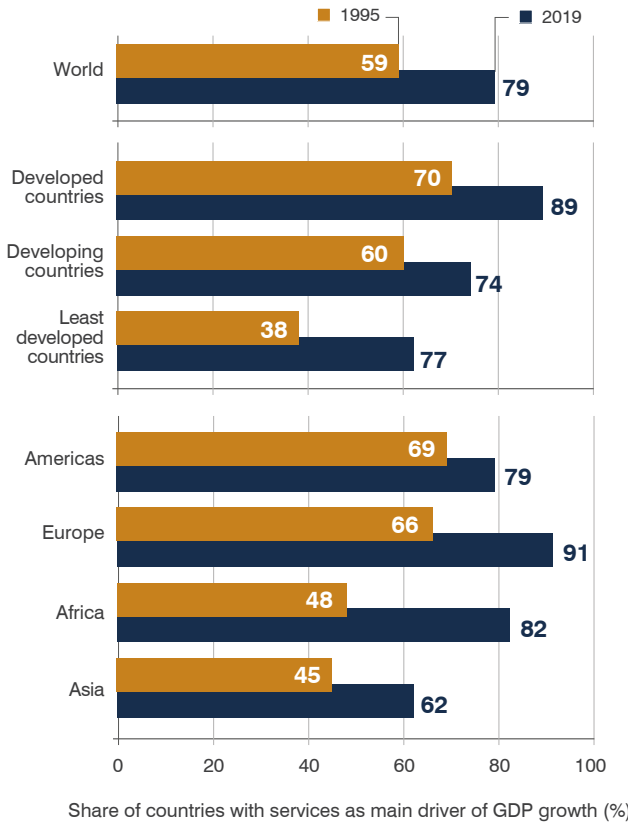
How can connected services foster a services-led transformation?

Services are big, though companies are small. Services were the main GDP driver in more than three-quarters of countries in 2019.

Many small services firms are poised to go global, with levels of competitiveness that make them almost ready to export. Access to strong connected services can push them over the frontier into international trade. This matters for two reasons.

First because services are big, even though companies are small. As recently as 2019, services firms, including those in the connected services sectors, accounted for about two-thirds of economic output globally and generated most employment. The services sector was the main driver of higher GDP in more than three-quarters of countries in 2019. For instance, the share of LDCs in which the services sector was the main engine of economic growth more than doubled from 38% in 1995 to 77% in 2019.

Services drive growth in most countries

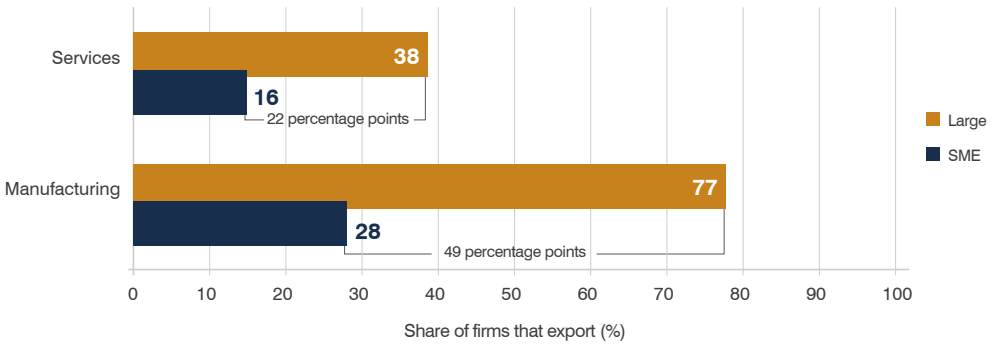


Source: ITC, based on World Bank World Development Indicators (WDI).

Small businesses are prevalent in the services sector. An estimated nine out of ten services enterprises globally have fewer than 100 employees.

The economic potential of these small services firms is evident if success is defined as the ability to export. Generally, services firms are less likely to export than those in manufacturing. This is partly because trade costs are on average higher in services than in manufacturing. Still, it seems easier for small services firms to export than for small manufacturing businesses.

Export gap smaller in services



Source: ITC, based on ITC SME Competitiveness Surveys.

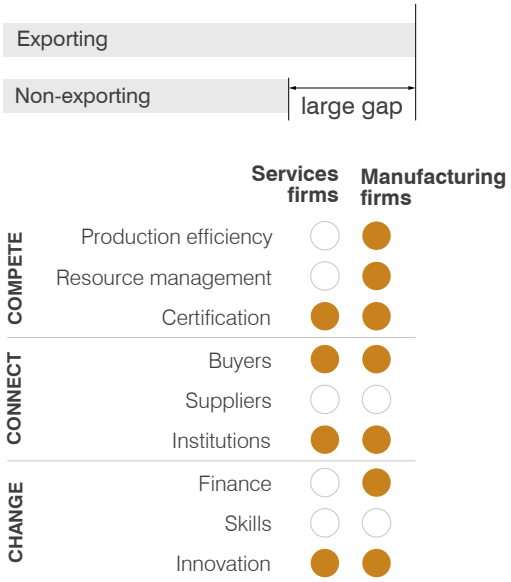
The export gap between small and large firms is twice as large in manufacturing than in services. Specifically, small and medium-sized enterprises are 49 percentage points less likely to export than large firms in the manufacturing sector. In services, though, they are only 22 percentage points less likely to export than large firms.

Second, smallness is less of a disadvantage to exporting services than manufactured goods, with purely domestic services firms nearly as competitive as exporters in most respects. In contrast, domestic manufacturing companies fall drastically short of the performance of their exporting peers in virtually all aspects of competitiveness, according to ITC's competitiveness framework and data.

Domestic services firms are more export ready.

Domestic services firms perform worse than services exporters in just a few features of competitiveness: connecting to buyers and institutions, certification and innovation. As a result, domestic services firms need to improve fewer aspects of their business operations to start exporting than those in manufacturing.

Domestic services firms more export ready



Source: ITC, based on ITC SME Competitiveness Surveys.

Note: This figure focuses on competitiveness at the level of firm capabilities. Themes in which non-exporting firms significantly lag exporting firms are coloured. A significant lag is defined as a difference of more than six percentage points in the average across questions included in each theme. See Annex I for details.

Even where domestic services firms fall short of their exporting peers, the gap is narrower than in manufacturing. For example, in manufacturing, non-exporters are 21 percentage points less likely to be certified to an international standard than exporters. In contrast, the gap in the services sector is only seven percentage points, or three times smaller.

Another area where the difference is less stark in services than manufacturing is online presence. Non-exporters are 42 percentage points less likely to have a website than exporters in the manufacturing sector, compared with 28 percentage points for services firms.

This evidence suggests that domestic services firms require fewer steps to be export ready. Yet to get certified, they need professional services providers. To develop online presence, they need support from suppliers of ICT services. Hence, better access to connected services can push small services firms towards global competitiveness.

Why is a services-led transformation more inclusive?

Making small services firms more competitive can have important aggregate effects, as many are led by women or young people, and contribute to achieving Agenda 2030.

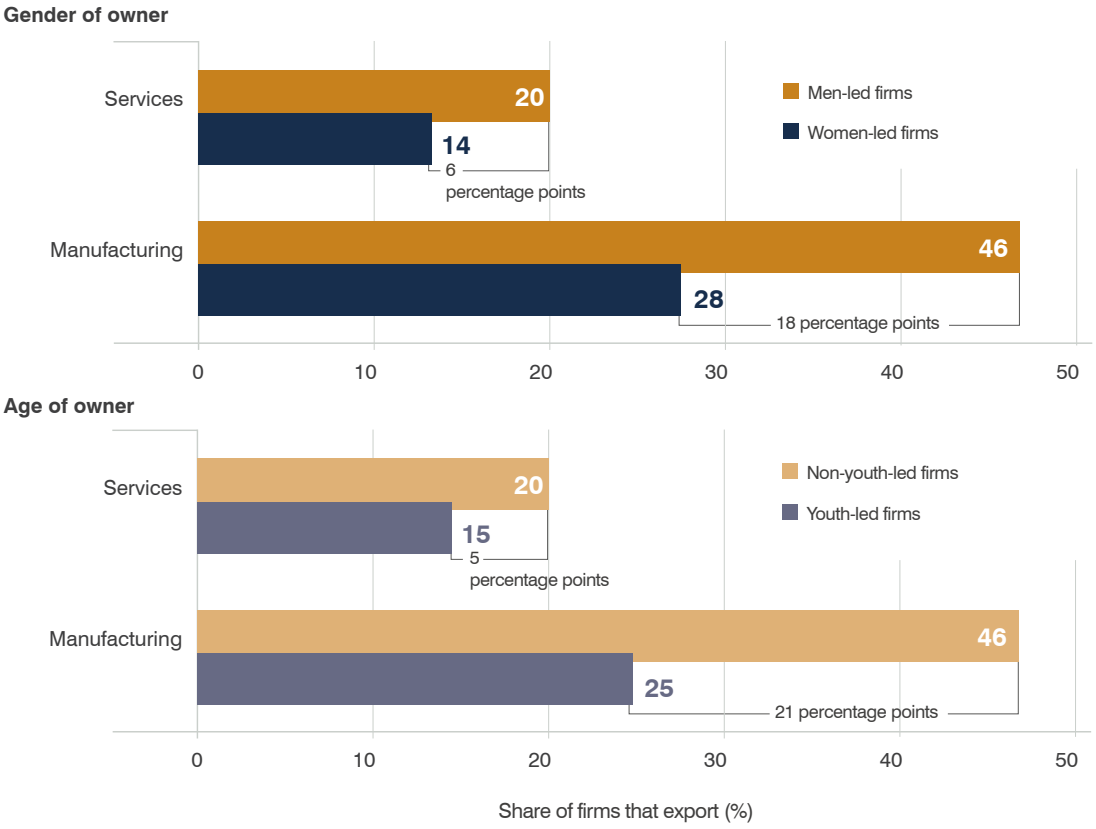
Young entrepreneurs and women-led firms in services are more likely to participate in trade than similar firms in manufacturing.

While women-led firms are disadvantaged in manufacturing, this is often not the case in services. The performance of women-led services firms is very similar to that of men-led firms in most aspects. The same cannot be said of the manufacturing sector, where women-led firms underperform in most aspects of competitiveness.

Young entrepreneurs have a strong presence among services start-ups. The services sector appears to be more attractive to young entrepreneurs than manufacturing, probably due to ease of access and low capital requirements. Indeed, 16% of the services businesses surveyed by ITC in the services sector are run by young people, compared with 10% in the manufacturing sector.

The gap in trade participation, while still present, is smaller for women-led and youth-led services firms than manufacturing ones. The gap between exporting and domestic women-led firms is only six percentage points in services. In manufacturing, the difference is three times as much. For youth-led firms, the export gap is five percentage points in services, but four times higher in manufacturing.

Gender and age barriers easier to overcome in services exports



Source: ITC, based on ITC SME Competitiveness Surveys.

How to boost connected services competitiveness?

With many domestic services firms so close to export readiness, it may be relatively easier to push them over the edge into trade. One way is to improve the competitiveness of connected services, on which many of them depend.

To compete, connected services must focus on four critical areas: networks, innovation, skills, finance.

This report highlights four competencies that are often lacking, but are critical to the competitiveness of connected services. These are the ability to:

- Grow networks
- Innovate
- Deepen skills
- Leverage finance

Many aspects of these competitiveness shortcomings can be addressed by **connected services firms**. Measures for firms to adopt include:

- Network to learn and upgrade
  Craft trust-based, long-term relationships with buyers, in a way that enables the firm to learn and improve its service offering.
- Invest in research, certification and customization
  Customize services to meet the needs of buyers, invest in research and development, and develop unique products.
- Set up formal hiring and training
  Establish formal hiring processes and training practices to identify and nurture workers with the right set of skills.
- Improve financial management
  Enhance financial management practices and develop the capacity to approach funding entities with a compelling business plan.

Whether firms can access good connected services also depends on factors outside their control. Business support organizations and governments play a critical role in strengthening access to competitive connected services.

Business support organizations – trade and investment promotion organizations, chambers of commerce and sector associations – stimulate key links in the business ecosystem for connected services. They can:

- Build online networks and services coalitions
  Connect services companies, including by using platforms and coalitions as additional tools to link small businesses to connected services providers.
- Create spaces for innovation and collaboration
  Provide spaces such as incubators and accelerators where tech and entrepreneurship community members assemble in a network of connected services firms that exchange ideas, innovation and input.
- Improve digital skills of SMEs
  Provide courses on advanced skills in digital entrepreneurship and cybersecurity to small business managers and staff.
- Facilitate exchange of information between businesses and financial institutions
  Collaborate with financial institutions to use SME electronic transaction records on e-commerce platforms as proof of their capacity to repay loans.

Governments also have a role to play. ICT, transport and logistic companies often cited technical requirements, taxation, movement of natural persons and quality control measures as the most burdensome barriers to trade, according to ITC Non-Tariff Measures Business Surveys in a handful of countries.

As digital technology rapidly transforms the services sector, new regulatory challenges emerge.

Issues such as data flow and privacy, competition, digital taxation and intellectual property protection have become vital, and require enabling regulation for small firms in connected services to operate and flourish.

The top four things that **governments** can do to improve connected services for SME competitiveness are:

- Promote fair and inclusive networks
  Regulate platforms to safeguard fair competition and promote equitable treatment of SMEs. Ensure data regulations are not too cumbersome for small businesses.
- Create an environment for ideas to flourish
  Align technical regulations and standards with those used by trading partners to support the free flow of technologies, ideas and innovations.
- Increase access to technical skills
  Provide financial support to domestic connected services companies to build capacity, fund scholarships in these sectors and facilitate the short-term movement of connected services providers across borders.
- Facilitate investment and online finance
  Create regulatory frameworks for electronic transactions, data protection and privacy, taxation of digital services, competition and digital intellectual property protection.

The *Connected Services, Competitive Businesses Plan* summarizes the top actions that firms, business support organizations and governments can take to improve the quality of, and access to, connected services for SME competitiveness.

The Connected Services, Competitive Businesses Plan

	CONNECTED SERVICES FIRMS	BUSINESS SUPPORT ORGANIZATIONS	GOVERNMENTS	
			Domestic actions	International actions
GROW NETWORKS	Build networks to learn and upgrade	Build online networks and services coalitions	Promote fair competition, especially on digital platforms	Balance privacy protection and competitiveness concerns in data regulations
INNOVATE	Invest in research, certification and customization	Create spaces for innovation and collaboration	Protect intellectual property while enabling innovative activities	Harmonize technical standards
DEEPEN SKILLS	Establish formal hiring processes and skills training	Improve digital skills of SMEs	Train workforce in the skills of the future	Facilitate labour movement across borders
LEVERAGE FINANCE	Improve financial management	Facilitate exchange of information between businesses and financial institutions	Create frameworks for online payments and alternative finance	Encourage foreign direct investment

Policies and solutions are needed to turn the potential of connected services into a reality.

This report shows that connected services are emerging as a powerful force for economic transformation. Connected services are poised to help SMEs take part in this change, by giving them the inputs they need to be competitive. By connecting SMEs to market trends shaping the global economy, companies in the business and professional services, ICT, transport and logistics, and finance sectors can encourage inclusion of small firms in trade. Governments, business support organizations and connected services firms must implement policies and find solutions that turn this promise into a reality.

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Connected services, competitive businesses

CHAPTER 1

The era of small services firms

This report argues it is time for governments to focus on services, and especially connected services.

Today, services account for most productive activity and are transforming national economies.

As recently as 2019, services generated about two-thirds of economic output globally and created most jobs.[1] They proved indispensable – though not immune from disruption – during the pandemic and recent economic and trade turmoil.

Economic thinking and policy have been slow to catch up. Governments focus on industrialization and goods trade. This is because, from a long-term perspective, the rise of services is recent. For their first few millennia on the planet, humans lived off the land. After the Industrial Revolution, advances in manufacturing drove economic transformation and improvements in welfare, and we still see their impact.

Yet today, it's services firms that are on the rise, and driving transformation. Most services enterprises are small. Entry costs are generally lower than in other sectors. Compared with manufacturing, it is easier to be small and export in services. Where small services firms are competitive and export, they contribute to development and economic transformation.

Sustaining competitiveness of these services firms is not guaranteed. ITC research shows that many small services firms currently lack the capacity to connect and change in response to dynamic market forces.

Services drive transformation

Services have been historically portrayed as an economic leftover.[2] Agriculture employed the masses, manufacturing drove growth, and services were viewed as providers of basic activities and public utilities. Influential economic development models depicted structural transformation as the movement of workers from agriculture to industry,[3] with services largely missing from the story.

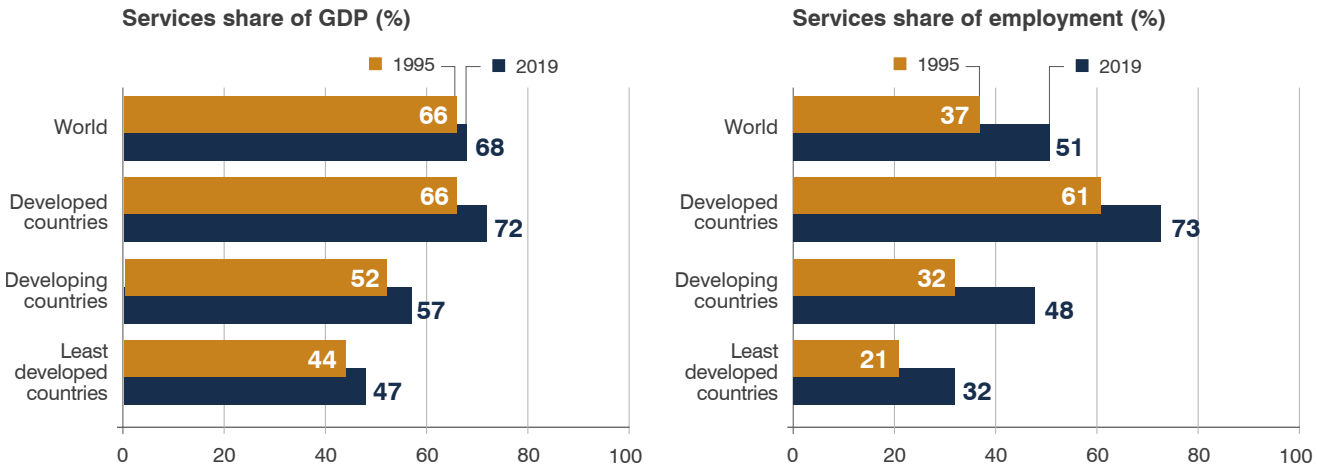
The last half-century changed this picture. Services account for the largest share of output and jobs. In addition, the resilience of services firms has been critical to the survival of other companies, and the recent pandemic accentuated this role.

Most output and jobs come from services

Since the early 1990s, the relative contribution of the services sector to gross domestic product (GDP) and employment has risen steadily, while that of manufacturing and agriculture has decreased.[4] The services sector grew relatively faster than manufacturing and agriculture, accounting for the largest share of the global economy in terms of GDP (68%) and employment (51%) in 2019 (Figure 1).

The wealthier the country, the higher the GDP contribution of services. In developed countries, services accounted for 72% of GDP in 2019 – up from 66% in 1995. In developing and least developed countries, the share was lower, at 57% and 47% respectively – but still higher than in the mid-1990s. This increase partly reflects urbanization, which expands and deepens services demand.[5] As the largest sector across all income levels, services are important for domestic economies.

FIGURE 1 Services: Growing share of GDP and employment



Source: ITC, based on World Bank World Development Indicators (WDI) and International Labour Organization Statistics (ILOSTAT).

Services jobs account for nearly three-fourths of employment in developed countries, almost half in developing countries and one-third in least developed countries. Growth in services employment has occurred across countries of all income levels.

In developed countries, jobs created in the services sector have more than offset the employment decline in agriculture.[6] Services jobs also have replaced some lost factory positions. In developing countries, significant services job growth, as well as some manufacturing job creation, has compensated the steep decline in farming jobs.[7]

In developing countries, the shift from agriculture to services is marked. Belying predictions of traditional development models, workers often have moved from farming to services, not industry. A significant share of the newly employed are in services rather than agriculture.[8]

As the sector absorbed new entrants over the years, it became more inclusive. In finance and business services, for example, women account for roughly 44% of employment, compared with 37% in manufacturing, in a sample of developing countries.[9] The participation of women in services has increased over the past few decades, while that in agriculture has declined.

In developed countries, some two-thirds of employed women were in services in 2017, compared with 45% in 1991. In developing countries, 38% of employed women were in services in 2017, compared with 25% in 1991.[10]

Youth entrepreneurs proliferate among services start-ups in Africa, while rural emigrants have found employment in informal services enterprises in cities. Although most jobs in informal companies cannot be considered 'decent work,' they may help alleviate poverty and be a first step towards better, formal employment.

Services are changing economies

The services sector was the main driver of GDP growth in more than three-quarters of countries in 2019 (Figure 2). What's more, services sector growth has led to optimism about its role in spurring transformation.

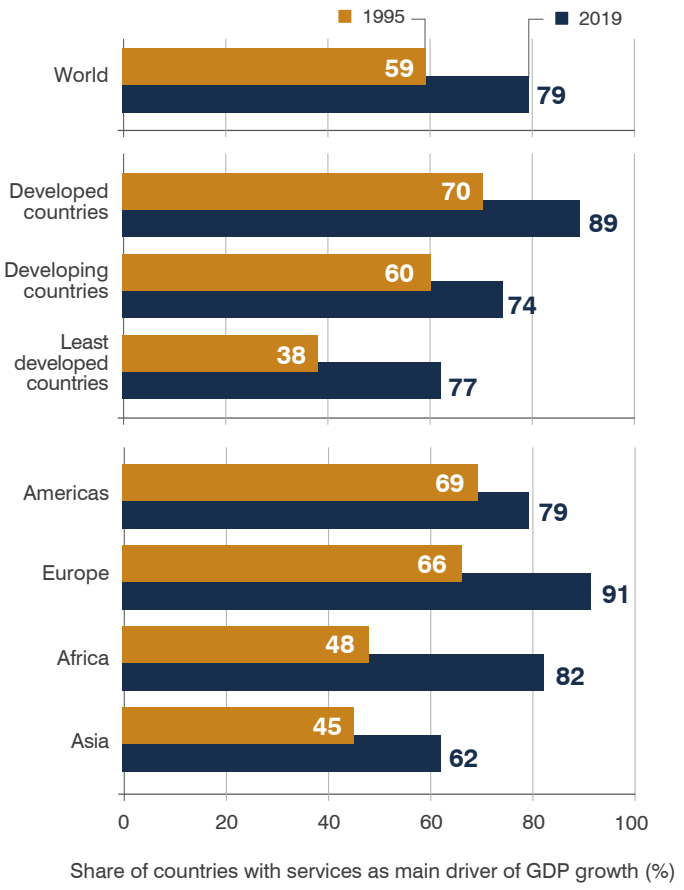
Economic transformation – a process fundamental to development – takes place when a country dedicates more resources to higher value-added activities. This spurs a shift in the structure of the economy towards sectors and activities that have produced higher rates of growth.

Countries that led the Industrial Revolution transformed their economies by moving workers and capital into factories. More recently, East Asia's growth miracle coincided with the rapid growth of industries, reinforcing the manufacturing and export-led development model.[11]

Yet developing countries in the past three decades have not generally conformed to this pattern. First, the largest shares of global manufacturing exports seem firmly entrenched in a few developed and emerging economies.[12] Second, what was so transformative about manufacturing in Europe and East Asia is reflected in some services, referred to as 'industries without smokestacks.'[13] Thus, services growth is leading to a reassessment of what drives economic transformation in the 21st century.

Like manufacturing, services can be highly productive, tradable and feed into the rest of the economy.

FIGURE 2 Services: Driving growth in most countries



Source: ITC, based on World Bank World Development Indicators (WDI).

Note: A country is considered to have services as the main driver of GDP growth if the contribution of the services sector to real GDP growth is larger than the contribution of the manufacturing and primary sectors. See Annex I for details.

However, many services lack other aspects of manufacturing, such as economies of scale, innovation and the ability to absorb large amounts of low-skilled labour.[14]

As countries develop, they usually experience two waves of services growth. Initially, households outsource tasks such as preparing food, cleaning and repairs to low-skilled, low-value-added enterprises. Later, as companies develop and focus on their core value proposition, they outsource tasks such as accounting, logistics and communication.

In the 20th century, the two waves occurred decades apart. Recently, they have come within years of one another,[15] and services are overtaking manufacturing earlier in the development process.[16]

Indeed, the jump in the role of the services sector in least developed countries (LDCs) has been pronounced. The share of LDCs in which the services sector was the main engine of economic growth more than doubled from 38% in 1995 to 77% in 2019.[17]

Two LDC examples are Bhutan and Zambia. The Bhutanese economy has moved from agriculture toward services.[18] Agriculture decreased from 28% of GDP in value-added terms in 1995 to 16% in 2019. Services made up 43% of GDP in 2019, up from 34% in 1995.[19]

In Zambia, there has been a similar transformation.[20] In 1990, agriculture and services made up 38% and 22% of GDP, respectively. In 2019, agriculture's contribution to GDP fell to 23%, and services rose to 52%.[21]

Real benefits from services trade

Services that used to be offered only locally are now traded internationally, thanks to digital technologies. Retail, education and even legal services can be provided across borders via the internet. This has contributed to a boom in trade flows of services.

The value of services trade[22] almost doubled from 2005 to 2019,[23] and volume increased 5.4% annually between 2005 and 2017.[24] Services trade grew from about 8% of GDP in 1990 to 14% in 2019.[25] The share of developing countries in services trade rose to 32% in 2019 from 25% in 2005.[26] Two economies, China and India, accounted for 27% of developing countries' services trade.[27] Between 2005 and 2019, LDCs also increased their share in global services exports, but it remained low, at 0.7%.[28] Their share in services imports was similarly about 1%.[29]

Trade in services corresponds to about a third (32%) of world trade. However, when services inputs into traded goods are taken into account – by measuring the value they add to the final product – the share of services in world trade is considerably higher. Services value added accounted for nearly half (45%) of the value of total trade in 2018.[30] This disparity reflects growth in hidden, or 'embodied,' services exports, due to the servicification of value chains.

There are several ways that trade in services benefits countries.

As they are essential to value chains, services help diversify exports and broaden the ways in which countries earn foreign exchange.[31] Domestic services providers in financing, wholesaling and other sectors add value to local industries that export. This services-led diversification allows the exporting country to cushion itself from shocks from any individual industry or destination.[32]

Furthermore, increased services exports can reduce income inequality.[33] A possible explanation is that when automation displaces low-paid manufacturing workers, they move into services where digital technologies have made labour more productive, instead of replacing it.[34]

Reskilling workers for new services jobs also leads to better jobs. [35] These investments in digital and human capital help workers enter the services sector with higher pay than before.

Imports of services play an equally important role, as they improve access to high-quality, varied and cheaper services.[36] Intermediate services inputs can be sourced overseas when they are difficult to find, costly or lower quality at home. They also can spur the rise of export clusters, notably in knowledge-based activities. However, most services inputs into exports of goods and services originate domestically due, in part, to regulatory barriers.[37]

Services attract foreign direct investment

Services absorb a growing proportion of foreign direct investment (FDI). Services today account for about two-thirds of the global FDI stock, compared with only one-quarter in the 1970s.[38] These investments are concentrated in sectors such as finance, business, retail and wholesale trade, and telecommunications.

FDI is significant for services trade. Some services cannot be provided across borders, so companies establish a commercial presence in the target country by investing in a subsidiary. This local presence also helps them meet some regulatory requirements.

Such FDI-enabled commercial presence, known in trade terms as Mode 3 (Box 1), dominates services exchange globally, representing almost two-thirds of trade in services in 2017 (Figure 3).[39] Investment by a parent company to create an overseas subsidiary, or greenfield FDI, appears particularly appealing to investors in services. In 2020, 66% of the value of greenfield investment in African countries was in services. This proportion reached 92% in small island developing states (SIDS).[40]

Least developed countries tend to export services through cross-border supply (Mode 1) and consumption abroad (Mode 2). This is because tourism, an in-person activity, is by far the most important export sector for many LDCs, and the only services sector in which the group's share of global exports exceeds 1%.[41] The share of their services exports from consumption abroad is at least twice as large as in most developing economies and five times larger than in developed economies.[42]

Pandemic affected services differently

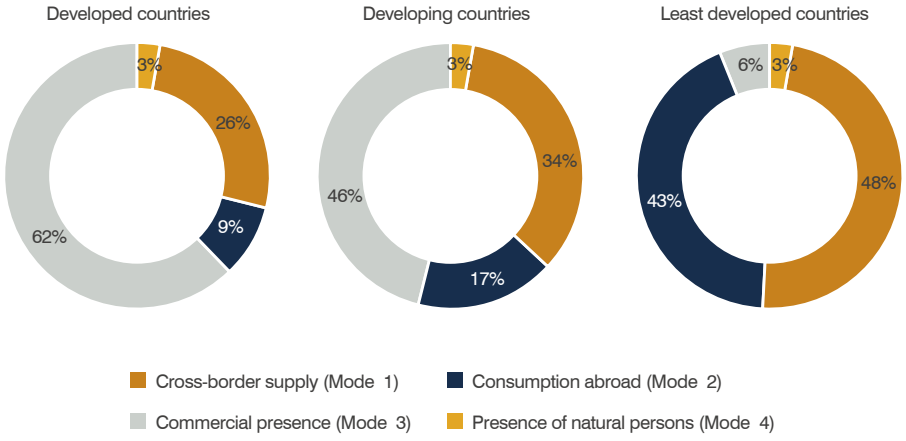
Services were especially affected by the pandemic, particularly those not able to deliver remotely.

The global ITC COVID-19 Business Impact Survey shows that the pandemic affected virtually all companies (98%), with a majority (55%) stating they were strongly affected.

Companies operating in services were more exposed. Three of five reported their business operations were strongly affected, compared with half of non-services companies. Two in five services firms (40%) risked shutting down permanently due to COVID-19, six percentage points more than others.

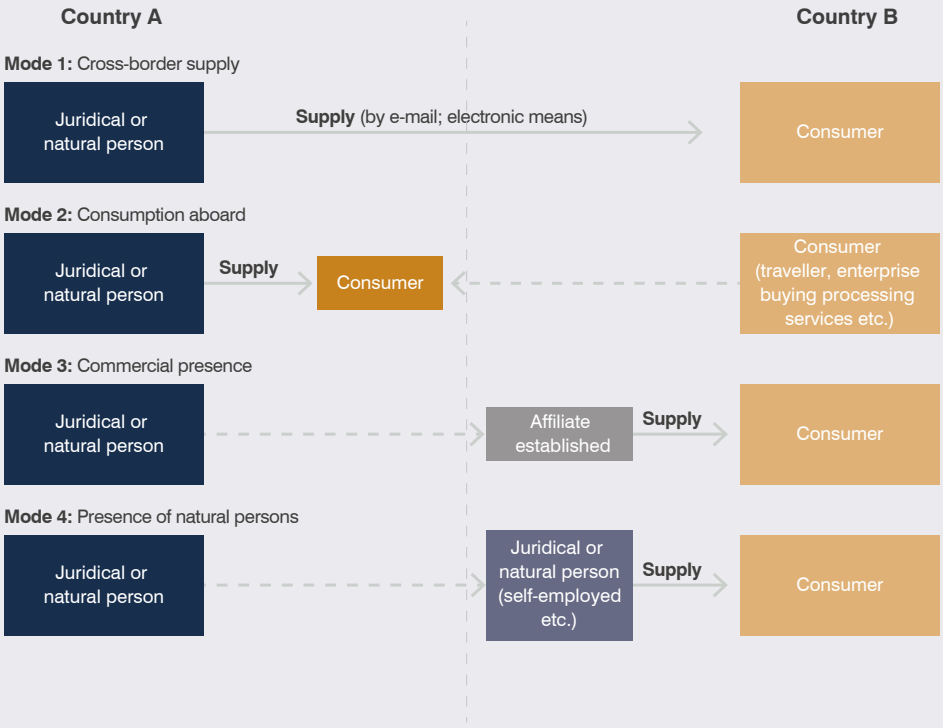
Trade data also show a stronger negative impact on services. Global merchandise trade fell by 8% in 2020, whereas trade in commercial services fell by 21%, almost three times as much.[43] This is true in LDCs as well, where goods exports decreased by 12%, while commercial services fell by 35% in 2020.[44]

FIGURE 3 Modes of supply vary by development level



Source: ITC, based on Trade in Services data by Mode of Supply (TiSMos), 2017.

BOX 1: Trade in services – Four modes of supply



Source: Eurostat, 2019.

The different ways through which services can be traded internationally are referred to as 'modes of supply.' The World Trade Organization's General Agreement on Trade in Services categorizes services trade according to four modes of supply:

- **Mode 1: Cross-border supply.** A provider delivers services to a customer in another country without any movement of persons or commercial presence. This mode includes digital delivery to a customer abroad.
- **Mode 2: Consumption abroad.** The customer obtains services after traveling to the provider's country. This mode includes services provided to foreign tourists as well as for medical tourism and students studying abroad.
- **Mode 3: Commercial presence.** These are services provided through commercial presence in the consumer's country, such as through foreign direct investment that establishes a local subsidiary or affiliate company.
- **Mode 4: Presence of natural persons.** Under this mode, services delivery involves the temporary presence of a services provider (an employee or the business owner) in the consumer's country.

Source: WTO, 2019.

These figures mask differences across services subsectors. Services that struggled most were those unable to switch to remote delivery. Passenger transport fell by 44% in 2020. Trade in construction, and personal, cultural and recreational services fell by 18% and 14%, respectively.[45] Accommodation and food services also suffered, with three out of four firms strongly affected by the crisis.[46]

Sectors with fewer face-to-face interactions did better. Trade in information and communication technologies (ICT) and financial services, for instance, grew by about 4% in 2020.[47]

The crisis showed that concentrating on a narrow range of exports can make economies very vulnerable to shocks. Countries with a high pre-COVID dependency on tourism, such as SIDS, experienced especially strong downturns in 2020.[48]

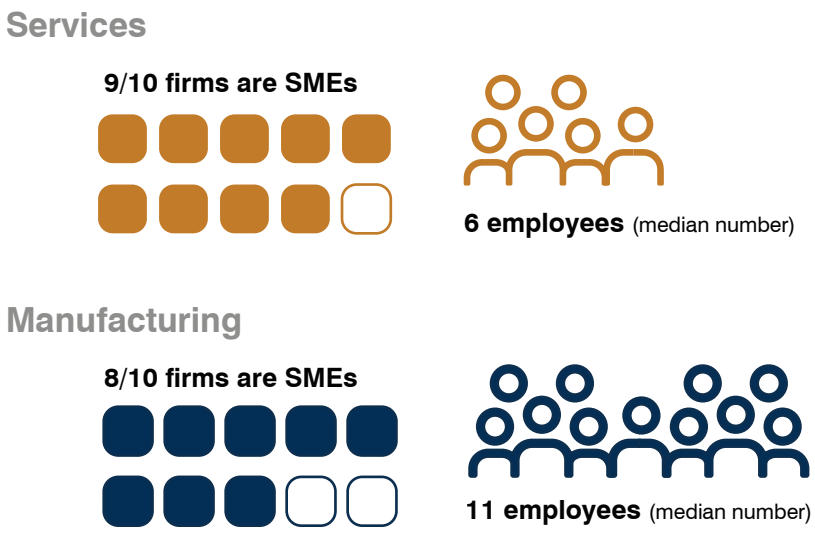
Two years on, persistent supply chain disruptions and the conflict in Ukraine affect growth. Merchandise trade was rising above pre-pandemic levels in 2021 and even services trade was on a tentative road to recovery, with some services leading the way.[49] However, sanctions on Russian businesses and individuals are likely to have a strong effect on trade in commercial services.[50]

Leveraging opportunities in services

Services provide exciting opportunities for small businesses. Already, small businesses are prevalent in the services sector. Although large utilities and telecom companies have a higher profile, ITC estimates that nine out of 10 services enterprises globally have fewer than 100 employees.[51] This compares with eight out of 10 companies in the manufacturing sector. Small informal firms account for most services SMEs in developing countries, and these tend to be smaller and less productive.[52]

Small services companies are often even smaller than those in manufacturing. Based on ITC's database, the median services company has six employees, whereas the median manufacturing firm has eleven (Figure 4). Manufacturing firm size reflects the benefits of scale, which are less relevant in services. However, median firm size varies across services subsectors.[53] In the ITC database, business services firms most often have six employees, while the typical finance company size is 15 employees.

FIGURE 4 Services firms are smaller



Source: ITC, based on ITC SME Competitiveness Surveys.

Alejandro Vega

CEO, Huli, Costa Rica

Think international from day one

This health tech company offers services that connect patients, doctors and other healthcare providers. Founded and headquartered in Costa Rica, it quickly outgrew its home market and now serves clients in five Latin American countries.

'My company helps link an entire business ecosystem. Our platform connects doctors with existing and prospective patients, pharmacies and pharmaceutical companies.

Our software also helps doctors manage the workflow of their clinics. It facilitates patient appointments by allowing doctors to access their patients' medical history digitally, which can speed up the diagnostic process. During the pandemic, we integrated video consultations into our software, smoothing the shift to telemedicine.

It was not easy to get where we are today, but being a services company gave us some advantages. When I first started in 2012 it was just me and two others, working out of my mother's garage. Being small was not an issue, because we had to invest less capital upfront compared with a manufacturing business.

We also were not discouraged from thinking big. Quite the opposite. Being based in a small country such as Costa Rica, we had to look for larger markets from day one to be financially viable.

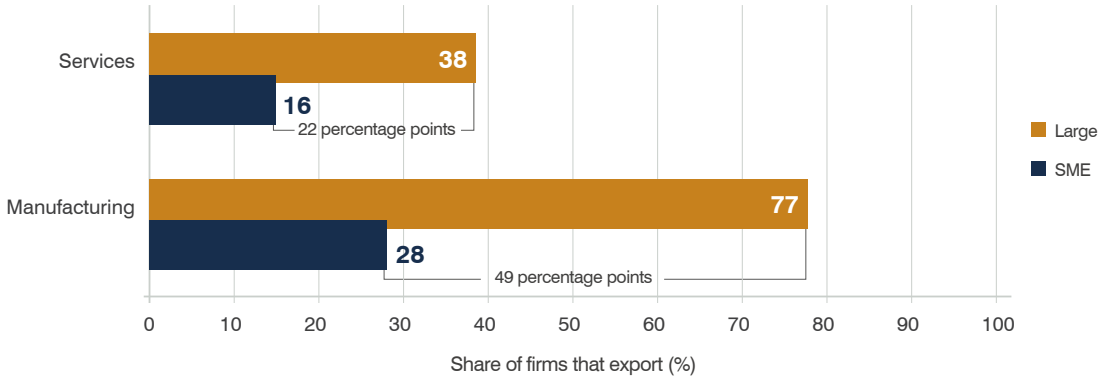
Investors are primarily interested in large markets: if you are only serving a small customer base, you are simply not attractive to investors. However, if you can prove yourself in a larger market, you improve your chances with investment funds and venture capital. These funding sources are especially important for software companies, which tend to be unprofitable at first, making it almost impossible to obtain conventional loans.

But expanding internationally is not easy. It is difficult to understand the nuances of each market and to adjust commercial strategy accordingly. Nonetheless, we managed, and are now selling our software in five Latin American countries and employing more than 100 people, having raised $5 million.

The Costa Rican Foreign Trade Promotion Agency (PROCOMER) was of great help when we first entered Mexico, a very big and competitive market. They assisted with understanding the market and getting the paperwork right. They even introduced us to our first large customers there. Engaging with business support organizations like PROCOMER can really propel your business forward.'

Huli was supported in their internationalization efforts by PROCOMER, one of the winners of the 2020 World Trade Promotion Organizations awards, organized by the International Trade Centre.

FIGURE 5 Export gap smaller in services



Source: ITC, based on ITC SME Competitiveness Surveys.

Small services firms closer to exporting

The economic potential of small services firms is evident if success is defined as the ability to export. Generally, services firms are less likely to export than those in manufacturing (Figure 5). Small services firms, however, are at less of a disadvantage in exporting that small manufacturing firms.

The export gap between SMEs and large firms is twice as large in manufacturing than in services. Specifically, small and medium-sized enterprises are 49 percentage points less likely to export than large firms in the manufacturing sector. In services, though, SMEs are only 22 percentage points less likely to export than large firms.

Exporting also seems feasible early in the lifecycle of a services firm. Services SMEs start exporting more quickly – on average two years earlier – than manufacturing SMEs.[54] As noted by the CEO of Huli in this chapter's *Business Voices*, small services firms should think international from day one, especially if they are based in economies with small domestic markets.

Exporting firms are at the cutting edge of competitiveness. ITC's competitiveness framework and data show that purely domestic manufacturing companies fall drastically short of the performance of their exporting peers in virtually all aspects of competitiveness. Yet, the competitive shortfall of domestic firms is much smaller in services (Figure 6).

Domestic services firms perform worse than services exporters in just a few aspects of competitiveness: connecting to buyers and institutions, certification and innovation. This means that a domestic services firm needs to improve fewer aspects of its business operations to start exporting, compared to a domestic manufacturing firm.

Even where domestic services firms fall short compared to their exporting peers, the shortfall is less deep than in manufacturing (Figure 7). For example, in manufacturing, non-exporters are 21 percentage points less likely to be certified to an international standard than exporters. In contrast, the gap in the services sector is only seven percentage points, or three times smaller.

Certification schemes in manufacturing and services are admittedly quite different. In manufacturing, firms may need to certify product compliance with a technical standard. In services, it is more common for 'certification' to license the firm to offer a certain service. An example is a global ICT company that certifies a software firm to service its products.

Still, international certification in services and manufacturing signals the capacity to meet international quality levels. In services, this reassures customers, including domestic ones, of reliability. Many services firms thus opt to get certified even if they do not export. If later they seek to export, their certification makes the process easier.

Domestic manufacturing firms have fewer incentives to adopt international best practices. When they mature and decide to export, they may have to alter their production processes to obtain certification. This is why certified services companies may find it easier to move into exports than manufacturing firms, which often do not hold certifications prior to venturing into international markets.

BOX 2: Measuring performance – Productivity versus competitiveness

Economists usually assess enterprises by measuring their productivity. Labour productivity is how much output one worker produces, all else being equal. Total factor productivity is how much output is generated for a given amount of labour, capital and other inputs.

Analysing productivity is helpful. Differing rates of productivity account for half of the difference in GDP per capita across countries.

Productivity as a performance measure has limits

Using productivity to leverage change in services SMEs has its limits, however.

Productivity in services firms is difficult to measure, and even more so in developing countries. It is hard to measure output in services, which are intangible. Moreover, services are often assessed by customer satisfaction (when data are available), which tends to be very subjective.

Tracking how many problems have been solved, or how much more value has been added to a services process, can be challenging. Good-quality services data are often inexistent, insufficient or incomparable.

Even when one can measure productivity, differences between firms often cannot be explained. As a result, knowing that a firm has low productivity provides few insights into how to improve it.

Competitiveness as a performance measure can better pinpoint action

Compared to productivity, competitiveness is a broader concept. ITC defines competitiveness as *'the demonstrated ability to design, produce and commercialize an offer that fully, uniquely and continuously fulfils the needs of targeted market segments. The firms connect with and draw resources from the business environment, and achieve a sustainable return on the resources employed.'*

Competitiveness connects to business and economic research, which links performance to enterprise and country success in local and global markets. As competitiveness is multidimensional in nature, this approach highlights strengths, weaknesses and opportunities for action.

This report, therefore, uses competitiveness as a key measure of performance. ITC's competitiveness framework identifies factors, classed under three pillars, that influence a firm's capacity to be competitive at home and abroad. In these three pillars:

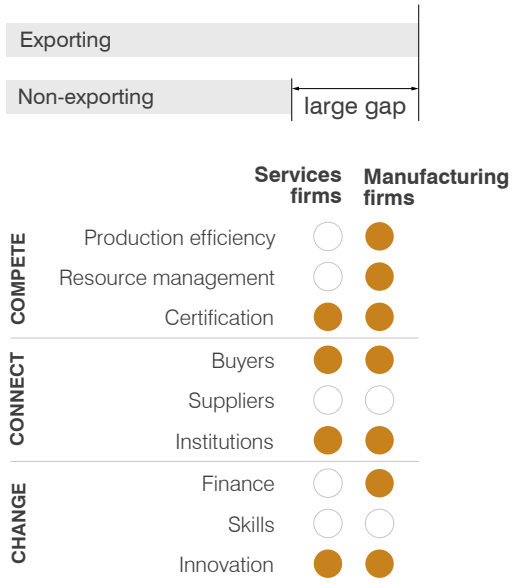
- The capacity to compete reflects the static dimension of competitiveness. This is the firm's ability to deliver output of appropriate quantity, timeliness, quality and cost to meet current market expectations.
- The capacity to connect is the ability of an enterprise to build strong links with buyers, suppliers and support organizations in the business ecosystem that promote successful operations and growth.
- Finally, the capacity to change is the dynamic aspect of competitiveness, which captures the ability of enterprises to innovate and adapt to new market trends and remain competitive.

Through its SME Competitiveness Surveys, ITC has interviewed thousands of firms in more than 50 countries since 2015, using its competitiveness framework to identify strengths and weaknesses in firms and their business ecosystem. The vast majority (90%) of firms surveyed are small and medium-sized enterprises with fewer than 100 employees, but the surveys also include a few large firms to provide a wider picture and allow for comparisons.

The analysis in this chapter is based on a subset of firms, for which full and comparable data are available. It includes 5,504 companies – 2,777 in services, 1,781 in manufacturing and 946 in agriculture – in 16 countries.

Source: Falciola et al., 2020; ITC, 2015.

FIGURE 6 Domestic services firms more export ready



Source: ITC, based on ITC SME Competitiveness Surveys.

Note: This figure focuses on competitiveness at the level of firm capabilities. Themes in which non-exporting firms significantly lag exporting firms are coloured. A significant lag is defined as a difference of more than six percentage points in the average across questions included in each theme. See Annex I for details.

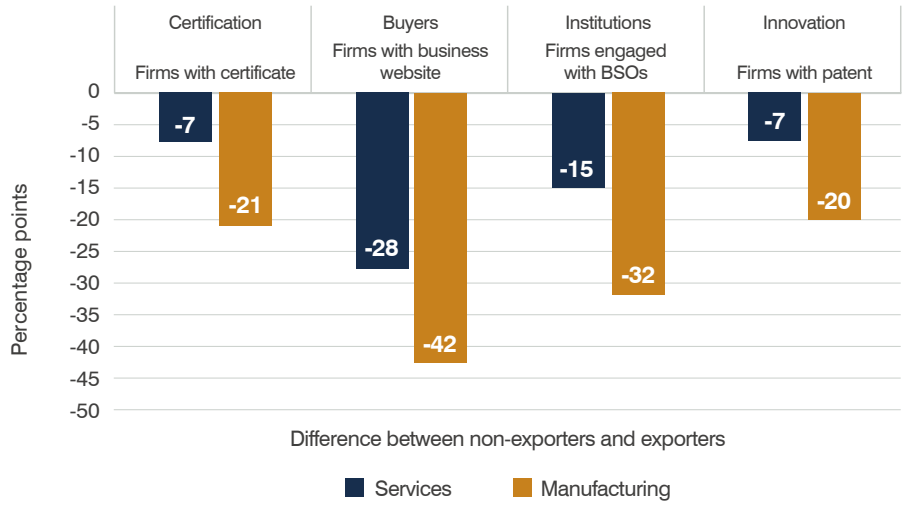
Another area where the difference is less stark in services than manufacturing is online presence. Non-exporters are 42 percentage points less likely to have a website than exporters in the manufacturing sector, compared with 28 percentage points for services firms.

When it comes to linking with business support organizations (BSOs) and getting a patent on innovative processes and products, the situation is similar. In manufacturing, companies that do not export are much less likely to engage with BSOs or have a patent than exporters.

The competitiveness threshold for exporting is often higher in manufacturing. For example, 76% of exporting manufacturing firms have a website, compared with 67% of exporting services firms.

Still, domestic services firms require fewer steps to be export ready. A few improvements in the firm's capacity may help it to start exporting. This is good news, particularly as trade costs tend to be higher in services than in manufacturing.[55] Boosting the competitiveness of services SMEs may mitigate the impact of the trade barriers they so often face.[56]

FIGURE 7 Services closer to export competitiveness



Source: ITC, based on ITC SME Competitiveness Surveys.

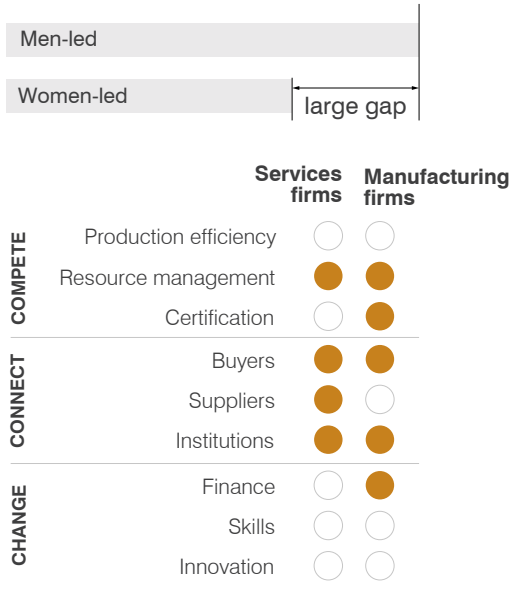
Women and youth-led services firms are strong

While women-led firms are disadvantaged in manufacturing, this is often not the case in services. The performance of women-led services firms is very similar to that of men-led firms in most aspects (Figure 8). The same cannot be said of the manufacturing sector, where women-led firms underperform in most aspects of competitiveness.

Women-led firms perform similarly to men-led firms when it relates to quality, for example. About 43% of women-led firms are certified to an international standard in the services sector, the same share as men-led firms. In manufacturing, fewer women-led firms are certified to an international standard: their certification rate falls 10 percentage points short of that for male entrepreneurs.

The gap in trade participation, while still present, is smaller for women-led services than in manufacturing. About 14% of women-led services firms export, compared with 20% of men-led services firms. In manufacturing, the difference was three times as big: 28% of women-led firms export, compared with 46% of men-led firms (Figure 9).

FIGURE 8 Services firms: Women and men-led firms have similar competitiveness



Source: ITC, based on ITC SME Competitiveness Surveys.

Note: This figure focuses on competitiveness at the level of firm capabilities. Themes in which women-led firms significantly lag men-led firms are coloured. A significant lag is defined as a difference of more than six percentage points in the average across questions included in each theme. See Annex I for details.

Yet female services entrepreneurs still face barriers to business creation, growth and internationalization. Traditional gender roles mean that women-led firms account for a minority of companies in the services sector. According to data from the ITC SME Competitiveness Survey, 19% of services firms in developing countries are women-led, similar to other sectors.

The limited presence of women-led firms in services exports is surprising at first glance, given that these firms appear just as competitive as men-led ones. However, women face exclusion from networks that govern business creation, access to value chain upgrading and lucrative services export markets.[57] Women-led services firms lag male-led ones in all factors related to connectedness.

Socially determined barriers often keep women-led firms from growing. For example, it helps to have a website. Just 38% of women-led services firms interviewed by ITC had one, compared with 51% of men-led firms. Online tools could ease social barriers to joining business networks, but this requires more female access to internet connectivity and skills.[58]

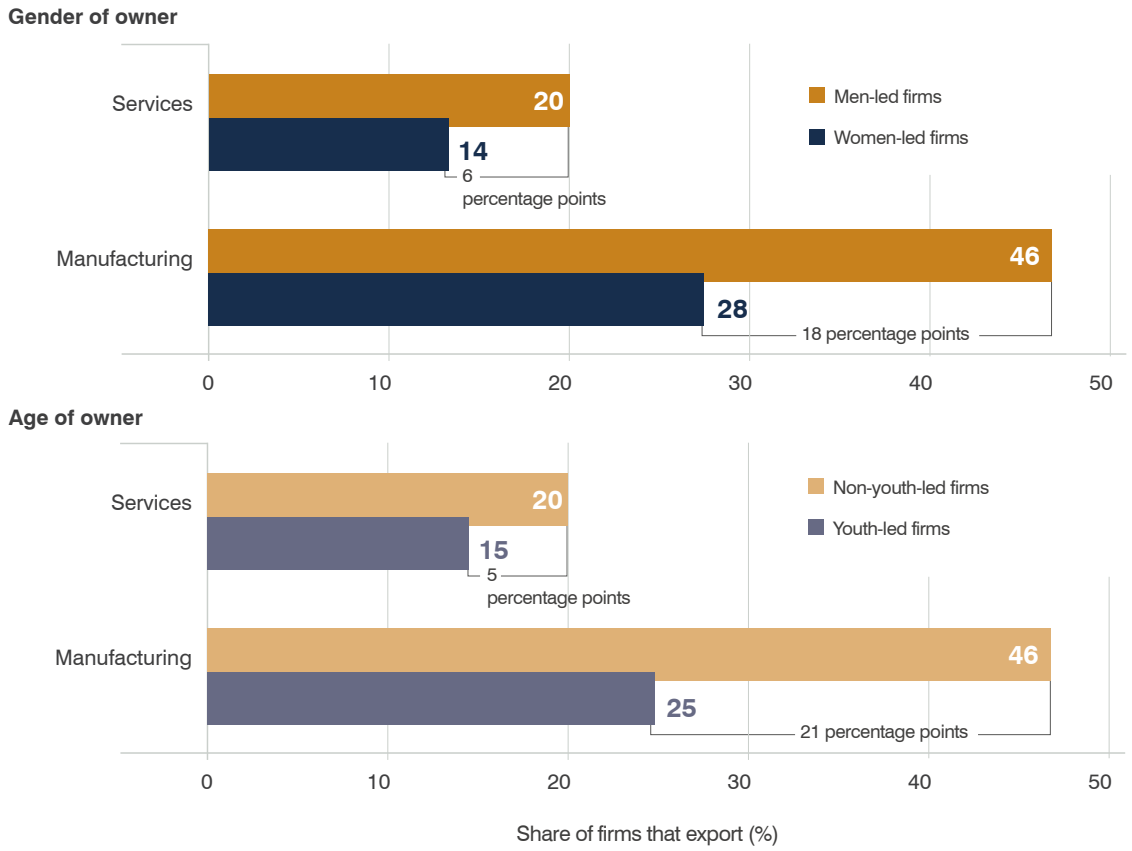
Youth entrepreneurs have a strong presence among services start-ups. Successful start-ups led by people younger than 35 years old can be found in ICT and social and environmental services, for example. The services sector appears to be more attractive to young entrepreneurs than the manufacturing sector, probably due to ease of access and low capital requirements.[59] Indeed, 16% of the businesses surveyed in the services sector are run by young people, compared with 10% in the manufacturing sector.

Youth-led services firms are less likely to export than those led by their elders. Again, the gap is less marked in services. Just 15% of youth-led services firms export, compared with 20% of their elders. In the manufacturing sector, 25% of youth-led firms export, versus 46% of firms not led by young people (Figure 9).

Technology is key for youth-led services businesses. Digital business solutions are vital to success. Without them, they would not be able to operate or would be less efficient.[60] In Togo, for example, 87% of young services entrepreneurs said that new technologies positively affect their business, compared with 70% of firms not led by youth.[61] Born in the digital age, young entrepreneurs are more likely than their elders to leverage technology to expand their businesses.

Yet youth-led services firms perform less well in most aspects of competitiveness than firms led by older people.

FIGURE 9 Gender and age barriers easier to overcome in services exports



Source: ITC, based on ITC SME Competitiveness Surveys.

Youth-led services firms are more likely to face financial obstacles, for example.[62] Unlike their elders, young entrepreneurs do not always have substantial start-up capital or enough access to financial institutions.[63]

Lenders are often reluctant to provide loans to young entrepreneurs, who also may be unable to present a properly structured business plan to encourage financing. In the services sector, for example, only 49% of youth-led enterprises reported being fully capable of presenting a structured business plan to a bank for loan purposes. This compares with 57% of businesses led by older entrepreneurs.

Barriers to entry and growth lower in services

Small services firms are closer to the export competitiveness frontier than manufacturing for three reasons. First, entry barriers tend to be lower. Second, there are fewer benefits of scale. Third, the returns from agility are higher.

Low entry barriers

Agriculture and manufacturing start-ups require significant assets. In Mexico, for example, at least $281 was required to start a manufacturing business, equivalent to 2.6 months of pay for a low-wage worker. In comparison, just $47, or 0.4 months of low wages, was needed for a construction start-up.[64]

A lot of capital is needed to start non-services enterprises. In manufacturing, cash on hand or bank financing is required for machines and initial inputs. Younger and female entrepreneurs, and those with fewer savings, are less likely to have or access the financing required.[65]

A good idea and a good team can be enough to launch a services start-up. Huli, in this chapter's *Business Voices*, started in the garage of the CEO's mother. Financial capital entry requirements are low, as the human, intellectual and social capital needed are intangible.[66] Services firms are less likely than manufacturing companies to cite access to finance as a barrier, though it is not negligible.[67]

Lower entry costs lead to a higher rate of new firm creation for services, compared with manufacturing. More than a quarter of services firms were established five years ago or less, compared with about 19% in manufacturing, according to ITC data. This is in line with findings from the United States in 2010, where some 15% of services workers were employed in a firm operating for less than five years, compared with about 7% in manufacturing.[68] As new firms are relatively small, the abundance of young, small firms makes for a preponderance of SMEs in the services sector.[69]

Small can be profitable

A second reason small services firms are competitive is that size is not necessary for profitability. Fixed production costs are lower in the services sector.[70] Getting bigger does not reduce per-unit production costs as much as in other sectors. Increasing returns to scale found in manufacturing are rarely present in services. This means that large services firms do not necessarily have much of a cost advantage over their smaller rivals.

In addition, high productivity and high wages are possible in the services sector even if the company is small. The relationship between size and productivity, as well as between size and wages, is less strong in services than in manufacturing, where larger firms tend to have higher productivity and wages. Instead, the positive correlation is between productivity and wages, not size.[71]

This can be considered a disadvantage. Investing in the firm does not yield disproportionately high growth. This had been seen as impeding productivity growth potential in services firms.[72] Yet, there is also an advantage: a small investment in a small firm can push it over the threshold into global competitiveness.

Indeed, 95% of the world's so-called 'unicorns,' start-ups valued at over $1 billion, are in services.[73] They foster innovation, often in the knowledge-intensive connected services discussed later in this report.[74] These small businesses are proof that small firms can generate value, when obstacles to competitiveness are removed.

Nonetheless, the digital transition may be creating economies of scale in the services sector.[75] This is because the second factor driving small-firm services success – lower fixed costs for growth – is being attenuated by online tools.

Customers increasingly expect restaurants, hotels, lawyers and other services providers to have a digital presence, which can be costly. Of services exporters interviewed by ITC, 67% had a business website, compared with just 39% of non-exporters. Online reviews reinforce firms with a good reputation. Services firms can leverage online presence to build on previous successes and grow. Large e-commerce firms and big management consultancies are a testament to these new, digitally induced economies of scale in services.[76]

Agility matters

The third factor driving viable services SMEs is their short-term agility. The ability to troubleshoot in response to sudden shifts earns a premium in services. In Nigeria's telecommunications industry, for instance, firms that highly rated their ability to react speedily to market fluctuations performed better in market share and growth.[77]

In services, a rapid shift to diversify or change operational practice is easier and less costly than in manufacturing. Small services firms can swiftly alter the way they provide their service, but small factories cannot alter their machines quickly.

A firm's capacity to react effectively in the short run does not necessarily mean it can adjust to long-term market trends. Because of their size, small firms tend to have a light and flexible management structure and can take decisions quickly. But as they are busy dealing with short-term, day-to-day issues, small firms tend to dedicate fewer resources to anticipate long-term changes and plan for long-term development and growth.

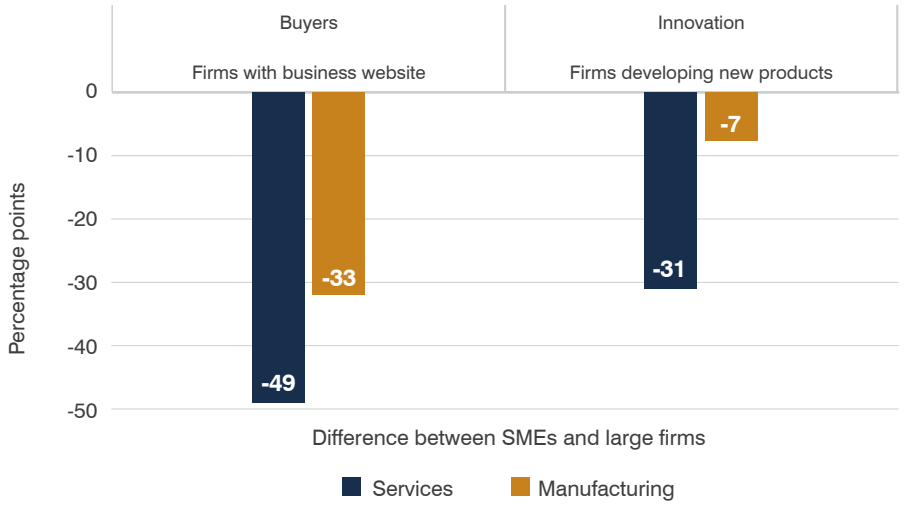
That said, while being small is a disadvantage in most sectors, this is less so in services.

Connect and change to remain competitive

Services SMEs appear able to hold their own in meeting current market demands. Yet they lack critical ingredients that underpin their capacity to connect and change, and thus remain competitive in the future.

When it comes to short-term, static determinants of competitiveness, the gap between SMEs and their larger peers is smaller in services than in manufacturing,

FIGURE 10 Competitiveness gaps: Manufacturing versus services



Source: ITC, based on ITC SME Competitiveness Surveys.

according to data from the ITC SME Competitiveness Survey. Resource management practices, for example, differ little between SMEs and large firms in services. In manufacturing, on the other hand, SMEs fall severely short in coordinating movement of inputs and outputs.

The performance among small services firms is weaker in key areas to build long-term success. Take, for example, the ability to provide information to customers and conduct marketing activities. Having a business website and advertising on social media are handy tools for small firms to reach new buyers and build tomorrow's market share.[78]

Small companies are less likely to have a website than large ones, with the gap wider in services than manufacturing. SMEs are 49 percentage points less likely to have a website than large firms in the services sector, compared with 33 percentage points for manufacturing firms (Figure 10).

Smaller services firms have fewer elements in place for long-term changes to their business model. They do less research and development and craft fewer innovative new processes. That shortfall is more severe in services than in manufacturing. SMEs are 31 percentage points less likely to generate new processes or products than large firms in the services sector, compared with a gap of seven percentage points for manufacturing firms (Figure 10).

To better be able to connect and change, small services firms need to reposition themselves at the cutting edge. Access to digital technologies, and the knowledge of leading firms in value chains, are needed to leverage that change in their market position. Certain key connected services sectors can bring this transformation to small services firms.

THOUGHT LEADER

Using digital technology to foster financial inclusion

H.E. Chipoka Mulenga

Minister of Commerce, Trade and Industry

Zambia

Digital technology in services is helping achieve national, regional and global objectives, such as those covered by the Sustainable Development Goals (SDGs), including financial inclusion.

As services increasingly rely on digital technologies, and as services become embedded in value chains, trade grows and so do economies. The importance of trade in services and related digital products cannot be overemphasized. Many countries rely on services trade for economic development and job creation.

The share of African countries in which the services sector was the main engine of economic growth almost doubled from 48% in 1995 to 82% in 2019. Zambia, which is currently classified as a least developed country (LDC), is no exception. The contribution of services to Zambia's GDP more than doubled from 22% to 52% from 1990 to 2019, surpassing even the key sector of agriculture, which saw its contribution to GDP fall from 38% to 23% over the same period.[1]

Mobile money promotes inclusion

With services produced and traded digitally, more people can access them. For example, most countries are leveraging digital products, such as mobile money services, to promote financial inclusion, or greater access to financial services for those previously excluded.

In Zambia, financial inclusion, or the share of those with adequate access to financial services, increased from 59.3% in 2015 to 69.4% in 2020 largely due to the uptake of mobile money services, according to the Bank of Zambia's 2020 FinScope Survey.[2] Similarly, the volume of mobile money transactions grew by 35% in 2020 compared with a year earlier, from Kwacha (ZMW) 553 million ($34 million) to ZMW747 million ($46 million).[3]

1 Calculations based on World Bank World Development Indicators.
2 (Bank of Zambia, 2020).
3 (Deloitte, 2022).

Connecting small businesses to digital technologies

Digitizing the economy is not an end in itself. It serves to facilitate access to critical and affordable services for individuals, businesses and micro, small and medium-sized enterprises (MSMEs). To scale up financial inclusion, for instance, business support organizations and development partners can explore ways of interfacing mobile money services for MSMEs and informal cross border traders.

Development partners can consider establishing aid initiatives and assistance programmes specialized in finance as part of existing national e-commerce strategies. Such initiatives can promote the integration of simplified financial products that fall outside of traditional banking and encourage implementation of recommendations on e-commerce development contained in country assessments and studies.

Digital platforms and market analysis tools can facilitate financial inclusion by providing investors with information on the market potential of a country or sector. To increase investment flows to MSMEs, development partners can consider linking national trade and investment portals to such platforms and tools. National investment support institutions, such as the Zambia Development Agency, use digital platforms and websites to highlight key investment areas.

Extending digital services to small and informal businesses can help them grow and hence qualify for traditional trade and investment finance products, increasing financial inclusion. In Zambia, 45% of small firms do not participate in the digital economy, but those that are online and digitally engaged grow faster and export more. This matters, as small businesses account for 70% of Zambia's GDP and 88% of employment.[4]

Need to bridge technology gaps

Although digitalization has already contributed to financial inclusion, leveraging its full potential depends on efforts to bridge technological gaps between developed and developing countries, especially LDCs. In addition, convergence in regulations on digital products, transaction and e-commerce is likely to be needed if MSMEs are to be integrated into international value chains.

Despite technology gaps and other challenges, Zambia recognizes the potential of technology to lower the cost of doing business, increase productivity, foster innovation and competitiveness among companies, and promote inclusion.

Zambia is establishing an enabling policy and regulatory framework to provide a solid foundation for digitalization. This is embedded in its Vision 2030 to become a prosperous middle-income country by the year 2030. Closely related to Vision 2030 is the eighth national development plan, which runs from 2022 to 2026. This includes the pursuit of digitalization for economic transformation, job creation and human and social development.

4 (ZambiaInvest, 2017).

CHAPTER 2

Services at the heart of market trends

The services sector is incredibly diverse, grouping together a range of subsectors that play different roles in today's economies.

Two trends are reshaping the economic landscape. First, more value within value chains is coming from services, a phenomenon known as 'servicification.'[79]

Second, digitalization is revolutionizing services delivery and opening trade opportunities. Services firms connect to global markets more easily, eliminating the need for physical proximity in some subsectors. A wider array of services can now be supplied across borders.

Four services subsectors generate greater value within value chains and are more digitally enabled. We call these connected services:

- Business and professional services
- Financial services
- Information and communication technology (ICT)
- Transport and logistics

Connecting through services inputs and digitalization

During the Industrial Revolution, the textiles and clothing industry led economic transformation. It was built on new technologies, such as the cotton gin, and new ways of organizing production, such as the apparel assembly line. With these revolutionary methods, the sector led the way towards modern production. At the same time, by creating mass-produced textiles and clothing, it contributed to other parts of the economy. Stores opened to sell ready-made clothing and workers went out to the factory, liberated from the need to spin cotton at home.

Now, new technologies are digital in nature, and production takes place through international value chains. Four services subsectors – the connected services – are leading the way in these modern economic transitions, much like the textile and clothing industry in the 18th century. To participate and thrive in today's global economy, countries must improve the availability and quality of the services provided by these core sectors.

Two trends shape the services-led economy

Two trends are changing how goods and services are produced, used and commercialized.

The first trend is the increased contribution of services to value chains. Although services were historically sold as final goods, in modern trade, services often add value to exports in other services and non-services sectors. Services provided within companies, and those sourced from specialized firms, account for significant value added in supply chains. For example, goods producers routinely purchase services such as research and design, and sales and marketing. This process is called servicification.[80]

Manufacturing value chains rely on services and agricultural value chains are seeing a similar trend. Transport and logistics services, for instance, are essential to get parts and components delivered to factories on time, and agricultural produce delivered without wastage, which is crucial for smooth operation of agrifood value chains.[81]

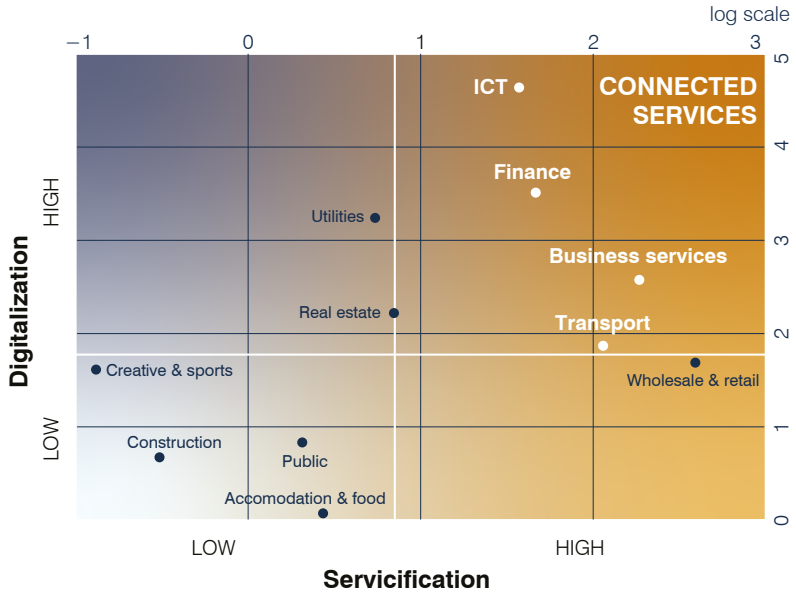
The second trend is digitalization. Firms use digital technologies to gain revenue and value-producing opportunities.[82] Firms with internet access and digital skills can sell online to customers – near or far – instead of using a physical store. COVID-19 greatly expanded the role of digital technologies, with some observers arguing that a digital revolution expected to take a decade happened in merely three months.[83]

Digital technologies have reduced trade costs in many services subsectors.[84],[85] These costs have been on average higher in services than in manufacturing, because services may require close physical proximity among suppliers and consumers.[86] In some digitally enabled services, such as logistics and professional services, trade costs are now comparable to those in manufacturing,[87] allowing more small businesses to start exporting.[88]

Two indicators measure which services link most to the rest of the economy and are digitally enabled. One, the subsector's value added in total exports indicates how much it contributes to value chains. Two, digital expenditure per worker is a proxy for digitalization (Figure 11). Many services are digitally enabled, such as real estate, but do not account for much added value in total exports. Other services, such as wholesale and retail, add value, but are not usually digitally intensive.[89]

Four services subsectors are more digitally intensive and add higher value to exports: business and professional services, ICT, transport and logistics, and finance (Figure 11 and Figure 12). Though all four are export and digitally intensive, the digitalization process drives ICT and finance in particular. Servicification of value chains embeds business and professional services and transport.

FIGURE 11 Connected services are digital and add value to exports



Source: ITC, based on OECD Structural Analysis database (STAN) and Trade in Value Added (TiVA) database.

Note: Servicification is measured as the share of a services subsector's value added in total exports. Digitalization is measured as digital expenditure per thousand workers. See Annex I for details.

FIGURE 12 Four sectors that connect and transform

Business and professional services	Finance	Information and communication technologies	Transport and logistics
• Supply expert advice and support to other companies or consumers. • Example: legal firms, management consulting and office support services.	• Make credit and money management tools available to individuals and corporations. • Examples: financial technology firms, investment companies, banks and insurers.	• Provide hardware and software products and ICT-related services to facilitate access, use, storage and exchange of information. • Examples: business management software, cloud computing, big data and machine learning.	• Move products and people to where they need to be. • Examples: freight and warehousing, companies operating in airports, tunnels, bridges and ports.

Source: ITC.

These four sectors are key to economic transformation. They make small and medium-sized enterprises – and others – more competitive. The sectors provide firms with critical, specialized services inputs, and connect them – through servicification and digitalization – to tools, opportunities and ideas elsewhere in the economy.

Recent developments in connected services

Value chains today rely on the four connected services subsectors. The digital revolution accelerated by the COVID-19 pandemic is transforming the operations of these services, which are emerging as digital pioneers.

Business and professional services

Even before the pandemic, companies were outsourcing key business functions, facilitated by digitalization. Firms that provide business and professional services transformed their operations early on to offer more services remotely.[90]

Through digital communications, these business services are traded across borders. Call centres can communicate with contractors and customers remotely, with companies in South Africa, for instance, providing business services to clients in sub-Saharan Africa and in Europe, as well as at home.

Such trends intensified with the pandemic, which also brought new opportunities for business and professional services. Firms now provide support and management advice to improve resilience and facilitate digital transformation of other companies.[91] Similarly, the drive to 'build back greener' post-pandemic and high demand for sustainability and transparency in production led firms to deliver advice on waste management, sustainability certification, green financing and analysis and testing.[92]

Small and medium-sized services enterprises in the developing world are gaining market share in business and professional services that range from call centres to the back office.[93] Through digital technologies, business process management SMEs in Africa, Asia and Latin America solve the problems of customers elsewhere in the world. SuperTel, one of this report's *Business Voices*, is a case in point.

Transport and logistics

Like business services, there was outsourcing of transport and logistics needs prior to the pandemic. End-to-end solutions have become popular in supply chains. Some logistics firms offer clients everything from distribution, warehousing and fulfilment to quality control and customs-related services.

COVID-19 and other crises severely disrupted the transport sector. During the pandemic, in-person customs procedures became difficult and logistics restrictions abounded. Recently, the sector has faced other crises, such as the Suez Canal blockage in March 2021. Persistent container shortages brought a fivefold increase in maritime transport costs between 2020 and 2021.[94] Conflicts, including the war in Ukraine, affect transportation and trade.

Disruptions in transport are felt across the planet, highlighting how critical these services are for the global economy. Businesses in all sectors cited reduced logistics services among the top three negative effects of COVID-19, according to ITC data (Figure 13).

The pandemic prompted faster digitalization and automation, leading to positive developments in transport and logistics. Companies expanded electronic communications; bills of lading (documents detailing goods being transported) are now transmitted electronically; and online brokers and freight booking are more popular.

Transportation companies use digital technologies to track their fleet and allocate cargo, which allows for better planning and resource use. These can improve coordination of truck routes, shorten delivery times, boost capacity utilization, lower costs and reduce greenhouse gas emissions.[95]

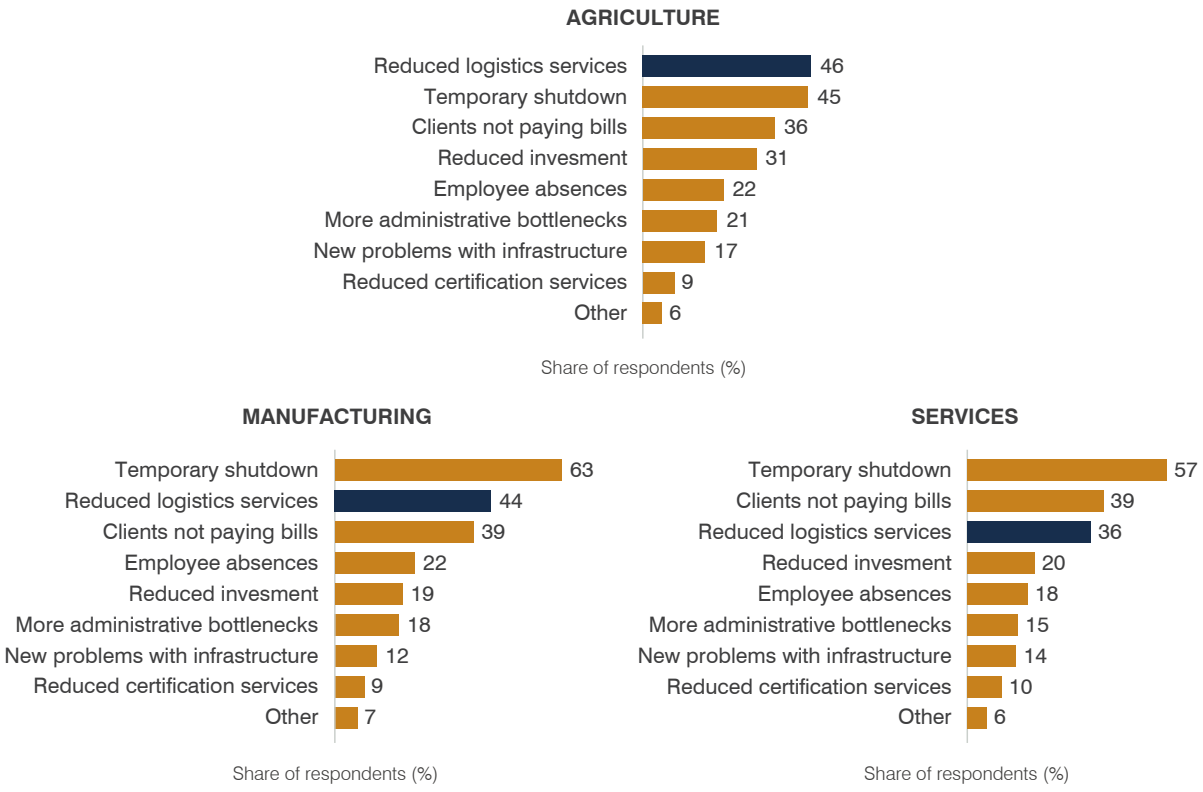
E-commerce is also remaking the transport and logistics sector. It surged during lockdowns and boosted demand for local delivery services, a trend expected to continue post-pandemic. Challenges in e-commerce remain, however, as businesses and consumers demand ever faster deliveries of seemingly smaller and more frequent shipments.[96]

Small and medium-sized logistics firms that digitalize their operations have reaped benefits, ranging from improved efficiency to new customers. In Singapore, for example, small logistics companies plan and arrange jobs online, and drivers retrieve job instructions on their mobile devices. These innovations help attract multinational corporate clients.[97] In Finland, blockchain solutions help to coordinate the hundreds of logistics SMEs involved in transporting geolocated stocks of timber.[98]

Finance

Fragmentation of international value chains created demand for new financial products. Companies that supply components to a cross-border production network, for instance, need short-term financing to cover costs until they are paid. The financial services industry has responded by creating new supply chain financial tools such as leasing, factoring and invoice discounting.[99]

FIGURE 13 Reduced logistics a top COVID-19 impact



Source: ITC, based on ITC COVID-19 Business Impact Survey of 4,694 businesses in 136 countries, April 2020–August 2020.

The digital revolution has transformed business models,[100] with the financial technology sector (known as fintech) playing an ever greater role in delivery of financial services. Mobile banking, for example, has spurred financial services development, especially in Africa.[101]

Digitalization of financial activity and automation of financial services hold great promise in improving access to finance, a perennial challenge for SMEs.[102] SMEs using cross-border digital payment services enjoyed a 97% first-year survival rate compared with 43% for all SMEs.[103] VISA shows that 54% of SMEs saw an increase in sales revenue after adopting digital payment systems.[104]

Lack of assets to serve as collateral has been a major obstacle for SMEs seeking loans, but digital trade is changing this. SMEs operating on e-commerce platforms can get loans based on their transaction records, which serve as proof of their capacity to repay. This and other data can bridge the information gap between lenders and borrowers and facilitate SME access to loans, as illustrated by ChapChap Africa, a *Business Voice* in this chapter.

Start-ups and SMEs have entered the financial services market or expanded operations by taking advantage of new business niches created by supply chain financing and fintech tools. The fact that these markets favour lean, nimble young firms allows new players – especially fintech start-ups – to enter the financial services market, previously reserved for large companies.[105]

Information and communication technology

Digital technologies and the internet provide the fundamentals to create, store, transform and diffuse information, or data. Together, the internet and digital technologies are disrupting markets, changing the way companies do business and creating opportunities globally. Furthermore, ICT firms promote new disruptive technologies, such as artificial intelligence, blockchain, Internet of Things and automation. This has economic impacts, or spillovers, on companies outside the ICT sector.

During the pandemic, the services provided by ICT firms were essential to business continuity. The ITC COVID-19 Business Impact Survey found that 11% of the firms that started selling products or services online increased their sales during the pandemic. This compares with only 4% of firms that did not sell online. Teleworking had a similar, albeit smaller, effect.[106]

Emmanuel Emodek

Team lead,
ChapChap Africa, Uganda

Innovating to close the financing gap

This company specializes in financial technology. Its mobile solutions help SMEs to manage cash flow and produce the type of information demanded by finance providers.

'ChapChap Africa is helping SMEs to manage their finances better, with multiple benefits. First, many small businesses in Uganda fail because they do not keep records and hence cannot make informed decisions. We provide businesses with an easy-to-use, mobile-based resource planning solution that enables them to track sales, inventory, purchases and expenditures.

Second, through our platform, our clients extend financial services, such as utility payments and agency banking, to the communities they serve, and they earn a commission. They can also make payments or receive payments through MTN and Airtel Money mobile solutions. This lowers their reliance on cash.

Finally, the platform helps companies keep full records of their customers and cash flow. With this information we can create a credit profile and share it with financial institutions, strengthening our clients' loan applications.

By helping businesses keep track of their resources, and by giving them access to mobile money and formal financing, ChapChap Africa enables Ugandan enterprises to upgrade their business practices and increase their profits. Our services also show that technology can be a driver of change for financially underserved businesses. Even though digital literacy is low in Uganda, and some business owners are hesitant to abandon cash, they quickly see that they can increase their revenues by using our solutions.

We are currently serving over 20,000 small business in Uganda, mostly retail shops. But we know that the types of services we offer are beneficial for all sectors of the economy, and so we are hoping to expand.

While COVID-19 hurt our revenue streams, its impact means that more SMEs now see the value of technology. We also discovered the power of social media. We increased the number of new business clients from 200 per month to more than 1,000 due to leads generated online.

It is thanks to ITC's NTF project that we have been able to tap into these social media resources so effectively. We lacked marketing expertise, and the capacity building offered by NTF has really helped us broaden our knowledge.'

The Netherlands Trust Fund V (NTF V) operates in Benin, Côte d'Ivoire, Mali and Uganda. Based on a partnership between the Ministry of Foreign Affairs of the Netherlands and the International Trade Centre, the programme aims to increase the competitiveness of the digital technology sector. It supports tech businesses in becoming more resilient and helps them create and strengthen linkages.

The rise of cloud computing has been revolutionary for SMEs. It is beyond the financial resources and expertise of most SMEs to implement robust security programmes for onsite data storage. Cloud technologies provide digital solutions housed in data centres far from their clients that are accessible virtually using a mobile device connected to the internet.

SMEs depend on cloud-based solutions to send emails, store files and manage client relations. These ready-to-use services provide SMEs with low-cost access to manage information because development costs are spread over millions of users, significantly reducing the cost per user. Client SMEs buy modular services packages stored on the cloud, and pay based on usage. This allows them to 'scale without mass.' They can use services at a low cost and avoid IT infrastructure-related charges and concerns, such as staff, servers and hardware.[107]

However, small businesses that provided IT services to neighbouring SMEs have seen their market share eroded by inexpensive, standardized cloud-based solutions offered by IT multinationals. This has triggered a wave of creative destruction, with many SMEs in the IT sector pivoting to provide specialized IT expertise.[108]

Connected services create value

Through servicification, value chains increasingly embed services.[109] Connected services, in particular, act as a backbone to the functioning of other industries and value chains.[110]

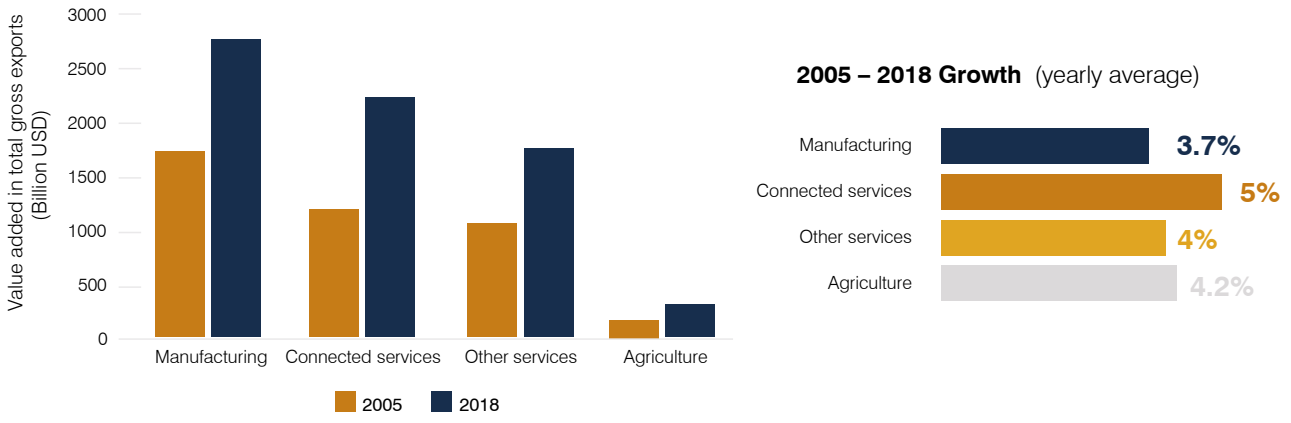
Adding value to exports

Figures on trade in value-added terms show the growth of services as inputs into other sectors. This accounts for inputs exchanged between sectors and includes, for example, the value of software in the production of a smartphone. In fact, services account for over two-thirds of the value of a smartphone.[111] Beyond physical components, its production involves design, software development, marketing and transportation of parts.[112]

Smartphone manufacturers often purchase research and design services from contractors and pay licensing fees for some software. After production, manufacturers pay for outbound logistics services to bring their products to market. Finally, smartphone producers include maintenance and support services with the sale of the physical product.[113] The purchase of services embodied in a product is sometimes known as Mode 5.[114]

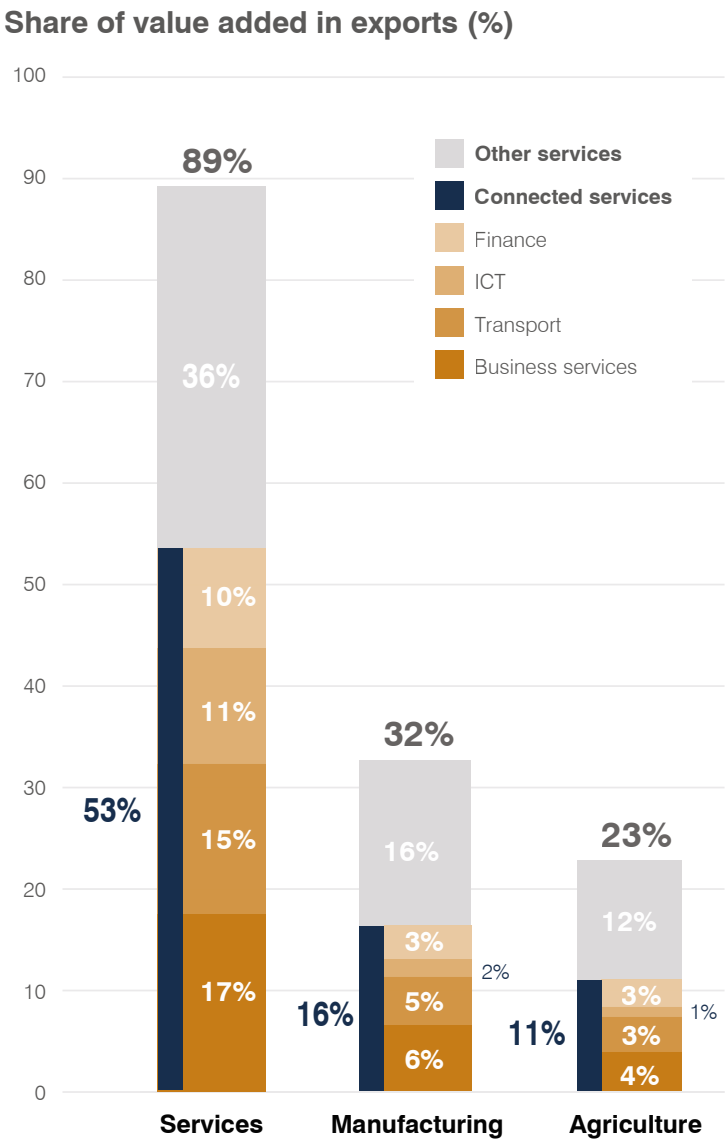
By 2018, the services value added in traded goods and services had grown to nearly half of world exports from about 30% in 1980.[115] Connected services are increasingly traded as inputs into other sectors. Between 2005 and 2018, the value added by connected services to total exports grew more rapidly than the contribution of manufacturing (Figure 14). Manufacturing value added in total exports grew an average of 3.7% each year during this period, compared with 5% for connected services.

FIGURE 14 Value added by connected services catching up to manufacturing



Source: ITC, based on OECD TiVA database.

FIGURE 15 Services vital across all sectors



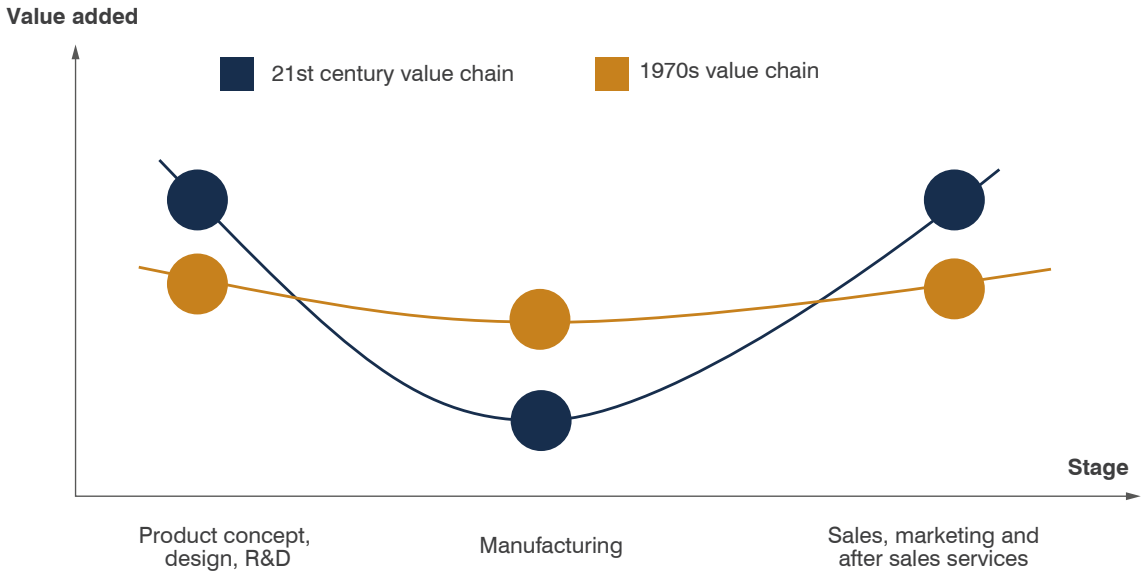
Source: ITC, based on OECD TiVA database.

Value added by services accounted for about a quarter of agricultural exports, one third of manufacturing exports and 89% of services exports in 2018. Across all sectors, connected services account for a large share of the value added to exports by services (Figure 15).

Among the four connected services, business services and transport account for the most value added to exports. This is likely due to their role in the manufacturing sector.[116] For example, firms that produce in multiple factories require transportation services to move parts and back-office business support services to reconcile bookkeeping.[117]

These data underestimate the weight of services in world trade, however. Statistics on trade in value added capture services that enterprises buy, but companies also have in-house services.[118] For example, some medium-sized factories employ accountants who provide business services. While services inputs account for about a third of the value of manufacturing exports, this share rises to 53% when it includes services activities within manufacturing firms.[119]

FIGURE 16 Services add most value at beginning and end of chains



Source: Baldwin, R., T. Ito, and H. Sato (2014). 'Portrait of a Factory: Production Network in Asia and its Implication for Growth – The "Smile Curve."' Joint Research Program Series No. 159, Institute of Developing Economies, Japan External Trade Organization (IDE-JETRO), Chiba.

Claiming a higher share of returns

Services are typically part of the earlier and later stages of value chains.[120] The start of the production process includes services such as research, design and engineering. The middle stages involve production and assembly of physical parts (manufacturing). Later stages again entail services such as marketing and distribution.

Mapping value added along each stage of production yields a U-shaped relationship, with much of the value of a good created by services tasks at the beginning and end of the value chain.[121] Moreover, this 'smiley curve' across production stages has substantially deepened over time (Figure 16).[122]

In the 1970s, the amount of value added was spread relatively evenly over the beginning, middle and end stages of a value chain. The middle manufacturing stage generated slightly less value than the services tasks at the beginning and end of the chain, but it was still significant.

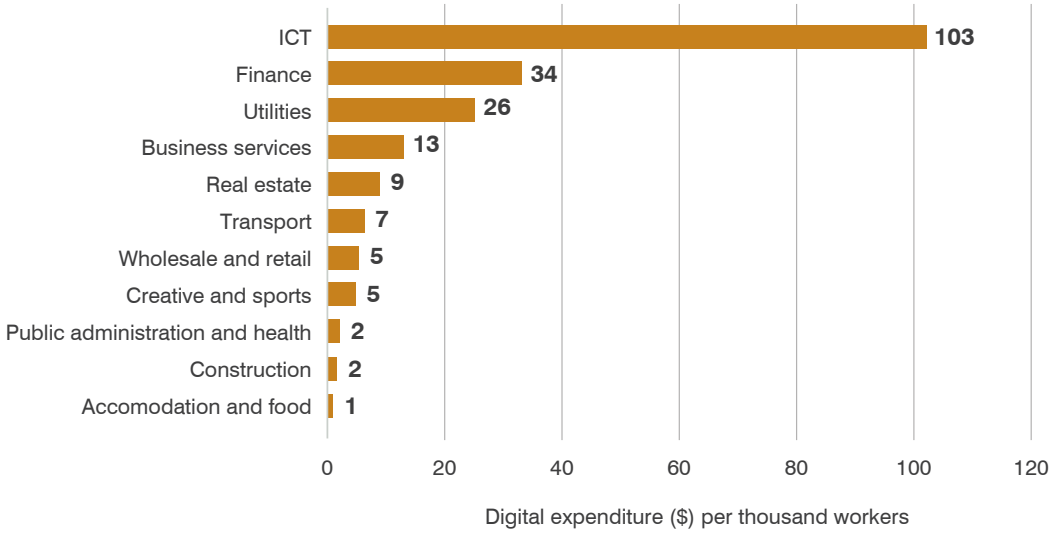
In the 21st century, however, the lion's share of a product's value comes at the beginning and end of the value chain. Production outsourcing in the middle stage has led to intense competition among countries. This, coupled with technological advances, means that manufacturing assembly is now relatively lower cost and captures less of the product's value. Companies in developing countries that assemble and supply manufactured goods thus earn a relatively lower percentage of the final value of the product.

At the same time, companies undertaking services-based tasks such as design, research and development, and marketing are claiming a larger share of the pie. These companies tend to be lead firms that control brand and consumer loyalty and make the choices that drive the value chain. They are often large and based in emerging or developed economies.

Given the high value added by services activities, firms and countries are aiming to move from basic manufacturing to pre- and post-production services.[123] Some of these tasks are connected services. Others benefit from improved productivity linked to good-quality connected services, such as timely transport.

For this reason, investments in connected services firms are crucial if companies in developing countries are to upgrade their position in value chains. Lack of access to connected services, or their poor quality, is often a significant problem for developing country SMEs. Among suppliers in developing countries surveyed by the Organisation for Economic Co-operation and Development (OECD) and the WTO, 52% cited access to finance and 39% cited transport infrastructure and services as their most serious supply-side constraint.[124]

FIGURE 17 ICT and finance more digitally intensive



Source: ITC, based on OECD STAN database.

Policymakers in developing countries seeking to promote trade that brings greater economic benefit should encourage value chain participation that involves high value services. These lucrative services exports are often in connected services sectors or use connected services.

Connected services as digital leaders

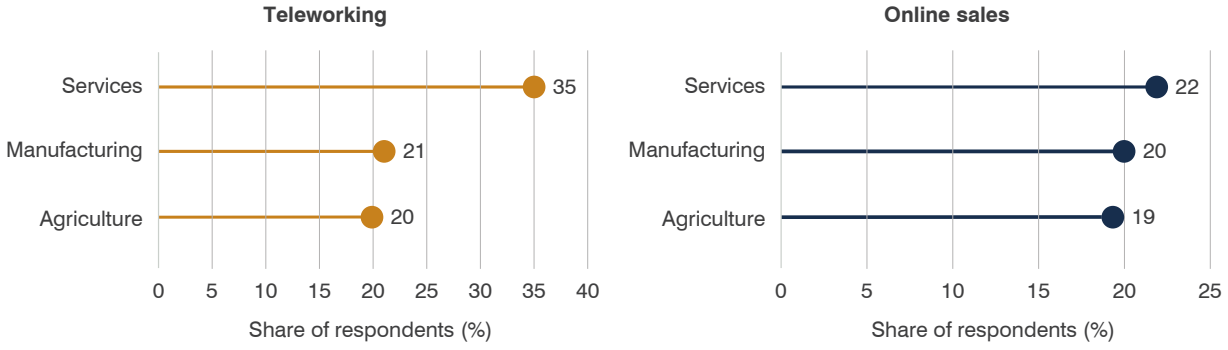
Digitalization is a powerful tool for countries to improve long-term competitiveness of firms.[125] Its extent and impact vary enormously among countries and enterprises, however. To take advantage of the opportunities brought by the digital economy, adequate digital infrastructure and digital skills are necessary.

Higher digital intensity

Connected services are more digitally intensive than other services subsectors. The digital intensity of a sector is commonly measured by how much is spent per worker on ICT equipment, software, databases and other digital technologies.

ICT companies in OECD countries, for example, dedicated roughly $103 per thousand workers to digital expenditures. Those in finance spent about $34 on computers and other digital technologies for each thousand workers. In contrast, retail and wholesale, and accommodation and food services are less digitally intensive. Food and accommodation and construction enterprises devoted $2 or less on digital tools per thousand workers on average in OECD countries (Figure 17).

FIGURE 18 ICT essential for coping with COVID-19



Source: ITC, based on ITC COVID-19 Business Impact Survey of 4,536 businesses in 134 countries, April 2020-August 2020.

Digital solutions have helped small businesses survive and thrive during the pandemic. About one-fifth of agricultural and manufacturing firms and one-third of services businesses teleworked to cope with the crisis. Similarly, about one-fifth of agricultural, manufacturing and services firms were selling online (Figure 18).

Because of COVID-19, companies in the United Kingdom now favour investments in IT and software over machinery, research and development or office spaces. Investments in these technologies are expected to rise by about 6% between 2019 and 2023.[126]

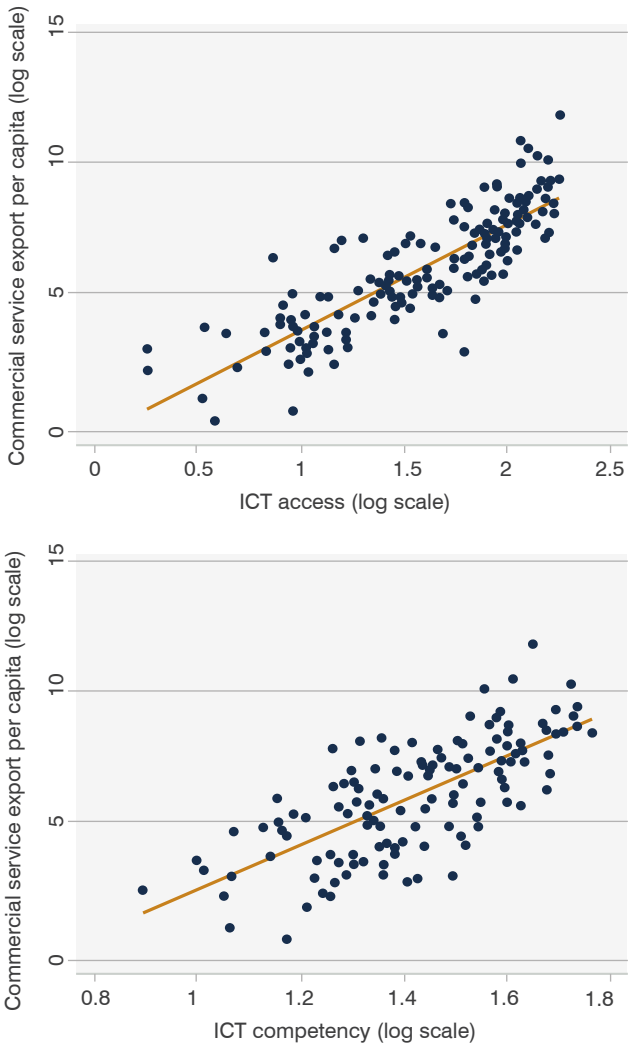
Not everyone is ready for a digital future

Countries need basic digital infrastructure before their companies can reap the benefits from digitalization. This starts with reliable electricity, followed by affordable good-quality internet, combined with information and communication devices that enable access.

Firms also need digital skills to take advantage of digital technologies, known as 'useful usage.'[127] Digital technology – no matter how abundant or sophisticated – will be of little use if workers do not know how to operate software.[128]

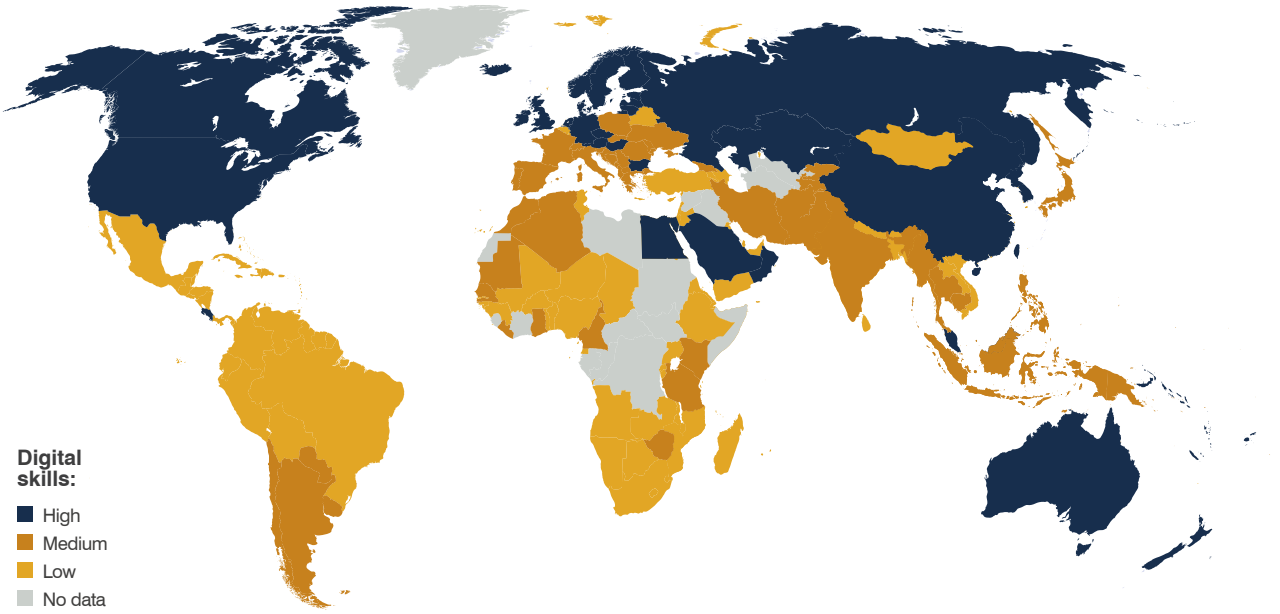
These factors have a big impact on services competitiveness and trade. Countries with better ICT access thanks to good digital infrastructure and higher ICT competencies tend to export more services (Figure 19).

FIGURE 19 Countries with better ICT access and skills trade more services



Source: ITC, based on World Bank TCdata360.

FIGURE 20 Digital skills unequally distributed



Source: World Bank TCdata360.

Not all countries are equally equipped with the infrastructure, devices and skills required to take part in the digital economy. North America, Europe and East Asia have digitally skilled workforces and good access to information and communication technologies.[129] However, most countries in Africa and South America lag in their degree of ICT access[130] and digital skills (Figure 20).

In addition to the role of ICT access and digital skills, other elements of the infrastructure – or business ecosystem – for digitalization are gaining attention. Connected services firms are part of the business ecosystem that can enable companies to digitalize. ITC's 2018 flagship report, 'Business Ecosystems for the Digital Age', highlighted how trade and investment promotion organizations can help SMEs engage with new technologies. Finally, a supportive national regulatory framework sets the rules of the game and is particularly relevant for digitally enabled services provision, as discussed in Chapter 4.

THOUGHT LEADER

Digital technologies have the power to change the world and transform lives

Doreen Bogdan Martin

Director of the Telecommunication Development Bureau

International Telecommunication Union (ITU)

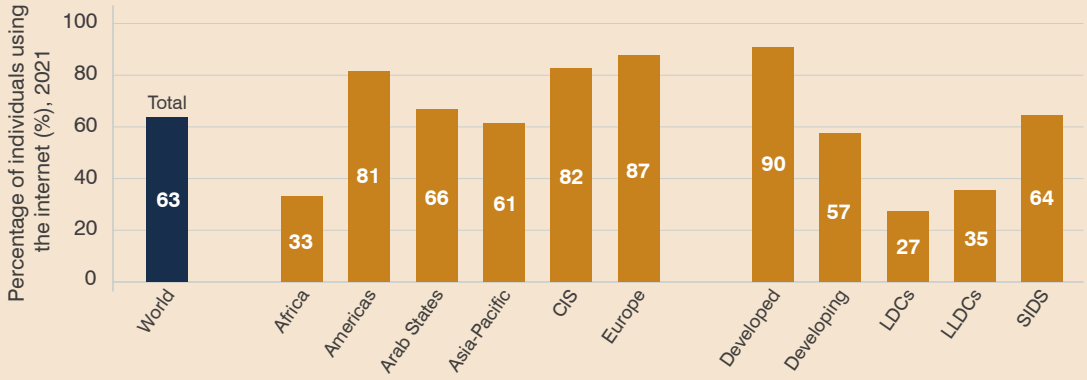
The pandemic illustrated the incredible power and potential of connectivity to improve lives, and underscored the vital necessity of being connected.

As populations locked down – and digital needs grew – ITU collaborated with its members from government and the private sector to help assure and extend connectivity through our REG4COVID platform.[1]

We witnessed the digital transformation accelerate at a rate we could never have imagined even just a few months earlier, as whatever *could* go digital, *did* go digital. Internet uptake surged during the pandemic. The number of people online grew to 4.9 billion, or 63% of the world's population, in 2021 from 4.1 billion, or 54% of the global population, in 2019, according to ITU data.[2]

Percentage of individuals using the internet, 2021

Source: ITU Facts and Figures 2021.



Yet deep inequalities persist. An estimated 2.9 billion people – one-third of humanity – remain unconnected, unable to access online services or participate in the digital economy. Many hundreds of millions more struggle with costly, poor-quality, hard-to-access connectivity that does little to help them materially improve their lives.

1 For more information: https://reg4covid.itu.int/
2 ITU Facts and Figures 2021. https://www.itu.int/itu-d/reports/statistics/2021/11/15/internet-use/

ITU's mission is to bring the transformational power of digital innovation to people everywhere. Digital is the essential catalyst we need to achieve all 17 Sustainable Development Goals.

This means fostering digital entrepreneurship and innovation ecosystems for sustainable digital development[3] and ensuring inclusive, equal access and use of ICTs.

Small firms connect to the world of digital information

Digital technologies and tools allow entrepreneurs and small businesses to become more innovative. Such firms can also expand their markets by reaching new customers online and participating more actively in the digital economy. Digital transformation can especially benefit small firms in least developed countries, which can increase their value and competitiveness through access to regional and international markets.

Technology and data are the lifeblood of tomorrow's supply chains. The digital skills necessary to connect with these supply chains will become prerequisites for full social and economic participation in the pandemic-affected global economy.

Digitalization makes delivery of services more efficient by reducing costs, averting losses and allowing for a targeted and personalized approach.

For instance, in agriculture, novel digital solutions, such as applications powered by artificial intelligence and smart monitoring systems, are empowering smallholder farmers. They achieve new levels of efficiency and productivity while contributing to environmental sustainability through increased crop yields, reduced pesticide use and less food waste, among others.[4]

In healthcare, digital technology can help expand significantly the reach of primary prevention services and improve the accessibility of basic health advice, particularly where conventional health services are unavailable. Digital campaigns also enable health advice and disease management guidance to be delivered directly to millions of people via their mobile devices.[5]

Governments worldwide are partnering with various stakeholders to accelerate national digital transformation[6] and create frameworks to implement scalable e-government solutions. ITU and its partners promote a 'whole-of-government' approach based on shared digital platforms that any government agency can use to deliver services in a more efficient, cost-effective way.

Because people living in rural areas are far less likely to access and use digital technology, ITU pioneered the Smart Villages and Smart Islands[7] programmes in partnership with governments, local authorities and communities.

These holistic, people-centric programmes address the specific needs of rural dwellers who may have had little exposure to digital networks and services and who may struggle with other constraints, such as lack of reliable power.

Action is urgent

Digitalization offers clear and tangible benefits to small services firms. To overcome barriers that prevent smaller businesses from connecting, such as cost, skills, languages and relevance, we need the right frameworks and regulatory policies. The aim is to create investment-friendly enabling environments and equip people with digital skills.

With the 2030 deadline fast approaching, it is urgent to put digital at the heart of our recovery efforts. Partnership and collaboration will be key. The world needs governments, non-governmental organizations, corporations and academic institutions to work much more closely together to ensure inclusive, equal access to and use of ICTs for all.

Small businesses are the backbone of our economies. By helping them reap the many benefits of digital transformation, we can ensure that everyone gains from the power of digital to drive development and economic growth.

3 At the World Telecommunication Development Conference (WTDC) held in Kigali, Rwanda 6-16 June, 2022, ITU members adopted a resolution, *"Fostering telecommunication/ICT-centric entrepreneurship and digital innovation ecosystems for sustainable digital development."* Its main focus is to ensure that present and future generations are empowered and resilient through ICT/Telecommunication centric and entrepreneurship-driven innovation. It seeks to enable developing countries to close the digital value creation gap that affects social and economic inclusion through bottom-up approaches, better collaboration and support mechanisms for digital innovation ecosystems.
4 (Elbehri & Chestnov, 2021).
5 Be Health be Mobile (BHBM) mTobaccoCessation, mDiabetes, and mCervicalCancer campaigns
6 An example of government efforts is the GovStack initiative.
7 (ITU, 2020).

CHAPTER 3

Connected services lead transformation

Connected services are essential to the competitiveness of economies.

ICT, finance, transport and logistics, and business and professional services have strong direct positive effects on economic transformation. Their rapidly increasing output, exports and job creation directly contribute to economic growth, as prioritized in United Nations Sustainable Development Goal 8. Competitive companies in these sectors are often innovators, supporting Sustainable Development Goal 9.

Indirect impacts of connected services especially promote economic transformation.[131] Good access to connected services allows companies to boost labour productivity, enhance links to firms at home and abroad and foster innovation. Affordable and effective connected services allow enterprises to focus on their core business.[132]

Small firms' success depends partly on access to good-quality connected services. For this reason, it is essential for providers of ICT, finance, transport and logistics, and business and professional services to upgrade.

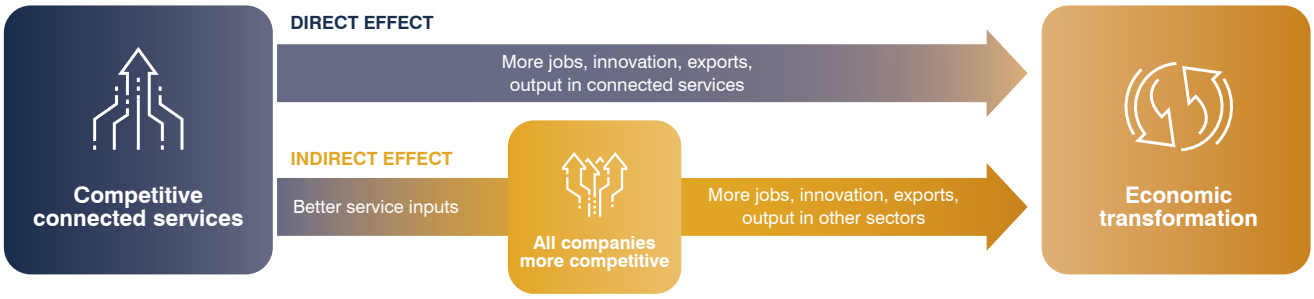
ITC identified four key areas to make connected services enterprises more competitive. They need to enlarge their networks and manage relationships, innovate for quality services delivery, ensure that staff have the right skills and attract financing to diversify.

Connected services drive growth

Connected services enterprises export more and spend a greater share of revenue on innovation than other services firms. For example, about 12.1% of the value added to GDP by business and professional services is exported, and firms in the sector reinvest 5.3% of their value added in research and development (R&D). In contrast, only 0.4% of retail trade value added is exported, and companies in the subsector spend only 0.8% of their value added on R&D.[133]

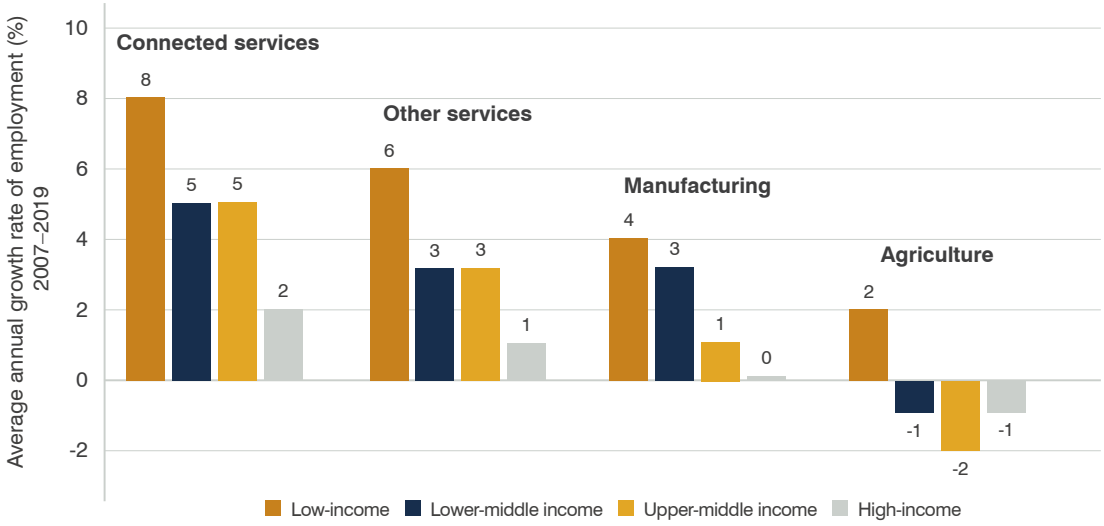
Companies in the connected sectors are more often formally registered than other services.[134] They directly contribute to economic success through employment, innovation, trade and output. At the same time, they contribute indirectly through firms that use their services (Figure 21).

FIGURE 21 Connected services impact economic transformation directly and indirectly



Source: ITC.

FIGURE 22 Employment grew faster in connected services



Source: ITC, based on International Labour Organization Statistics (ILOSTAT).

Creating skilled jobs

Approximately one-quarter of people working in services globally are in business services, finance, ICT and transport and logistics.[135] This share is increasing rapidly in many countries. Digitalization and servicification trends are leading connected services to hire new workers to meet growing demand. Unlike automation, which substitutes machines for workers, digital technologies linked to connected services make workers more productive.[136]

Employment growth in connected services is noticeable across levels of economic development, and especially in low-income countries that start from a lower base. Between 2007 and 2019, employment in connected services grew by about 8% per year in low-income countries. In contrast, employment in manufacturing grew less than 4% per year during the same period, while growth in agriculture was only 2% (Figure 22).

Jobs directly created in connected services tend to require higher skills, and these sectors employ a smaller share of low-skilled workers than other services.[137] Moreover, unlike the factories that employed low-skilled labour in previous growth processes, today's connected services have narrower scope for absorbing low-skilled labour.

Given that professional and technical competencies are a prerequisite for growth in connected services, lower skills levels in developing countries can be a constraint. On the other hand, appropriate training that allows people to enter thriving connected services can help reduce the high youth unemployment rates that are pervasive in many countries.[138]

Although they directly generate fewer low-skilled jobs, connected services also offer opportunities for indirect job creation. For example, start-ups in finance and business services in Germany led to increased overall employment that exceed their direct employment effects.[139]

The balance between direct and indirect job creation varies among connected services (Box 3). The larger the sector, the more inputs it draws from the domestic economy, stimulating economic activity and jobs. The IT industry in India, for example, directly employs about 4 million people and indirectly supports an additional 12 million jobs, many of which are in relatively unskilled occupations such as building maintenance and food services.[140]

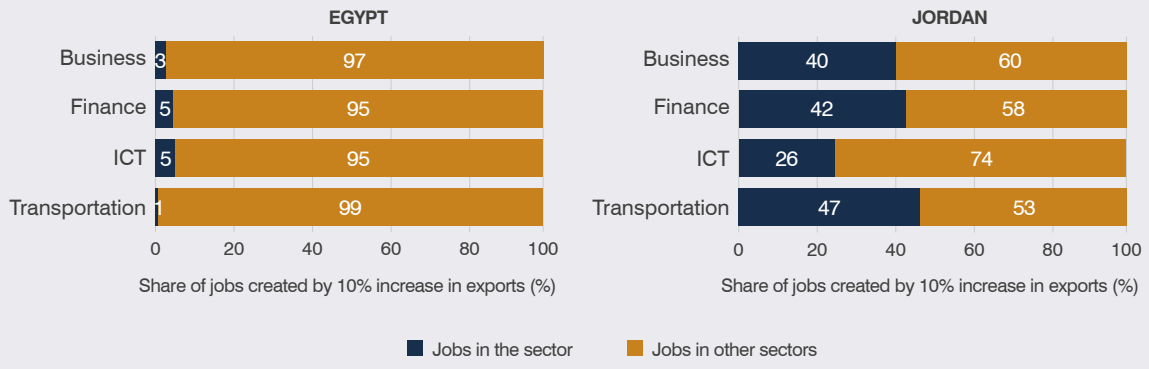
BOX 3: Egypt, Jordan – Potential of connected services exports to create jobs

Exporting creates jobs, directly in the firms that increase their foreign sales and indirectly in the companies that supply them. Higher consumption brought by increased inflow of foreign exchange also contributes to creating jobs elsewhere in the economy.

ITC and the International Labour Organization created a tool for researchers to assess potential job creation from increased exports. This was used to analyse the potential employment impact of connected services trade in Egypt and Jordan.

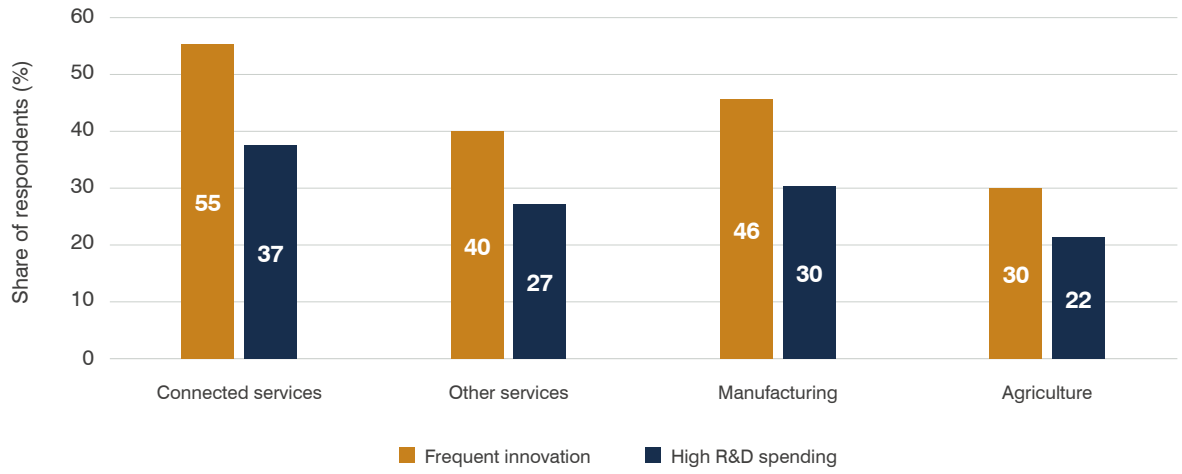
- If connected services' exports were to increase by 10%, 11,582 jobs could be created in Jordan and 173,884 in Egypt. Some jobs would be in connected services, while most would be in other sectors.
- In Jordan, three-quarters of the jobs created by a 10% increase in ICT exports would be in other sectors. For the other connected services, indirect employment and jobs induced by higher consumption would represent a lower share, but still more than 50%.
- In Egypt, the vast majority of jobs would be indirect. For example, 99% of jobs brought by a 10% increase in transport exports would be in other sectors. This is because there is considerable domestic production for supply chains, and this would be strengthened by higher exports. In addition, consumption patterns in Egypt mean that there would be more induced job creation.
- Given that men dominate employment in the four connected services, most jobs for women brought by export growth would be indirect or induced. Nonetheless, there would be a considerable contribution to female employment. In Egypt, for example, 35% of the jobs created by a 10% increase in connected services exports would go to women.

Exports create jobs inside and outside services firms



Note: ITC calculations. See Annex I for details.
Source: CAPMAS, 2018; ERF, 2018; Gedeon & Al-Qasem, 2019; GTAP, 2022; IFPRI, 2021; ILO, 2022; ITC, 2022; Oxford Business Group, 2017.

FIGURE 23 Connected services firms innovate and research more



Source: ITC, based on ITC SME Competitiveness Surveys.

Disseminating innovation

Connected firms kick-start innovation. In the developing world, companies in these sectors develop new products and processes more frequently than other services firms. For example, 55% of companies in ICT, transport, finance and business services frequently develop new products and processes, compared with 40% of other services firms and 46% of manufacturing companies, according to ITC surveys (Figure 23).

Companies in connected services also dedicate more resources to research and development (37%) than firms in manufacturing (30%) or agriculture (22%), according to ITC's SME Competitiveness Survey.

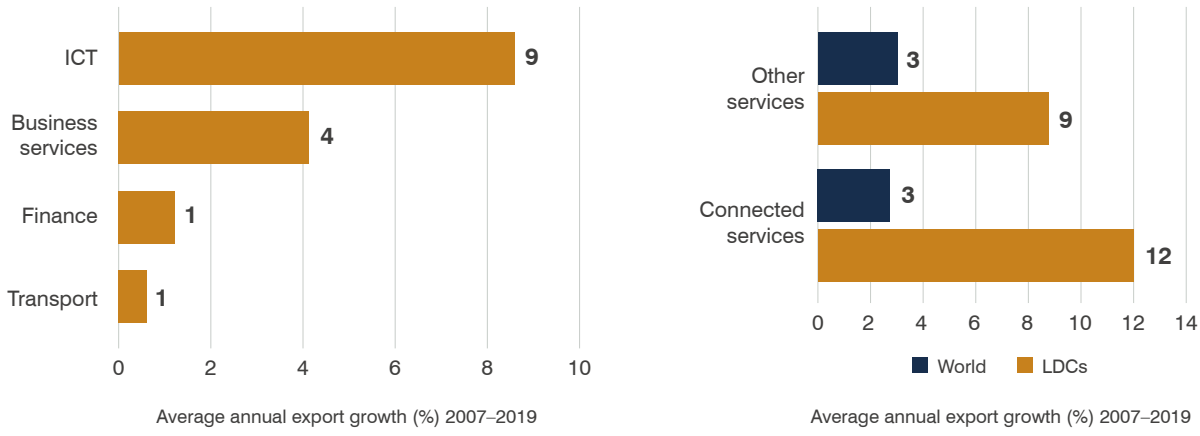
Growing output, investment and exports

Today, connected services represent a growing share of economic activity. In OECD countries, they accounted for 19% of production in 2019.[141] In the past, these sectors have expanded rapidly in emerging economies.[142] Today, ICT and banking are growing in the developing world.[143]

Connected services contribute to GDP growth partly by attracting funds from abroad. In 2019, these sectors accounted for almost two-thirds of total services trade and four-fifths of services FDI.[144]

Exports of connected services are also expanding fast.[145] Whereas 26% of connected services firms surveyed by ITC export, the figure was just 15% for firms in other services. ICT services experienced the fastest export growth between 2007 and 2019, followed by business, finance

FIGURE 24 Exports of connected services growing rapidly



Source: ITC, based on WTO time series data.

and transport (Figure 24). Globally, between 2007 and 2019, exports of ICT and business services grew by 9% and 4% per year, respectively.

In LDCs, export growth of connected services outpaced that of other services between 2007 and 2019, and was faster than in the rest of the world (Figure 24). Despite this rapid growth, however, exports of connected services from LDCs account for a tiny share of world connected services exports – 0.5% in 2019.

A few emerging economies account for most exports of connected services. Hong Kong is a financial services export hub, India is the largest computer and information services exporter in the world, and transport and other business services are among the largest exporting sectors in China.[146]

Connected services raise business performance

Connected services are also essential to competitiveness and growth in other industries and firms.[147] They source products and services from other sectors, stimulating economic activity that feeds into value chains, or backward linkages. Significantly, they also stimulate economic activity by supplying services to other sectors, creating forward linkages.

Business services providers, such as lawyers, auditors and accountants, reduce the transaction costs of drafting and enforcing contracts and spread business process innovations.[148] Business services in research and management help SMEs design new products or processes and conduct market research.[149]

Financial services, such as fintech and microcredit, enable enterprises to invest and grow. Logistics and transport services get products to market, and inputs to the factory gate. ICT services allow firms in all sectors to communicate with their buyers and suppliers.

When firms begin to outsource these activities, they become more efficient. Improving the quality of connected services boosts the competitiveness of all companies that use them. If SMEs at the base of modern supply chains can access good-quality connected services, trade becomes more inclusive.

Outsourcing services encourages efficiency

Many of the world's smallest enterprises keep services in-house. Owners and operators do their own paperwork and transport, and often ask family and friends for legal or management advice. Lack of information about, or availability of, business and professional services providers, transaction costs, fear of poor quality or high fees discourage small businesses from outsourcing key functions.[150]

While many firms do not use external services, usage rates vary depending on the type of service. On the one hand, 70% of firms interviewed by ITC indicated that they had used the services of logistics companies. On the other, professional services are more often provided internally. In Central and Eastern Africa, 33% of firms outsource all legal needs, 19% use only external accountants and just 12% exclusively hire external architects.[151]

The decision to provide services in-house or outsource them requires managers to weigh various factors. Outsourcing frees up management and firm resources to focus on the core business. It can also enable access to better, less expensive services. Yet, in some circumstances managers may have strategic reasons to keep certain services in the firm. They may opt to carry out their own research and development to maintain innovative capacity, or to do sales planning for the sake of confidentiality.[152]

Generally, though, the shift to outsourcing improves competitiveness significantly. In Nigeria, for example, companies that sourced connected services externally increased sales and profits within two years, and clearly improved business practices.[153] Similarly, in Eastern and Southern Africa, firms using business and professional services are 10%–45% more productive than firms that do not use them.[154]

The case of SuperTel, a Bangladeshi company featured as a *Business Voice* in this report, illustrates the type of services that allow clients to strengthen customer relationships and reduce costs.

Emrana Khan

CEO, SuperTel Ltd, Bangladesh

Your customers are our business

This company specializes in call centre and back-office services, such as voice and non-voice customer service or manual data entry, as well as IT services, such as software development. It serves a range of clients in Bangladesh and abroad.

'Successful companies provide good-quality customer service, but usually that is not their core business. For us, it is. As a business process outsourcing (BPO) company, we take care of our clients' customer service needs, which increases their efficiency and reduces costs.

We work with all kinds of firms – in various service sectors, small and large. Half of our clients are Bangladeshi companies and the others are international, predominantly based in the United States.

Starting out as a woman entrepreneur was not easy. Many clients did not take me seriously or felt more confident with a male business partner. Nonetheless, I persevered. Slowly but surely, sentiments are changing, with people realizing that women-led enterprises are just as competent and competitive, and are doing work that benefits our economy.

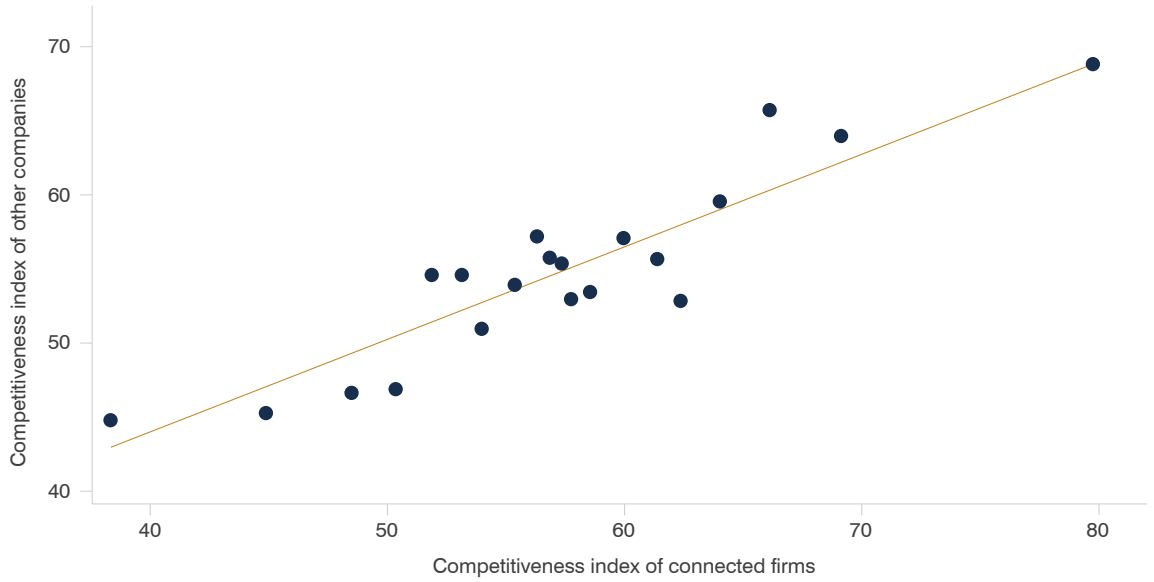
As the BPO sector was relatively new to Bangladesh when I started up in 2008, regulations were not up to par. For example, BPO firms were required to rent out two separate buildings, one for international operations and another for domestic ones. This was to ensure there were two independent IT infrastructures, so regulators could more easily prevent illegal call activities. This was not cost effective. We were the first to voice our concerns and we played a small role in changing this regulation. Today we can have our national and international operations in the same building, on separate floors.

I believe that these challenges prepared me well to weather the COVID-19 pandemic. During the height of lockdowns, we had to close our office, but technology allowed us to remain active. We set up home workstations for our employees, providing them with computers and a stable internet connection.

We even managed to diversify our offerings. Through SheTrades Commonwealth I attended a course on digital audits and added this service to our portfolio. This diversification has helped us recover some of the losses from COVID-19.'

ITC's SheTrades Commonwealth is funded by the United Kingdom's Foreign, Commonwealth and Development Office. The project enables women-owned businesses to thrive in international markets, generate growth and jobs, and decrease poverty. It is active in Kenya, Nigeria, Ghana and Bangladesh.

FIGURE 25 Companies more competitive in regions with better connected services



Source: ITC, based on ITC SME Competitiveness Surveys.

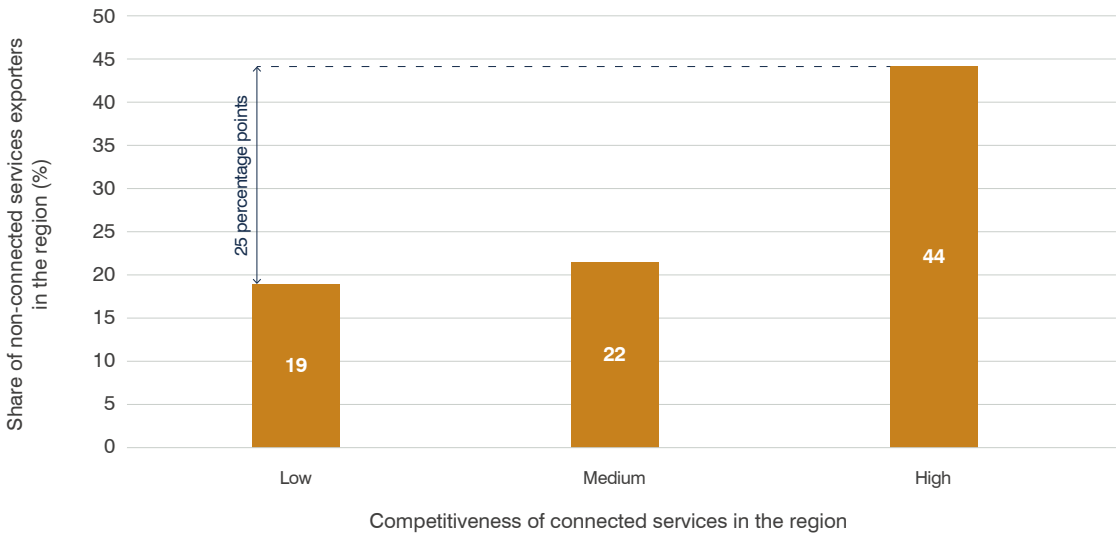
Quality of services matters

When firms externally source connected services, the quality of such services is crucial. Sourcing better-quality connected services from more competitive providers has positive knock-on effects on the firms that use them. For example, companies located in sub-national regions with more competitive connected services providers tend to be more competitive themselves, according to ITC SME Competitiveness Survey data (Figure 25).

Good connected services may help businesses in the vicinity to trade internationally. Indeed, exports tend to come from clusters of firms in particular regions.[155] Sub-national regions in which connected services are more competitive host a higher share of exporters, ITC Competitiveness Surveys show (Figure 26).

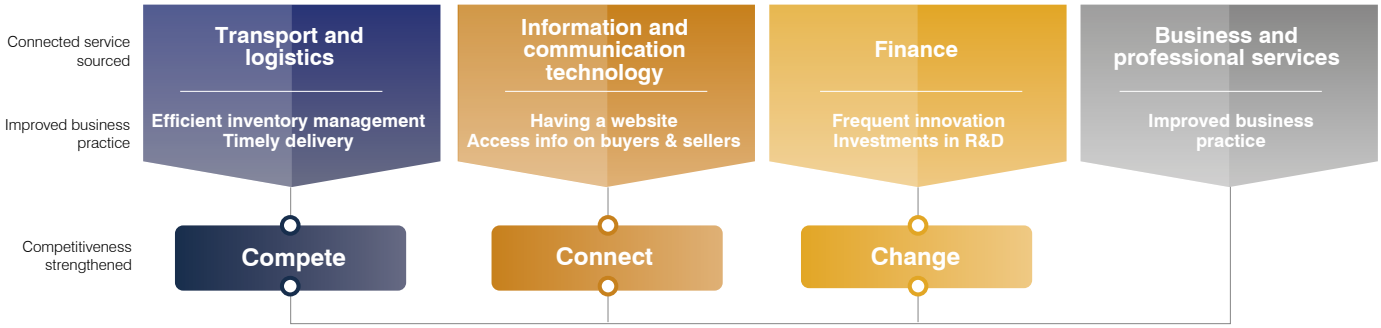
This may be because access to connected services strengthen firms. Companies in regions with competitive connected services tend to be more competitive

FIGURE 26 Regions with strong connected services have more exporters



Source: ITC, based on ITC SME Competitiveness Surveys.

FIGURE 27 Compete, connect and change through improved connected services



Source: ITC.

themselves, and companies that are more competitive have a higher propensity to export.[156] The share of companies that export was 25 percentage points higher when there were competitive connected services firms nearby.[157]

Connected services influence multiple aspects of a firm's competitiveness, through a complex web of support. Certain connected services are more significant for specific aspects of competitiveness, according to ITC data and analysis.

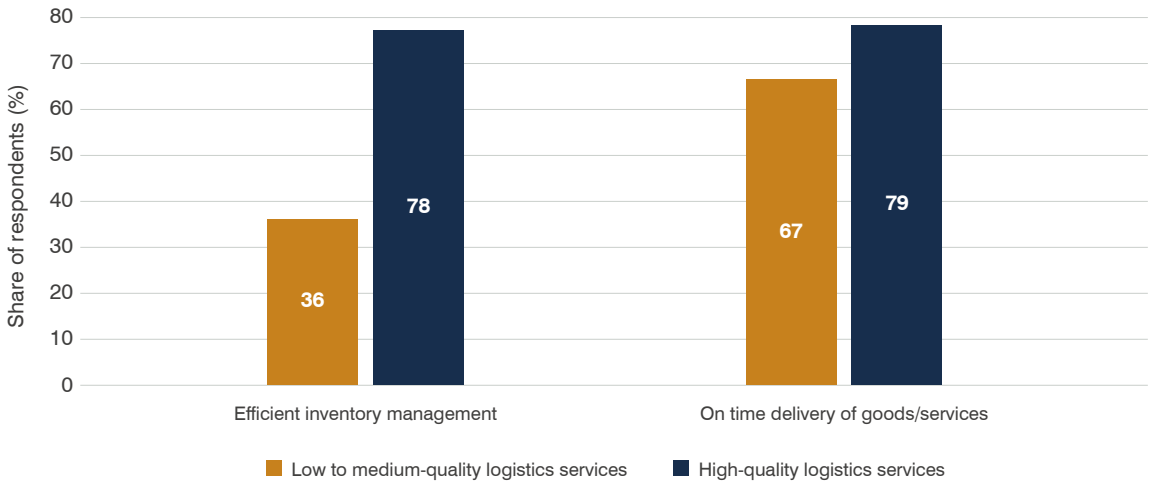
Good-quality transport and logistics particularly improve the capacity to compete. Outsourcing ICT services aids connections to value chain participants. Financial providers boost the capacity to change, whereas good-quality business and professional services, given their variety, are critical to all aspects of competitiveness (Figure 27).

Transport and logistics support efficient resource management

Companies that used high-quality logistics services performed better on competitiveness indicators such as inventory management. Among such firms, 78% displayed good inventory management practices, more than double the 36% of companies that used lower-quality logistics services (Figure 28).

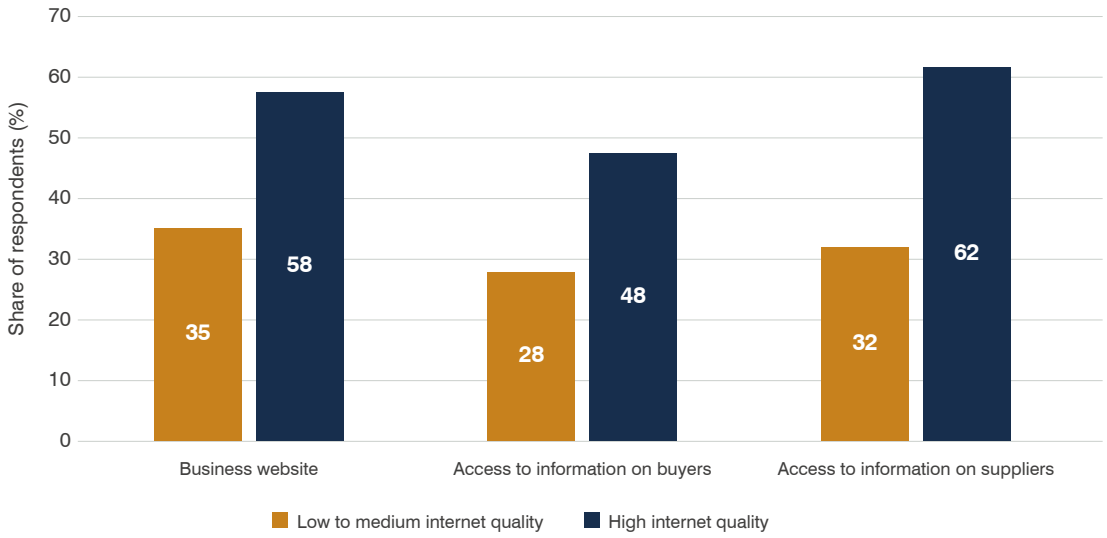
Firms using high-quality logistics services also performed better in delivering on time, with 79% of the companies with high-quality logistics delivering most of their goods and services on time, compared with 67% of firms with low-quality logistics services (Figure 28). This reflects the role of logistics services in delivering inputs when they are needed and sending goods to sales outlets as soon as possible after production.[158]

FIGURE 28 Better logistics improve capacity to compete



Source: ITC, based on ITC SME Competitiveness Surveys.

FIGURE 29 Better internet helps connect to buyers, suppliers



Source: ITC, based on ITC SME Competitiveness Surveys.

ICT strengthens connections to the business environment

ICT services help SMEs connect to buyers and suppliers. This depends on good working electricity markets. ITC data show that 28% of interviewed firms in the developing world are unhappy with the services provided by their electricity providers.[159] When firms have good electricity, and use it to access better digital services, it provides tangible benefits.

Companies that rated their internet services highly were more likely to have a website – 58% compared with 35% for firms with poor internet connections (Figure 29). As the case of Open Space, a *Business Voice* in this chapter, highlights, some of these services are provided by SMEs, and for clients large and small.

Firms with good-quality internet are also better informed about new market opportunities, and were significantly more likely to have access to information on potential buyers and suppliers (Figure 29). SMEs go online to learn about buyers' needs, and this information is crucial in revising products, designing effective advertising and innovating. ChapChap Africa, another *Business Voice* in this report, increased the number of new clients from 200 to over 1,000 per month thanks to online leads.

ICT services appear particularly helpful in forging connections in the agrifood sector. For example, farmers in rural Africa use mobile phones and web pages to share information about new farming techniques.[160] Farmers in Mozambique that use IzyShop, an e-commerce platform, reported monthly revenues five times larger than the national average.[161]

In Bangladesh, most SMEs that joined Chaldal, a digital platform for grocery retailers, said they did so to reach more customers, diversify sales outlets and have more reliable or steady sales. In this they were successful – 85% of small companies selling on Chaldal reported increased sales since joining. Moreover, two-thirds of companies selling via Chaldal said joining the platform helped them connect with other entrepreneurs.[162]

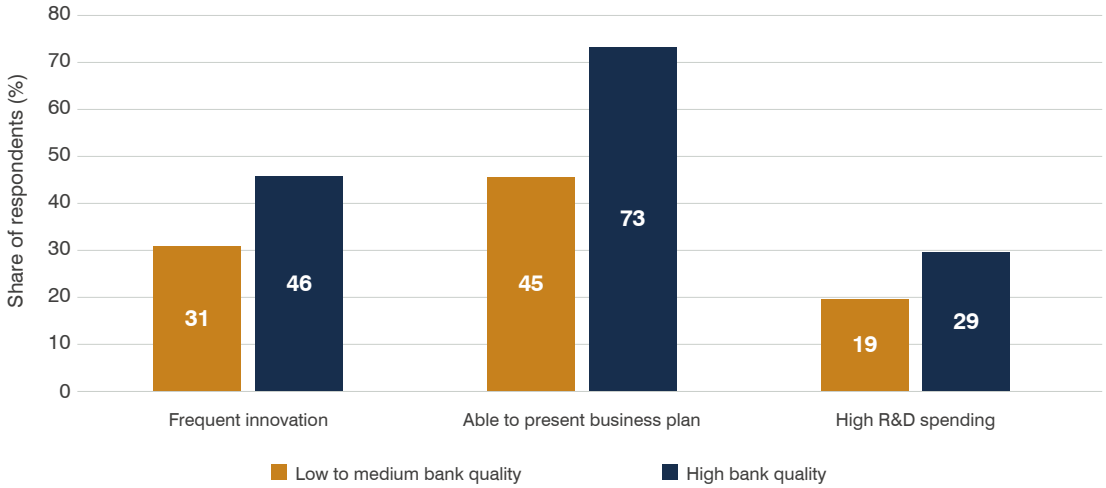
Financial services underpin innovation

The last pillar of ITC's competitiveness framework is the capacity to change. This aspect captures the ability of enterprises to innovate in response to new market trends. Transforming an innovative idea into action, however, partially depends on access to funds.

Financial services, along with other connected services, can reduce constraints on the capacity of SMEs to change. Among firms surveyed by ITC, those that were able to access high-quality banking services were 15 percentage points more likely to successfully develop new products or processes (Figure 30).

Companies that have constructive, lasting relationships with competent financial services providers are better placed to develop a long-term business vision and adopt practices that improve their capacity to adapt. For example, 73% of firms with high-quality banking were able to present a business plan compared with 45% of those with lower quality banking services, a gap of 28 percentage points. Such plans are important in attracting investment.

FIGURE 30 Better financial services support innovation



Source: ITC, based on ITC SME Competitiveness Surveys.

In addition, companies that had high-quality financial services were 10 percentage points more likely to spend generously on R&D (Figure 30). This shows how superior access to financing supports investments in the future of companies.

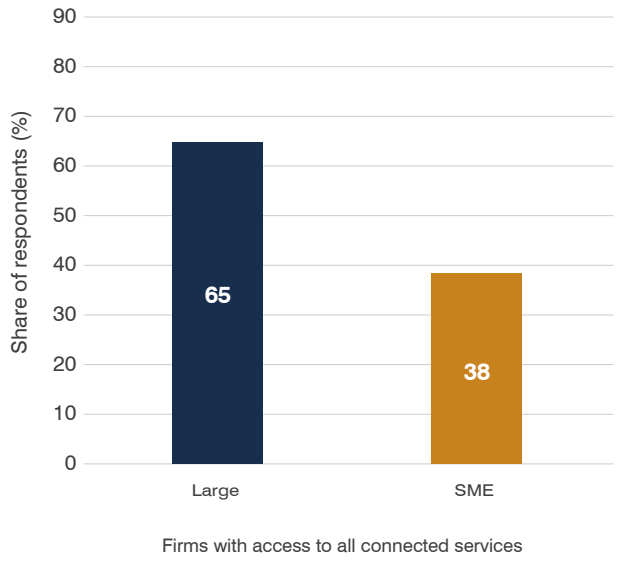
Small businesses less likely to access connected services

ITC surveys indicate that access to connected services differs among types of firms. Small firms, those that do not trade internationally, women-led and youth-led companies were less likely to rate the quality of services received. This could imply such services are produced in-house, or are not used at all. If companies did answer survey questions on ratings, however, it is likely that they externally source those services.

The fact that only a third of SMEs gave ratings for all connected services providers is a signal that few of them are hiring bookkeeping, shipping and software management services – despite evidence that outsourcing these activities contributes to SME competitiveness. With 65% of large firms, and just 38% of SMEs rating all those services, the small companies appear to have an outsourcing rate a little more than half that of large firms (Figure 31).

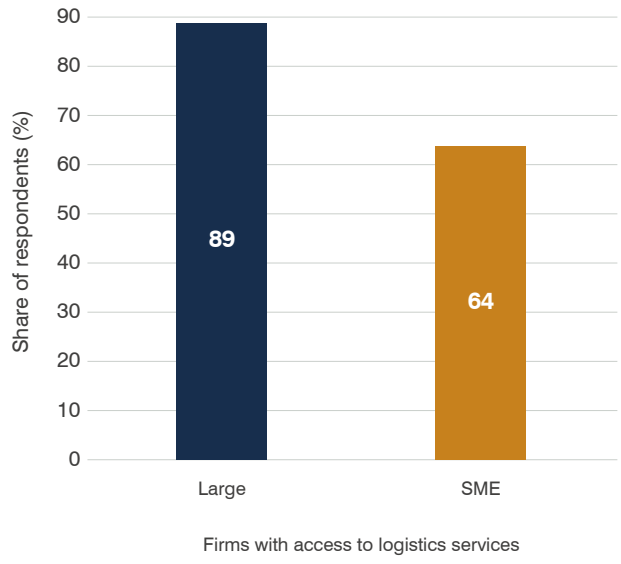
These numbers show that small businesses are at a disadvantage. For example, nine out of 10 large firms hired professional logistics companies to bring inputs from suppliers and ship output to buyers, compared with six out of 10 SMEs (Figure 32). SMEs often lack the amount of goods needed to fill a transport container or engage an

FIGURE 31 SMEs less likely to access all connected services



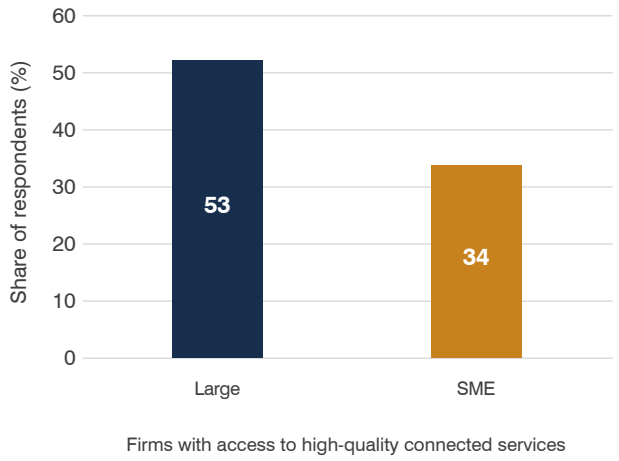
Source: ITC, based on ITC SME Competitiveness Surveys.

FIGURE 32 Large companies more likely to use logistics services



Source: ITC, based on ITC SME Competitiveness Surveys.

FIGURE 33 Larger firms more satisfied with services received



Source: ITC, based on ITC SME Competitiveness Surveys.

independent logistics firm. When they handle the logistics on their own, however, they may have to wrangle with truckers and navigate convoluted customs forms.

Even when SMEs outsourced connected services, the quality tended to be unsatisfactory. Among large firms that outsourced, 53% scored the quality of those services as good. In contrast, 34% of SMEs were satisfied (Figure 33).

Survey responses by SMEs reveal a persistent perception of poor quality in the services they received. Only 35% of SMEs were satisfied with internet quality compared with 59% of large firms. Similarly, 46% of SMEs appreciated the quality of banks, compared with 64% of large firms.

This may be because larger firms demand better-quality services, and are able to obtain them more often than smaller firms.

Structural barriers – such as lack of information, insufficient scale and fear of poor quality – seem to inhibit SMEs from using external connected services providers. Access to connected services, particularly transport and finance, remains a major obstacle for a majority of firms in developing countries.[163] Cost appears to be less of an issue, as the differences between SMEs and large firms in cost ratings of services were marginal.

There is a need to improve the supply of globally competitive connected services. Local providers are necessary in some of these services, such as business and professional services and logistics. Importing connected services can also help SMEs to become more competitive.

Making connected services globally competitive

What do connected firms need to deliver world-class, high-quality services?

In some cases, public bodies provide connected services: for example, national telecommunications companies that provide broadband internet connections. In other cases, large firms or multinationals play a key role: shipping services must rely on the large maritime logistics firms that move containers across the oceans.

Yet, in many cases, connected services are supplied by smaller businesses, as illustrated by the *Business Voices* in this report. Improving their competitiveness is a first step towards stimulating links between connected services and businesses in agriculture, manufacturing and other services sectors.

Many constraints to global competitiveness are due to lack of capacity within firms rather than external factors. Given that exporters are often more competitive than purely domestic firms, comparing the competitive performance of domestic firms and exporters helps to identify areas for improvement.

The two areas of competitiveness where services SMEs show particular weakness are the capacity to connect and change (see Chapter 1). The same is true for SMEs in the connected services. Given that connecting and innovating are even more critical to success in connected services than other services, improving the performance of small firms on these two fronts would yield significant long-term gains.

Beyond getting the basics right – operating efficiently, keeping costs in check and providing good-quality services – four areas mark the frontier for connected services firms to become more competitive.[164]

- Growing networks and managing relationships
- Innovating for quality services delivery
- Deepening staff skills
- Leveraging financing for diversification.

Bashiru Mansaray

Managing Director,
Open Space,
Sierra Leone

Providing digital services for business large and small

This company specializes in information and communications technology services. It is introducing digital technologies to businesses of all sizes in Sierra Leone.

'I decided to specialize in ICT because many businesses in Sierra Leone do not yet use digital technologies.

For example, before COVID-19, many small businesses told me they did not need a website because they only sold locally. But when lockdowns started, sellers had to move online, and we helped them realize its many benefits. By providing them with online solutions, we doubled our client base.

Large businesses need our help too. We worked with Sierratel, the country's largest telecommunications provider, and helped it move from local to cloud hosting. This improved the company's business operations immensely because it no longer loses access to emails and its website during power outages.

Initially, however, doing jobs for big companies is problematic, because they often only pay when the assignment is completed. For a long time, that was not feasible for me, as I needed at least 40% upfront to cover my operational expenses. So, I was limited to working with businesses that knew me personally and trusted me. Only recently have I started accepting contracts for bigger clients without upfront payments.

Access to finance remains critical for services firms, even if set-up costs are not as large as in manufacturing. Unfortunately, banks require collateral, which I do not have. Even when a loan can be secured, interest rates can be too high. Moreover, during the height of the pandemic when microfinance loans became available, services firms were excluded in favour of businesses producing essential goods.

Having a solid network is critical in overcoming these challenges. The YE! community helped me a lot. It gave me the opportunity to link up with mentors and other young entrepreneurs who shared their knowledge with me and helped me put in place the business fundamentals needed for success.

The Ye! Community is a global network supporting youth entrepreneurship and self-employment. The platform provides a space for young entrepreneurs and business support organizations to connect with tools, resources and opportunities to support their enterprises.

Grow networks and connect online

Successful connected services firms have strong networks based on solid relationships with others in the business ecosystem. The capacity to export services entails building international relationships, a culture focused on customers and client confidence, and the ability to recognize opportunities and respond rapidly with new solutions.[165]

These competencies emerge through participation in networks of buyers and peers, including sector associations and other business support organizations (BSOs). Research on exporting environmental consultants in Brazil and software developers and engineers in New Zealand highlights how such networks are crucial to competitiveness in services.[166] Indeed, exporters in the connected services sectors are more often linked to a BSO (55%) than non-exporters (37%) (Figure 34).

When companies seek to trade abroad, a first step is to imitate world-class marketing that allows them to reach new buyers. Historically, this has involved participation in trade fairs, but given COVID-19 and environmental concerns, digital tools are increasingly necessary and can be decisive in the ability to export connected services.

For example, 87% of connected services exporters have a website, compared with 57% of domestic services firms (Figure 34). The gap between exporters and domestic firms in internet and social media-based marketing was 13 percentage points – 75% versus 62%, respectively. These practices are integral to the digital presence of a firm. Companies must be visible online, with activity and followers, to be judged as trustworthy by potential customers.

Innovate for quality and new opportunities

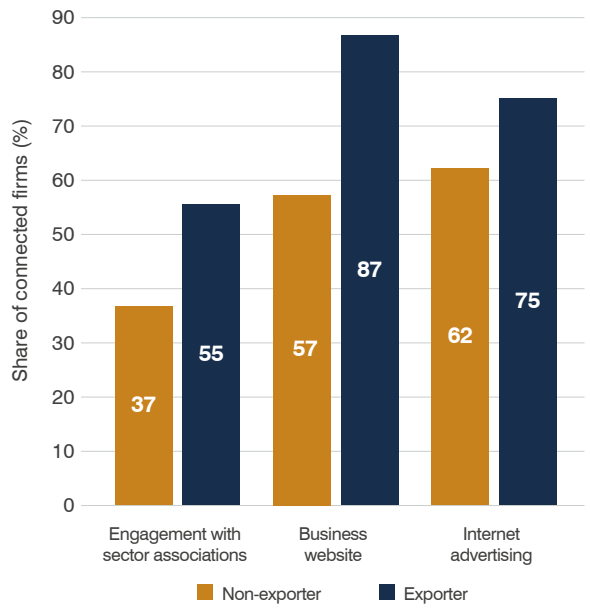
Globally competitive connected services firms do considerably more innovation, and research and development, than domestic ones. Whereas 69% of exporting connected services firms often innovated, by creating new processes and products, the figure was 50% for domestic firms (Figure 35).

Such innovations can include changing the service process in response to feedback from customers, crafting customized service solutions for individual clients and creating a new type of service experience for a niche market.

Innovation in services often stems from research and development. Connected services exporters were more likely to invest significant resources in R&D (48%) than domestic firms (33%) (Figure 35).

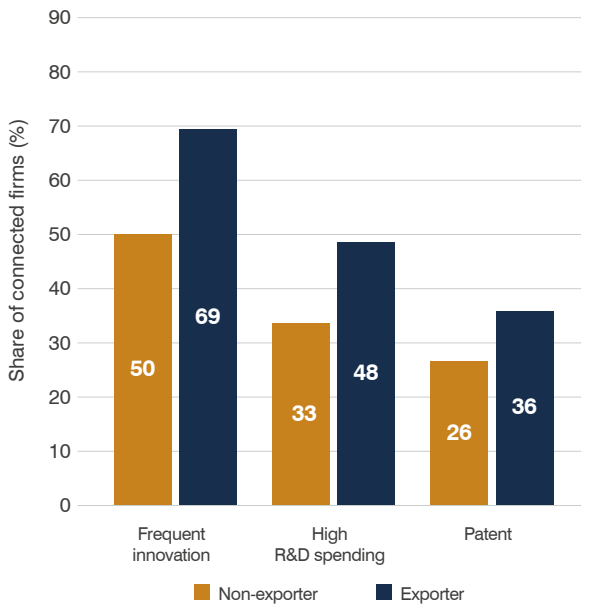
Innovation also can lead to new offerings. Some connected services firms obtain patents for the new services they develop, with more exporters getting such intellectual property certification (36%) than domestic firms (26%).

FIGURE 34 Domestic firms lag in online marketing and networking



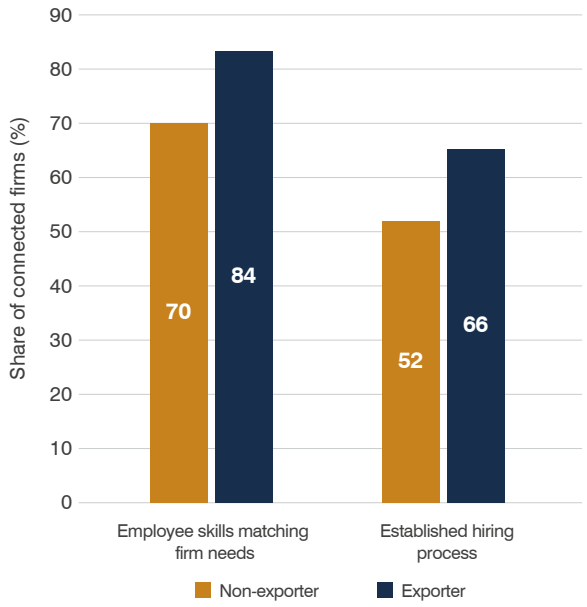
Source: ITC, based on ITC SME Competitiveness Surveys.

FIGURE 35 Exporting firms have more innovation, R&D and patents



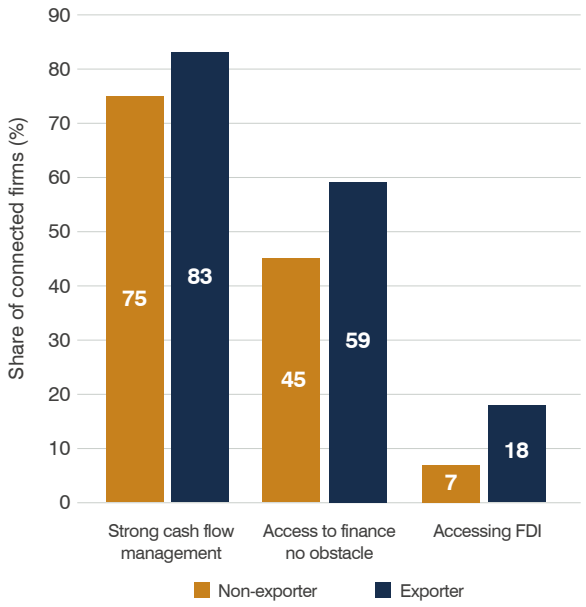
Source: ITC, based on ITC SME Competitiveness Surveys.

FIGURE 36 Formal hiring process helps identify skills



Source: ITC, based on ITC SME Competitiveness Surveys.

FIGURE 37 Domestic connected services firms have lower access to finance



Source: ITC, based on ITC SME Competitiveness Surveys.

Identify and retain skilled workers

Human capital is essential for world class connected services. Innovation depends on responsive and inventive employees, so skills are crucial. Flexible staff with advanced technical training and a track record of innovation are integral to collaborative problem-solving in international services value chains.[167]

Skilled workers can innovate, adapt in response to client feedback and grow the enterprise.[168] They can also help firms capture market share because, unlike other resources, human capital is difficult to copy.[169] Whereas 84% of connected services exporters said the skillset of their workers matched their needs well, the figure was 70% for domestic services firms (Figure 36).

A formal hiring process helps businesses identify the best match for positions they seek to fill, leading to greater competitiveness.[170] While 66% of internationalized firms searched for and assessed job applicants with competency-based tests and interviews, qualifications and merit-based selection, 52% of domestic firms did this (Figure 36).

Improve ability to access funds

Capital requirements to start and grow are lower in services than in manufacturing. Yet access to finance remains essential for connected services. Firms may need short-term credit to pay salaries or suppliers while waiting for a client's payment to clear, as well as funds for licences and certification.

Most connected services companies, regardless of export status, have strong cash flow management practices. Still, domestic firms lag, with 75% reporting good practices compared with 83% of exporters (Figure 37). This means domestic connected services firms may be less able to mobilize their own funds quicky and effectively to invest or respond to shocks.

Unlike firms in other sectors, connected services firms tend to have fewer tangible assets to use as collateral to access external funding.[171] Connected services exporters appear to manage this issue better, as 59% said that access to financial institutions was not an obstacle to their operations compared with 45% of domestic firms (Figure 37).

Though generally rare, foreign direct investment in small, connected services firms is more common for exporting companies. Exporting companies in ITC's sample were 11 percentage points more likely to be partly or fully foreign owned than domestic ones, 18% and 7%, respectively (Figure 37). The low percentage of foreign ownership may reflect changing or complex regulations on FDI in host counties, which discourages investment.

BOX 4: The rise of the platform economy

Digital platforms match buyers and sellers in online networks that facilitate digital interactions. They have grown rapidly in scope and scale, with a combined market capitalization in 2021 of $7.511 trillion.

Platforms provide products (such as Amazon and Jumia), services (such as Uber and Gojek), payments (such as Paypal) or customer relationship management systems (such as Salesforce). In the United States, it is estimated that they are used for transactions in 70% of services industries.

Platforms provide market information through descriptions of products and services by sellers, and feedback through customer reviews and ratings. They go hand-in-hand with e-payment infrastructure, smart algorithms, big data and e-commerce-related sectors, such as courier services. In services, they are associated with the rise of the 'gig' economy, where freelancers provide on-demand services ordered by clients online.

Growth of the platform economy is closely linked to servicification and digitalization. Improvements in digital access and skills widen the scope of online networks, improving their efficacy and performance. Platforms in turn can facilitate SME access to buyers and suppliers. Connected services providers, such as lawyers or logistics firms, reach clients through platforms.

While platforms can provide useful services to SMEs, notably by sharing information and signalling quality, their role as vital infrastructure, gatekeepers and ad hoc regulators is now widely recognized.

Competition policy and other regulatory initiatives are therefore needed to safeguard the interests of SMEs, as discussed in Chapter 4. Business support organizations have a crucial role to play in building a conducive business ecosystem that supports SME skills, knowledge and interests in the platform economy.

Source: ITC, 2018; Kenney et al., 2021; WSJ, 2021.

THOUGHT LEADER

Promoting digital transformation for small businesses

Shamina Singh

Founder and President

Mastercard Center for Inclusive Growth

The COVID-19 pandemic accelerated digital transformation across many fields, from tele-medicine to online payments and e-government.

Many small businesses adopted digital tools to survive. In some major economies, such as the United States, Brazil, Germany and South Africa, creation of small and medium-sized enterprises (SMEs) increased dramatically from 2019 to 2020.[1] But SMEs – particularly those in developing economies – face a digital divide. There are wide gaps by region, sector and company size when it comes to incorporating digital tools.[2]

In Colombia, India, Indonesia and Nigeria, most micro and small businesses surveyed said they were not selling on digital platforms, with some wary of e-commerce, according to research by the Center for Financial Inclusion (CFI), carried out with support from the Mastercard Center for Inclusive Growth.[3]

A report from the International Labour Organization found that barriers for SMEs go beyond access and connectivity to include lack of training and the high cost of cybersecurity.[4]

Bridging the digital divide would promote economic growth, help SMEs become more resilient, and give marginalized groups more access to the formal economy.

A new approach is needed to support SMEs to move into the digital world, enabling them to save time and increase profits. Such efforts must be culturally inclusive and responsive to feedback from small business owners and workers around the globe.

For the past seven years, the Center for Inclusive Growth has worked with a diverse set of partners to test and scale innovative approaches to digital transformation for SMEs. We have identified three guiding principles for the international community in

1 (Mastercard, 2021).
2 (OECD, 2021b).
3 (Accion Center for Financial Inclusion, 2021).
4 (ILO, 2021a).

our efforts to help SMEs adopt digital tools at scale, use those tools to support resiliency and translate digital transformation into growth.

First, we need to make learning easy and accessible. A Mastercard survey of UK SMEs showed a third of business owners did not know how to choose the right tools, even in this highly developed economy.[5] In response, Mastercard's Strive UK initiative aims to help 650,000 SMEs identify and implement the right technological solutions, whether it is a platform to take customer orders or payroll software. Strive UK is helping businesses through a data-powered, digital one-stop shop that gives them personalized information to navigate digital transformation.

It's just not possible to support digital transformation at scale one business at a time – learning opportunities should be accessible to all SMEs whenever they need.

Second, once SMEs adopt digital tools, they need specialized support to use them to build resiliency. For example, in 2019 the Center for Inclusive Growth partnered with Juntos, a platform that connects banks to their customers through automated text messages. After Juntos provided 134,000 SMEs with business training via text messages, many reported improved record-keeping, cash flow management and savings practices.[6] Those nuts and bolts improvements matter, especially when crises strike.

Third, we must help SMEs use digital transformation to accelerate growth, in part by transforming access to capital. We have seen how SMEs can benefit individually from joining the digital economy, but there are also broader economic benefits.

In Africa, Accion Microfinance Bank partnered with e-commerce giant Jumia to bring the bank's SME customers onto Jumia's sales platform. Access to the platform enabled the bank's small business customers to expand to new markets and grow sales, while increasing their trust in, and comfort with, digital tools. Meanwhile, Jumia's existing merchants have been able to access the bank's credit offerings.[7]

Those are just a few examples of how we can achieve digital transformation at scale, connecting merchants to platforms and platforms to financial services – while benefiting local communities and entire economies.

Unless companies, non-governmental organizations, and governments stitch together networks that support comprehensive digital transformation for SMEs, those small businesses will continue to miss the wave of innovation larger businesses are riding. Even worse, we will lose the chance to build resilience and expand economic opportunity for marginalized groups.

Working together, we can apply the lessons of the pandemic, build global infrastructure to spur digital transformation and support widespread financial inclusion.

5 (Mastercard Center for Inclusive Growth, 2021a).
6 (Mastercard Center for Inclusive Growth, 2021b).
7 (Accion, 2021).

CHAPTER 4

A regulatory landscape inclusive of small businesses

Regulations should maintain a level playing field in markets so that small businesses can provide and access affordable, quality connected services. On the one hand, enabling regulations can support healthy growth in connected services. On the other, if regulations are too restrictive, complex or poorly applied, they stymie development of connected services sectors, to the detriment of small firm users and providers.

Getting this balance right is especially important considering the two trends reshaping the services sector: servicification and digitalization.

With services accounting for the bulk of global economic activity, there are real opportunities for small connected services firms to add more value to supply chains at home and abroad. Regulatory frameworks should support the capacity of ICT, transport and logistics, finance and business and professional services firms to provide good-quality services that improve the efficiency of value chains and foster economic transformation.

As digital technology rapidly transforms services, new regulatory challenges emerge. Data governance and privacy, competition, cybersecurity, digital taxation and intellectual property protection have become critical, and require enabling regulation if small firms in connected services are to operate and flourish.

Governments must act to address regulatory obstacles faced by connected services firms. This includes ensuring that regulations are neither excessively burdensome, so that SMEs can capitalize on the servicification of value chains, nor completely absent, to ensure legal frameworks that facilitate inclusion of SMEs in the digital economy.

Rules can support small services firms to trade

Fragmented production in value chains, coupled with more services within them, have opened new doors for small and medium-sized services companies. To leverage these opportunities, however, SMEs must deal with all sorts of authorizations.

Governments often demand that suppliers fulfil regulatory requirements before delivering their services. Primarily, they help set a standard and protect consumers. They may also ensure long-term, sustainable growth of the sector by addressing market failures and safeguarding fair competition, among others.

To include small connected services companies in increasingly 'servicified' value chains, governments must strike a balance between regulating for legitimate policy objectives and maintaining the vitality and openness of the services market.

Small firms find regulations costly

On paper, regulations do not necessarily distinguish firms by size. In practice, the regulatory and procedural obstacles prevalent in the connected services sectors affect SMEs more heavily,[172] making it more difficult for them to engage in international value chains.

Indeed, small firms view regulatory obstacles as a significant challenge. In Viet Nam, Ghana, Niger and Bahrain, for example, 50% of ICT services firms and 45% of transport and logistics services firms reported regulatory obstacles to exporting, according to ITC's Non-Tariff Measures (NTM) Business Surveys in 2019 and 2020.

Regulatory compliance entails a fixed cost that large firms can spread over more transactions than smaller businesses.[173] One study in the Netherlands, for example, found that the cost per employee of complying with regulations is six times higher for firms employing one to nine people than for those with a staff of 100 or more.[174]

Larger companies have more resources to understand and comply with regulations, either internally or by outsourcing to other services firms. In contrast, small firms often deal with such issues on their own. SMEs less frequently outsource their professional and legal needs, and are more likely to handle regulatory issues in-house.

Large firms tend to have early access to information about regulatory changes and may even influence the change directly. This is partly because large companies can afford to dedicate staff time and resources to networks that interact with regulatory bodies. Large connected services companies are 13 percentage points more likely to engage with at least one business support organization than small services firms, ITC data show.[175]

Finally, larger firms may have more opportunities and favourable treatment, as they are perceived to be more trustworthy. Trust is of great relevance in services, due to difficulties in measuring them precisely in specifications. Regulations sometimes try to proxy for trustworthiness by requiring prior experience or a record of profitability as a prerequisite to enter more sophisticated markets.

In Niger, for example, a small air services company wishing to expand internationally found its way blocked by regulations, which only granted permission for trade in aviation services to firms with more than a certain turnover level and number of years of operation.[176]

These measures make it more difficult for new entrants and smaller companies. Regulations that are more inclusive of SMEs are about redressing this imbalance by deliberately giving SMEs a better chance to compete.

Small connected services firms are concerned about particular regulatory issues. ICT and logistics services companies most often cited concerns regarding: technical requirements (32%); taxation (20%); movement of natural persons (16%); and quality control measures such as licences, qualifications and registration related to market entry (14%), according to the ITC NTM Business Surveys in the countries mentioned earlier (Figure 38).

A lighter regulatory burden can help small connected services firms supply domestic markets and join international value chains. Policy options – such as harmonizing technical regulations and simplifying licensing procedures – help strike the right regulatory balance for connected services to be competitive.

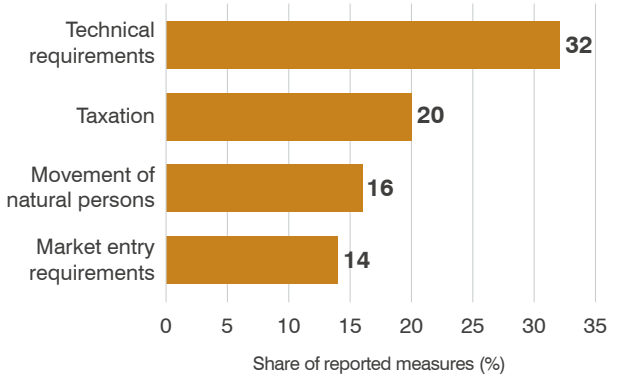
Harmonize rules to lower costs

Technical regulations set mandatory rules, defined by government authorities, for services in a specific jurisdiction. Standards set voluntary guidelines, compliance with which is of increasing value for companies. Often, technical regulations emerge when compliance with existing technical standards becomes mandatory. Therefore, today's voluntary standards can become requirements tomorrow.[177]

Technical regulations and standards also determine whether the tools and technologies used in connected services sectors can operate across borders. For example, the international standard for ATM card size allows financial services providers from different countries to operate in each other's markets. The International Organization for Standardization (ISO) has developed nearly 900 standards for road vehicles and related technologies, ranging from exhaust emissions and fuel consumption measurements to road traffic safety management.[178]

The proliferation of standards and differences between national regulations and international standards entail increased costs for SMEs that export.[179] Different regulations across jurisdictions also add to the difficulties of SMEs in the connected services sector.

FIGURE 38 Top critical regulatory issues



Source: ITC, based on NTM Business Survey. 323 ICT and logistics/transport firms in Viet Nam, Ghana, Niger, and Bahrain interviewed in 2019 and 2020.

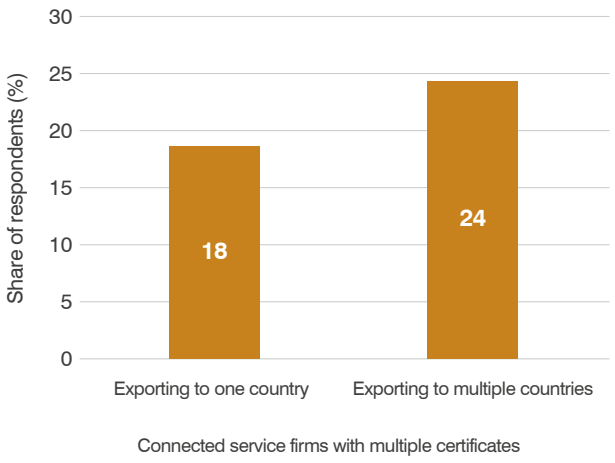
For example, trucks certified as compliant with road rules in Nepal must also have a permit certifying compliance with Indian transport regulations before they can provide transport services in India.[180] Understanding and complying with divergent rules in international markets significantly increases the cost of exporting services and discourages small business from exporting.

Small services businesses often obtain multiple certifications to export. While firms operating domestically only need to get certified once, they often go through the costly process of obtaining multiple certifications when they become exporters.

About 24% of connected services companies exporting to several destinations had multiple certifications, compared with 18% of firms exporting to only one country, according to ITC SME Competitiveness Surveys (Figure 39).[181] This indicates that companies seeking to expand across borders might have to obtain separate certification for each new jurisdiction.

To avoid such issues for companies, countries should align their domestic technical regulations to international standards as much as possible. In Mauritius, an ITC-facilitated export strategy called for the country to better align ICT policy and regulations with international best practices. This could improve the business environment for ICT SMEs and promote their inclusion in value chains.[182]

FIGURE 39 Exporting to multiple countries often requires more certificates



Source: ITC, based on ITC SME Competitiveness Surveys.

BOX 5: WTO Services Domestic Regulation – Paving the way for simpler processes

To reduce the regulatory burden and break down barriers to trade, 67 WTO member countries, accounting for 90% of global trade in services, have signed up to disciplines set out in the Joint Initiative on Services Domestic Regulation.

The accord, reached in December 2021 after several years of negotiations, reflects a commitment to predictable and transparent domestic processes on authorizing services providers. It aims to spread best practices in such regulations.

The disciplines cover licensing requirements and procedures, qualification requirements and procedures, and technical standards. The rules seek to ensure that regulatory information is readily available to services suppliers and stakeholders, and authorities must establish conducive regulatory and administrative processes to deal with applications.

Regulators must ensure that fees are reasonable and accept electronic applications. Other good regulatory practices include basing measures and standards on objective criteria to facilitate the ability of services suppliers to trade. For the first time in WTO history, the disciplines also contain a provision on non-discrimination between male and female services providers.

There is flexibility built into this accord. Developing countries are not required to implement them all at once. They can make use of a transitional period of up to seven years to adjust their domestic regulatory framework. Least developed countries adopt the disciplines only upon graduating from their LDC status. Developed countries are encouraged to provide technical assistance and capacity building to developing and least developed participants.

Global benefits from reducing trade costs through this accord could amount to $150 billion annually, with significant gains in finance, business, communications and transport services. SMEs in particular stand to benefit from these measures, as the rules call for simplifying regulatory processes that often bar the way to trade for small services businesses.

Source: WTO, 2021; WTO & OECD, 2021; WTO Public Forum, 2021.

Harmonizing technical regulations and standards can result in significant savings for companies already providing services in multiple countries and encourage SMEs to go international.[183] Discussions under the auspices of the African Continental Free Trade Area aim to align domestic technical regulations for services providers in the signatory countries,[184] which could encourage SMEs to trade more within the region.[185]

Processes to develop standards – domestic and international – should reflect SME perspectives. For example, the European Commission is funding a Small Business Standards programme to elevate SMEs from users to co-developers of ICT standards.[186]

Move skills across borders

Qualified individuals must be able to move across borders for connected services to be competitive. If needed skills are not locally available, businesses must be able to recruit from abroad. Similarly, they should be allowed to temporarily send employees abroad to export their services.

Lack of information on entry conditions, complex visa and work permit processes and high qualification requirements add to the challenges SMEs face in moving workers across borders. For instance, SMEs providing audit or legal services find it expensive and time-consuming to recruit individuals for each jurisdiction in which they operate or plan to expand.[187] Being able to move current staff, at least temporarily, can facilitate the process.

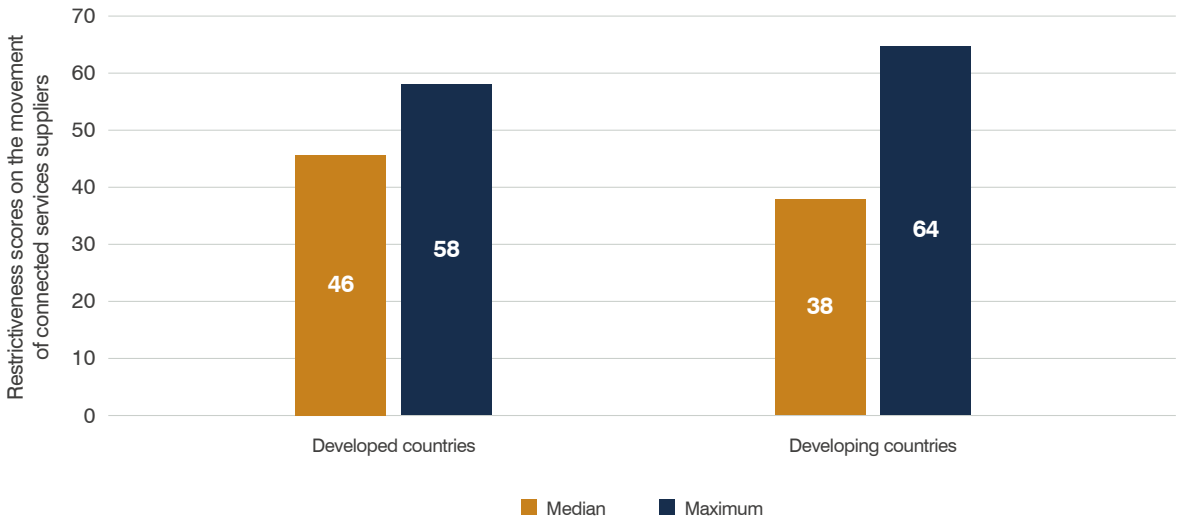
Obtaining a visa for employees to provide services in another country is often time-consuming and bureaucratic. In some countries, it may take up to 119 days to process a business visa, and the applicant may have to provide up to 10 types of documents.[188] This most obviously affects business and professional services, where a consultant needs to travel to provide their services. It also affects ICT entrepreneurs where business mobility is integral to the ability to export.[189]

SMEs also face difficulties in hiring professionals from foreign countries. Of surveyed connected services companies, 29% reported a shortage of skilled workers for hire.[190] When they are unable to find skilled labour domestically, SMEs would benefit from the flexibility to recruit regionally or globally.[191]

SMEs often consider getting through registration processes and obtaining residency and work permits as time-consuming and expensive.[192] In Senegal, the business process management sector lacks expertise in export marketing, but challenges to obtain visas keep it from bringing in qualified workers.[193]

With remote work becoming more common in the aftermath of COVID-19, more SMEs access services through digital platforms. However, some countries require services companies to have a local presence, hampering recruitment of remote professionals.

FIGURE 40 Connected services suppliers: Restricted movement



Source: ITC, based on 2016 World Bank Services Trade Restrictions Index (STRI).

Note: The Services Trade Restrictions Index (STRI) is a measure of the restrictiveness of an economy's regulatory and policy framework with respect to trade in services. It ranges from zero to 100, where zero indicates that none of the restrictions underlying the index are applied, and 100 means that the sector/mode is completely closed to foreign services and services suppliers.

When activities can be performed virtually from any location, local presence requirements prevent SMEs from recruiting highly qualified workers.[194] For instance, Ugandan ICT firms trying to provide services in Rwanda, South Sudan, Ethiopia, Tanzania and Nigeria find it challenging to comply with local presence, ownership share and nationality requirements.[195]

Countries impose different restrictions on the movement of connected services professionals across borders. The median level of restrictions is higher in developed countries. The restrictiveness of transit rules varies widely in developing countries, some of which have very closed markets for foreign professionals (Figure 40).

Reducing barriers to temporary movement of people that provide connected services in a foreign market, or Mode 4, can open the door to importing needed expertise. This is relevant to the development agenda, given that developing countries often have export interest in this type of services trade.[196] Indeed, many developing country WTO Members advocate liberalizing rules on the cross-border movement of people to deliver services.[197]

Smooth licensing, recognize qualifications

Governments or professional bodies usually issue licences and qualification requirements that companies and people need to supply a service.

Governments license companies to ensure reliable, safe, quality services. Balance is key, as excessive licensing requirements discourage services suppliers, especially small companies, from entering markets.

Simpler licensing requirements can greatly help SMEs. Measures include reducing the number of required licences, extending the duration of licences and expediting renewal processes. Licensing fees and charges should be based on specific laws or regulations; they shouldn't be arbitrary or constitute unnecessary market entry barriers.

For business and professional services, proper qualifications are often a prerequisite. Lack of recognition or equivalence for certificates or diplomas issued abroad, along with complicated procedures for registering these, add to operating costs for SMEs and individual suppliers.

Mutual recognition agreements covering business and professional services suppliers can reduce barriers involving licences and qualifications. Pacific Alliance countries – Chile, Colombia, Mexico and Peru – have adopted a recognition system for engineering professionals that deepens services trade integration. Eligible engineers can obtain professional registration and practice for three years, or the duration of the contract, in one or more Pacific Alliance countries.[198]

Open markets foster competitiveness

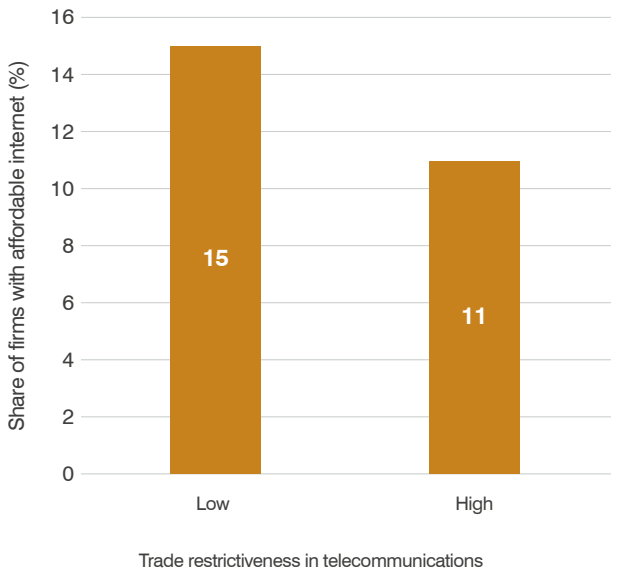
SMEs must abide by market access regulations when providing services in value chains. These include the legal setup of business, restrictions on the number of outlets and suppliers, and rules barring foreign providers unless domestic suppliers aren't sufficient to meet local needs, the so-called economic needs test.[199]

Governments may authorize monopolies in specific connected services sectors, such as telecom, rail or air transportation. These measures can exclude both domestic and foreign SMEs from engaging in the sector, reducing competition.

There are also restrictions to protect domestic markets that apply only to foreign firms. For small exporting firms, average services trade restrictions represent an additional tariff of up to 14% relative to large firms.[200]

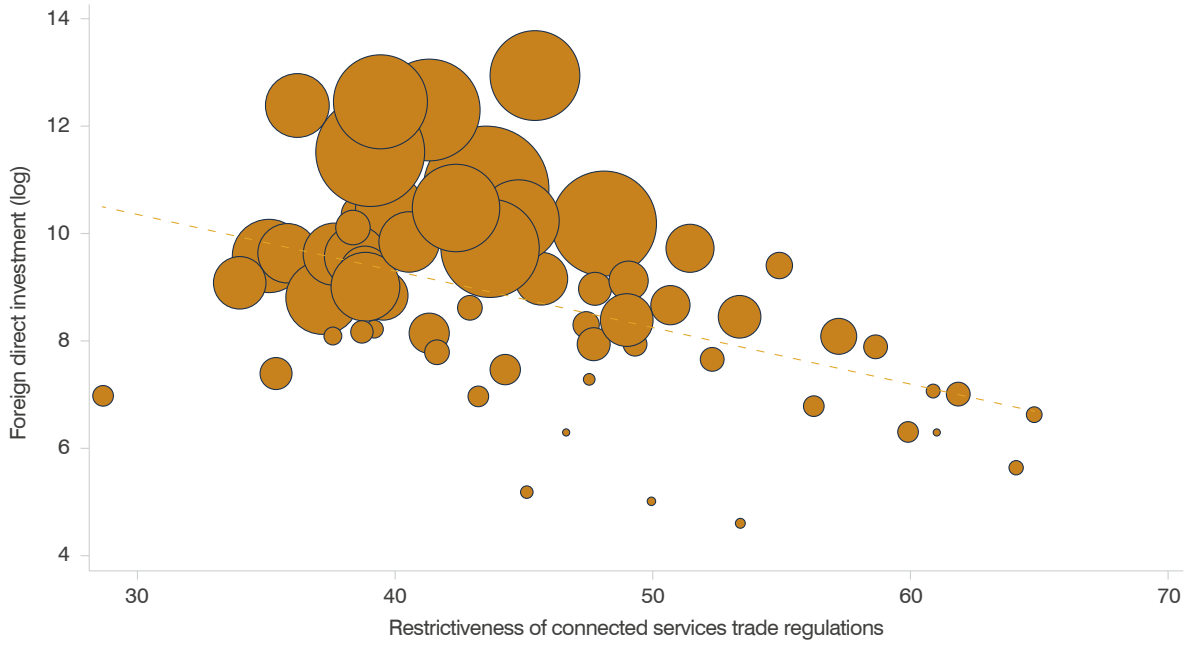
Small firms using connected services find that trade offers access to higher quality, varied or cheaper services. Services trade is, however, more protected than goods trade. Trade costs in services are still almost twice as high as in goods. This is partly because services trade is mostly regulated through behind-the-border measures.[201] Therefore, reducing costs often entails adjusting domestic laws and regulations, rather than tariffs.

FIGURE 41 Telecoms trade restrictions can reduce internet affordability



Source: ITC, based on ITC SME Competitiveness Surveys and 2012 World Bank Services Trade Restrictions Index (STRI) in Telecommunications industry.

FIGURE 42 Lower regulations foster foreign investment, export competitiveness



Source: ITC, based on World Bank Services Trade Restrictions Index (STRI), UNCTAD FDI statistics, Eora.

Note: The horizontal axis shows the average Services Trade Restrictiveness Index (STRI) in the four connected services for all modes of supply for different countries in 2016. The vertical axis shows the natural logarithm of per capita foreign direct investment (averaged between 2015 and 2020). The size of the bubbles represents per capita domestic value-added of the four most services-dependent manufacturing sectors in developing countries (i.e., Food & Beverages; Textiles and Wearing Apparel; Wood and Paper; Petroleum, Chemical and Non-Metallic Mineral Products) exported in the year 2015 (latest year available). See Annex I for details.

Cutting trade restrictions in services can help small domestic firms access good-quality, affordable connected services.[202] For example, in countries with lower telecoms trade restrictions, as measured by the Services Trade Restrictiveness Index (STRI), more companies say access to the internet is affordable (Figure 41).

Liberalizing trade in services can help promote development goals, when balanced with regulatory reforms that safeguard other domestic policy objectives. Reducing barriers to cross-border supply of services (Mode 1),[203] much of which is exchanged online, entails the removal of restrictions to digital trade.

As relatively few countries restrict the arrival and spending of foreign visitors, there is little scope or need to reduce trade barriers under Mode 2.

Relaxing restrictions on maximum foreign ownership shares of domestic firms, and conditions on the terms of foreign investment, can promote trade in services under commercial presence (Mode 3). Accommodating rules for business visas facilitate trade in services that requires the presence of people (Mode 4).

Lower restrictions on connected services that make it easier to do business in a country help build a more attractive environment for FDI.[204] In the Middle East and North Africa, for example, reforms in telecommunications regulations reduced perceived risks by investors, improving the investment climate.[205]

Given that FDI is particularly important for connected services, easing regulations can improve competitiveness and bolster investment and trade.[206] When connected services are subjected to lower restrictions, all sectors of the economy benefit by attracting more FDI (Figure 42).

An enabling regulatory environment for connected services can encourage export competitiveness in other sectors, leading to increased exports (represented by the size of the bubbles in Figure 42). This is because firms in such sectors, particularly manufacturing, depend heavily on the availability and quality of connected services.

Getting the regulatory balance right can facilitate exports and bring SMEs into value chains. However, liberalization does not mean deregulation. Even in fully liberalized sectors, governments can maintain or introduce

regulations that are balanced and applied in a non-discriminatory and transparent manner.

Implementation is key

SMEs need to know how to comply with regulations, too. This raises issues such as information access and ease of implementation. The quality of regulatory institutions[207] and the procedures to be followed matter. Common procedural hitches include: delays in processing applications; duplication of requests and lack of coordination among issuing agencies; and arbitrary interpretation and application due to lack of clarity or oversight.

Proving that a firm complies with a specific regulation can be more complex than actual compliance.[208] Over one-third (40%) of ICT and transport and logistics companies interviewed by the ITC NTM Business Surveys in Viet Nam, Niger, Ghana and Bahrain that reported regulatory obstacles faced only procedural problems, whereas 28% reported that regulations were too strict or difficult to comply with. In 32% of the cases, both issues were present.

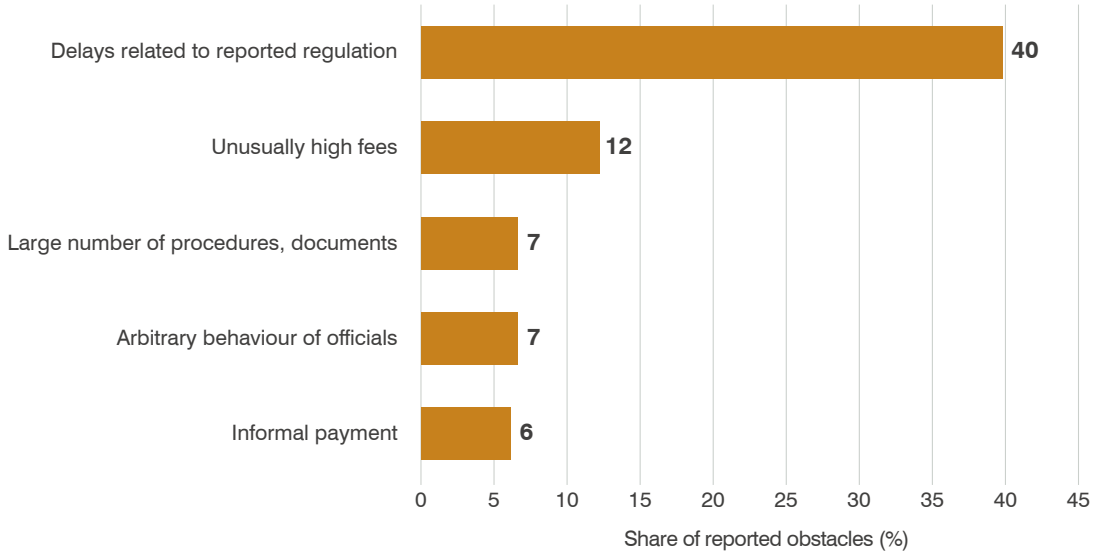
The procedural issues that the companies cited most often were delays (40%) and unusually high fees (12%) (Figure 43).

This highlights how delays linked to domestic authorization procedures can affect SMEs. Unclear timeframes to process applications can cause delays, as do understaffing and complex authorization processes involving multiple agencies. In transport and logistics, delays often relate to customs procedures.

Lack of transparency about regulatory implementation is also a challenge for SMEs. They struggle to understand which of numerous procedures are relevant and how to find documents they need to complete. SMEs rely on publicly available information, as they usually cannot afford to outsource regulatory monitoring and compliance. Governments need to publicize timely, accessible information and provide clear guidance to meet requirements.

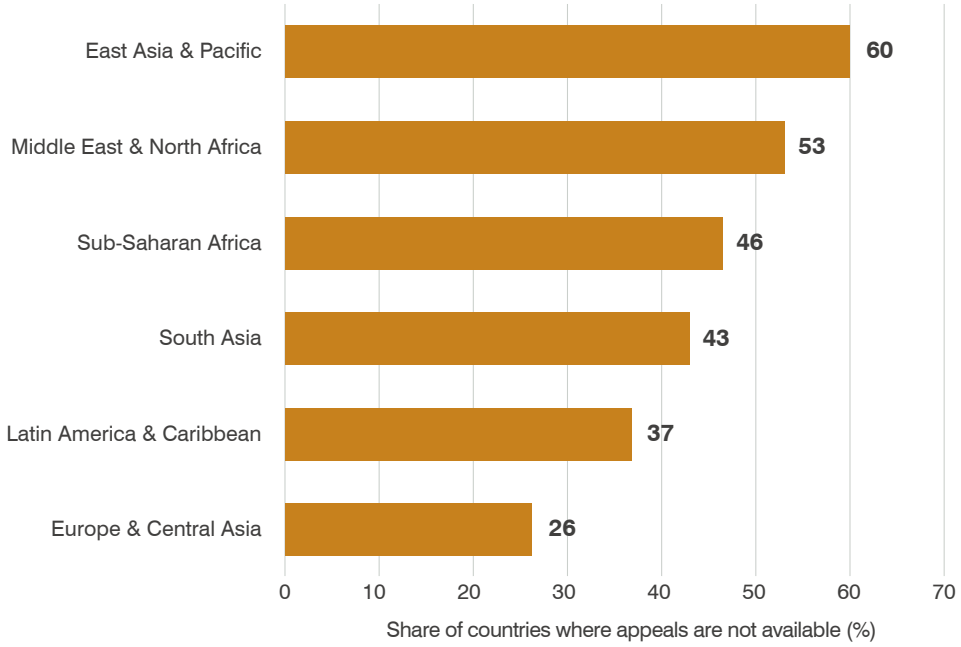
Connected services exporters report information access as a major challenge. For instance, transporters of perishable goods can face huge losses when businesses do not have adequate information on documents required for customs and border checkpoints. Avina Logistics, a Vietnamese transport and logistics company featured in this chapter's *Business Voices*, highlights how dispersed information engenders high costs for firms in fast-paced sectors.

FIGURE 43 Top procedural obstacles



Source: ITC, based on Non-Tariff Measures Business Survey. 323 ICT and logistics/transport firms in Viet Nam, Ghana, Niger, and Bahrain interviewed in 2019 and 2020.

FIGURE 44 Right of appeal not always available



Source: ITC, based on World Bank Regulatory Governance database.

Information needs differ among sectors. European exporters of architectural and research, development and testing services most needed information on regulations and procedures, such as licences and certifications, according to a 2020 ITC survey of exporters to non-European Union countries. For exporters of accounting, auditing, bookkeeping and tax consultancy services, and providers of retail and advertising services, internal taxation information was more important. Finally, computer and telecommunications services exporters most needed information on regulations and procedures on cross-border transfer of data.[209]

Most countries have investment portals with information on which documents and forms are required, agencies to approach, applicable laws and regulations, length and cost of procedures and how to appeal a negative decision. Electronic payment systems and electronic signatures simplify payment of fees and charges.

Since 2016, the number of countries with online investment portals rose from 130 to 169, and those with single windows to process applications online jumped from 29 to 75.[210] India recently launched the National Single Window System, a platform for state and national government authorities to facilitate investment processes and government approvals.

Tools developed by international organizations can help bridge the information gap. ITC's Procurement Map, for example, provides online information about public tenders and contract awards in transportation and business services. Interested companies can discover opportunities to provide services to governments in many countries.[211]

Some national and regional regulators have adopted frameworks to improve the transparency and efficiency of administrative procedures. These range from the recently concluded Services Domestic Regulation (Box 5), to the European Union Services Directive, which removes unnecessary and inappropriate legal and administrative barriers to trade.

Companies must have the right to appeal regulations through a request to administrative agencies. Under appropriate schemes, interested parties can request the publication, amendment or repeal of a regulation after it is adopted.

Yet some countries do not allow companies to appeal when they are adversely affected by regulations. This is particularly the case in East Asia and the Pacific as well as in the Middle East and North Africa, where more than half of the countries do not allow for reconsideration or appeal (Figure 44). Even in countries where it is possible, the regulatory agency may not provide enough detail about rules governing the process, or there may not be administrative review by an independent body.

Le Hoang Oanh

CEO, Avina Logistics, Viet Nam

Time is a valuable commodity

This company specializes in transport and logistics services. Its experience underscores the need for regulatory changes to be clearly and quickly communicated to businesses.

'In Viet Nam, the rules and regulations governing businesses have become better and better and are now supporting a stable business ecosystem. We profit from this environment, as we expand beyond local clients to provide transport and logistics services internationally, mainly in China, Europe and the United States.

While many of the regulations in place benefit our company and clients, we sometimes encounter obstacles. For example, our international business often requires foreign currency transfers. Our bank still asks for a number of documents for the same transaction (such as the customer or general sales contract). However, resending these documents takes time and can delay the delivery of goods to our customers.

Another issue involves toll rates. Road transport operators in Viet Nam have access to modern expressways connecting major cities. While the quality of these roads is excellent, high tolls make them very costly. As many of our clients do not want to pay such costs, we must send our trucks on older, less well-maintained roads. These are often very crowded, which lowers the efficiency of our transport operations.

On the plus side, the country's efforts to digitalize processes are helping our operations. A customs portal allows us to submit documentation digitally. This smooths the process of importing and exporting for most of our shipments. The portal also contains information about regulations, and has an enquiry system through which we can submit questions.

Nonetheless, we sometimes struggle to find – and interpret – information on new regulations. Trade agreements are one example. It is not straightforward to understand how they will affect us and what adjustments we need to make. We usually must consult multiple sources to find all the information we need, which takes time. And time is a valuable commodity in a fast-paced sector such as logistics.'

Avina Logistics participated in the ITC NTM Business Survey on the experience of businesses in trans-border trade operations. This survey is part of ITC's programme on non-tariff measures that aims to increase transparency and help countries better understand the non-tariff obstacles to trade faced by businesses.

Regulations for the digital era

For SMEs to take advantage of online services opportunities, regulations need to be designed for the digital era.

Firms often complain about complex or burdensome regulations. Their absence can be just as damaging, especially for digital services. In many cases, digital transactions are under-regulated. This creates uncertainty and discourages investment.

Certain regulations facilitate connectivity. Effective telecommunications regulations, for example, help SMEs to have affordable and accessible electricity, mobile and internet services. In Africa, regulatory approaches favouring telecoms competition seem to be associated with less expensive broadband and smartphone services.[212]

Regulations underpinning the digital economy are currently the subject of domestic and international discussions. Among them are several recurring topics: legal and procedural frameworks for online transactions, data protection and privacy, taxation of digital services, competition and intellectual property protection.

When closing regulatory gaps, governments should align with international best practice – as embodied in templates such as the Model Law on Electronic Commerce.[213] This way they can avoid the kind of regulatory divergence that is so costly to SMEs.

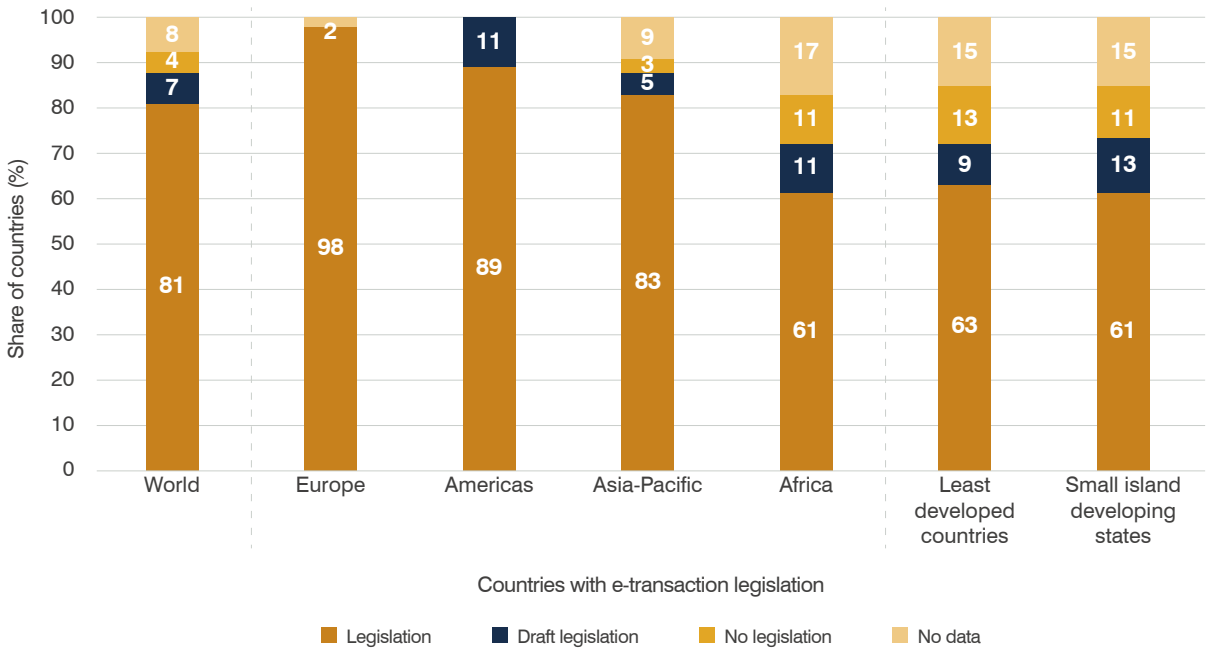
Emerging legal frameworks for online transactions

Developing economies are increasingly seeking to harness technological change to boost their services competitiveness, especially in connected sectors that are at the cutting edge. Significant challenges nonetheless remain for governments in setting up the legal frameworks that are essential for developing the connected economy.

Many countries have yet to implement adequate legal frameworks for online commerce. For instance, it is crucial to have e-transaction laws that recognize the equivalence between paper-based and electronic forms of exchange.

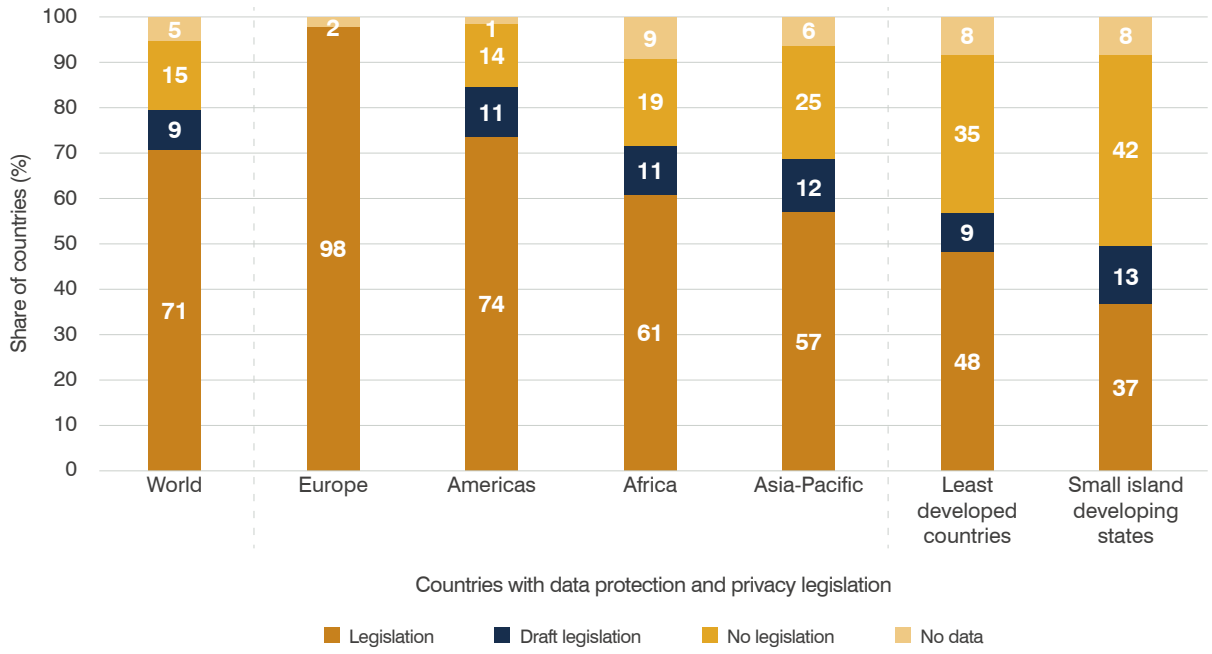
According to the UNCTAD Global Cyberlaw Tracker, 81% of countries have implemented laws related to e-transactions (Figure 45), but there are significant differences across regions. About 98% of countries in Europe have implemented e-transactions laws, compared with 83% in Asia and the Pacific and 61% in Africa.[214] African countries are catching up, as 11% are drafting legislation on e-transactions. LDCs and SIDS are also catching up, as 13% and 11% respectively are drafting e-transaction laws.

FIGURE 45 Developing countries catching up in e-transaction laws



Source: ITC, based on UNCTAD Global Cyberlaw Tracker.

FIGURE 46 Most countries have data and privacy protection laws



Source: ITC, based on UNCTAD Global Cyberlaw Tracker.

Data regulations on the rise

With more SMEs offering their services online, there is a need to protect privacy and data. Of equal concern is the collection, use and sharing of personal information with third parties. Well-crafted, transparent regulations can achieve these goals while supporting small services firms competitiveness online.

Currently, 71% of countries have implemented legislation on data and privacy protection (Figure 46). Of African countries, more than half have implemented such legislation, about 11% are in the process of drafting laws and 19% do not have a draft regulation yet. In Asia and the Pacific, percentages are similar. In the Americas and Europe, the share of countries that have implemented legislation in this area is higher at 74% and 98%, respectively.

Some countries require data to be stored or processed locally. This is known as data localization. These measures more than doubled in number globally in the last four years. In 2017, 35 countries had implemented 67 such rules. Now, 62 countries have imposed 144 restrictions – and dozens more are under consideration.[215]

Governments adopt such laws in part for digital sovereignty – the ability to decide independently the country's approach to digital governance. This also involves reserving policy space for strategies that develop domestic digital infrastructure.[216]

While governments may view data localization policies as essential to data security, SMEs struggle to comply. Businesses are often unsure of what data are regulated, whether the protection is granted to businesses or data subjects, who owns the data, which kind of businesses are required to comply and how to prove compliance.[217]

Compliance with data regulations can be expensive for SMEs. Some countries require getting a data protection certificate and annually renewing it.[218] SMEs find this annual compliance process burdensome, and it leads to delays or loss of transactions when certificates are not obtained on time.[219] These rules can lead to large firms gaining a competitive advantage over SMEs in the digital space.[220]

Countries also include data provisions in regional and bilateral trade pacts. These accords harmonize regulations related to data movement across borders, making it easier for companies to operate in multiple countries. For example, the Comprehensive and Progressive Agreement for Trans-Pacific Partnership has a full set of provisions on data movement. They could allow an online services company in Peru to supply a firm in Chile, knowing that data transfers are authorized.[221]

Simultaneously, standards and technology-driven initiatives are spreading, developed by non-governmental organizations and private organizations.

For example, the GO FAIR initiative is promoting the FAIR Guiding principles to improve the findability, accessibility, interoperability, and reuse of digital assets.[222] The W3C guidelines established by the World Wide Web Consortium set standards for data categories.[223] By making it easier to use and manage data, these initiatives make data governance more inclusive and accessible in low-income countries.[224]

Think small first when taxing digital transactions

Taxing online transactions is a new challenge for governments. In 2019, the global value of e-commerce sales (among businesses and between businesses and consumers) was almost $26.7 trillion, or about 30% of global GDP.[225] Given this rapid increase in cross-border e-commerce and digital trade, countries are reforming taxation regimes to prevent tax evasion and revenue loss.

As governments consider how to tax digital transactions, a 'think small first' approach is needed. Taxation regimes should be equitable and harmonized, and information about them transparent.

Equitable taxation does not mean that all firms are subjected to the same taxation. Quite the opposite. It recognizes that small businesses have lower revenue and are more resource constrained. Therefore, they should benefit from certain exemptions.

For example, *de minimis* regulations exempt cross-border e-commerce products from customs duties below a certain threshold (ranging from $3 to $800). Much of the value of these small packets comes from services, including small courier companies, online retailers, wholesaling, information technology input providers and design. SMEs in these services sectors feeding into e-commerce have benefited from the *de minimis* exemption from cross-border tariffs, as have SME producers of goods shipped in such packages.

The WTO moratorium on custom duties for digital transactions involving goods and services has ensured duty-free trade in the digital space since it was adopted in 1998. Over time, as digital trade has expanded in scale and significance, new technologies such as blockchain have made it technically feasible to levy customs duties on digitally traded products and services. However, there are real practical challenges in implementing border taxes on online transactions. Applying a domestic tax, such as value added tax, on digital transactions may be more feasible.

Governments also find it challenging to tax profits of companies that do not have a physical presence in a country. A recent OECD accord among 136 countries requires that large corporations, including digital ones, pay a minimum tax rate of 15% at the profit source.[226] This should help prevent profit shifting by large corporations and tax competition between governments. It also could help provide financial resources for SME support and other public goods in low-income countries.[227]

SMEs may be affected if large companies pass taxation costs on to clients, however.[228] For example, prices for cloud hosting and online advertising, often provided by large firms, might rise. SMEs are dependent on these services and have less scope to pass the cost to consumers.

New thinking to ensure fair competition

Competition policies are intended to level the playing field. Large companies tend to dominate digital markets and have considerable market power in digital services.[229] Competition policies that address this market power promote inclusive, equitable treatment of SMEs in digital marketplaces.

Antitrust regulators must find the right balance between nurturing innovation and restricting anti-competitive practices. This poses challenges.

Digital platforms and services providers have natural monopoly characteristics, due to network effects, in which more people improve the value of a good or service. The more users, the greater the benefits that a user gets from the platform's ability to collect and process large amounts of data.[230] This runs counter to conventional wisdom on competition, because some concentration is necessary to develop a large enough platform to enable network effects.

Traditional definitions underpinning competition policies do not easily apply to the digital world. In competition law, a relevant market is one in which a particular product or service is sold. Digital markets do not have clearly defined boundaries. Similarly, digital platforms use algorithms to adjust prices constantly. Comparing dynamic pricing across markets to determine anti-competitive behaviour is not straightforward.[231]

Still, there are anti-competitive behaviours that limit entry and expansion of small businesses in digital markets. For example, e-commerce platforms sometimes sell their own branded products in addition to those of SMEs. Their products could benefit from a competitive edge because the platforms have access to a wealth of transaction data in marketing them. In some instances, such platforms adjusted the algorithms to favour their own offerings at the expense of smaller providers.[232]

Platforms may require that SME suppliers do not offer lower prices or better terms on other platforms or on their

own websites, by imposing so-called 'price parity clauses.' This prevents SMEs from attracting traffic to their own websites or shifting to other platforms.

The European Commission's E-commerce Sector Inquiry found that price restrictions and recommendations are the most frequent constraints imposed by platforms on the retailers selling and advertising on their sites. Among the online retailers that responded to the European Commission's questionnaire, 42% said they were subjected to such restrictions or recommendations.[233]

Some dominant platforms diversified or expanded investments and offerings into ancillary services and product markets, often through takeovers of start-ups or mergers and acquisitions of competitors.[234] Such expansion enables dominant companies to access additional personal data[235] and further consolidate their data dominance position.

Regulators have introduced rules to restrict the anti-competitive behaviour of platforms. For instance, through its e-commerce regulation of 2018, India prohibits digital platforms from selling products in which they have an equity interest.[236]

However, such regulation also needs to factor in compliance costs. If this cost and the potential penalties are too high, platforms may reduce their client base to high-return customers. This could lead them to limit SME access, as smaller customers generate lower returns and may entail higher transaction costs.

Safeguarding ideas for digital innovation

Selling digital content, including business services solutions, music, video, apps and games, helps developing countries to diversify their exports. They need intellectual property protection for the small businesses that create content.

SMEs that provide services solutions online need assurance that research and development investments will be recouped. If business and professional services firms create an online portal that generates advice enabled by artificial intelligence, they want to make sure other companies do not copy the content.

Small connected services firms, however, are half as likely than large firms to say they have very good information on intellectual property protection procedures, according to ITC data.[237] Moreover, among connected services firms with a website, 93% of large firms protect to a great extent sensitive business information, compared with 58% of SMEs.[238]

At the same time, when SMEs develop new services, they may need to build on existing propriety online tools, such as modular IT solutions provided by major digital corporations. Hence, intellectual property rules should not unnecessarily restrict access to digital building blocks. As with all regulation, balance is key.

SMEs operating through platforms often rely on the platform's policies to protect their intellectual property rights. YouTube, for example, uses automated systems to protect the copyright of content developers. However, these mechanisms need to be further refined.

In an ITC study on Rwanda's digital music and films, small content developers said that it is too easy for their works to be taken down from the platforms, as anyone can file an intellectual property infringement claim. The burden of proof lies with the creators, and it can be costly to put the content back online.[239] In addition, some corporations purchase viral source content so they can then sue for copyright infringement the smaller firms that use it.[240]

New distributed ledger technologies, including non-fungible tokens that provide block-chain based proof of ownership of digital assets such as designs and artwork, are gaining popularity. These can improve intellectual property protection, even for small players, and have the potential to increase business opportunities in digital creative markets significantly.

Governments can support SME efforts to protect their intellectual property. The European Commission, for example, has introduced the 2020 intellectual property action plan that offers financial incentives and training support. This includes intellectual property vouchers, research grants, SME-focused intellectual property helpdesks and tailored training programmes. Similarly, Indonesia's Agency for the Creative Economy (BEKRAF) offers a mobile app, events, and a helpdesk with information to artists on how to protect their intellectual property rights.[241]

In intellectual property protection and other regulatory domains covered in this chapter, the evidence is clear. A judicious mix of appropriate regulations reduces obstacles for connected services firms, enabling them to provide key inputs to SMEs.

When harmonized, light regulatory frameworks stretch across borders to support service competitiveness, they facilitate trade that brings economic transformation. A range of stakeholders need to take action to make that happen, as the next chapter will discuss.

THOUGHT LEADER

Transforming cross-border payments for small businesses in Africa

Kanayo Awani

Executive Vice President,
Intra-African Trade Bank

Afreximbank

The digital economy in Africa could contribute nearly $180 billion to the continent's growth by 2025.[1] This hinges on reducing transaction costs through access to information, suppliers and networks. It also involves integrating SMEs into regional and global markets by cutting the cost of payments, transport, logistics and border operations.[2]

However, addressing the digital gap in a way that promotes participation of SMEs in the economy and cross-border trade requires bold moves.

To this end, Afreximbank is developing a one-stop digital ecosystem, the Africa Trade Gateway (ATG), to increase the participation of African SMEs in trade under the recently established African Continental Free Trade Area, known as AfCFTA.[3]

Breaking down barriers

The free trade area is part of an effort to boost intra-African trade and reduce the continent's reliance on primary commodities and export dependence on the rest of the world. Intra-regional trade has remained relatively low, reflecting the fragmented economic system left by Africa's colonial past.

Success of the AfCFTA depends not only on eliminating physical barriers to trade, but also the virtual obstacles that continue to undermine regional economic integration.

ATG is an umbrella platform that hosts and interconnects five technology platforms: the Pan-African Payment and Settlement System (PAPSS); the Customer Due Diligence Repository (MANSA); Trade Information Portal (TRADAR Intelligence); Trade Regulatory Platform (TRADAR Regulations); and the Africa Trade Exchange (ATEX).[4]

1 (Deloitte & World Economic Forum, 2022)
2 Runde et al., 2021)
3 (Afreximbank, 2020)
4 (Afreximbank, 2020)

The African Trade Gateway at work. How traders move trough the digital ecosystem

TRADAR INTELLIGENCE/ ATEX	MANSA	TRADAR	TRADAR REGULATIONS	PAPSS
Traders visit this platform to identify markets and potential buyers for their goods and services.	Having found potential buyers, exporters can conduct due diligence and verifications via this platform.	This platform provides information on African trade and market opportunities, including business-to-business. It connects traders to finance providers, allowing exporters and importers to explore trade financing, risk guarantees, inter-state guarantees and other products. These can then be assessed through the platform or online applications.	This regulatory platform is a valuable guide to standards, laws, licences, permits and other regulations related to imports and exports. It creates a single window for traders to meet regulatory requirements, improving efficiency and smoothing trade.	Once traders deliver their goods, they can use the Pan-African Payment and Settlement System to facilitate payments.

Source: Strategy and Innovation Department, Afreximbank.

New infrastructure for payments

The Pan-African Payment and Settlement System (PAPSS) addresses one of the most significant impediments to growth of intra-African trade – fragmentation of payment systems. Existing cross-border payment services are challenging, lengthy and expensive for traders. Cross-border payments in Africa cost an estimated $5 billion annually, a significant financial leakage for a region where access to capital is constrained. This partially reflects the continent's multiple currencies, which often cannot be directly converted.

PAPSS will provide a centralized payment and settlement infrastructure for intra-African trade transactions. It will facilitate financial transactions by creating a straight-forward, low-cost, interoperable and risk-controlled payment clearing and settlement system using local currencies. This will help SMEs gain access to a larger marketplace. It will also encourage formalization of the economy, which promotes financial inclusion.

The platform will boost intra-African trade, reduce costs, improve convenience and contribute to formalizing a significant share of the estimated $50 billion in informal intra-African trade. In addition, it will facilitate economic and regional integration, make cross-border payments speedier and more affordable, reduce liquidity shortages and strengthen central bank oversight of cross-border payment systems.[5]

Greater integration under the AfCFTA is key to Africa's future prosperity. Digitalization and technology are essential for Africa's development, and to generate the opportunities and jobs to absorb the 17 million young people who enter the labour market every year. Digitally enabled trade, led by efficient and reliable cross-border payment and settlement systems will be critical to expand intra-African trade and support the integration of SMEs in the formal trading system, allowing them to become active economic agents driving African development through trade.[6]

5 (Afreximbank, 2019)
6 (Fjose et al., 2010)

CHAPTER 5

Turning services potential into a reality

Services are a powerful force for economic transformation. Small firms are poised to contribute to this revolution. Smallness is less of a disadvantage to exporting in services than in manufacturing, as domestic services firms appear nearly as competitive as exporters in most respects. Improving a few critical business practices may help them break into export markets.

Meanwhile, trade costs tend to be higher in services than in manufacturing. This suggests that a few strategic government interventions to reduce regulatory and procedural obstacles to trade in services can nudge services SMEs over the threshold to global competitiveness.

These interventions can have important aggregate effects, as many small services firms are led by women or young people, and contribute to achieving Agenda 2030.

The bright future of small services firms may be threatened by weaknesses in their capacity to connect and change. These small businesses need better links to value chains and tools for digital transformation if they are to sustain their competitiveness in the future.

Investing in connected services that lead the way in servicification and digitalization is critical to the success of all businesses. ICT, transport and logistics, financial and business and professional services directly contribute to economic growth with an increasing share of output, trade and jobs. They also contribute indirectly by making other firms more competitive and connecting them to international value chains and digital innovations.

Unfortunately, most small firms do not have easy access to connected services. Connected services need to be more accessible, cheaper and of better quality. One way to make this happen is to improve the competitiveness of connected services firms.

This report highlights four competencies that are often lacking, but critical to the competitiveness of connected services. These are the ability to:

- Grow networks
- Innovate
- Deepen skills
- Leverage finance

Business support organizations and governments can help connected services firms develop these competencies. They are also critical to facilitating access of all companies to good-quality, affordable connected services, either domestically or abroad.

The Connected Services, Competitive Businesses Plan

Improving connected services is essential to transform the rest of the economy. To overcome competitiveness barriers in ICT, transport and logistics, financial, and business and professional services sectors, companies themselves must act.

Business support organizations and governments can help strengthen the capacity of connected services firms to compete, connect and change. Our *Connected Services, Competitive Business Plan* provides recommendations on how these stakeholders can improve the availability and quality of connected services, for the sake of all firms. Table 1 summarizes the recommendations, and the text that follows provides more detail.

TABLE 1 The Connected Services, Competitive Businesses Plan

	CONNECTED SERVICES FIRMS	BUSINESS SUPPORT ORGANIZATIONS	GOVERNMENTS	
			Domestic actions	International actions
GROW NETWORKS	Build networks to learn and upgrade	Build online networks and services coalitions	Promote fair competition, especially on digital platforms	Balance privacy protection and competitiveness concerns in data regulations
INNOVATE	Invest in research, certification and customization	Create spaces for innovation and collaboration	Protect intellectual property while enabling innovative activities	Harmonize technical standards
DEEPEN SKILLS	Establish formal hiring processes and skills training	Improve digital skills of SMEs	Train workforce in the skills of the future	Facilitate labour movement across borders
LEVERAGE FINANCE	Improve financial management	Facilitate exchange of information between businesses and financial institutions	Create frameworks for online payments and alternative finance	Encourage foreign direct investment

Companies: Reach the export competitiveness frontier

There are many competitiveness shortcomings that can be addressed by firms themselves. Companies must take decisions, invest capital and energy, and build the necessary competencies to gain – and maintain – a competitive position in the market.

Network to learn and upgrade

Successful companies connect to their buyers in a way that enables them to learn, thereby improving their service offering and crafting trust-based, long-term relationships. They also build links with similar firms in clusters that facilitate peer-to-peer exchange of innovations. These relationships are often forged through business support organizations.

Small, domestically focused SMEs may begin their networking through word of mouth among happy customers and potential new ones.

Once SMEs have expanded beyond their traditional customers, often with the help of business support organizations, they can reach out to large buyers via trade fairs and online forums and learn global services standards. Such large firms include domestic companies and multinationals. For example, in Mumbai, Accenture and other multinationals engage value chain intermediaries that teach SME services providers how to supply to global standards.[242]

Companies that start selling to an exporter based in their own country are more likely to start exporting.[243] After some experience supplying into international value chains, many services SMEs in developing countries try to upgrade their position within the chain. These firms are then able to offer relationships that generate unique value for buyers, such as through complementary and interlinking skills and service packages. This may also entail reshaping the nature of their partnerships with buyers, for example through contracts that include several unique service offerings.

Invest in research, certification and customization

Innovation can entail customizing services to meet the needs of each buyer. This sometimes involves certifications that demonstrate the capacity to meet the standards of customers. In other cases, innovative services offerings stem from focused research and development, making it necessary for firms to invest consciously and consistently in R&D.

Many connected services firms are seeking to identify business niches with unfilled customer demand. These so-called blue ocean strategies pinpoint areas where the enterprise can provide a genuinely new offering.[244] Obtaining intellectual property protection, such as a copyright or patent, demonstrates the uniqueness of this ‘product’ and can provide a powerful competitive edge in markets. To succeed in such efforts, it is necessary to have excellent human capital and a deep understanding of market demand.

BUSINESS VOICE

Amal Hassan

Founder and CEO,
Outsource Global, Nigeria

Skills fuel high-quality services

This company specializes in business process outsourcing (BPO) and provides services such as customer service, software development and accounting. Its success shows that BPO is a high growth sector with the potential to create jobs in developing countries.

'Launching Outsource Global was not an easy journey. I actually tried three times before succeeding.

Something I struggled with after launching was that many clients had never heard of a Nigerian firm operating in the BPO sector. As a result, they were reluctant to place their trust in my business.

To signal our quality to new clients, we became ISO certified. The process was nonetheless long and costly. Even though the company's operations already followed the standard's requirements, we had to fly in auditors from outside Nigeria, as there were no ISO certification bodies in the country.

Other potential customers said we were too inexperienced. While this was true, we had strong skills. Nigeria's high number of university graduates gave us access to a pool of skilled labour. In fact, 90% of the people we employ are recent university graduates.

Once staff is recruited, they undergo additional training in their specific field, such as customer service, accountancy or IT. I believe that training your employees is essential to providing high-quality services and retaining clients.

I learnt from my experiences along the way to succeeding. Once we got a foothold, we grew rapidly. We started with 10 employees and today we have over 1,000. My story shows that BPO can provide a lot of job opportunities.

Ninety percent of our customers are in the United States, but we are also expanding to the United Kingdom and Japan. I met my Japanese client at the Japan IT week, which I attended through ITC's SheTrades initiative. My affiliation with SheTrades projected to potential clients that Outsource Global is a reliable company.'

ITC's SheTrades Commonwealth is funded by the United Kingdom's Foreign, Commonwealth and Development Office. The project enables women-owned businesses to thrive in international markets, generate growth and jobs, and decrease poverty. It is active in Kenya, Nigeria, Ghana and Bangladesh.

Set up formal hiring and training

Establishing formal hiring processes and training practices allows firms to match needs and staff skills better. The expertise of skilled workers is at the heart of small connected services companies. To a large extent, this human capital depends on factors outside the firm's control – the education system and the presence of experienced workers locally.

Yet, there remains much that connected services SMEs can do to get staff with the right skill set. For example, formal competency-based hiring processes help companies to choose employees with the right qualifications, merit and potential. These and other professional human resource practices are essential to building a competitive team.

In-firm training, meanwhile, fosters a culture of continuous innovation to meet and surpass client expectations. Outsource Global, a *Business Voice* in this chapter, argues that training is essential to providing high-quality services and retaining clients. Research shows that training on the needs of export customers, involving customers in designing the service experience and standardized work processes improve the quality of services, which, in turn, positively affects export performance.[245]

The value in connected services often comes from informal conversations between trained staff that create innovative offerings.[246] Skilled, experienced employees in a supportive work environment consider user feedback and innovate, helping to grow the enterprise. To encourage this, managers should support the transfer of skills, knowledge and techniques among staff. For example, an SME could have experienced employees teaching newcomers about client preferences, and young employees teaching older ones about digital technology use.

Improve financial management

Firms can reduce resource constraints by improving financial management practices and developing capacity to approach funding entities with a compelling business plan. Small services businesses need to access external financing to expand, finance trade and cover short-term investments. Unlike farmers, mining companies and factories, they rarely have the collateral that banks require.

Without access to finance, and lacking financial management skills, many services SMEs do not have the resources to purchase inputs and secure the skilled staff needed to deliver. Some of the changes required to address this problem are out of their control, resting instead with the national authorities and others in the business ecosystem.

There are initiatives services SMEs can take, however. They can take advantage of training opportunities for managers offered by BSOs and value chain partners to improve financial management practices and cash flow. Managers can support long-term growth by devoting time to strategic planning and establishing a well-structured vision for the enterprise.

Finally, learning how to apply for debt and asset financing, for example through loan application procedures or preparing a pitch deck, can help firms succeed in mobilizing funds for growth.[247] Building trust and shared ownership vision with would-be investors can alleviate fear of losing control over the strategic direction of enterprises and enable growth.

Business support organizations: Create new links

Business support organizations (BSOs) – trade promotion organizations, investment promotion organizations, chambers of commerce and sector associations – stimulate key linkages in the business ecosystem for connected services. They build useful networks by fostering partnerships, enabling learning, building technical skills and furnishing market information.

Bring actors together

To help firms grow their networks, business support organizations need their own innovative partnerships. A key goal of any BSO is to build connections between companies and their peers, potential suppliers, customers and investors, within and out of the country.

While trade fairs and scoping missions remain instrumental to building business ties, BSOs are increasingly using platforms as an alternative tool to link small businesses to providers of ICT, logistics, financial and business and professional services. Trade and investment promotion organizations in Sri Lanka and Malaysia, for example, have developed platforms to enhance SME access to business services.[248]

Regional services coalitions can play a significant role in building a connected services value chain. These coalitions bring together stakeholders in services that share common objectives for developing the industry.[249] They are particularly important in regions where there is strong potential for intra-region services trade, given shared cultures and relatively low trade costs.[250]

In both developing and developed countries, services coalitions have lobbied to liberalize export markets and develop the competitiveness of the domestic services

sector.[251] They play a key role in enhancing services-related policies, aligning standards, boosting exports and increasing awareness. It is necessary to ensure that small services businesses are included in such coalitions and that their views are represented during broad consultations.[252]

Build a rich ecosystem of collaboration and innovation

To encourage small connected services companies to invest their resources in research and development, it is key to build a system conducive to it. Many of the world's leading services start-ups got their initial push from incubators, accelerators and other hubs for innovation and entrepreneurship.[253]

In the information and communication technology sector, tech hubs support start-ups and help them succeed, as well as build entrepreneurial tech communities. Although hubs vary widely in structure and services, they provide a space where tech and entrepreneurship community members assemble. Much of the impact attributed to hubs stems from their ability to help entrepreneurs create a network of connected services firms that provide inputs to one another.[254]

Focus on digital skills training

Business support organizations, and vocational education and training providers, are critical to develop digital skills. Emerging digital technologies are constantly changing the skill sets which businesses need. For SMEs, advanced skills in digital entrepreneurship and cybersecurity are essential.

They also need a thorough understanding of how to create and maintain a website, enhance their online presence and use platforms, including the role of financial information in the online environment.[255] Business support organizations, training providers, and technical assistance providers are well placed to offer courses that deliver these skills to small business managers and staff.[256]

Business ecosystem actors, including BSOs, are pivotal to the spread of digital skills for connected services competitiveness. Public-private partnerships between sector associations, government and local education institutions, while not always easy to implement, are necessary to adapt vocational and technical training for job-specific digital skills needs. Multinational corporations can also play a role; some of them already include digital skills in their corporate social responsibility initiatives.[257]

Bridge the financial information gap

Supporting companies to access funds is a critical function of some business support organizations, particularly those that promote investment. Markets often fail to provide financing to small services firms. Lack of collateral and inability to put a price on intellectual property assets lead to a lack of information about the creditworthiness and value of these companies. This, in turn, results in high perceived risks. The problem is compounded in developing countries, where the financial sector is often less developed.

Banks, insurance providers, microcredit agencies and other local finance institutions are well placed to gather information on services SMEs to assess performance risk, for example through credit registries. In some instances, these institutions collaborate with BSOs and the government to enlist digital technologies. For example, to assess the viability of SMEs some financial institutions have used e-banking history, online platform performance, and algorithm analysis of big data as evidence. The case of ChapChap, a *Business Voice* in this report, highlights this trend.

Finally, BSOs can provide technical assistance and matchmaking services, including through platforms. These reduce the burden of finding investors and producing the required documentation.[258] Innovations through digital platforms have also allowed for a rise in peer-to-peer lending and crowdfunding. Moreover, while still in its nascent stage, blockchain technology in trade finance is growing.[259]

Governments: Build supportive policies and regulations

A balanced approach to regulating connected services ensures that small services firms benefit from a transparent and predicable policy environment at home, link to international value chains and hasten digitalization. Governments should ensure that all companies have access to these important services, by creating the conditions for globally competitive connected services at home, and by reducing trade restrictions so companies can access them internationally.[260]

Regulatory reforms that create a fair playing field, implemented in a transparent and timely way, can reduce compliance costs. This improves the domestic supply of connected services. Enabling digital regulation frameworks encourage investment. Additionally, trade and investment regulations facilitate access to foreign providers for crucial connected services inputs that may not be locally available.

Promote fair and inclusive networks

Governments can indirectly support companies' efforts to grow their network and manage relationships domestically and internationally. While these areas are more directly affected by BSOs, governments can help too.

To access digital platforms, countries need basic digital infrastructure, and this starts with the reliable electricity. Affordable and good-quality access to internet, and information and communication devices, are essential. Government action is critical in ensuring that everyone, including those with low incomes or living in remote areas, has internet access.

Governments have an important role in the regulation of platforms. When platforms or other large services providers behave in an anti-competitive manner, governments have good reason to intervene to restrict abuse of market power. The aim should be to ensure fair competition and promote equitable treatment of SMEs in digital marketplaces. This was the rationale behind the European Union's 'Digital Markets Act,' which aims to provide smaller players with more data access and allow them to compete on equal footing vis-à-vis big digital firms.[261]

Finally, governments can help small services companies build international networks by providing full and transparent information about participation in global services supply chains. This can be done through a helpdesk to guide businesses and by implementing regulation in a timely and simplified manner so the cost of compliance is affordable even for small market players.

Data regulations risk being overly cumbersome for small businesses. They may also benefit the providers of data services at the expense of increased costs for users of data services. A balanced approach is needed to ensure these rules do not inhibit the capacity for SMEs to have affordable and reliable data services and connect to international value chains.

Create an environment for ideas to flourish

To innovate, companies need research infrastructure and skilled labour. Firms must be able to interact closely with organizations that produce and diffuse knowledge, such as universities, research centres and industrial organizations.

Other important factors include multinational enterprises active in research and development, public incentives and enforcement of intellectual property rights. Aligning national technical regulations and standards with those used by trading partners supports the free flow of technologies, ideas and innovations. When combined with liberalization of services trade policies, this can make services SMEs competitive enough to join innovative, lucrative international value chains.

In small services enterprises, frugal innovation[262] also builds on local knowledge and inventiveness to satisfy local market needs. Government efforts to ensure access to basic inputs into the digital services, such as open-source software, can enable these innovative activities.

All these elements can be hard to secure in a single country, especially a developing one. Joining forces regionally can help create an innovation-enabling environment. Working across borders can complement other regional interactions. Harmonizing technical regulations and standards can lead to significant savings for companies already providing services in multiple countries and provide an incentive for SMEs to internationalize.

Governments can also encourage company efforts to innovate by helping them protect their intellectual property and thereby earn a return from their creations. To do so, they can make intellectual property tools accessible and easy to apply for in terms of cost and procedures.

Increase access to technical skills

Among the many options for policymakers are scholarships for individuals to attend training and total or partial financial support to companies to build training capacity. The role of governments may also entail updating curriculums to meet private sector needs, and building training centres in collaboration with existing academic institutions.

Nonetheless, building skills is a long-term strategy, and might not provide solutions for companies in the short term. For this, governments need to facilitate labour movement across borders. They can enable businesses to recruit qualified individuals from abroad. Similarly, companies should be allowed to export their services by sending employees abroad temporarily.

Governments should also work on improving transparency and availability of information on entry conditions, business visa and work permit processes. There is a need to harmonize qualification requirements or recognize equivalence of qualifications or diplomas issued abroad. Mutual recognition agreements for licences, qualifications and diplomas are particularly useful.

The pandemic has highlighted an increasingly significant policy area involving activities that can be performed virtually, from any location. Small businesses can benefit from hiring skilled connected services workers from

neighbouring countries or supplying services via the internet. Yet local presence requirements prevent SMEs from recruiting highly qualified workers located abroad, even if no physical movement is necessary. Policymakers should carefully consider the need for local presence requirements, at least for those services that can be provided remotely.

Facilitate investment and online finance

New public rules are essential to the ability of SMEs to take full advantage of opportunities presented by online payments and financing. This includes regulatory frameworks for electronic transactions, data protection and privacy, taxation of digital services, competition and digital intellectual property protection.

For small connected services firms, alternative financing, such as venture capital, equity crowdfunding, revenue-based financing and peer-to-peer lending can be useful options, especially for digital start-ups. However, to facilitate their use, government regulations are necessary.

As foreign direct investment drives services trade and the availability of good connected services inputs, creating a favourable investment climate is essential. This report shows that lower restrictions on connected services make it easier to do business in a country, and so can build a more attractive environment for FDI.

Digitalization of the investment process can also encourage foreign investment. E-government platforms and single window systems by host country governments simplify regulatory compliance, promote paperless sustainable investment, provide greater transparency, limit arbitrary influence by officials and help track sources of finance to comply with money laundering regulations.[263]

At the same time, strategic reductions of restrictions on foreign ownership are needed. Creative policy approaches help strike a balance between encouraging pro-competitive FDI for trade and pursuing national development objectives.

Improving SME access to connected services helps attain the United Nations Sustainable Development Goals. This can ensure SMEs have the high-quality services they need to participate in international value chains. This increases revenue, fosters growth and creates jobs, as called for in Sustainable Development Goal 8. Connected services also spread digital technological innovations, as per Sustainable Development Goal 9, that can enable developing countries to leapfrog barriers to growth.

Through value chains and digital linkages, connected services play a role in the transition to a green and inclusive economy. To take advantage of the green transition, access to expert professionals, sometimes not present domestically, is required. Also, efforts to democratize the online economy through SME participation in platforms depend on equitable regulations for ICT and business services providers.

This report has shown that the success of small services firms – and all firms – depends on their access to, and the quality of, connected services. Investing resources to strengthen connected services, and ensuring they operate under a favourable regulatory environment, improves the current and future competitiveness of small and medium-sized businesses, helping transform economies.

THOUGHT LEADER

Seizing the potential of services

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The services sector offers opportunities for the growth of developing economies, including for smaller firms. Seizing its full potential depends on reforming trade, investment and competition policies, combined with training to upgrade worker and firm competencies and technology adoption.

Services are transforming the economies of many developing countries. They employ half of the workforce and contribute over half of GDP in developing countries. This growth of services, rather than manufacturing, has fueled worries about the potential for future productivity growth.

A recent World Bank flagship report on services-led development[1] suggests such concerns are misplaced. In developing economies outside of East Asia and Pacific and Eastern Europe, growth of labour productivity in services matched or exceeded that of manufacturing between 1995 and 2018. Services have therefore played a significant role in the development process.

Growing opportunities

In addition to low-skilled services, such as retail and personal services, developing countries have seen growth in knowledge-intensive and productive services. These include information and communication technology (ICT) and financial and professional services.

Developing counties are also exporting more of these services. In 2017, low and middle-income countries accounted for a quarter of global professional services exports, up from 10% in 2005. Knowledge-intensive services now account for half or more of all services exports in Costa Rica, Ghana, India and Pakistan.

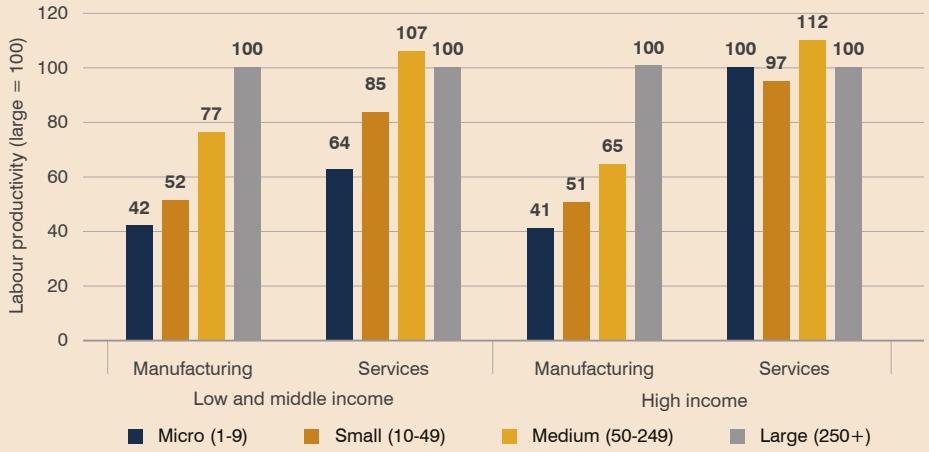
The rise of online platforms is creating new opportunities in the developing world. About half of freelancers that deliver services remotely online – mostly internationally – through English-speaking platforms are based in India, Pakistan or Bangladesh.[2]

1 Nayyar et al (2021).
2 These figures are from Nayyar et al (2021) and are based on calculations on the WTO Trade in Services by Mode of Supply (TiSMoS) dataset and data collected by Oxford iLabor project.

Large role for small enterprises

On average, services firms are smaller in size than their counterparts in manufacturing. Yet, this does not necessarily hinder productivity. World Bank analysis of firm-level data covering 51 countries shows that SMEs can be just as productive as large services firms, especially in high-income countries.

Small services firms can be productive



Source: Nayyar et al. (2021), based on administrative firm-level data and aggregated firm statistics covering 51 countries
Note: Covers 2010–2017, with statistics from latest available year.

This is because services performance is driven more by human and intangible forms of capital – software, organizational and managerial know-how and intellectual property – rather than physical capital or the size of the firm, as in manufacturing. SMEs can therefore make a major contribution to generating economic benefits from services-led growth.

Two trends are shaping the services sector and the potential for SMEs to grow, innovate and benefit other parts of the economy.

The first is digitalization, which allows services firms to reach more customers without the need for physical proximity. Nevertheless, SMEs in low-income countries have been less likely to adopt such technologies. The second is the blurring of lines between manufacturing and services, with services increasingly embedded in, or sold with, manufactured products. This implies that even for countries that have made industrialization their priority, a well-performing services sector offering high-quality inputs to manufacturing is indispensable.

Policy action needed

To seize the full potential of services-led development and support the competitiveness of services SMEs, policies should focus on trade and investment, technology, training and targeting broader impact. In many low and middle-income countries, SMEs in services underperform compared with large firms. Policy action could create a better enabling environment for services and for SMEs.

Policy priorities can be summarized as four Ts: expanding services *trade and investment*; fostering the adoption of *technology*; *training* workers and firms to upgrade their capabilities; and targeting services that provide wider benefits to the economy.

There is considerable room for improvement in policies covering these areas to harness the benefits of services. Constraints arising from trade, investment and competition policies – as shown by OECD, World Bank and WTO Services Trade Restrictiveness Indices – limit growth opportunities for SMEs. These deficiencies are compounded by the lack of basic digital skills of many workers and limited adoption of technology. For countries seeking new growth opportunities and higher incomes, undervaluing the potential of services sector is a missed opportunity. Policy action is needed.

Endnotes, References and Annexes

Endnotes

1. (Nayyar et al., 2021).
2. (Cohen & Zysman, 1988; Gallouj, 2002; Millward, 2004)
3. (Lewis, 1955).
4. (Nayyar et al., 2021; UNCTAD, 2015)
5. (Au & Henderson, 2006; Liping & Evenett, 2010; Wu, 2007)
6. Between 1995 and 2019, in developed countries, the number of people employed in agriculture decreased by 22 million, while those employed in services increased by 128 million (International Labour Organization Statistics).
7. Between 1995 and 2019, in developing countries, the number of people employed in agriculture decreased by 159 million, while those employed in services increased by 559 million and those in manufacturing by 209 million (International Labour Organization Statistics).
8. (McCaig & Pavcnik, 2013).
9. (Nayyar et al., 2021) Cross country averages among lower-middle income countries, using data from the latest available year between 2005 and 2017.
10. (World Bank & World Trade Organization, 2020).
11. (Birdsall et al., 1993).
12. (Baccini et al., 2021; Newfarmer et al., 2018; Rodrik, 2021)
13. (Newfarmer et al., 2018).
14. (Nayyar et al., 2021; Newfarmer et al., 2018).
15. (Eichengreen & Gupta, 2013).
16. (Rodrik, 2015; Tregenna & Andreoni, 2020).
17. ITC calculations based on World Bank World Development Indicators.
18. (ADB, AusAID & JICA, 2013).
19. ITC calculations based on World Bank World Development Indicators.
20. (CUTS International, 2008).
21. ITC calculations based on World Bank World Development Indicators.
22. Services trade statistics are based on Balance of Payment data, and thus exclude commercial presence (Mode 3), unless otherwise specified. This definition of the services sector differs slightly from ISIC Revision 4. Services trade statistics include the category "Manufacturing services on physical inputs owned by others (SA)". See Annex I for details.
23. ITC calculations based on World Bank World Development Indicators
24. (WTO, 2019).
25. ITC calculations based on World Bank World Development Indicators.
26. ITC calculations based on UNCTADSTAT.
27. ITC calculations based on UNCTADSTAT.
28. ITC calculations based on UNCTADSTAT.
29. ITC calculations based on UNCTADSTAT.
30. ITC calculations based on OECD-WTO Trade in Value-Added (TiVA) database, 2021 edition. These calculations are based on cross-border services trade, and exclude services provided through commercial presence (Mode 3). The shares are slightly different depending on the data source. For example, services account for around one-third of world exports in gross terms according to the OECD-WTO TiVA database, and for about one-quarter according to Balance of Payments statistics (World Bank World Development Indicators). As the OECD-WTO TiVA database is benchmarked against national statistics, several methodological differences, including the allocation of trade and transport margins for goods to services trade, can explain the relatively higher importance of services trade in the OECD-WTO TiVA database.
31. (Hollweg & Sáez, 2019).
32. (WTO, 2021b).
33. (Loungani et al., 2017).
34. (Autor & Dorn, 2013; Haslberger, 2021).
35. (Ellingrud et al., 2020; World Economic Forum, 2019).
36. (Stephenson & Drake-Brockman, 2014).
37. (Shepherd, 2021).
38. (UNCTAD, 2004, 2017b).
39. ITC calculations based on WTO Trade in Services by Mode of Supply (TIMOS) dataset, in terms of value.
40. (UNCTAD, 2021b).
41. Cross-border supply (Mode 1) accounts almost entirely for the remainder of services exports by least developed countries, but is largely concentrated in transport services, while commercial presence (Mode 3) is marginal.
42. (WTO, 2019).
43. (WTO, 2021c).
44. (WTO, 2021c).
45. ITC calculations based on WTO trade data: https://stats.wto.org/.
46. ITC calculations based on ITC COVID-19 Business Impact Survey.
47. ITC calculations based on WTO trade data. Financial services are defined as BOP6 – SG. ICT is defined as BOP6 - SI - Telecommunications, computer, and information services.
48. (Pitterle & Niermann, 2021).
49. (WTO, 2021b).
50. (WTO, 2022b).
51. Analysis based on 4,734 survey responses to the ITC SME Competitiveness Surveys. Similar results are obtained using data from 173,255 firms interviewed for the World Bank Enterprise Surveys.
52. (La Porta & Shleifer, 2014).
53. (Bento & Restuccia, 2021).
54. (WTO, 2019).
55. (WTO, 2019).
56. Data in the survey do not indicate if the exporting companies are new or experienced exporters, nor if they continue to export. We cannot provide information about surviving in the exporting markets and churning.
57. (ITC, 2018a; Staritz & Reis, 2013).
58. (EQUALS, 2019; GSMA, 2021; World Wide Web Foundation, 2020).
59. (Green, 2013).
60. (UNCDF, 2020).

61. ITC calculations based on ITC SME Competitiveness Survey in Togo. Respondents were asked 'How do you perceive the effect of emerging technologies (such as e-commerce, artificial intelligence, 5G connectivity, automation, robotics) on your business?'. Options ranged from one (very positive) to six (very negative). New technologies to positively affect the business if respondents chose one (very positive).
62. (ITC, 2019b).
63. (European Commission & OECD, 2013).
64. (McKenzie & Woodruff, 2006).
65. (ITC, 2019b).
66. (Drake-Brockman & Stephenson, 2012; Haskel & Westlake, 2017).
67. ITC calculations based on ITC SME Competitiveness Surveys. Respondents were asked 'To what degree is access to financial institutions an obstacle to current operations?'. Companies responding that access to finance is an obstacle to their business operations are those choosing options one, two, or three on a Likert scale ranging from one (very severe obstacle) to six (no obstacle). The difference is statistically significant at a 1% significance level.
68. (Decker et al., 2014).
69. (Nayyar et al., 2021).
70. (OECD, 2017a; UNCTAD, 2017a).
71. (Berlingieri et al., 2018).
72. (Sorbe et al., 2018).
73. ITC calculations based on Statista. "Number of unicorns worldwide as of April 2021, by industry". Retrieved from https://www.statista.com/statistics/1093261/number-of-global-unicorns-by-industry/
74. (Cernat, 2021).
75. (Cohen, 2021).
76. (Galloway, 2017).
77. (Gyemang & Emeagwali, 2020).
78. Other digital technologies such as customer relationship management (CRM) systems, automatic invoicing and cloud computing are also being taken up by SMEs, but are associated with a higher cost burden. See (Cisco & IDC, 2020).
79. 'Servicification' is a term coined originally to refer to the outsourcing of functions such as marketing, accounting, and cleaning to stand-alone services firms by manufacturing firms (Baldwin, Ito, and Sato 2014). Research in economics, trade and political economy has later used the term to refer to the increasing share of value added to trade by services (Fessehaie, 2017; Miroudot, 2017; Miroudot & Cadestin, 2017). This report uses the term broadly to refer to the increasing share of value in all supply chains coming from services. As such, the concept of 'servicification' in this report includes supply chains delivering output in manufacturing, primary and services sectors. It also includes domestic and international value chains.
80. (Baldwin et al., 2014; Fessehaie, 2017; Lanz & Maurer, 2015; Miroudot, 2017; Miroudot & Cadestin, 2017; World Bank, 2020).
81. (Miroudot & Cadestin, 2017).
82. (OECD, 2021b; Sneader & Singhal, 2021).
83. (Galloway, 2020; UN DESA, 2021).
84. Trade costs in services include trade policy barriers, costs imposed by behind the border regulatory measures, and information and transaction costs related to cultural and institutional differences. Transport and travel costs also matter. Furthermore, trade costs include policies that disproportionately impact exporters and importers (WTO, 2019).
85. (Baldwin & Forslid, 2020).
86. (WTO, 2019).
87. (Gervais & Jensen, 2019).
88. (Loungani et al., 2017; WTO, 2019).
89. Although the rise of e-commerce has increased the relevance of digital technologies to the retail sector, the average share of firm expenditures in the sector on these tools remains low. While select e-commerce and wholesaling firms are digital by nature, most firms in the sector are not. In OECD countries, approximately five dollars are spent on ICT equipment, software, and databases per thousand workers in the retail and wholesale sector (see Figure 17).
90. (Deloitte, 2021; USITC, 2021).
91. (Grueter et al., 2020).
92. (Bucher et al., 2014; ITC, 2021a; Tamminen et al., 2020).
93. (EIU, 2018).
94. (Drewry, 2021).
95. (Bazan et al., 2015; ITC, 2021b).
96. (UN, KAS & IADB, 2021).
97. (Lai, 2020).
98. (Gallay et al., 2017).
99. (Abbasi et al., 2018).
100. (Nayyar et al., 2021).
101. (Beck & Cull, 2014).
102. (Sawyers, 2019).
103. (Gallaher, 2020).
104. (Visa, 2020).
105. (Ventura et al., 2015).
106. ITC calculations based on ITC COVID-19 Business Impact Survey.
107. (Bloom & Pierri, 2018).
108. (Evans, 2013).
109. (Fessehaie, 2017; Miroudot, 2017; Miroudot & Cadestin, 2017).
110. (ICTSD, 2016).
111. (Drake-Brockman & Stephenson, 2012).
112. (Ali-Yrkkö et al., 2011).
113. (Grover & Mattoo, 2021).
114. (Cernat & Kutlina-Dimitrova, 2014; Drake-Brockman & Stephenson, 2012).
115. The figure for 2018 is based on ITC calculations using the OECD TiVA database, and those for 1980 are based on Heuser & Mattoo, 2017).
116. (Nefussi & Schwellnus, 2010).
117. (Miroudot & Cadestin, 2017).
118. (Roy, 2019).
119. (Miroudot & Cadestin, 2017).
120. (Miroudot & Cadestin, 2017).
121. (WTO, 2019).
122. (Baldwin et al., 2014).
123. (Cattaneo et al., 2013; Grossman & Rossi-Hansberg, 2012; Sáez et al., 2015).

124. (OECD & WTO, 2013; Sáez et al., 2015).
125. (ECLAC, 2021).
126. (Anayi et al., 2021).
127. (Atiyas & Dutz, 2021).
128. (WTO, 2018).
129. ITC calculations based on TCData360. The digital skill variable is calculated based on the response to 'In your country, to what extent does the active population possess sufficient digital skills (e.g., computer skills, basic coding, digital reading)?' Options ranged from one (not at all) to seven (to a great extent).
130. ITC calculations based on TCData360.
131. Owing to their essential role in providing core services for economic growth, connected services have also been named 'modern', 'infrastructural', 'knowledge-intensive', or 'backbone' services in the literature (Ghani & O'Connell, 2014; Fessehaie, 2017; ICTSD, 2016, p. 20; Mashayekhi & Antunes, 2017).
132. (ICTSD, 2016; Khanna et al., 2016).
133. The share of value added that is exported (US 2015, %) and research and development intensity (EU-15 2017, share of value added, %). See Nayyar, Hallward-Driemeier, and Davies 2021 for details.
134. Previous research labelled other services sectors as 'traditional' or 'petty' (Rodrik, 2015).
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136. (Baldwin & Forslid, 2020).
137. (Nayyar et al., 2021).
138. (Fox & Gandhi, 2021).
139. (Fritsch & Schroeter, 2011).
140. (Jalote & Natarajan, 2019; Kumar & Beerepoot, 2021).
141. ITC calculations based on OECD STAN Database.
142. (Eichengreen & Gupta, 2013).
143. (Dehejia & Panagariya, 2010).
144. ITC calculations based on OECD FDI (data available for 30 countries) and WTO trade data.
145. (WTO, 2022a).
146. (Loungani et al., 2017).
147. (ICTSD, 2016; Mashayekhi & Antunes, 2017).
148. (ICTSD, 2016).
149. (Lodefalk, 2014).
150. (Kamyabi & Devi, 2011).
151. (Coste et al., 2016).
152. (Miroudot & Cadestin, 2017).
153. (Anderson & McKenzie, 2022).
154. (Coste et al., 2016).
155. (Krugman, 2008).
156. (Melitz, 2003).
157. 'Nearby' is defined as within the same sub-national region, as defined by the government (e.g. state, province, etc.). 'Competitive' is calculated as the average of the capacity to compete, connect and change scores of firms within the region, based on the ITC SME Competitiveness Surveys. See Annex I for details.
158. (Hummels & Schaur, 2013).
159. ITC calculation based on ITC SME Competitiveness Surveys. Respondents were asked 'How would you rate the quality of your electricity provider?'. Options ranged from one (low quality) to six (high-quality). Respondents that chose options one, two, or three are classified as having low-quality electricity.
160. (Asenso-Okyere & Mekonnen, 2012).
161. (Joiner & Okeleke, 2019).
162. (World Bank, 2021).
163. ITC calculation based on World Bank Enterprise Survey.
164. ITC identified the four priority areas through quantitative and qualitative analysis. Among the nine themes in ITC's SME Competitiveness framework (see Annex I), the three priority areas of networks, innovation, and skills are those in which the quantitative difference in scores between exporters and non-exporters in connected services is both statistically significant and economically relevant. Qualitative methods were also used to triangulate, cross-check, and ensure methodological robustness through mixed method hybrid techniques. Informal interviews with sectoral specialists within ITC reinforced the validity of these three priorities, and suggested an additional one, finance, for which there was already some quantitative support (albeit less strong than for the other three themes). Finally, a literature review on services trade field, economic geography, and business management, applied to connected services sector, reinforced the validity of the four priority areas.
165. (Drake-Brockman, 2014).
166. (Coviello et al., 1998; Figueiredo & Piana, 2018).
167. (Coviello et al., 1998; Figueiredo & Piana, 2018).
168. (Backman, 2014; Woessmann, 2011).
169. (Onkelinx et al., 2016).
170. (Brändle et al., 2020).
171. (Haskel & Westlake, 2017).
172. (Kitching et al., 2015; Mallett et al., 2018; WTO, 2016).
173. (Chittenden et al., 2002; Tu, 2020).
174. (OECD, 2000).
175. ITC calculations based on ITC SME Competitiveness Surveys in 16 countries, with 727 firms in connected services. Respondents were asked 'Are you actively engaged with any of the following types of institutions: trade promotion organizations, investment promotion organizations, chambers of commerce, sector associations?'. Companies are considered engaged with business support organization if they said they were involved with any of the four types of institutions.
176. Anonymous respondent to the ITC NTM Business Survey.
177. (ITC, 2016).
178. (ISO, n.d.).
179. (Malmstrom, 2016).
180. (ITC, 2017a).
181. This is evidence that firms declare they hold multiple international certifications (e.g., safety and quality standards). However, there is no information on whether the certification is issued by the domestic authority for exporting, by importing country authorities, or a third party. These statistics are based on 69 observations.
182. (ITC & Republic of Mauritius, 2017).
183. (Brady, 2019; Denis, 2014; ITC, 2016; Stephenson & Drake-Brockman, 2014).
184. (WTO, 2020).
185. (ITC, 2017b).
186. (Bieliauskaite, 2016); Small Business Standards website. Digital Society. Retrieved from https://www.sbs-sme.eu/sector/digital-society
187. (ITC, forthcoming).
188. Services Trade Restrictiveness Index Regulatory Database, OECD. Retrieved from https://qdd.oecd.org/subject.aspx?Subject=STRI_DIGITAL.

189. (World Bank, 2017).
190. ITC calculations based on ITC SME Competitiveness Surveys in 16 countries, with 727 firms in connected services. Respondents were asked 'Please rate the availability of skilled workers for hire.' Companies are considered to have shortage of skilled workers if they chose options one, two, or three on a Likert scale ranging from one (shortage of skilled workers) to six (plenty of skilled workers).
191. (Elizur, 2021).
192. ITC NTM Business Surveys.
193. (ITC, 2017c).
194. (OECD, 2022).
195. (ITC & UEPB, 2019).
196. (Chaitoo, 2020).
197. (Deere Birkbeck, 2021).
198. (Pacific Alliance, 2020).
199. (UNCTAD, 1999; WTO, 2001).
200. (OECD, 2017b).
201. (WTO, 2019).
202. (Beverelli et al., 2017; Fiorini & Hoekman, 2018).
203. Mode 1 is cross-border supply of services without any movement of persons or commercial presence. Mode 2 is consumption abroad, including by foreign tourists. Mode 3 entails the provision of services through commercial presence (see Box 1).
204. (Rouzet et al., 2017; Roy, 2019).
205. (Rossotto et al., 2003).
206. (Sáez et al., 2015).
207. Research in institutional and development economics underscores that the quality of government institutions is closely linked to firm competitiveness and participation in international value chains, including because high-quality institutions support the enforcement of contracts (see Sáez et al. 2015; Stephenson and Drake-Brockman 2014; Antràs 2005). This is especially important for suppliers of connected services, given that their trade involves incomplete contracts due to the intangible nature of their offering. Countries with a strong rule of law, predictable and transparent regulatory procedures, and a lack of conflict provide more certainty for investments in services value chains, including through foreign direct investment. Regulatory institutions benefit from a clear mandate from government, sufficient financial means, and good human capital. These ingredients facilitate their ability to craft transparent, sensible rules in services markets that balance economic and non-economic objectives.
208. (ITC, 2016).
209. (ITC, 2020b).
210. (UNCTAD, 2022).
211. ITC Procurement Map. Available at https://procurementmap.intracen.org/
212. (Frischtak, 2018).
213. UNCITRAL website. UNCITRAL Model Law on Electronic Commerce (1996). United Nations Commission on International Trade Law. Retrieved from https://uncitral.un.org/en/texts/ecommerce/modellaw/electronic_commerce/status
214. UNCTAD website. Summary of Adoption of E-Commerce Legislation Worldwide. United Nations Conference on Trade and Development. Retrieved from https://unctad.org/topic/ecommerce-and-digital-economy/ecommerce-law-reform/summary-adoption-e-commerce-legislation-worldwide
215. (Cory & Dascoli, 2021).
216. (Casalini et al., 2021; Sheppard et al., 2021).
217. (Casalini et al., 2021).
218. For example, ICT services providers in Ghana must register with the Data Protection Commission and pay a registration fee for a Data Protection Certificate every two years, as per Article 50 Data Protection Act of 2012, which entails additional costs.
219. (Ferracane et al., 2020; van der Marel & Ferracane, 2021).
220. (UNCTAD, 2016).
221. (OECD, 2018).
222. (Wilkinson et al., 2016).
223. W3C website. Data Catalog Vocabulary (DCAT) - Version 2. Retrieved from https://www.w3.org/TR/vocab-dcat-2/
224. (Barzelay et al., 2021).
225. (UNCTAD, 2021a).
226. (OECD, 2021c).
227. (UN, 2019).
228. (World Economic Forum, 2021).
229. (OECD, 2021a).
230. (Rubinfeld & Gal, 2017).
231. (Capobianco & Nyeso, 2018).
232. Office of Competition and Consumer Protection Press Release (2017 July 7). "Competition authority searches premises of Grupa Allegro". Retrieved from https://uokik.gov.pl/news.php?news_id=13332.
233. (European Commission, 2017).
234. (The Economist, 2017).
235. (UNCTAD, 2019).
236. (UNCTAD, 2019).
237. ITC calculations based on ITC SME Competitiveness Surveys.
238. ITC calculations based on ITC SME Competitiveness Surveys.
239. (ITC, 2019a).
240. (Gerken, 2020; Insureon, n.d.).
241. (Jewell, 2019).
242. (Kumar & Beerepoot, 2021).
243. (Carballo et al., 2021).
244. (Kim & Mauborgne, 2005).
245. (Sichtmann et al., 2011).
246. (Figueiredo & Piana, 2018; Vermeulen, 2005).
247. (ITC, 2019c).
248. (ITC, 2018a).
249. (Chaitoo, 2020; Hustler & Primack, 2012; ITC, 2014, 2015b, 2017b).
250. (Fessehaie, 2017; ITC, 2017b).
251. (Hustler & Primack, 2012).
252. (ITC, 2015b).
253. (Cernat, 2021; ILO, 2021b).
254. (ITC, 2020a).
255. (ITC, 2018a).
256. ITC's SME Trade Academy (available at https://learning.intracen.org/), for example, provides several relevant courses, such as "Introduction to E-commerce"; "Using Virtual Marketplaces for your E-commerce Initiative"; "Creating Quality E-commerce Content"; and "E-Commerce for your B2B Business".
257. (ITC, 2018a).

258. (ITC, 2019c).
259. (ITC, 2019c).
260. (Beverelli et al., 2017; Fiorini & Hoekman, 2018).
261. (European Commission, n.d.).
262. Frugal innovation is a process that creates high-quality, robust and durable inventions for low- and middle-income consumers. It has a development process that minimises the use of material and financial resources and is aimed at making products, processes and systems that are easy to use because they are low cost, functional, and produced at scale.
263. (ITC & DIE, 2020).
264. (IMF, 2009).
265. (IMF, 2009).
266. For more information on the ITC SME Competitiveness Surveys, see: https://intracen.org/resources/data-and-analysis/research-and-data/
267. (Falciola et al., 2017).
268. For more information on the methodology, see (ITC, 2018b).
269. ITC's export potential assessment estimates the potential for export growth based on an evaluation of the country's projected export performance in each product, the target market's demand trends for that product, and the strength of the bilateral relationship between the exporting country and the target market.
See: exportpotential.intracen.org
The unrealized export potential is used as a basis for the estimation of employment effects for goods sectors. Lack of bilateral trade data in services does not allow the computation of unrealized export potential figures in this sector.

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Annex I: Methodology note and data sources

This annex provides details for relevant figures and calculations in the report, and includes definitions, sampling, econometric and statistical methods, and data sources. Further details can be requested by email through SMEcompetitiveness@intracen.org.

Definitions

Micro, small and medium-sized enterprises

There is no internationally harmonized definition of MSMEs. For feasibility and comparability reasons, ITC classifies companies based on the number of full-time employees:

- Micro: 0 to 4 employees
- Small: 5 to 19 employees
- Medium: 20 to 99 employees
- Large: 100 or more employees.

Small and medium-sized enterprises (SMEs) are therefore companies with less than 100 employees. Micro firms are implicitly included in the definition.

Sectors

This report classifies companies in sectors based on the International Standard Industrial Classification of all Economic Activities (ISIC), Revision 4:

- The primary sector includes agriculture, forestry, fishing, mining, and quarrying (ISIC divisions 01-09).
- The manufacturing sector includes all activities related to the transformation of raw materials into products (ISIC divisions 10-33).
- The services sector includes wholesale and retail trade, transportation and storage, accommodation and food service activities, information and communication, financial and insurance activities, real estate activities, and other services (ISIC divisions 35-99), unless otherwise specified.

For all statistics using World Bank World Development Indicators and the International Labour Organization Statistics (ILOSTAT), the services sector corresponds to ISIC Revision 4 divisions 45-99. This definition excludes utilities and construction.

For all statistics using trade data, the sectoral classification is based on the sixth edition of the Balance of Payments and International Investment Position Manual (BPM6).[264]

In this definition, the services sector includes the category *manufacturing services on physical inputs owned by others*. This covers 'processing, assembly, labelling, packing, and so forth undertaken by enterprises that do not own the goods concerned.'[265]

TABLE A1 Services subsectors

Subsector name	ISIC Rev.4
Utilities	35-39
Construction	41-43
Wholesale & retail	45-47
Transport	***49-53***
Food & accommodation	55-56
Creative & sports	90-93
ICT	***58-63***
Finance	***64-66***
Real estate	68
Business services	***69-78 and 80-82***
Tourism	79
Social services	84-88
Other	94-99

Connected services are defined as ICT (ISIC divisions 58-63), finance (ISIC divisions 64-66), business services (ISIC divisions 69-78 and 80-82) and transport (ISIC divisions 49-53).

For all statistics using Trade in Value Added data, connected services are defined as ICT (ISIC divisions 58-63), finance (ISIC divisions 64-66), business services (ISIC divisions 69-82) and transport (ISIC divisions 49-53). This definition of business services includes tourism (ISIC 79).

Women-led enterprises

Women-led firms are defined as those managed by a woman and at least 30% owned by women. Otherwise, firms are defined as men led.

Youth-led enterprises

Youth-led firms are defined as being run by a top manager under the age of 35. Otherwise, firms are defined as non-youth led.

Exporters

Exporters include firms that export regularly and firms that export in an irregular and intermittent manner.

ITC COVID-19 Business Impact Survey

Content and sample

The ITC COVID-19 Business Impact Survey is a global online survey aimed at assessing the economic impact of the pandemic on businesses. It contains data on 13,884 companies in 138 countries, collected between April and August 2020.

The analysis in this report is based on a subset of 4,694 firms in 136 countries, for which full and comparable data are available. The sample is spread across all regions (Africa, Americas, Asia, Europe, and Oceania), sectors (primary, manufacturing, and services) and firm size (micro, small, medium, and large). It includes both exporting and non-exporting firms. The sample is not representative in all countries, and response rates vary across countries and sectors.

The survey includes questions about firm characteristics such as size, sector, and trade status, as well as age and gender of the manager. It also includes questions about the effects of COVID-19 restrictions, and the coping mechanisms adopted by companies. For more details on the ITC COVID-19 Business Impact Survey see ITC SMECO 2021: Empowering the Green Recovery.

ITC SME Competitiveness Surveys

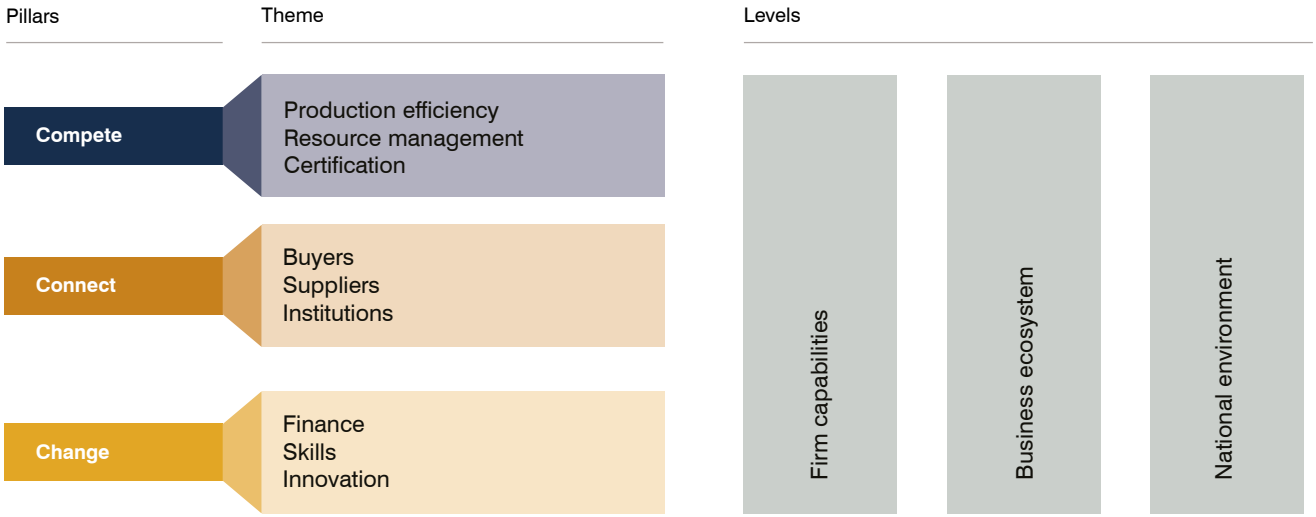
Content and sample

The ITC SME Competitiveness Survey (SMECS) is a national firm-level survey of a representative sample of an economy's private sector. Data are gathered, to the extent possible, from firms across all regions of the country, sectors (primary, manufacturing, and services), sizes (micro, small, medium, and large) and trade status (exporting and non-exporting firms).[266]

Typically carried out in partnership with business support organizations, the SMECS is designed to combine information at the micro (firm capabilities) and meso (business ecosystem) levels to provide a holistic picture of the capacity of a country's private sector to compete in international markets. As of March 2022, more than 35,000 companies had been surveyed in 55 countries.

The baseline questionnaire of the SMECS is based on ITC's competitiveness framework,[267] which is composed of three pillars – compete, connect and change – and three levels – firm capabilities, business ecosystem and national environment. Each pillar is further disaggregated into three themes (Figure A1).

FIGURE A1 SME competitiveness framework



SME competitiveness index

Based on responses to the ITC SME Competitiveness Survey, classified by pillar, theme and level according to the SME competitiveness framework (Figure A1), ITC computes a 'capacity to compete', 'capacity to connect' and 'capacity to change' index for each firm, as well as an overall competitiveness index. The index has a value between zero and 100, with 100 representing the best outcome.

Questions in the SMECS have different structures (from dichotomous to Likert scale). Each response is transformed on a 0-100 scale, with 100 representing the best possible outcome. As such, for each surveyed firm it is possible to calculate an index for each theme and level as a simple average of the transformed answers from relevant questions (see the list of questions included in each theme-level in Tables A2, A3 and A4 for the compete, connect, and change pillars, respectively). Pillar indices (compete, connect and change) are computed at a firm level as the average of the indices of each of their three component themes and two levels (firm capabilities and business ecosystem). Finally, for each interviewed firm, the competitiveness index is the simple average of the indices of the three pillars.

Capacity to compete

The capacity to compete index is calculated as the average of firm capabilities and business ecosystem competitiveness indices in meeting production efficiency, resource management and certification requirements.

TABLE A2 Questions by theme and level in the compete pillar

		Levels of competitiveness	
	Themes	Firm capabilities	Business ecosystem
Compete	Production efficiency	▪ Capacity utilization ▪ Quantity delivered on time	▪ Access to electricity ▪ Access to water
	Resource management	▪ Inventory management efficiency ▪ Full economic records ▪ Bank account ▪ Cash flow management	▪ Quality of logistics services ▪ Cost of logistics services
	Certification	▪ International certificates: Safety certificates ▪ International certificates: Quality or performance certificates ▪ International certificates: Sustainability certificates ▪ International certificates: Other	▪ Availability of domestic information on international certificates ▪ Quality of domestic information on international certificates ▪ Cost of domestic information on international certificates

Capacity to connect

The capacity to connect index is calculated as the average of firm capabilities and business ecosystem competitiveness indices in connecting with buyers, suppliers, and institutions.

TABLE A3 Questions by theme and level in the connect pillar

		Levels of competitiveness	
	Themes	Firm capabilities	Business ecosystem
Connect	Buyers	▪ Business website ▪ Forms of advertising: leaflet, poster, etc. ▪ Forms of advertising: radio or television ▪ Forms of advertising: internet based	▪ Availability of information on buyers ▪ Completeness of market information on potential buyers ▪ Quality of market information on potential buyers ▪ Cost of market information on potential buyers
	Suppliers	▪ Reliance on biggest supplier ▪ Assessment of the performance of suppliers	▪ Availability of market information on potential suppliers ▪ Quality of market information on potential suppliers ▪ Cost of market information on potential suppliers ▪ Exchange of market information with other companies in sector ▪ Cooperation with firms in sector
	Institutions	▪ Engagement with BSOs: trade promotion organizations ▪ Engagement with BSOs: investment promotion organizations ▪ Engagement with BSOs: chambers of commerce ▪ Engagement with BSOs: sector association	▪ Quality of services provided by trade promotion organizations ▪ Quality of services provided by investment promotion organizations ▪ Quality of services provided by chambers of commerce ▪ Quality of services provided by relevant sector association

Capacity to change

The capacity to change index is calculated as the average of firm capabilities and business ecosystem competitiveness indices in finance, skills, and innovation requirements.

TABLE A4 Questions by theme and level in the change pillar

		Levels of competitiveness	
	Themes	Firm capabilities	Business ecosystem
Change	Finance	▪ Business plan ▪ In need of financing	▪ Quality of banks ▪ Quality of insurance companies ▪ Access to financial institutions an obstacle to operations
	Skills	▪ Skill set of employees matching the needs of the company ▪ Established hiring process	▪ Availability of skilled workers ▪ Quality of bodies teaching relevant skills for the sector ▪ Cost of bodies teaching relevant skills for the sector
	Innovation	▪ Protection of sensitive business information ▪ Registered patent ▪ Spending in research and development ▪ Development of new products	▪ Availability of market information on IP ▪ Quality of services offered by patent registration institutions ▪ Cost of services offered by patent registration institutions ▪ Quality of innovation supporting institutions ▪ Cost of innovation supporting institutions

The analysis in this report is based on a subset of 5,504 firms interviewed using the ITC SME Competitiveness Survey in 16 countries, for which full and comparable data are available. The sample includes companies of different size, sector, and region of the respective countries. Specifically, one in two surveyed firms are in services, one third are in manufacturing and the remaining 17% are in the primary sector (Table A5). Nine out of ten companies in the sample are SMEs.

TABLE A5 Sample size of ITC SME Competitiveness Survey by country, sector, and firm size

Group	Number of respondents	Share in total
Country		
Argentina	300	6%
Benin	502	9%
Botswana	615	11%
Burkina Faso	397	7%
Cambodia	309	6%
Eswatini	193	4%
Ghana	218	4%
Hungary	117	2%
Kenya	757	14%
Morocco	146	3%
Saint Lucia	200	4%
The Gambia	107	2%
The Philippines	511	9%
Togo	573	10%
Ukraine	317	6%
Zambia	242	4%
Sector		
Primary	946	17%
Manufacturing	1781	32%
Services	2777	51%
*Size**		
Micro	2034	37%
Small	1937	36%
Medium	916	17%
Large	565	10%
Total	**5504**	**100%**

*Observations by firm size do not add up to 5,504 because 52 firms did not reply to the question 'How many full-time employees does this establishment currently employ?'.

Notes on figures

Figure 1. Services correspond to ISIC Revision 4 divisions 45-99. This definition excludes utilities and construction. Services share of total GDP represents the services' value added (% of GDP). Value added is the net output of a sector after adding all outputs and subtracting intermediate inputs. It is calculated without making deductions for depreciation of fabricated assets or depletion and degradation of natural resources.

Source: ITC, based on World Bank World Development Indicators (WDI) and International Labour Organization Statistics (ILOSTAT).

Figure 2. A country is considered to have the services sector as the main driver of GDP growth if the contribution of services to real GDP growth is larger than the contribution of the manufacturing and primary sectors. The contribution of a sector to GDP growth is defined as: Contribution of sector to real growth = (share of sector in GDP* real growth in sector) / weighted real GDP growth. Weighted real GDP growth = (share of services in GDP* real growth in services) + (share of manufacturing in GDP* real growth in manufacturing) + (share of agriculture in GDP* real growth in agriculture). Services correspond to ISIC Revision 4 divisions 45-99. This definition excludes utilities and construction. In the group there are 68 developing countries, 37 developed countries and 26 least developed countries. Africa comprises 33 countries, the Americas 29, Asia 29, and Europe 35 countries.

Source: ITC, based on World Bank World Development Indicators (WDI).

Figure 4. Respondents were asked 'How many full-time employees does this establishment currently employ?'. Seasonal and part-time workers are thus excluded.

Source: ITC, based on ITC SME Competitiveness Surveys.

Figure 5. Respondents were asked 'How many employees does this business have?'. Firms categorized as 'large' have 100 or more employees and firms categorized as 'SME' have between 1 and 99 employees. Respondents were also asked 'In the last full calendar year, what percentage of this establishment's sales were direct exports (e.g., products or services exported) by this establishment?'. Firms that indicated a percentage higher than or equal to one are considered exporters. Firms that reported zero direct exports are considered non-exporters. Respondents were also asked 'Which option applies best as the main area of activity?'. Firms choosing ISIC codes 11 to 33 are categorized under 'manufacturing' and those choosing ISIC codes 34 to 99 are categorized under 'services.' The results are statistically significant when controlling for country, capital, women-led and youth-led differences.

Source: ITC, based on ITC SME Competitiveness Surveys.

Figure 6. This figure focuses on competitiveness at the level of firm capabilities. Themes in which non-exporting firms significantly lag exporting firms are coloured. A significant lag is defined as a difference of more than six percentage points in the average across questions included in each theme. Respondents were also asked 'In the last full calendar year, what percentage of this establishment's sales were direct exports (e.g., products or services exported) by this establishment?'. Firms that indicated a percentage higher than or equal to one are considered exporters. Firms that reported zero direct exports are considered non-exporters. Results are statistically significant when controlling for firm size.

Source: ITC, based on ITC SME Competitiveness Surveys.

Figure 7. Respondents were asked 'Does the establishment's main product or service hold any of the following types of internationally recognized certificates: safety, quality or performance, sustainability, other?'. Firms choosing at least one of the options are considered to 'have certificate.' Respondents were also asked 'Does this company have a business website?' and 'Does this company have a registered patent?'. Lastly, respondents were asked 'Are you actively engaged with any of the following types of institutions: trade promotion organizations, investment promotion organizations, chambers of commerce, sector associations?'. Firms are considered 'engaged with business support organizations' if they said they were involved with any of the four types of institutions.

Source: ITC, based on ITC SME Competitiveness Surveys.

Figure 8. This figure focuses on competitiveness at the level of firm capabilities. Themes in which women-led firms significantly lag men-led firms are coloured. A significant lag is defined as a difference of more than six percentage points in the average across questions included in each theme. Respondents were asked 'What is the gender of the top manager?' and 'What percentage of this establishment is owned by women?'. Women-led firms are managed by a woman and at least 30% owned by women. Results are statistically significant when controlling for firm size.

Source: ITC, based on ITC SME Competitiveness Surveys.

Figure 9. Respondents were asked 'What is the age of the top manager?'. Companies are youth-led if the top manager is under 35. Respondents were also asked 'What is the gender of the top manager?' and 'What percentage of this establishment is owned by women?'. Women-led firms are managed by a woman and at least 30% owned by women. Respondents were also asked 'In the last full calendar year, what percentage of this establishment's sales were direct exports (e.g., products or services exported) by this establishment?'. Firms that indicated a percentage higher than or equal to one are considered exporters. Firms that reported zero direct exports are considered non-exporters. Respondents were also asked 'Which option applies best as the main area of activity?'. Firms choosing ISIC codes 11 to 33 are categorized under 'manufacturing' and those choosing ISIC codes 34 to 99 are categorized under 'services.' Results are statistically significant when controlling for firm size.

Source: ITC, based on ITC SME Competitiveness Surveys.

Figure 10. Respondents were asked 'Does this company have a business website?' and 'Please rate the frequency with which your company develops and implements new or improved

processes or products.' Companies are included in the category 'new products' if they chose options five or six on a scale ranging from one (rarely) to six (often).

Source: ITC, based on ITC SME Competitiveness Surveys.

Figure 11. Servicification is measured as the share of services subsectors' value added in total exports from OECD Trade in Value Added (TiVA) database, origin of value added in gross export. It reveals how the value of global gross exports of intermediate and final products is an accumulation of value generated by many industries. Digitalization is measured as digital expenditure per thousand workers from OECD Structural Analysis database (STAN) data. OECD STAN data are available for 38 OECD countries. Digital expenditure per worker is measured as net capital stock, ICT equipment, software and databases divided by the number of employees. Utilities include ISIC codes 35 to 39; construction, ISIC codes 41 to 43; wholesale and retail, ISIC codes 45 to 47; transport, ISIC codes 49 to 53; accommodation and food, ISIC codes 55 and 56; ICT, ISIC codes 58 to 63; finance, ISIC codes 64 to 66; real estate, ISIC code 68; business services, ISIC codes 69 to 82; public administration and health, ISIC codes 84 to 88 and creative and sports, ISIC codes 90 to 93.The lines represent median values. Data for 2018.

Source: ITC, based on OECD STAN and TiVA databases.

Figure 13. Respondents were asked 'Has the coronavirus (COVID-19) pandemic affected your enterprise in any of the following ways?'.

Source: ITC, based on ITC COVID-19 Business Impact Survey of 4,694 businesses in 136 countries, April 2020-August 2020.

Figure 14. Connected services include ICT (ISIC divisions 58-63), finance and insurance activities (ISIC divisions 64-66), professional and business services (ISIC divisions 69-82) and transportation and storage (ISIC divisions 49-53). Tourism, ISIC 79, is included in connected services due to data availability. All values are in constant 2015 USD.

Source: ITC, based on OECD TiVA database.

Figure 15. Connected services include ICT (ISIC divisions 58-63), finance and insurance activities (ISIC divisions 64-66), professional and business services (ISIC divisions 69-82) and transportation and storage (ISIC divisions 49-53). Tourism, ISIC 79, is included in connected services due to data availability. All values are in constant 2015 USD. Data from 2018, including both domestic and foreign value added.

Source: ITC, based on OECD TiVA database.

Figure 17. Digital expenditure per worker is measured as net capital stock of ICT equipment, software and databases divided by the number of employees, per OECD STAN. OECD STAN data are available for 38 OECD countries. Utilities include ISIC codes 35 to 39; construction, ISIC codes 41 to 43; wholesale and retail, ISIC codes 45 to 47; transport, ISIC codes 49 to 53; accommodation and food, ISIC codes 55 and 56; ICT, ISIC codes 58 to 63; finance, ISIC codes 64 to 66; real estate, ISIC code 68; business services, ISIC codes 69 to 82; public administration and health, ISIC codes 84 to 88 and creative and sports, ISIC codes 90 to 93. Data from 2018, expressed in constant 2015 USD.

Source: ITC, based on OECD STAN database.

Figure 18. Respondents were asked 'Have you adopted any of the following strategies to cope with the crisis?' Firms that chose the options 'teleworking' or 'online sales' are included.

Source: ITC, based on ITC COVID-19 Business Impact Survey of 4,536 businesses in 134 countries, April 2020-August 2020.

Figure 19. ICT access is a composite index measured on a scale from zero to 100 that combines the following five indicators (20% each): (1) Fixed telephone lines per 100 inhabitants, (2) mobile cellular subscriptions per 100 inhabitants, (3) international internet bandwidth (bit/s) per user, (4) percentage of households with a computer, and (5) percentage of households with internet access. ICT competency is based on survey responses to the question 'In your country, to what extent does the active population possess sufficient digital skills?'. This variable is coded on a scale from one to seven (one = not at all; seven = to a great extent). The y-axis shows exports of commercial services divided by total population (mid-year estimates). Data from 2019.

Source: ITC, based on World Bank TCdata360.

Figure 20. Digital skills index is based on survey responses to the question 'In your country, to what extent does the active population possess sufficient digital skills?'. This variable is coded on a scale from one to seven (one = not at all; seven = to a great extent). Countries with a score above 4.6 are considered to have 'high digital skills', those with a score between 3.8 and 4.6 are classified as 'medium digital skills', and those with a score below 3.8 are classified as 'low digital skills.' Data from 2019.

Source: World Bank TCdata360.

Figure 22. Measures annual employment growth from 2007-2019, based on ILO modelled estimates of employment.

Source: ITC, based on International Labour Organization Statistics (ILOSTAT).

Figure 23. Respondents were asked 'Please rate the frequency with which your company develops and implements new or improved processes or products.' and 'Please estimate the level of resources your company commits to research and development.' Companies are included in the category 'high R&D spending' if they chose options five or six on a Likert scale ranging from one (no resources) to six (high level of resources). Companies are included in the category 'frequent innovation' if they chose options five or six on a scale ranging from one (rarely) to six (often). The fact that connected services firms are more likely to frequently innovate and have high R&D spending is statistically significant when controlling for firm size.

Source: ITC, based on ITC SME Competitiveness Surveys.

Figure 24. Measures the annual export growth of connected services and other services from 2007-2019.

Source: ITC, based on WTO time series data.

Figure 25. This figure is a binned scatterplot, controlling for firm size, age, sector, GDP per capita and capital region. Binned scatterplots are a non-parametric method of plotting the conditional expectation function, which describes the average y-value for each x-value. To generate a binned scatterplot, the binscatter command groups the x-axis variable into 20 equal sized bins, computes the mean of the x-axis and y-axis variables within each bin, and creates a scatterplot of these data points. By default, binscatter also plots a linear fit line using OLS, which represents the best linear approximation to the conditional expectation function. The horizontal axis measures the average competitiveness of connected firms in a region. The vertical axis measures the competitiveness of other companies in the same region. The competitiveness indices are obtained by taking the simple average of the capacity to compete, capacity to connect and capacity to change indices.

Source: ITC, based on ITC SME Competitiveness Surveys.

Figure 26. This figure groups the regional competitiveness of connected services into three groups: low, medium, and high, according to the tertiale in which the regional competitiveness of connected services belongs. The competitiveness indices are obtained by taking the simple average of the capacity to compete, capacity to connect and capacity to change indices. Respondents were also asked 'In the last full calendar year, what percentage of this establishment's sales were direct exports (e.g., products or services exported) by this establishment?'. Firms that indicated a percentage higher than or equal to one are considered exporters. Firms that reported zero direct exports are considered non-exporters. The vertical axis measures the share of exporters for non-connected services companies.

Source: ITC, based on ITC SME Competitiveness Surveys.

Figure 28. Respondents were asked 'Please rate the quality of the services offered by the logistics services companies this company uses.' Logistics services companies are rated as 'low to medium quality' if firms chose options one, two, three or four, and 'high-quality' if they chose options five or six on a Likert scale ranging from one (low) to six (high). Respondents were also asked 'In the last year, what percentage of this company's goods or services were delivered on time?' and 'Please rate the efficiency of this company's inventory management system.' Firms are classified as 'on time delivery' if they indicate a percentage greater than or equal to 75%. Firms are considered to have an 'efficient inventory management' if they chose options five or six on a Likert scale ranging from one (inefficient) to six (highly efficient). Results are statistically significant when controlling for firm size.

Source: ITC, based on ITC SME Competitiveness Surveys.

Figure 29. Respondents were asked 'Please rate the quality of your internet connection.' Firms are considered to have 'low to medium internet quality' if they chose options one, two, three or four, and 'high internet quality' if they chose options five or six on a Likert scale ranging from one (very low) to six (very high). Respondents were also asked 'Does this company have a business website?'. Answer options were 'yes' and 'no'. Respondents were also asked 'Please rate the availability of market information on potential buyers.' and 'Please rate the availability of market information on potential suppliers.' Firms are considered to have 'complete information' on buyers or suppliers if they chose options five or six on a Likert scale ranging from one (very low) to six (very high). Results are statistically significant when controlling for firm size.

Source: ITC, based on ITC SME Competitiveness Surveys.

Figure 30. Respondents were asked 'Please rate the quality of the banks you have encountered.' Banks are rated as 'low-medium quality' if firms chose options one, two, three or four, and as 'high-quality' if firms selected options five or six on a Likert scale ranging from one (very low) to six (very high). Respondents were also asked 'Please estimate the level of resources your company commits to research and development.' and 'Please rate the frequency with which your company develops and implements new or improved processes or products.' Firms are classified as 'high R&D spending' if the respondents chose options five or six on a Likert scale ranging from one (low) to six (high). Firms that engage in 'frequent innovation' are those that have chosen the options five or six on a Likert scale ranging from one (rarely) to six (often). Respondents were also asked 'Please rate the extent to which this company has the capability to present a fully costed business plan to a bank for the purpose of getting a loan.' Firms are classified as 'able to present business plan' if the respondent chose options five or six on a Likert scale ranging from one (low) to six (high). Results are statistically significant when controlling for firm size.

Source: ITC, based on ITC SME Competitiveness Surveys.

Figure 31. Respondents were asked 'Please rate the quality of the services offered by the logistics services companies this company uses', 'Please rate the quality of your internet connection', 'Please rate the quality of the banks you have encountered' and 'Please rate the quality of innovation supporting institutions your company has encountered.' Firms are classified as having 'access to all connected services' if respondents reply to all four questions on the quality of connected services.

Source: ITC, based on ITC SME Competitiveness Surveys.

Figure 32. Respondents were asked 'Please rate the quality of the services offered by the logistics services companies this company uses.' Respondents are classified as having access if they did not respond 'do not use logistics services.'

Source: ITC, based on ITC SME Competitiveness Surveys

Figure 33. Respondents were asked 'Please rate the quality of your internet connection', 'Please rate the quality of the services offered by the logistics services companies this company uses', 'Please rate the quality of the banks you have encountered' and 'Please rate the quality of innovation supporting institutions your company has encountered.' Respondents could choose options on a Likert scale ranging from one (low) to six (high). Firms are classified as 'high-quality connected services' if the average score of the four questions is larger than or equal to five.

Source: ITC, based on ITC SME Competitiveness Surveys.

Figure 34. Connected firms were asked 'In the last full calendar year, what percentage of this establishment's sales were direct exports (e.g., products or services exported) by this establishment?'. Firms that indicated a percentage higher than

or equal to one are considered exporters. Firms that reported zero direct exports are considered non-exporters. Connected firms were also asked 'Does this company have a business website?', 'In the last year, did this company engage in any of the following forms of advertising: internet or social media advertising?' and 'Are you actively engaged with any of the following types of institutions: sector associations?'. The results are statistically significant when controlling for firm size.

Source: ITC, based on ITC SME Competitiveness Surveys.

Figure 35. Connected firms were asked 'In the last full calendar year, what percentage of this establishment's sales were direct exports (e.g., products or services exported) by this establishment?'. Firms that indicated a percentage higher than or equal to one are considered exporters. Firms that reported zero direct exports are considered non-exporters. Connected services firms were also asked 'Please rate the frequency with which your company develops and implements new or improved processes or products.' and 'Please estimate the level of resources your company commits to research and development.' Companies are included in the category 'frequent innovation' if they chose options five or six on a scale ranging from one (rarely) to six (often). Companies are included in the category 'high R&D spending' if they chose options five or six on a Likert scale ranging from one (no resources) to six (high level of resources). Connected services firms were also asked 'Does this company have a registered patent?'. The results are statistically significant when controlling for firm size, except for patent.

Source: ITC, based on ITC SME Competitiveness Surveys.

Figure 36. Connected firms were asked 'In the last full calendar year, what percentage of this establishment's sales were direct exports (e.g., products or services exported) by this establishment?'. Firms that indicated a percentage higher than or equal to one are considered exporters. Firms that reported zero direct exports are considered non-exporters. Connected services firms were asked 'Please rate the extent to which the skill set of currently employed workers matches the needs of this company.' Firms with 'employee skills match firm needs' chose options five or six on a Likert scale ranging from one (poor match) to six (good match). Connected services firms were also asked 'Please rate the extent to which your company has an established hiring process to hire the best candidates.' Firms with an 'established hiring process' chose the options five or six on a Likert scale ranging from one (no established process) to six (strong established process). The results for employee skills match firm needs are statistically significant when controlling for firm size. The results for established hiring process are statistically significant, but not when controlling for firm size.

Source: ITC, based on ITC SME Competitiveness Surveys.

Figure 37. Connected services firms were asked 'In the last full calendar year, what percentage of this establishment's sales were direct exports (e.g., products or services exported) by this establishment?'. Firms that indicated a percentage higher than or equal to one are considered exporters. Firms that reported zero direct exports are considered non-exporters. Connected services firms were also asked 'To what degree is access to financial institutions an obstacle to current operations?'. Firms for which it is 'no obstacle' chose options five or six on a Likert scale ranging from one (very severe obstacle) to six (no obstacle). Connected services firms were also asked 'Please rate this company's ability to manage its cash flow to reliably execute payments.' Firms have 'strong cash flow management' if they chose options five or six on a Likert scale ranging from one (no ability) to six (very good ability). Connected services firms were also asked 'Is this establishment majority-owned by domestic entities or foreign entities?'. Firms are considered as 'accessing FDI' if they reported to be 'majority foreign-owned' or 'fully foreign owned'. Results for 'accessing FDI' and 'access to finance no obstacle', are statistically significant at 10% when controlling for firm size.

Source: ITC, based on ITC SME Competitiveness Surveys.

Figure 38. Percentages reflect the proportion of all reported burdensome non-tariff measures among firms that reported obstacles to exporting. Companies could report multiple obstacles.

Source: ITC, based on Non-Tariff Measures (NTM) Business Survey. 323 ICT and logistics/transport firms in Viet Nam, Ghana, Niger, and Bahrain interviewed in 2019 and 2020.

Figure 39. Respondents were asked 'Does this establishment's main product or service hold any of the following types of internationally recognized certificates?'. Companies are defined as 'multiple certificates' if they have more than one certificate. Respondents were also asked 'Select this establishment's top export destinations (max five).' Firms selecting more than one country are defined as 'exporting to multiple countries'. This result is based on a sample of 63 connected services firms. The result is similar when extending the analysis to the entire service sector, about 26% of services companies exporting to several destinations had multiple certifications, compared to 15% of firms exporting to only one country.

Source: ITC, based on ITC SME Competitiveness Surveys.

Figure 40. The figure shows the Services Trade Restrictions Index (STRI) for movement of natural persons (Mode 4) in connected services by income group. The STRI is a measure of the restrictiveness of an economy's regulatory and policy framework with respect to trade in services. It ranges from zero to 100, where zero indicates that none of the restrictions underlying the index are applied, and 100 means that the sector/mode is completely closed to foreign services and services suppliers. Data collected in 2016 and available for 68 economies.

Source: ITC, based on 2016 World Bank Services Trade Restrictions Index (STRI).

Figure 41. The figure shows the Services Trade Restrictions Index (STRI) in the telecommunications industry, which is defined as low if the index is less than 50 and high if it is more than or equal to 50. The STRI is a measure of the restrictiveness of an economy's regulatory and policy framework with respect to trade in services. It ranges from zero to 100, where zero indicates that none of the restrictions underlying the index are applied, and 100 means that the sector/mode is completely closed to foreign services and services suppliers. Data collected in 2008 and covering three out of the four modes of supply in

the World Trade Organization's General Agreement on Trade in Services, namely cross-border supply (Mode 1), commercial presence (Mode 3) and movement of natural persons (Mode 4). Respondents were asked 'Please rate the cost of your internet connection.' Answer options ranged from one (low cost) to six (high cost). Firms are considered to have 'affordable internet' if they answered one or two. The results are based on seven countries: Botswana, Cambodia, Ghana, Kenya, the Philippines, Ukraine, and Zambia.

Source: ITC, based on ITC SME Competitiveness Surveys and 2012 World Bank Services Trade Restrictions Index (STRI) in Telecommunications industry.

Figure 42. The horizontal axis shows the average Services Trade Restrictions Index (STRI) in the four connected services for all modes of supply for different countries in 2016. STRI is a measure of the restrictiveness of an economy's regulatory and policy framework with respect to trade in services. It ranges from zero to 100, where zero indicates that none of the restrictions underlying the index are applied, and 100 means that the sector/mode is completely closed to foreign services and services suppliers. The vertical axis shows the natural logarithm of per capita foreign direct investment (averaged between 2015 and 2020). The bubbles show per capita domestic value-added of the four most services-dependent manufacturing sectors in developing countries (i.e., food & beverages; textiles and wearing apparel; wood and paper; petroleum, chemical and non-metallic mineral products) which was exported in the year 2015 (latest year available). Based on Johnson and Noguera, 2012.

Source: ITC, based on World Bank Services Trade Restrictions Index (STRI), UNCTAD FDI statistics, Eora.

Figure 43. Percentages reflect the proportion of all reported procedural obstacles accounted for by the specified problem among firms that encountered procedural obstacles to exporting. Companies could report multiple procedural obstacles.

Source: ITC, based on NTM Business Survey. 323 ICT and logistics/transport firms in Viet Nam, Ghana, Niger, and Bahrain interviewed in 2019 and 2020.

Figure 44. Bars represent the share of countries in the region that responded 'no' to the question of whether there exists a possibility for affected parties to request the reconsideration or appeal adopted regulations to the relevant administrative agency.

Source: ITC, based on World Bank Regulatory Governance database.

Figure 45. Values represent share of countries in the region/development group with e-transaction laws and are expressed in percentage points. E-transaction laws recognize the legal equivalence between paper-based and electronic forms of exchange. They are a prerequisite for conducting commercial transactions online. Africa comprises 54 countries, the Americas comprise 35 countries, Asia-Pacific comprises 60 countries, and Europe comprises 45 countries. LDCs include 46 countries and SIDS 38 countries.

Source: ITC, based on UNCTAD Global Cyberlaw Tracker.

Figure 46. Values represent share of countries in the region/development group with legislation to secure the protection of data and privacy and are expressed in percentage points. Africa comprises 54 countries, the Americas comprise 35 countries, Asia-Pacific comprises 60 countries, and Europe comprises 45 countries. LDCs include 46 countries and SIDS 38 countries.

Source: ITC, based on UNCTAD Global Cyberlaw Tracker.

Figure Box 3. The statistics presented in Box 3 are generated by the "Spotting Export Potential for Employment" methodology.[268] This approach was developed through an ILO and ITC partnership, and has been implemented in 13 countries across three continents since 2016. It informs the identification of export sectors with greatest potential to drive inclusive development and create jobs.

The methodology quantifies the number of jobs that would be created by an increase of a sector's exports. It combines the ITC export potential methodology used to identify a country's sectors and markets with export growth potential,[269] and data on production, labour content and input-output coefficients to calculate how many jobs would be created if the export potential were fully realized.

The approach simulates how a given relative or absolute increase in the sector's exports affects the employment in the sector itself, along the sector's value chain and across the entire economy. Results can be used to rank sectors in terms of job creation potential, and to understand the importance of a given sector for direct, indirect, and induced employment as well as for the employment of women, certain age, or skill groups.

Annex II: Switch ON - ITC's programme for digital connectivity

ITC's 2022-2025 Strategic Plan highlights the role of digital connectivity in creating an inclusive, sustainable and prosperous world. ITC centres its efforts on digitalizing SME trade, in particular e-commerce in goods and services.

Global and national digital infrastructure, such as cables and the broadband network, are necessary for internet connections. The last mile of digital connections to users is also crucial for SME competitiveness. Devices, mobile data plans and services necessary to connect to the national backbone network often do not reach SMEs, hindering their use of digital tools for trade.

Switch ON is ITC's strategy to enable SMEs to trade digitally. Building SME skills in digital marketing, and facilitating their access to digital tools and solutions, help ensure that digital connectivity contributes to competitiveness. Small business providers of digital solutions have a role to play in this last mile, as their services and tools can facilitate digital solutions for other SMEs in their communities.

ITC's digital connectivity programme leverages our longstanding expertise to enable SMEs to use digital tools to trade online, and to support SME providers of digital solutions. By addressing challenges faced at the enterprise, business ecosystem and policy levels, including through partnerships, ITC harnesses the potential of digital connectivity to enable SME trade and growth.

Switch ON supports SME digital connectivity in the following areas:

- **Thought leadership:** Provide evidence about the economic implications of SME connectivity, such as this report, and insights into the best policy and technological innovations.
- **Conducive policy environment:** Inform global, regional and national policymaking processes of the interests and positions of small businesses by bringing the voice of SMEs to the fore.
- **Supportive ecosystem:** Build capacity of business support organizations to advocate for better connectivity for SMEs and the digital trade capabilities of their SME members.
- **Dynamic tech entrepreneurship:** Support digital entrepreneurs who offer solutions that build a vibrant, innovative and competitive digital environment for SMEs.
- **SME digital trade capacities:** Enable SMEs to use digital tools as a route to connect to local and digital markets, including through training and coaching, as well as through partnerships to access competitive digital services.

Switch ON works in partnership with a broad range of stakeholders that are well positioned to bring connectivity and related services to SMEs. ITC leverages partners' innovative solutions for improving connectivity, such as community digital networks and new communications technologies, to extend them to underserved communities.

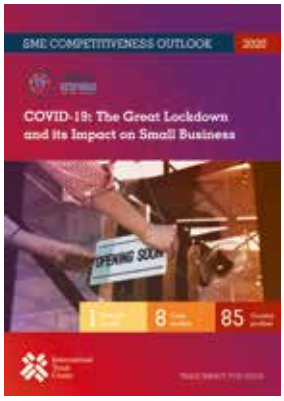
Partners include large enterprises, such as multinationals, and international organizations, as well as non-governmental organizations and social enterprises engaged in digital infrastructure projects. Local actors, such as incubation hubs, are also important partners that can extend training and access to improved connectivity to small businesses.

Previous SME Competitiveness Outlook Reports

2021: Empowering the Green Recovery

The SME Competitiveness Outlook 2021 analyses how small businesses can rebuild from the COVID-19 pandemic, so they are prepared to face the looming climate crisis. It provides a 20-point Green Recovery Plan to foster competitive, resilient and environmentally sustainable small and medium-sized enterprises (SMEs).

The report finds that small firms are less resilient to shocks - whether the pandemic or climate change - because they do not have key business fundamentals in place. It also identifies key areas where small businesses with limited resources can invest to seize opportunities of the green transition - and what business support organizations, governments, lead firms in value chains and international organizations can do to empower small firms to be competitive, resilient and sustainable.



2020: COVID-19: The Great Lockdown and its Impact on Small Business

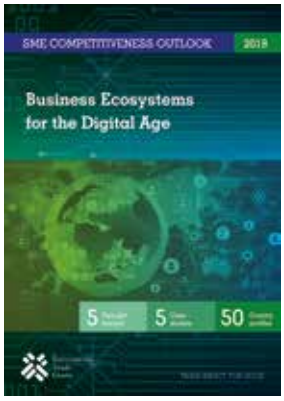
The SME Competitiveness Outlook 2020 analyses the impact of the pandemic on small firms, international supply chains and trade. It provides projections and a 15-point action plan for businesses, policymakers and business support organizations to weather the crisis - and gear up for a 'new normal' that needs to be resilient, digital, inclusive and sustainable.

The report combines analysis of the impact of COVID-19 on firms based on a large-scale global survey, with case studies and a thought leader viewpoint. The projected drop in supply chain trade is evaluated by region, and in 85 country profiles.

2019: Big money for small business: Financing the Sustainable Development Goals

Increasing annual investments in small and medium-sized enterprises by $1 trillion would yield disproportionate dividends in terms of progress towards the Sustainable Development Goals. These investments also have the potential to deliver healthy returns for investors.

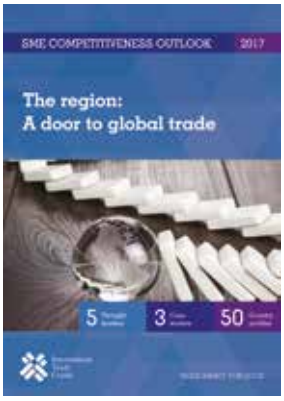
To boost investment in developing country small firms, the SME Competitiveness Outlook 2019 finds that stronger investment facilitators (actors that connect firms to investors) are key. Other major findings: bundling investments for small firms into large packages helps scale up financing; disseminating information on small business credit performance improves risk assessments; and helping these firms to be investor-ready improves their commercial viability.



2018: Business Ecosystems for the Digital Age

Digitalization and the rise of the platform economy are rapidly changing the way in which firms do business.
A strong business ecosystem is necessary to manage this change. The SME Competitiveness Outlook 2018 tells how to build it.

The report combines data analysis, academic insights, thought leader views and case studies to guide policymakers, businesses, and trade and investment support institutions in designing the business ecosystem that is necessary for small businesses to embrace and benefit from industry 4.0. This year's edition includes 50 country profiles on SME competitiveness, with a focus on strengths and weaknesses of the business ecosystem.



2017: The region: A door to global trade

The SME Competitiveness Outlook 2017 focuses on regions as a stepping-stone to international value chains for small and medium-sized enterprises (SMEs). It provides new evidence showing that deep regional integration is good for SMEs. These agreements can be both powerful and inclusive.

It finds that deep regional trade agreements help deliver inclusive growth. These agreements attract value chain activity and narrow the competitiveness gap between large and small firms. When investment is part of such agreements, the impact is stronger. The report provides targeted advice for policymakers, businesses, and trade and investment support institutions.

2016: Meeting the standard for trade

The SME Competitiveness Outlook 2016 focuses on standards and regulations. The report combines data analysis, academic insights, thought leader opinions and case studies to provide guidance for policymakers, business managers and standard setters.

Standards and regulations have a major impact on SME competitiveness. By meeting the standard for trade, SMEs increase their chances to connect to international value chains and consumers in a socially and environmentally sustainable manner. The report contains governance insights for voluntary sustainability standards; new evidence on how standards and regulations affect trade and business performance; guidance for SMEs on how to select and implement standards and regulations; and a policy action plan to strengthen SMEs' ability to meet standards and regulations.

2015: Connect, compete and change for inclusive growth

The SME Competitiveness Outlook 2015 is a "one-stop shop" on the topic of SME internationalization, and combines unique analysis, thought leader insights and case stories about developing country SMEs in international markets.

Organized around the theme Connect, Compete, Change for Inclusive Growth, the report shows that SMEs are generally less productive than large firms are. The productivity gap is wider in developing countries, and the wage gap is similar. It also shows that firms connected to international markets are more productive and create more employment. The book combines unique analysis, thought leader insights and case stories about developing country SMEs in international markets, along with 25 country profiles.

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