

Promoting SME Competitiveness in Colombia

Towards an inclusive and sustainable future



In collaboration with

Photos cover



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About the paper

Colombia's small and medium-sized enterprises play a central role in building economic resilience, creating jobs and driving inclusive growth. They also face unique challenges, some of which have been exacerbated by the COVID-19 pandemic.

Drawing on data from the ITC SME Competitiveness Survey, this report shows that Colombian firms that innovate and engage with industry associations invest more in addressing climate change. It recommends policy reforms that support digitalization, develop workers' skills, strengthen business support institutions and improve the business environment for small companies, including by enhancing access to finance.

Publisher: International Trade Centre

Title: *Promoting SME Competitiveness in Colombia: Towards an inclusive and sustainable future*

Publication date and place: Geneva, December 2022

Page count: 72

Language: English

ITC Document Number: RSE-22-77.E

Citation: International Trade Centre (2022). *Promoting SME Competitiveness in Colombia: Towards an inclusive and sustainable future*. ITC, Geneva.

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For more information on the SME Competitiveness Survey, see: <https://intracen.org/resources/data-and-analysis/research-and-data>

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Foreword

Colombia is one of the top economic performers in Latin America. Although the pandemic led to a sharp downturn, with gross domestic product falling by 6.8% in 2020, the economy bounced back strongly, achieving 10.7% growth in 2021.

The recovery has nonetheless been unequal: small and medium-sized enterprises (SMEs) have continued to struggle, negatively affecting the vulnerable groups whose livelihoods often rely on their services and employment. Moreover, global financial conditions are becoming tighter, threatening the prospects for global growth and further undermining social outcomes.

Against this backdrop, the Government of Colombia has focused on consolidating social justice and providing opportunities for disadvantaged groups, including women, youth, indigenous people and those of African descent.

Reinforcing the competitiveness of small firms and building their resilience to manage crises are central to implementing this social agenda. SMEs constitute 99.6% of all formal businesses in Colombia. They generate about 40% of gross domestic product and 65% of employment, in particular for the most vulnerable.

Small businesses' competitiveness can drive inclusive and sustainable growth, and their resilience is critical in weathering crises such as COVID-19, conflict and climate change. But these firms also face challenges that are unique due to their size and the environment in which they operate. There is no one-size-fits-all when it comes to supporting small businesses. Clearly pinpointing strengths to be leveraged and weaknesses to be overcome is fundamental if we are to enact effective and efficient support policies.

The International Trade Centre (ITC) and the National Trade Federation of Colombia (FENALCO) jointly produced this report. It assesses the competitiveness of SMEs in Colombia and offers recommendations on how to make these firms stronger now and more prepared for the future.

The findings are based on the ITC SME Competitiveness Survey, which was administered to 634 businesses across the country between August 2021 and June 2022. The results of the survey show that Colombian firms that innovate also invest more in addressing climate change. To foster innovation, the report recommends policy reforms that support digitalization and develop workers' skills.

ITC and FENALCO share a vision in which the competitiveness and resilience of Colombian small businesses are propelled towards global competitiveness, thereby securing a more stable, prosperous and inclusive future for the country. We see this report as an important step to make this vision a reality.

Jaime Alberto Cabal

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Acknowledgements

The International Trade Centre (ITC) would like to express its appreciation to the representatives of enterprises who agreed to be interviewed as part of the SME Competitiveness Survey.

Derek Carnegie, Ruatpuii Cira and Nathalie Raschka wrote this report under the guidance of Floriana Borino (ITC). Antonina Popova provided technical support to the data collection process. Sarah Mohan and Teny Nebie provided key inputs and helpful comments. Valentina Rollo, SMECS coordinator, and Barbara Ramos, Chief of the Research and Strategies for Export Section, supervised the project.

The staff of the National Trade Federation of Colombia (FENALCO) collected data. ITC acknowledges the leadership and support of Jaime Alberto Cabal, President; Luis Hernando Solarte, Vice President of union strategy, cooperation and projects; Olga Vinasco, Director of projects; Katherine Tabares, Director of productivity and competitiveness; Alejandro Gómez, Economic adviser and supervisor; and to the entire technical and information-gathering team of FENALCO.

ITC would also like to thank Natalie Domeisen and Anne Griffin (both ITC), who managed the editorial and production process; Jennifer Freedman, who edited the report; and Franco Iacovino and Serge Adeagbo (both ITC), who provided graphic and printing support, respectively.

ITC thanks FENALCO for providing some of the images and photos used in this report.

About FENALCO

The National Trade Federation of Colombia FENALCO is the union of the commerce companies. Established in 1945, the institution has a presence in 28 cities across the national territory and is a leader in the construction and proposition of public policies in economic matters. FENALCO represents 21 macro sectors of commerce and has had relevant experience in the support and development of small and medium-sized enterprises, especially nano stores, for the past 30 years, reaching more than 200,000 businesses.

About ITC

The International Trade Centre was established in Geneva, Switzerland, as a joint agency of the United Nations and the World Trade Organization dedicated to strengthening the competitiveness of small and medium-sized enterprises to build vibrant, sustainable export sectors that provide entrepreneurial opportunities, particularly for women, young people and poor communities.

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Acronyms

Unless otherwise specified, all references to dollars (\$) are to United States dollars, and all references to tons are to metric tons.

BSO	Business support organization
COP	Colombian peso
FENALCO	National Trade Federation of Colombia
GDP	Gross domestic product
GVC	Global value chain
ITC	International Trade Centre
ICT	Information and communications technology
OECD	Organisation for Economic Co-operation and Development
R&D	Research and development
SENA	Colombian National Service for Vocational Education
SMEs	Small and medium-sized enterprises
SMECS	SME Competitiveness Survey
TVET	Technical and vocational education and training

Executive summary

Small and medium-sized enterprises (SMEs) drive growth in Colombia. These firms comprise 99.6% of all formal businesses in the country and support the livelihoods of millions of workers. However, their potential for innovation, future growth, exports and employment remains partially untapped. As the country – and the world – recover from COVID-19 and face other crises, enhancing the resilience and competitiveness of Colombian SMEs must be a priority. This report offers concrete recommendations on how to turn potential into reality.

Recent domestic and external turmoil disrupted established means of operating and strategies for growth. Colombian gross domestic product fell 6.8% in 2020 and the unemployment rate rose to 15.9% that year from 10.5% in 2019. While most firms are now fully open, fewer than half have seen their revenues return to pre-pandemic levels and about a quarter have smaller numbers of workers. SMEs typically had fewer resources and more limited capacities before the pandemic. Not surprisingly, smaller companies tended to be affected more strongly and are taking longer to recover.

Firms recently faced the implications of domestic social unrest, increased container shipping rates and surging global commodity prices due to the war in Ukraine. These risks continue to affect businesses, as do challenges such as climate change, which will worsen in the future. Understanding how companies have managed recent crises offers lessons for the design of policies to foster a stronger SME sector.

The International Trade Centre (ITC) partnered with the National Trade Federation of Colombia (FENALCO) to study the structure of Colombian SMEs, how they have been affected by the pandemic and other challenges, and the strategies they are pursuing to build competitiveness and resiliency.

Between August 2021 and June 2022, FENALCO collected data for the SME Competitiveness Survey (SMECS) from 634 randomly selected enterprises across all sectors and sizes in five regions of Colombia. The data were analysed based on ITC's analytical framework to understand firm

competitiveness. The framework is built around three pillars – compete, connect and change – that drive the capacity of a company to be competitive. Each chapter of this report focuses on one of these three pillars.

The survey results show how Colombian firms have adapted to recent difficulties and offers insights into the factors driving their resilience and capacity to recover from setbacks. They demonstrate how connections with suppliers, customers and support organizations; firm management and fundamental capacities; and flexibility and innovation are needed to drive both competitiveness and resilience.

Underpinning competitiveness supports resiliency

The compete pillar reflects a firm's ability to deliver output of appropriate quantity, timeliness, quality and cost to meet market expectations. The results of the SME Competitiveness Survey highlight infrastructure, management and certification as key areas where improvements are needed for all Colombian businesses to meet market expectations successfully and better withstand shocks.

While many firms see their access to physical infrastructure as high quality, this positive perspective is less common among businesses outside the capital and those in the agriculture sector. For example, 88% of firms in Bogota said transport infrastructure was high quality, compared to 51% in other regions. Unreliable infrastructure raises costs for firms – which must make alternative arrangements, such as using backup generators during power cuts – and often hinders timely delivery.

Ensuring that infrastructure is climate resilient will help reduce the direct losses and indirect costs of climate variability and change. Climate-resilient infrastructure, which is built and managed to withstand damage from natural disasters, is needed alongside firms' investments in climate change adaptation and mitigation.

Many Colombian SMEs were ill-prepared for the pandemic, in part because of their weaker management capacities. The smallest firms and agriculture businesses were less likely to hold bank accounts or to manage inventory and cash flow well. Not surprisingly, revenues at the companies with strong resource management practices in place before COVID-19 had returned closer to pre-pandemic levels. Firms with strong cash flow management had on average 84% of their usual pre-COVID-19 revenue when they were surveyed, while those with weak cash flow management had just 56% of their pre-pandemic revenues.

Safety, quality, sustainability and other certifications provide signals about firm operations and products that can increase the value of output and help companies enter new markets. Only 38% of Colombian firms hold a recognized

voluntary certification, however. Female-led firms, which are often smaller and less well connected to support organizations, have lower-than-average rates of certification. There is an opportunity to boost certification among women business leaders in particular, to drive exports and firm growth.

Connections are fundamental to firm success

The connect pillar 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. Survey results highlighted digital technologies, sourcing strategies and sector associations as important factors affecting how Colombian SMEs connect.



Colombia has digitized greatly over the past decade, especially during the pandemic. Most firms expanded their online presence in response to COVID-19 and to prepare for future crises. Still, gaps remain in information and communications technology use compared to the rest of the region.

High internet costs and inadequate internet infrastructure in more remote regions of the country are negatively affecting information and communication technology adoption rates. Just over two-thirds of firms have a website and 82% use social media and other platforms to advertise, communicate with customers and sell online. Smaller enterprises are more likely to depend only on online advertising, without using print, broadcast and other media.

The supply chain disruptions that firms experienced during the pandemic led many Colombian businesses to reconsider their sourcing strategies. About half of respondents reported difficulties accessing inputs during this period, and most of those highly reliant on their biggest supplier have since taken steps to revise their sourcing strategy. About 53% of firms that depend heavily on their bigger supplier modified their sourcing strategy, compared to 32% of firms that rely less on and have less need for new strategies.

These concerns will not disappear when the pandemic ends, as climate change poses a growing threat to supply chain stability. Most surveyed firms (59%) said they were concerned about scarcity or a decrease in input quality due to environmental risks. Supplier diversification therefore appears to be increasingly important to better adapt to constantly changing market conditions and customer needs.

By delivering services to firms and representing their interests, business support organizations are critical in boosting the competitiveness of the private sector. Just over half of interviewed firms were engaged with sector associations, which can offer more targeted support and services. This engagement was linked to better information sharing and preparation for future risks. Indeed, firms involved with sector associations were almost twice as likely to invest in changes to reduce their environmental risks.

Worryingly, women-led companies are far less likely to engage with sector associations. Women rarely hold leadership positions in these support organizations, thereby giving them less power to advocate for targeted support to women-led companies. This hinders inclusive development

and may prevent women-led firms from realizing the full potential of their businesses.

Changing through innovation and adaptability

The change pillar captures the ability of enterprises to innovate, adapt to new market trends and remain competitive. Colombian businesses must address skill matching, the management of debt and other financial concerns, and investment in innovation.

Most surveyed firms were satisfied with their employees' skills, which are a key factor behind the efficiency of a company's operations and its capacity to adapt or innovate. However, there are signs that skill matching can be improved. Many firms are also uncertain they will be able to find new workers with needed skills; only 20% thought such workers were highly available. At the same time, low employment rates among women and youth point towards existing inequalities in the labour market and underused potential that should be addressed.

As is the case generally, SMEs in Colombia have greater difficulty accessing finance than larger businesses. More than half of surveyed firms – especially microenterprises – said they needed external financing. The pandemic aggravated many firms' financial challenges, and most of those that took on new debt because of the crisis did not expect to be able to repay it within a year. Building resilience will require solving these challenges. Financial constraints are the main reason companies cannot prepare for future uncertainties.

Colombia invests less in research and development than most other countries at its income level and in its region. Only 27% of surveyed companies reported that they regularly innovated. At the firm level, innovation was associated with an international orientation; exporters were more likely to innovate and invest in research and development. It is also linked to crisis preparedness. Innovation may be helping companies to build their capacities in climate change adaptation and mitigation.

Priority areas for reform

SMEs will contribute greatly to Colombia's continued growth and development, as well as its increased resilience to threats such as climate change and global economic instability. The survey results highlight four areas where policy and institutional reforms are needed to realize the full potential of these firms.

- First, low innovation rates in Colombia – and the benefits of innovation for companies to better manage the risks they face – underscore the importance of supporting the capacity of businesses to innovate and adopt new technologies.
- Second, improved job matching will boost productivity. New skill development initiatives targeting private sector needs and revised labour market policies could improve skill matching.
- Third, the benefits of engaging with business support organizations can be improved and more widely shared. Building the capacities of these organizations and their networks would provide a basis for developing a more effective operating environment for firms. In particular, Colombian business support organizations could work on programmes to build management capacities, target women-led firms and support SME internationalization.
- Fourth, the survey results suggest that improving the business environment could strengthen infrastructure quality, expand access to finance, support the creation of financing to help indebted firms grow and enhance competition and the diversification of input sourcing.





Chapter 1

Helping small firms realize their full potential

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Helping small firms realize their full potential

Crises have defined the last few years in Colombia, like the rest of the world. The COVID-19 pandemic led to a sharp economic downturn in 2020 and increased already high levels of income inequality.¹ Nonetheless, a steep but unequal recovery followed in 2021. Women's employment, for example, was harder hit by COVID-19, but the recovery of these jobs still trails that of men.²

At the same time, the decreasing availability of containers and skyrocketing freight rates also made it more costly for firms to trade.³ That year also brought uncertainty as protests against rising taxes and inequality, among other things, swept the country between April and June.⁴

The start of 2022 was just as tumultuous. With the onset of the conflict in Ukraine, supply chains still recovering from the pandemic were once again under stress.

And every time a crisis strikes, small and medium-sized enterprises (SMEs) feel the effects most acutely.⁵

The new government elected in 2022 has also created a paradigm change in Colombia. It plans to reorient the economy, moving away from dependence on extractive activities and focusing on climate-conscious production. This can provide opportunities for disadvantaged groups including SMEs, women, youth, indigenous peoples or those of African descent.⁶

SMEs are at the heart of Colombia's economy, constituting 99.6% of all formal businesses.⁷ There are also an estimated 10 million unregistered microenterprises.⁸ SMEs generate about 65% of employment and 40% of gross domestic product (GDP).⁹ They are also the main employers of vulnerable groups such as youth and women.¹⁰

By virtue of the jobs they create and their potential for inequality reduction, SMEs are key players in driving competitiveness. As competitiveness is a driver of resilience, they can also help the economy withstand disruptions.¹¹ Increasing the competitiveness – and by extension the resilience – of these businesses will help them survive future

crises. Recognizing the contribution that SMEs make to economic development, the Government of Colombia has created various laws, policies, organizations and funds that support the development of the SME sector. These are detailed in Box 1.

Firms need a strong business ecosystem that responds to change and on which they can depend during a crisis. Persistent issues that hamper the development of small businesses must be addressed. This requires identifying both the bottlenecks that companies face and the areas of greatest potential that could drive the country's export success.

To this end, the International Trade Centre (ITC) partnered with the Federación Nacional de Comerciantes Empresarios (FENALCO) to assess the competitiveness of Colombian SMEs. The goal was to perform a diagnostic on the state of these firms to better understand their strengths and weaknesses and to identify opportunities to improve their competitiveness for value-added trade and resilience.

Under this collaboration, the ITC SME Competitiveness Survey (SMECS) was administered to 634 businesses across Colombia in 2021 and 2022. The insights of this report on SME competitiveness are grounded in the data generated by that survey and the partnership that has supported it.

Assessing the competitiveness of small and medium-sized firms

ITC developed the SME Competitiveness Survey¹² to help countries collect the data needed to assess the competitiveness of their enterprises. As of August 2022, more than 36,000 firms had been surveyed in 57 countries, including Argentina, Guatemala and Saint Lucia in the Latin American and Caribbean region.

The tool is designed to combine information at the meso-level (local support ecosystem for businesses) and

micro-level (firm capacity) to provide a nuanced picture of the capacity of a country's private sector to compete in international markets and be more resilient to shocks.

In this report, firm size is defined according to the number of employees. As per Colombian Law 905 of 2004 (see Annex), small and medium-sized enterprises are those with

Box 1 Government policies for small and medium-sized enterprises

The first law on micro, small and medium-sized enterprises (SMEs) – Law 590 – came into effect in 2000. It laid the foundations for SME policy development in Colombia and defined micro, small and medium-sized enterprises.

Law 590 established the high-level Advisory Council for Microenterprise Development (Consejo Superior de Microempresa) and the high-level Advisory Council for Small and Medium Enterprises (Consejo Superior de Pequeña y Mediana Empresas). These councils are responsible for contributing to the definition, formulation and execution of policies to promote SME development.

The law also created an SME fund for the modernization and technical development of SMEs (Fondo Colombiano de Modernización y Desarrollo Tecnológico de las Micro, Pequeñas y Medianas Empresas). An MSME Directorate was founded in 2003 to promote policies and plans as well as financial and non-financial programmes for the development of micro, small and medium-sized enterprises. The Department of Business Development of the Ministry of Commerce, Industry and Tourism oversees this directorate.

The most recent national development plan is the Plan Nacional de Desarrollo 2018–2022. The COP 1,100 trillion

(\$248 billion) plan aims to boost equality, entrepreneurship and legality. It contains the following SME goals: lower commercial registration fees to make business formalization less expensive, reduce costs of and improve access to credit, and strengthen instruments for financing business operations. The new national development plan (Plan Nacional de Desarrollo 2022–2026) is being drafted.

In line with the last national development plan, the business formalization policy (Política de Formalización Empresarial) was released in 2019. It encourages business formalization by reducing the costs and increasing the benefits associated with formalizing, as well as improving the availability of information on informality – for example, by running an economic census – to better inform public policy decisions.

The Ministry of Commerce, Industry and Tourism is responsible for MSME development, and various support institutions deal with these firms. Bancóldex (Banco de Comercio Exterior) is a state-owned development bank that promotes growth and foreign trade. Most of its credit schemes target SMEs. The National Guarantee Fund is a government fund that seeks to facilitate access to credit for SMEs.

Sources: Congress of the Republic of Colombia (2000). Ley 590 de 2000 Nivel Nacional. <https://www.alcaldiabogota.gov.co/sisjur/normas/Norma1.jsp?i=12672>; Ministerio de Comercio, Industria y Turismo. (n.d). Dirección de Micro, Pequeña y Mediana Empresa – MIPYMES. <https://www.mipymes.gov.co/direccion-de-mipymes>; Consejo Nacional de Política Económica y Social. (2019). Política de formalización empresarial. CONPES; Dini, M., & Heredia Zurita, A. (2021). Analysis of policies to support SMEs in confronting the COVID-19 pandemic in Latin America. https://repositorio.cepal.org/bitstream/handle/11362/47145/S2100103_en.pdf?sequence=1&isAllowed=y



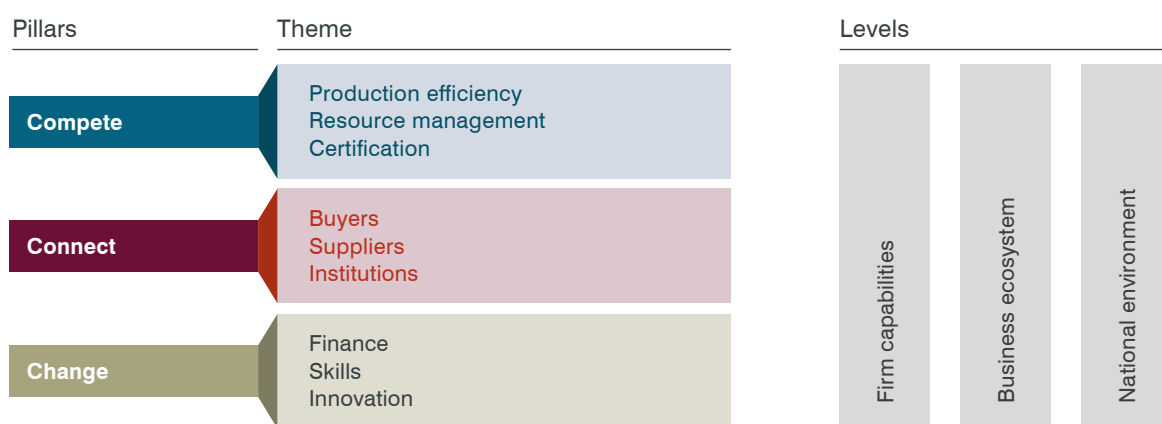
200 or fewer employees. Therefore, the term SME includes microenterprises. While the survey focuses on small and medium-sized firms, some large companies are included so the competitiveness of SMEs and bigger businesses can be compared.

The data collected are analysed based on ITC's analytical framework to understand firm competitiveness (see

Figure 1). The framework is built around three pillars – compete, connect and change – that drive the capacity of a company to be competitive across three levels of the economy – the firm, the business ecosystem and the national environment. Each pillar is further subdivided into themes that are the subject of the analysis in this report.

Further details about the framework are available in Annex.

Figure 1 SME Competitiveness Grid



Source: ITC.

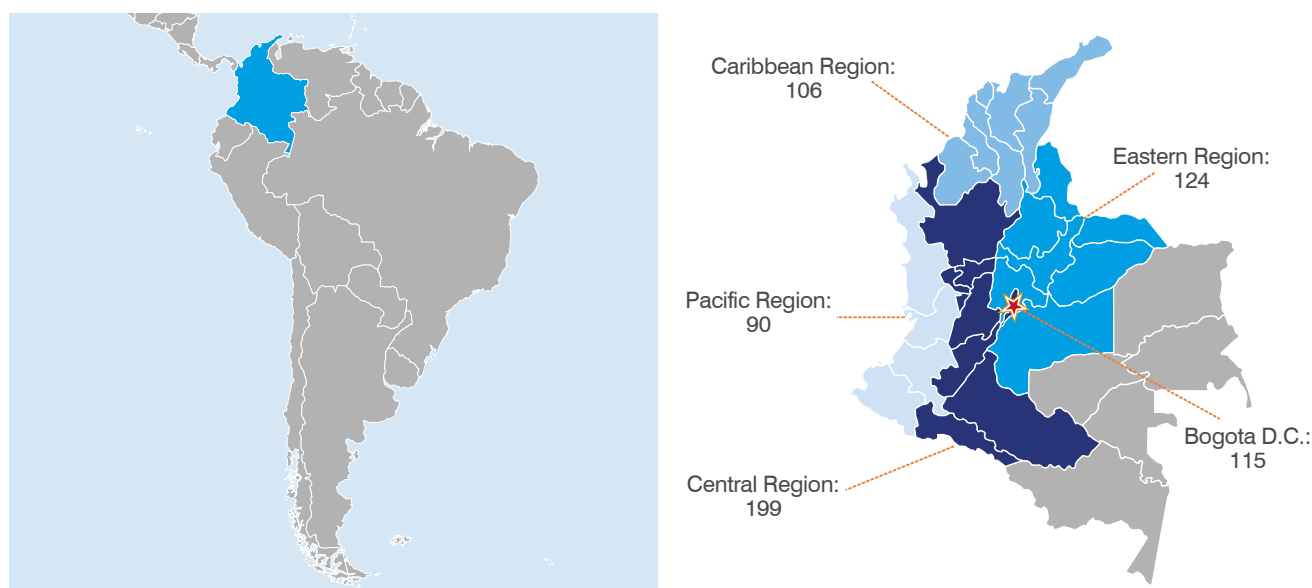


SME Competitiveness Survey in Colombia

FENALCO,¹³ with the support of ITC, collected data for the SME Competitiveness Survey from 634 Colombian enterprises between August 2021 and June 2022.

A sample of firms was randomly selected from a list of companies compiled by FENALCO. Data were gathered in five main regions of the country: Bogota, Caribbean, Central, Eastern and Pacific. Figure 2 highlights the surveyed regions, with darker colours representing a higher concentration of surveyed companies. To the extent possible, the sample in each region was composed of exporting and non-exporting firms.

Figure 2 Surveyed regions of Colombia



Source: ITC based on SME competitiveness data collected in Colombia.

The sample included firms from all sectors and sizes. Microenterprises are defined as those with ten or fewer employees, small firms have 11-50 employees, medium-sized ones have 51-200 employees, and large companies have more than 200 employees.

As Figure 3 shows, 92% of surveyed firms are micro, small or medium-sized.¹⁴ These numbers match other evidence that shows SMEs dominate the business landscape in Colombia.¹⁵ Sixty percent of the enterprises operate in the services sector, 26% in manufacturing and the remaining 14% in the agriculture sector. This is consistent with the prevalence of the services and manufacturing sectors in the country's gross domestic product.¹⁶

Managers who are younger than 35 years lead only about 13% of Colombian firms. Women-led businesses are also in the minority, at 30% of all respondents. Ninety-eight percent of interviewed firms are registered with a national authority.

The analysis of the survey data reveals several differences between women- and men-led firms. The former are smaller – measured in terms of the number of employees – than the latter. Indeed, more than three of five women-led companies are microenterprises, compared to only 37% of men-led firms. Furthermore, the data indicate that women-led businesses tend to hire a higher proportion of female workers. The average share of female workers in women-led companies is 64% compared to 41% for men-led firms.

The survey data also show that 22% of Colombian firms imported, exported or did both. However, just one in 10 exported – underscoring the unrealized export potential of Colombia. The data show that 34% of companies do not export but wish to do so. ITC (Export Potential Map)¹⁷ estimates that Colombia had an untapped export potential of \$14 billion, representing 36% of the country's merchandise exports in 2019.¹⁸ A large part of this untapped export potential is in agriculture, in products such as coffee, bananas or flowers.

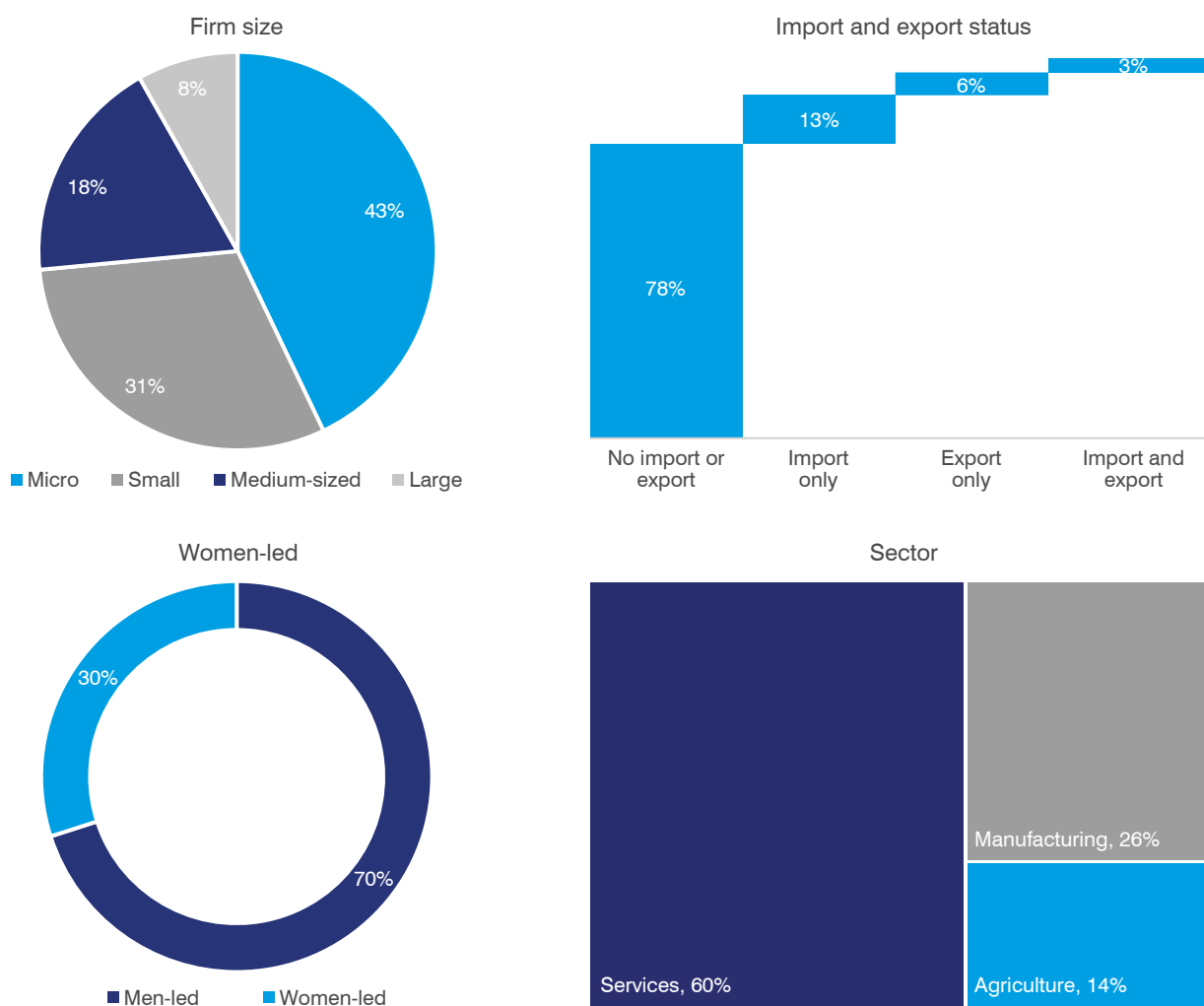
Additionally, previous research shows that while SMEs represented 94% of exporters by number of exporting companies between 2011 and 2020, they only accounted for 18% of the total value exported by Colombia. This suggests that SMEs specialize in low-value goods that often require fewer skills and lead to lower revenues. Large firms sold 82% of the total value exported in this period, confirming the importance of value chain upgrading for smaller Colombian companies.¹⁹

Connected services – information and communications technology (ICT), finance, transport and business services – have a part to play here. A new ITC report, the SME

Competitiveness Outlook 2022, finds that having access to good-quality connected services can make it easier for firms to upgrade their value chain activities. For example, companies that want to expand their production to multiple factories need reliable transportation services to move parts and back-office business support services for bookkeeping.²⁰

To encourage Colombian SMEs to participate in higher value-added activities, their access to high-quality banking could be improved. About 51% of SMEs say they have access to high-quality banks, compared to 79% of large firms.

Figure 3 What sort of companies participated in the survey?



Note: Micro enterprises are defined as those with 10 or fewer employees; small firms have 11-50 employees; medium-sized ones have 51-200 employees and large companies have more than 200 employees. Women-led firms are managed by a woman and at least 30% owned by women. Exporters are defined as firms whose direct export sales represent more than 1% of their sales. Importers are defined as firms whose foreign inputs represent more than 1% of their inputs.

Source: ITC calculation based on SME competitiveness data collected by FENALCO in Colombia.

How did the pandemic affect Colombian companies?

Colombia declared a state of economic and social emergency and introduced a national lockdown in March 2020 as cases of COVID-19 began to be detected.²¹ The lockdown was extended multiple times, with restrictions on economic activity gradually lifted before the lockdown ended in September 2020.²²

These measures, combined with changes in demand in domestic and international markets, severely disrupted the normal operations of companies in Colombia, as elsewhere. Private consumption dropped considerably, exacerbating economic losses incurred by mandatory closures of non-essential businesses.²³ GDP fell by 6.8%²⁴ in 2020 and the unemployment rate rose to 15.9% that year from 10.5% in 2019.²⁵

The economy recovered dramatically in 2021. Colombia's national statistics agency estimates that GDP grew by 10.6% in 2021, mainly driven by a 21.2% advance in retail sales and a 16.4% increase in manufacturing.²⁶ This level of growth had not been seen since 1906 and was spurred by the lifting of pandemic restrictions and rocketing prices for oil, coal and coffee.²⁷ The unemployment rate has also mostly recovered and in July 2022 stood only 0.5 percentage point higher than in 2019.²⁸ Around 95% of the jobs lost during the pandemic had returned by the end of 2021.²⁹

While Colombia's COVID-19 recovery seems to be going well, some segments of the economy are at risk of being left behind. For example, the SME Competitiveness Survey shows that micro, women-led and agricultural firms are recovering more slowly than others – and they already face new challenges.



In the second trimester of 2021, protests against a new tax reform rocked the country.³⁰ These affected businesses, as road blockages caused shortages of goods and interrupted exports.³¹ In the same year, Colombian exporters had to contend with soaring container shipping prices which peaked in September 2021 at \$10,400 per 40ft container, a level not seen since the financial crisis in 2008.³² In 2022, Colombian SMEs are also dealing with the repercussions of the war in Ukraine. Farmers, for example, have had to contend with sharply increasing fertilizer prices.³³ In the face of these new crises, important lessons on firm performance and resilience can be drawn from businesses' pandemic experience.

Micro firms may be left behind in their COVID-19 recovery

Two years after the start of the pandemic, almost all Colombian businesses are fully open (93%). For 83% of firms that reported being just partially open or temporarily closed, the reason for their partial or complete closures was related to COVID-19.

While closure rates are low and the economy's overall performance is positive, firms have not yet fully returned to their pre-COVID performance. The revenues of 57% of interviewed businesses remain below their pre-pandemic levels and 24% have employment below their pre-COVID staff levels. Disaggregating this data shows that certain types of firms are struggling more in their COVID-19 recovery.

Smaller firms are more likely than larger companies to have revenue and employment levels below their pre-COVID level. For employment, 30% of micro firms have fewer employees compared to their pre-COVID levels, while only 8% of large firms are below their pre-COVID staff levels. Employment reductions are more burdensome for micro firms because, due to their low worker numbers, they have less capacity to redistribute the work done by employees they had to let go during the pandemic. Also, as Figure 4 shows, 71% of micro firms are below their pre-COVID revenue levels compared to just 33% of large businesses.



Similarly, women-led companies are also recovering more slowly: 64% have revenues below their pre-COVID levels, compared to 53% of men-led firms. This is in line with research showing that the crisis has had a bigger impact on smaller firms and women-led firms because they lacked the resources to respond adequately to pandemic-related disruptions.³⁴

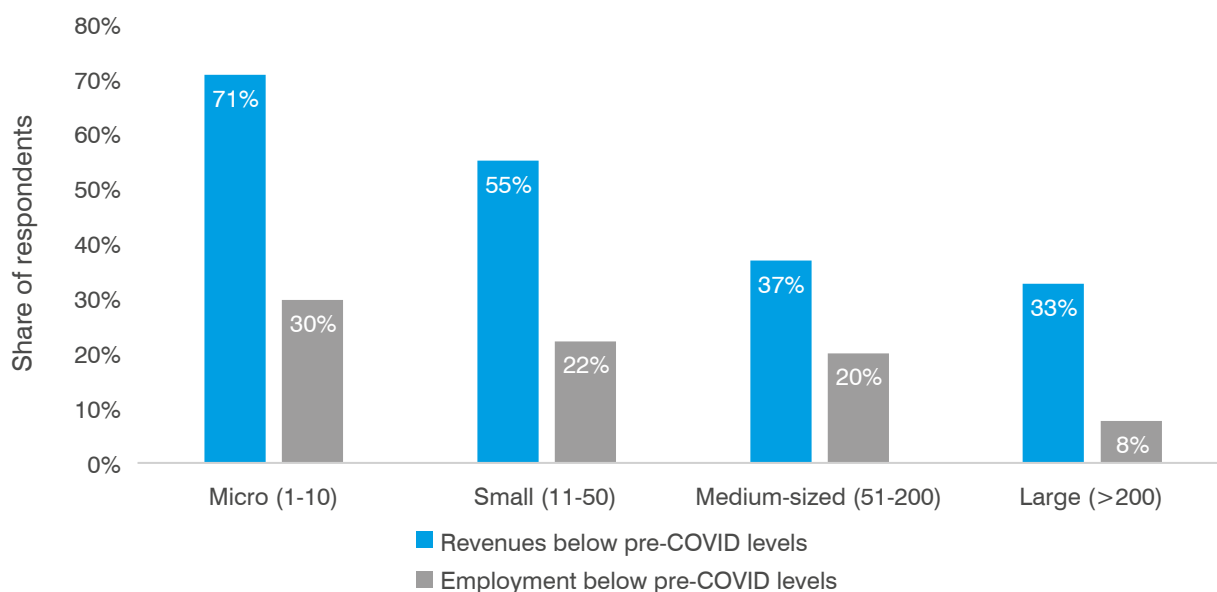
Despite higher prices for coffee,³⁵ one of Colombia's top agricultural products, agriculture companies are taking longer than manufacturing and services firms to recover from the COVID-19 crisis. Seventy-four percent of agricultural firms are below their pre-pandemic revenues, compared to 50% of manufacturers and 55% of service companies.

Low revenues in agriculture stem from lower production and sales levels, which offset price increases. One reason

for lower production is the higher price of inputs such as fertilizers and pesticides, driven by persistent supply chain disruptions caused by COVID-19. For example, the producer–importer price of urea, the most commonly used fertilizer, surged 124% in Colombia in 2021.³⁶ The conflict between Russia and Ukraine, both major exporters of fertilizer, means higher prices are likely to continue for the foreseeable future.³⁷

Prolonged labour shortages in the agriculture sector have also led to lower production and revenues.³⁸ Subpar work conditions, low pay and high COVID-19 exposure rates have kept many seasonal workers from returning to coffee plantations, for example.³⁹ Furthermore, the weather hasn't been kind to farmers. The La Niña phenomenon has brought two years of rainfall above historical averages, disrupting the growing patterns of plants and lowering output.⁴⁰

Figure 4 Recovery of jobs and revenue is sluggish for micro firms



Note: Respondents were asked 'What percentage of your usual revenue at this time of the year are you currently making?' and 'What percentage of your usual number of staff at this time of the year are you currently employing?' Responses below 100% were classed as 'Below pre-COVID levels'.

Source: ITC calculation based on SME competitiveness data collected by FENALCO in Colombia.

Revenue and employment numbers indicate that Colombian businesses are generally on the road to recovery. The businesses themselves also seem optimistic: just 15% said they were very concerned about their recovery from COVID-19. Still, microenterprises and agriculture and women-led firms continue to struggle. For example, 20% of women-led firms say they are very concerned about their recovery, compared to only 12% of men-led firms.

Businesses need targeted support

Many governments across the world offered assistance to help domestic businesses weather the COVID-19 crisis. The Government of Colombia introduced programmes focused on issues related to financing, liquidity, employment and production support.⁴¹

For example, through partial credit guarantees extended by the National Guarantee Fund (Fondo Nacional de Garantías), businesses could access finance needed as working capital or salary payments. These credit schemes had almost 410,000 beneficiaries and, as of August 2021, had disbursed close to COP 9.43 trillion (about \$2.13 billion) of private sector credit, around 87% of which went to SMEs.⁴² For certain sectors, Colombia also allowed the deferral of income/corporate tax and value-added tax, as well as the deferral of payments of rent, utilities and local taxes.⁴³

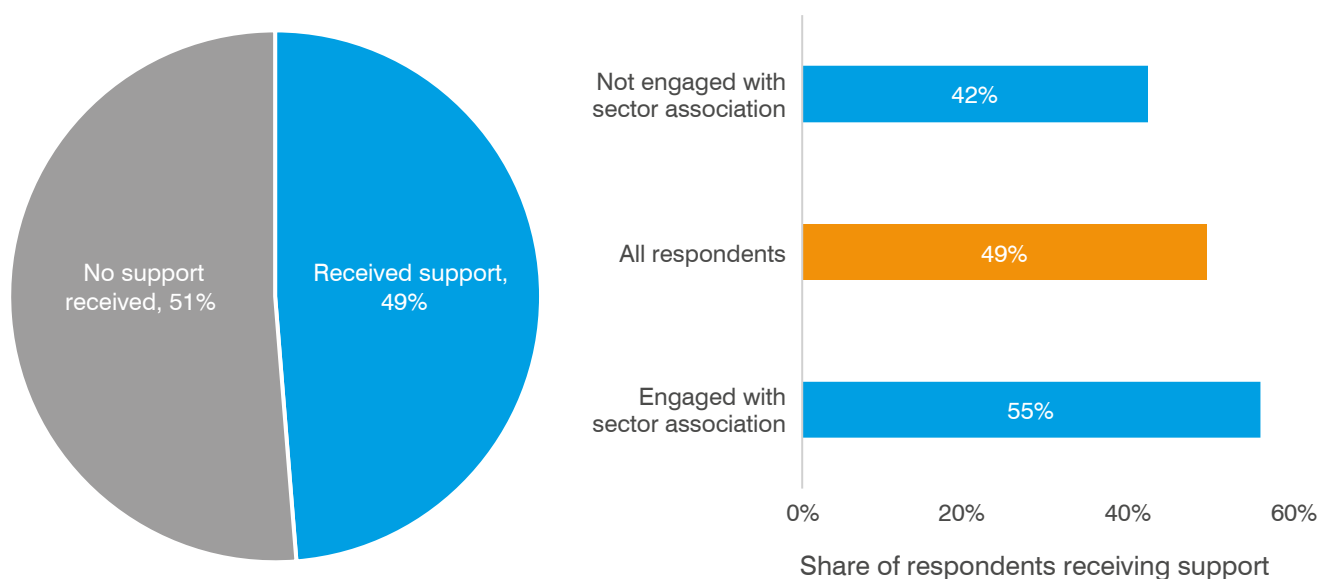
The data collected during the SME Competitiveness Survey show that 49% of firms received assistance to deal with the impact of COVID-19. The most common types of support were for keeping workers (70%) and

concessional financial assistance (26%). More than a quarter (28%) of the companies receiving support said it fully met their needs, 65% said it somewhat met their needs and 7% found it to be inadequate.

Businesses that were engaged with a sector association were more likely to obtain support: 55% of these firms received assistance, compared to only 42% of those not engaged with a sector association.

However, most companies (51%) got no pandemic-related support from the government or a business support organization (BSO). While micro and agricultural firms were the most affected, they were the least likely to receive assistance (28% of these firms obtained support).

Figure 5 Engaging with sector associations helped firms obtain aid



Note: Respondents were asked 'Has the business received COVID-19-related support from the government or a business support organization?' and 'Are you actively engaged with any of the following types of institutions: trade promotion organization, investment promotion organizations, chambers of commerce, sector associations?'

Source: ITC calculation based on SME competitiveness data collected by FENALCO in Colombia.

Most businesses that received no support, including microenterprises and agricultural firms, said this was because they did not qualify for existing support schemes (55%). This shows that while assistance was available, it was hard to access for certain groups.

For example, the Debt Support Programme (Programa de Acompañamiento a Deudores), which was in force between

August 2020 and August 2021, required credit institutions not to charge interest on arrears and not to report debtors to credit bureaus if they defaulted on their repayments. While the programme helped more than 2 million debtors and covered credit products valued at COP 37 trillion (\$8.4 billion), only 12% of this value applied to SME products.⁴⁴

The COP 1.5 billion (\$340,000) credit guarantee scheme called Colombia Agro Produce also missed the mark to some degree. It was launched in March 2020 and targeted agricultural firms.⁴⁵ After running for several months, it was found that few smallholder farmers accessed the programme, likely due to missing information and support from banks.⁴⁶

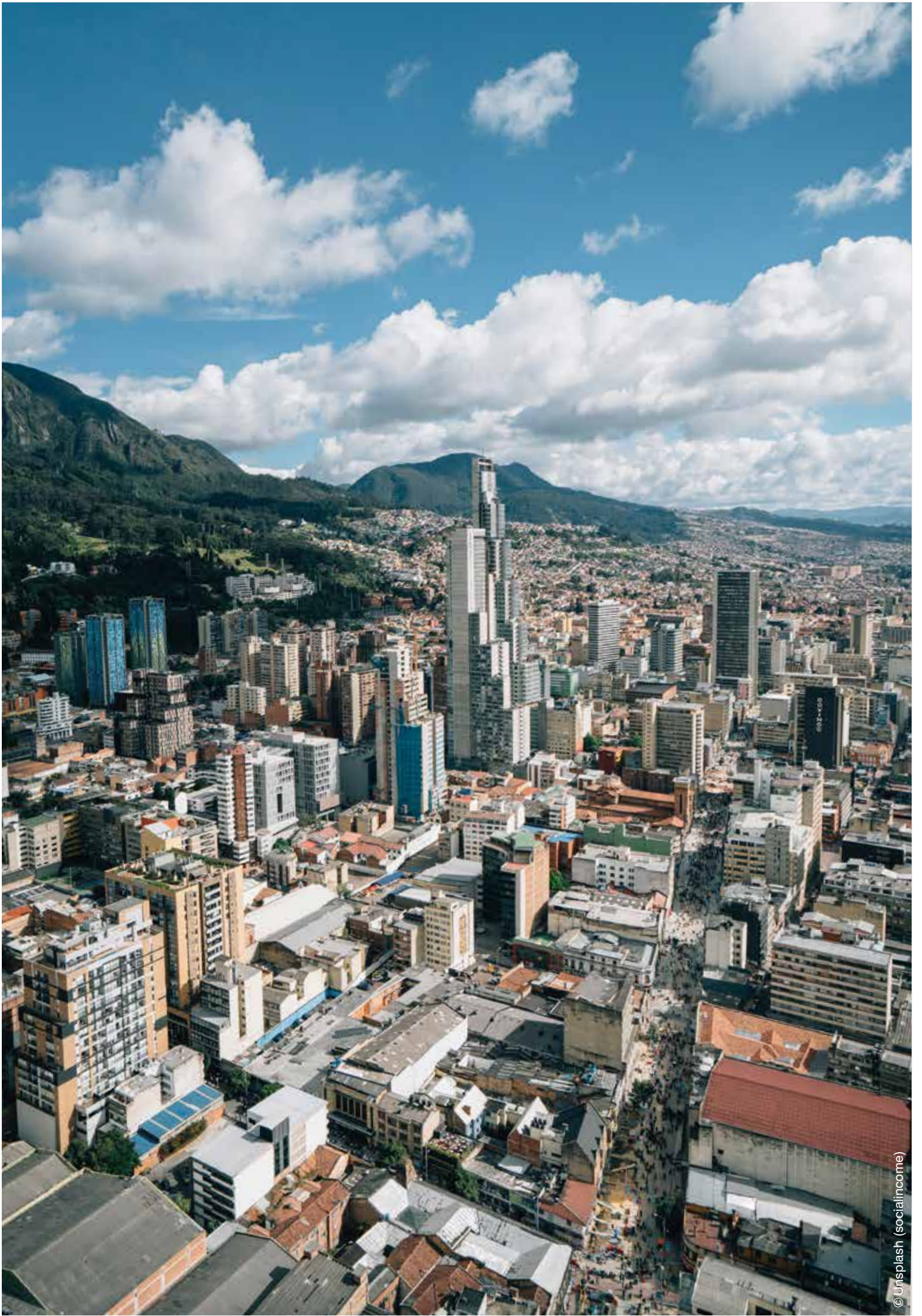
As businesses start to recover from the pandemic, they already face new challenges brought by local unrest, a shifting political landscape, the war in Ukraine and climate change. This underscores the need for firms – and policymakers – to focus on how to 'build back better' to improve resilience in the face of future crises. This begins with improving competitiveness.

Evidence from other countries shows that firms that were more competitive before the COVID-19 pandemic were better able to cope with the crisis. Practices that boosted companies' capacity to compete – efficient inventory management, complete financial recordkeeping and/or possession of a bank account – also helped them withstand the shock.

Characteristics that drove their capacity to connect – strong, varied links with BSOs and other firms in the sector; access to information about buyers and suppliers; and a diverse supplier base – also determined the strength of the relationships they drew on to access information and benefits during the crisis. Finally, firms that were more open to change – investing in research and development, skills matching and access to finance – developed more responsive coping strategies.⁴⁷

Small businesses must be competitive to participate in international trade and contribute to the transformative development of Colombia. Therefore, the following chapters focus on the aspects of competitiveness that must be strengthened to build Colombian firms' resilience to shocks.





Chapter 2

Strengthening the foundations for resilience

Good infrastructure underpins timely delivery 14
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Certification barriers limit opportunities for small businesses 18

Strengthening the foundations for resilience

Businesses are able to compete successfully when they can meet market expectations on output, price, quality and timeliness. The business environment in which firms operate and their own characteristics and practices strongly influence their ability to achieve this goal. The SME Competitiveness Survey highlights infrastructure, management and certification as key areas where improvements are needed for all Colombian companies to satisfy market expectations.

Infrastructure is a crucial element of the business environment. While most firms in Colombia are satisfied with the quality of transport, power and communications infrastructure, regional differences show that many businesses outside Bogota have unreliable access. This raises costs for firms, hinders timely delivery and exacerbates environmental risks.

At the firm level, weak management capacities left many SMEs poorly prepared for the COVID-19 pandemic. Businesses without bank accounts or with weak inventory and cash flow management practices are recovering more slowly from the crisis. Additionally, many firms are put off by the high cost of certification, which can offer them opportunities to increase the value of their output and reach new markets. Women-led businesses are especially affected and are less likely to hold multiple certificates.

Good infrastructure underpins timely delivery

Infrastructure plays a central role at all stages of value creation, both within the firm and in connecting it with suppliers and customers. Faced with increasingly disruptive natural disaster and other environmental risks, reliable infrastructure is even more critical to competitiveness and resiliency. Dependable transportation infrastructure is needed to link firms to markets, effective communications systems facilitate their reach into new markets and participation in complex value chains, and stable supplies of water and power reduce interruptions in production.

While the level of Colombia's infrastructure development has lagged behind its neighbours and other upper middle-income countries, these gaps have closed over the last decade.⁴⁸ Colombia's ranking in the World Bank's Logistics Performance Index rose to 58th in 2018 from 116th in 2007. In 2018, the country's infrastructure score was 2.7 and its rank was 72nd, up from 2.4 and 95th just two years previous.⁴⁹

Recent initiatives have prioritized investment in infrastructure. Notably, as part of government stimulus efforts introduced in response to the pandemic, a \$5.9 billion infrastructure investment plan was announced, to be delivered through public-private partnerships. A new National Logistics Policy was launched in 2020, emphasizing the development of multimodal transportation systems. The new administration has outlined some of its priorities for infrastructure development, including rail and multimodal transport infrastructure.



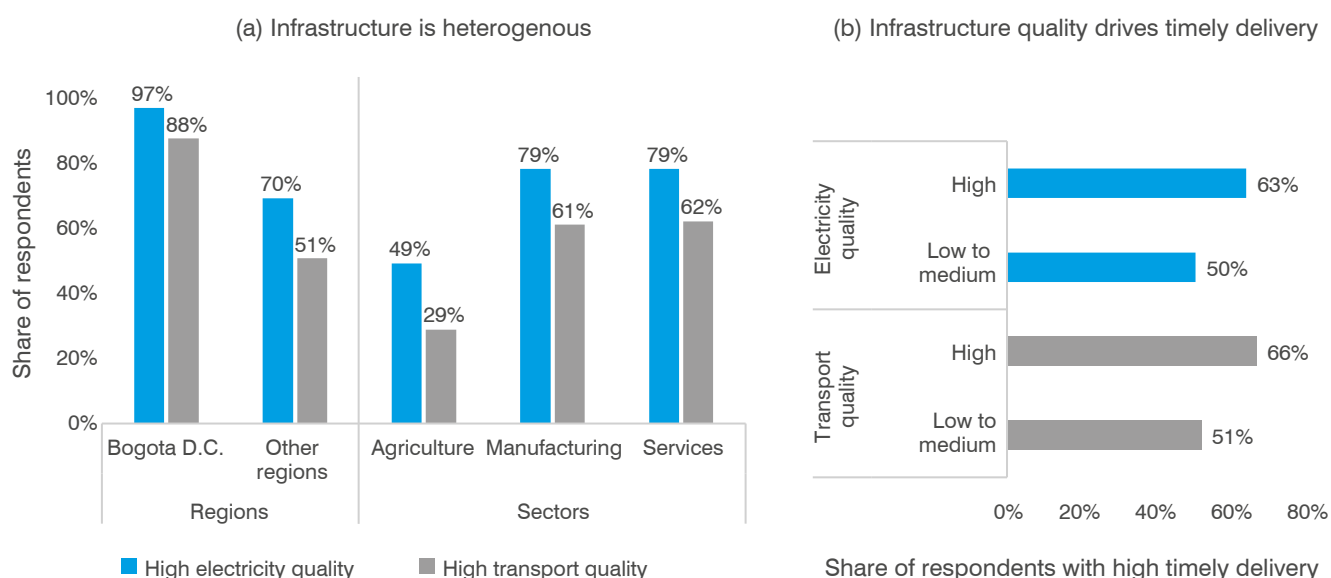
Surveyed firms were positive about the quality of infrastructure, with most rating it satisfactory. Across the country, 84% of respondents said their access to water for production purposes was high and 75% said the quality of their electricity provider was high. However, 61% perceived internet quality as high, while 58% of respondents reported the quality of transport infrastructure to be high.

The survey also identifies regional disparities, with firms in the capital reporting better access to higher quality infrastructure than those in other regions. Nearly all (97%) firms in Bogota described their electricity access as high quality, compared to 70% in other parts of the country. Electricity is especially a concern in the Caribbean region, where only 42% of companies reported having high-quality access.

Similarly, 88% of firms in Bogota described transport infrastructure as high quality, compared to 51% in other regions (Figure 6a). This finding is consistent with other studies that have identified major differences in infrastructure quality between urban and rural areas, with the latter more likely to be underserved by transportation and other forms of infrastructure.⁵⁰

These geographical differences in infrastructure quality may explain why respondents in the agricultural sector were typically less satisfied with infrastructure. Just 49% of agricultural firms rated the quality of electricity as high, compared to 79% of manufacturers and 79% of services firms. Similarly, only 29% of agricultural businesses said the quality of transport infrastructure was high, compared to 61% of manufacturers and 62% of services companies.

Figure 6 Quality infrastructure is crucial for timely delivery



Note: Respondents were asked 'Please rate the quality of the transport infrastructure in your location' and 'How would you rate the quality of your electricity provider?' Response options ranged from 1 (low quality) to 6 (high quality). Responses of 1–4 were deemed 'low to medium' and 5–6 were deemed 'high'. They were also asked 'In the last year, what percentage of this company's goods or services were delivered on time?' Companies were considered to have high timeliness if they answered a percentage higher than 90; otherwise it was considered to be low.

Source: ITC calculation based on SME competitiveness data collected by FENALCO.

Timely delivery of orders is important to strengthen business relationships and enable firms to participate in complex value chains.⁵¹ Reliable infrastructure reduces external uncertainties. Transportation networks and logistics systems, as well as ICT, are essential to the operation of just-in-time production systems.⁵²

This is confirmed by the findings of the SME Competitiveness Survey in Colombia. Across the country, 63% of firms with high electricity quality delivered goods and services on time,⁵³ compared to 50% of those with low- to medium-quality electricity supply. Logistics entails transporting goods from one point to another. However, this

involves different stages and different logistics platforms and warehouses, which tend to be energy-consuming. As such, electricity shortages can cause disruptions.

Similarly, 66% of companies with access to high-quality transport infrastructure delivered on time, compared to 51% of firms with low- to medium-quality transport infrastructure (Figure 6b). Regional infrastructure differences may also have been reflected in the timeliness of delivery: 70% of firms located in Bogota can deliver goods and services on time, compared to only 57% of businesses in other regions.

Infrastructure plays a critical role in determining how natural disaster risks, which will only worsen due to climate change, affect firms. Climate-resilient infrastructure – designed by improving how infrastructure is built and managed – can help reduce vulnerabilities by ensuring transportation, utility and communications systems are less prone to damage from natural disasters.⁵⁴ Colombian firms are exposed to serious environmental risks as a result of climate change (Box 2).

Environmental risks already affect how businesses operate. Firms with greater exposure to environmental threats are less likely to deliver on time. More than half (54%) of firms that faced environmental risks had very timely delivery (defined as 90% or more of deliveries being on time), compared to 76% of businesses that did not face environmental risks.

The role that infrastructure plays on firm competitiveness and resilience underscores the importance of supporting Colombian SMEs by improving transportation, utilities and other types of infrastructure. The regional disparities identified in the survey highlight one area of need. Another is the need for investment in infrastructure adapted to climate pressures to help firms manage the consequences of environmental risks.

Well-managed companies are more resilient

Management capacities are a major factor behind SME competitiveness and resilience.⁵⁵ Effective management is needed to find ways to increase output and sales in the short term with available resources. Higher productivity helps lower per-unit costs and improves timeliness in delivery. As strong management is needed to prioritize changes in business strategy, it is important in determining how firms navigate crises.⁵⁶

The results of the SME Competitiveness Survey highlight how Colombian firms with good resource management practices were able to rebound from the effects of the COVID-19 pandemic. Management at small businesses must be strengthened so they can better adapt to future crises.

Survey results show that Colombian companies perform well in measures of resource management. Most respondents had a bank account (87%) and strong cash flow management (77%), and 56% said they had efficient inventory management. These companies benefit from the country's relatively strong foundation for the development of business skills. In 2020, 41.7% of tertiary graduates in Colombia completed programmes in business, administration or law – a higher share than in other large South American economies.⁵⁷

The capacities for sound management affect how well a firm performs and are positively associated with on-time delivery. Firms with good management make better use of production capacity, limiting delays. Among those that described their inventory management practices as efficient, 65% also said they often delivered on time, while this share was 51% among firms with weak self-reported inventory management practices.

Management capacities were notably weaker among smaller firms and those active in the agriculture sector. Micro firms were less likely than larger companies⁵⁸ to have a bank account (73% versus 98%), efficient inventory management (48% versus 62%) or strong cash flow management (60% versus 90%). Smaller enterprises tend to be less likely to invest in external trainings for managers. They are most often discouraged by financial constraints, information gaps that hinder awareness of potential benefits, high management turnover and the higher cost of firm-specific training without the benefits of economies of scale.⁵⁹

Agricultural businesses lagged behind both manufacturing and services firms in all three of these measures, with only 77% holding a bank account (compared to 83% of manufacturing firms and 91% of services firms), 42% having efficient inventory management (compared to 51% of manufacturing firms and 62% of services firms), and 59% having strong cash flow management (compared to 74% for manufacturing firms and 82% for services firms).

In addition to improved performance, firms with stronger management capacities are more resilient to crises and unexpected events. In these situations, the most resilient

Box 2 Environmental risks, especially flooding, threaten firms

Colombia faces numerous environmental risks but is particularly vulnerable to floods, which occurred 2.6 times a year on average in 2000–2020. Together, these events killed 3,377 and affected 10.9 million people, with floods responsible for most of this impact. Natural disasters cost the economy an estimated \$177 million to \$381 million every year by destroying firms' productive capital and inventories and interrupting production and commerce.

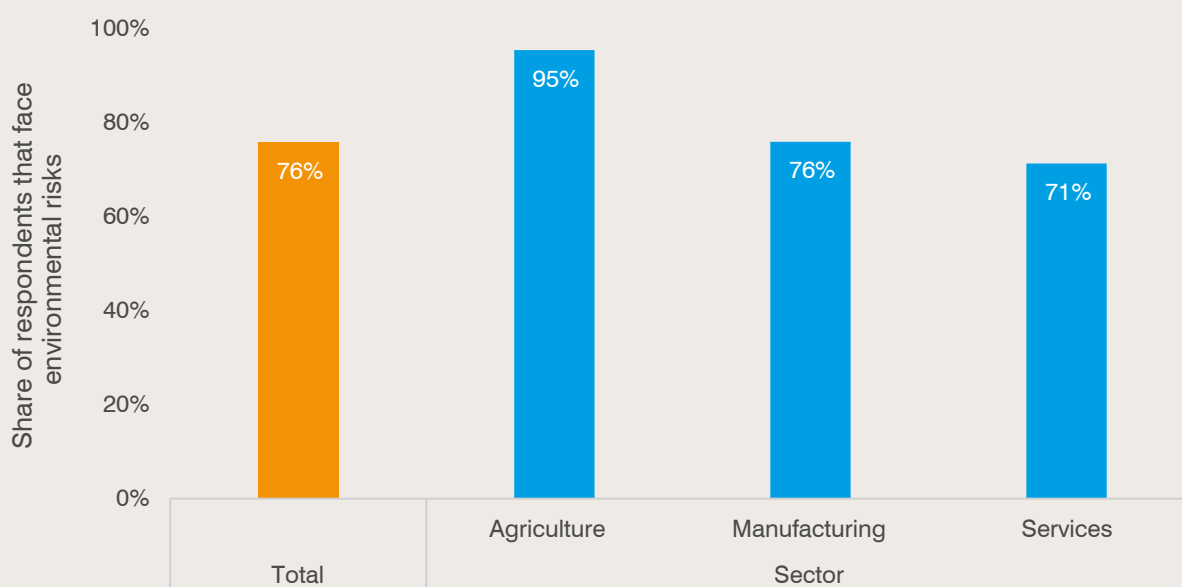
Firms may continue to incur costs during crises while disruptions to power supplies can reduce their production and revenues. Power supply disruptions can hinder connections with customers and depress local demand, as well as trade and the efficient functioning of supply chains.

Most survey participants (76%) were worried about environmental threats. They were especially concerned

about risks to their sourcing, identifying input scarcity (57%) and the decreased quality of inputs (41%) as the top risks they faced.

Agriculture was again the most affected sector, with 95% of agricultural firms saying they faced environmental risks, compared to 76% of manufacturers and 71% of services firms. This is not surprising, given how the agriculture sector is especially dependent on stable weather patterns and vulnerable to large losses as a result of destructive or abnormal weather. These risks will worsen without adaptation measures. It has been estimated that climate change will affect 80% of Colombia's crops in 60% of currently cultivated areas, with crops such as coffee, cocoa and fruits increasingly exposed to pests and diseases.

Agriculture companies are most exposed to environmental risks



Note: Respondents were asked 'Which of the following environmental risks are significant for your business?' Respondents who selected at least one of the listed environmental risks were classed as facing environmental risks.

Source: ITC calculation based on SME competitiveness data collected by FENALCO.

Source: OECD. (2019). Risk Governance Scan of Colombia. OECD. <https://doi.org/10.1787/eeb81954-en>; Ramirez-Villegas, J., Salazar, M., Jarvis, A., & Navarro-Racines, C. E. (2012). A way forward on adaptation to climate change in Colombian agriculture: Perspectives towards 2050. *Climatic Change*, 115(3), 611–628. <https://doi.org/10.1007/s10584-012-0500-y>; Shah, H., Hellegers, P., & Siderius, C. (2021). Climate risk to agriculture: A synthesis to define different types of critical moments. *Climate Risk Management*, 34, 100378. <https://doi.org/10.1016/j.crm.2021.100378>.

firms can use their resources and connections in new ways. They are also quicker to modify or upgrade organizational skills in changing contexts.⁶⁰

The COVID-19 pandemic posed unprecedented challenges for businesses affected by restrictions on their operations and dramatic shifts in the markets on which they relied. Around the world, the crisis had a smaller impact on companies that had better inventory management practices, bank accounts and more complete recordkeeping.⁶¹

Colombian firms with strong management capacities faced smaller revenue declines during the pandemic. Companies with strong cash flow management had, on average, 84% of their usual pre-COVID revenue at the time they were surveyed (Figure 7). Those with weak cash flow management averaged just 56% of their pre-pandemic revenues.

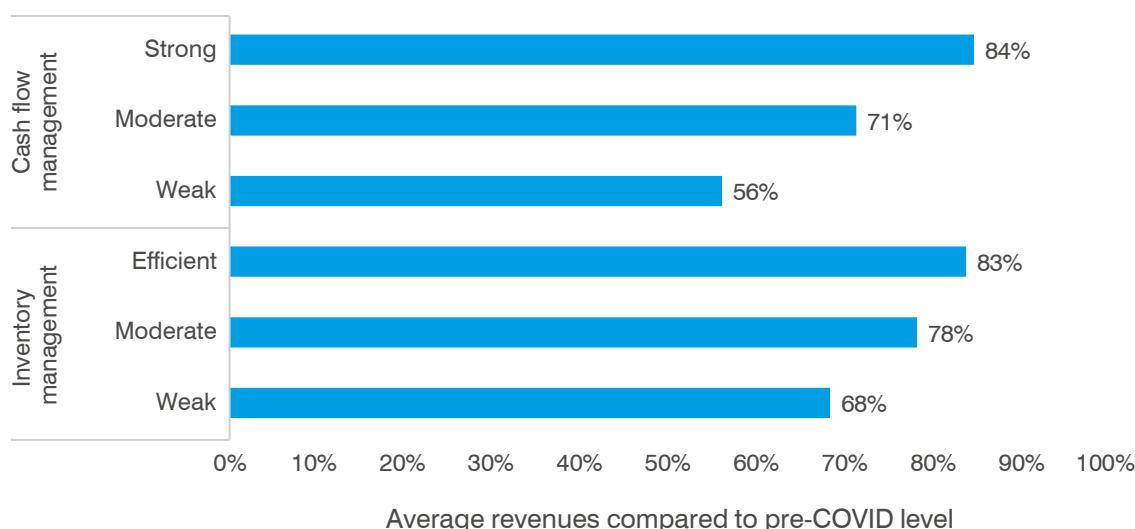
Firms with efficient inventory management had 83% of their average pre-pandemic revenue level while those with weak inventory management had just 68%. Finally, respondents with bank accounts reported earning 82% of pre-pandemic revenue when surveyed, and those without bank accounts reported revenues of just 71% of pre-pandemic levels.

The capacities of SMEs to manage their finances and inventory are closely associated with (and appear to contribute to) other drivers of competitiveness and resilience. Well-managed companies are productive, adaptive and quick to recover from setbacks. Future efforts to improve firm-level competitiveness should focus on strengthening management capacities – particularly among smaller enterprises and agricultural firms.

Certification barriers limit opportunities for small businesses

Certification benefits companies by offering a credible signal of quality in both domestic and international markets. It supports increased values for products and services and helps firms reach new customers. Yet just 38% of survey respondents said they held a safety, quality, sustainability or other certification (Figure 8). Smaller firms were least likely to be certified: 69% of large companies were certified, compared to just 23% of microenterprises.

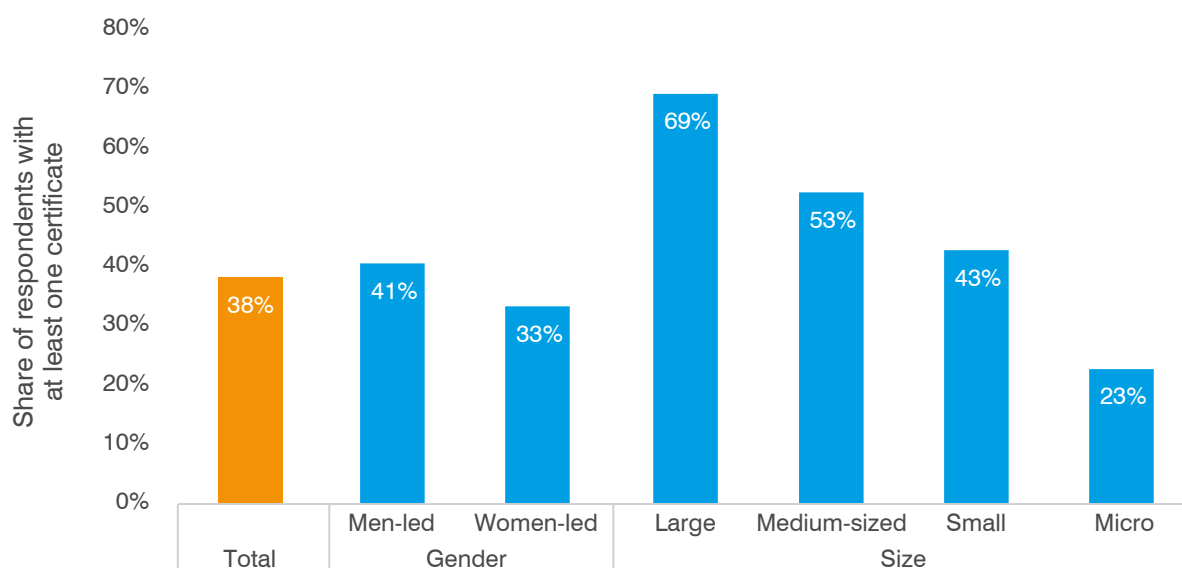
Figure 7 Good management practices help companies recover



Note: Respondents were asked: ‘At this time, does this company have a bank account for daily operation which is separate from a personal account?’ and ‘Please rate this company’s ability to manage its cash flow for reliably execute payments’ with answer options ranged from 1 (no ability) to 6 (very good ability), and ‘Please rate the efficiency of this company’s inventory management system’ with answer options ranged from 1 (inefficient) to 6 (highly efficient). Responses of 1–2 were deemed ‘weak’, 3–4 ‘moderate’ and 5–6 ‘efficient/strong’. They were also asked ‘What percentage of your usual revenue at this time of the year are you currently making?’

Source: ITC calculation based on SME competitiveness data collected by FENALCO.

Figure 8 Women-led and smaller firms held fewer certificates



Note: Respondents were asked 'Does this establishment's main product or service hold any of the following types of recognized certificates: safety certification, quality or performance certification, sustainability certification, other certification.'

Source: ITC calculation based on SME competitiveness data collected by FENALCO.



This pattern is not unique to Colombia, raising concerns that the proliferation of voluntary standards excludes smaller businesses from participating in international value chains and reaching global markets in the absence of sufficient support.⁶² Not surprisingly, more than half of exporters – who benefit from closing information gaps by meeting internationally recognized standards and may be better able to pursue certification – were certified, compared to 37% of non-exporters.

A healthy business ecosystem and effective quality management system are needed to facilitate certification, especially among small firms. As discussed in Chapter 3, Colombian BSOs have a wide reach, though the extent of their engagement with firms is varied. Still, many firms view these forms of support favourably: 51% of respondents said sufficient information on certification was available and 56% described the quality of services offered by certification authorities as 'high'.

Cost, rather than insufficient information, is seen as the biggest barrier to certification. Half of the companies surveyed said the costs of testing, certification and inspection services are high. In addition to the direct costs of certification – such as audit preparation, chain-of-custody and other regular audits – firms must invest in physical capital and skill

development to ensure and demonstrate compliance. These costs can be especially onerous for the smaller firms, which have fewer available resources than larger businesses.⁶³

Firms with strong management capacities were better positioned to navigate the requirements of certification, which entailed finding and analysing information on markets, standards and investments. Among businesses with good financial management – a bank account and strong cash flow management – 44% were certified, compared with just 22% of other respondents.

Companies run by women had lower certification rates than those run by men: 33% of women-led firms were certified, compared to 41% of men-led companies. Colombian businesswomen face certain challenges that make it less likely their firms will be certified.

Women's labour force participation rate is relatively low, though it has been rising. Many businesswomen are self-employed or small-scale entrepreneurs because they lack opportunities in formal employment, so women-led firms tend to be small (as noted in Chapter 1). Smaller companies usually have less capacity and less ability to invest in certification. And despite legal assurances of equal rights in accessing financial services and government financial

education initiatives targeting women, such as *Mujeres Ahorradoras en Acción*, women are less likely to have bank accounts.⁶⁴

Barriers such as these can hinder firm growth and expansion into new markets.

Women-led firms in Colombia were also less likely to hold multiple certificates; only 6% had more than one certificate, compared to 14% of men-led firms. Women-led companies that export were less likely to have diversified their targeted markets. Half of women-led exporters exported to more than one country, compared with 67% of men-led exporters.⁶⁵ This concentration limits the potential for growth and reduces resilience in the face of demand shocks.

Compliance with voluntary standards and certification provides reliable information about a business and its output. Many buyers also require certifications – on sustainability, quality and other dimensions of products and processes. The costs involved in pursuing certification nevertheless prevent many small enterprises from taking steps that could drive future growth. Addressing these costs with firms that could benefit from certification will need to be a part of creating more internationally competitive SMEs in Colombia.



Policy insight: Fostering resilient firms through a supportive business environment

Survey findings show that Colombian SMEs were remarkably resilient during the COVID-19 pandemic. Still, they also highlight the challenges faced in this period and differences in opportunities available to firms across the country. Expanding infrastructure and improving its quality and adaptation to climate change; supporting the development of SMEs' management capacities; and facilitating compliance with voluntary standards, especially for women-led firms, will help create companies capable of adapting to future crises and periods of uncertainty.

Building on recent progress, further improvements in infrastructure are needed in Colombia to catch up to what neighbouring countries have achieved. Reliable utilities prevent waste and delays. Upgraded and better-integrated intermodal transportation systems connect firms with larger domestic and export markets.

With the appropriate institutional frameworks in place, public–private partnerships can help in the financing and efficient management of infrastructure. The private sector has been actively involved in the development and operation of road transportation infrastructure in Colombia. There remains potential in communications and other areas of infrastructure to pursue private–public partnerships. Prudent financial management will be particularly important in the development of climate-resilient infrastructure, which often has greater upfront costs even though it is more cost effective over the longer term.

The relatively small number of firms with good inventory or cash flow management practices suggests that capacity-building efforts could target these areas. Expanded trainings on management practices should be considered to strengthen SME competitiveness and resilience. Programmes targeting young businesses can increase the odds of these enterprises surviving and establish good practices from an early stage.

An effective entrepreneurship ecosystem is critical to support entrepreneurs by improving business education programmes, incubators, accelerators and mentorship programmes. Awareness raising and technical assistance can help both new and established firms to implement better resource management systems.

Certification enables businesses to supply new markets and buyers. As such, making certification more accessible to Colombian SMEs would help to increase the country's exports and its participation in international value chains.

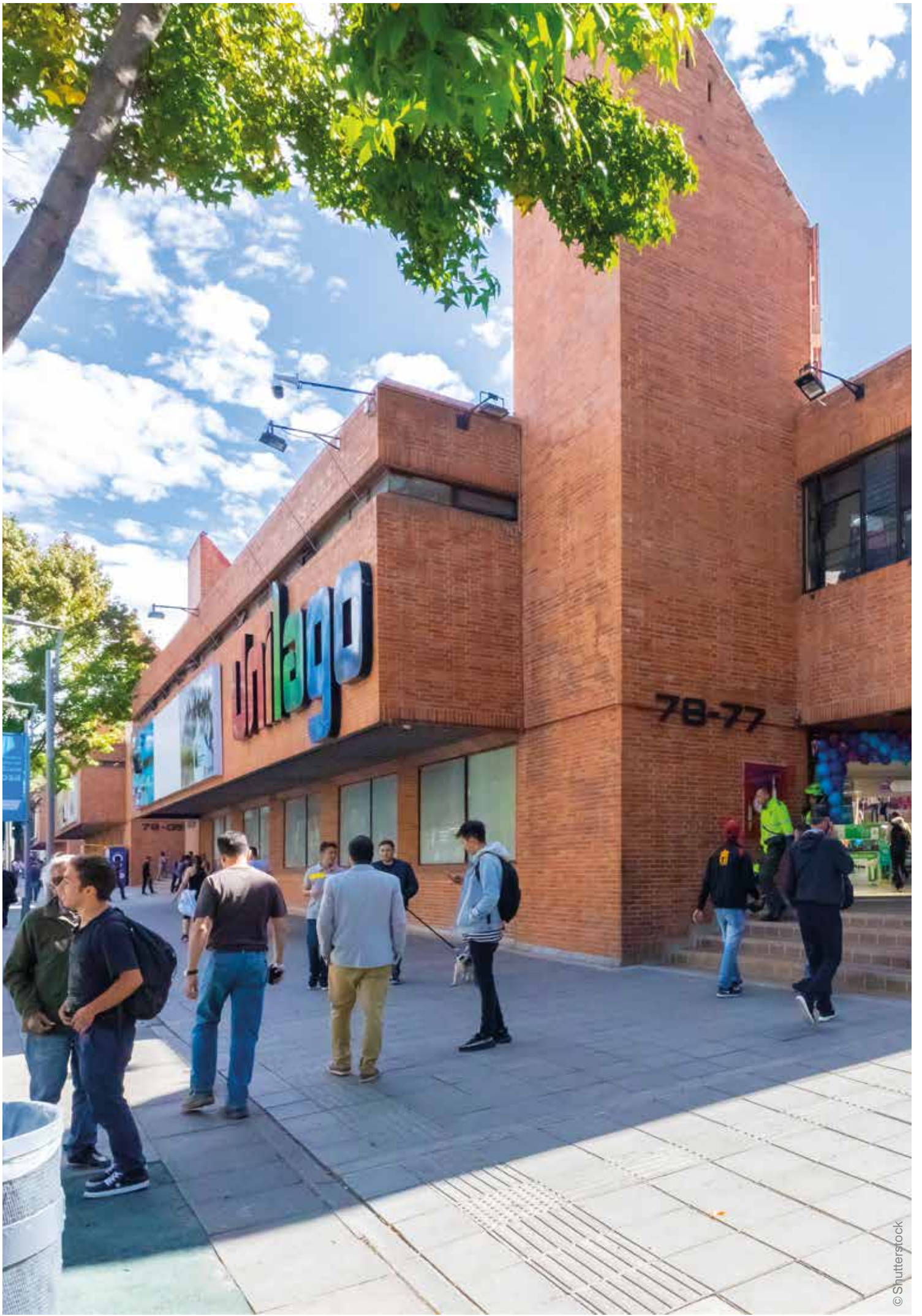
Supporting smaller firms to meet voluntary standards would make a considerable difference to their potential to reach new markets and boost the value of their output. Internationally, the inability of SMEs to meet standards has been identified as one of the top barriers to their inclusion in international value chains.

GVC participation in Colombia has been low. Solutions to be explored may include connecting firms with buyers and key players in international value chains capable of assisting with certification, working with financial institutions to develop means of lending to firms seeking certificates, and strengthening business support organizations that provide assistance on certification.

More can be done to support businesswomen and build firm-level capacities on standards and certification. The need to even the playing field for female business leaders has been acknowledged in planning and policy, with women's economic empowerment addressed in the National Development Plan 2018–22, the Entrepreneurship Law and the Royalties Law.

Nevertheless, as the findings of the SME Competitiveness Survey illustrate, support is needed in areas such as targeted capacity building and mentorship programmes. A healthy business ecosystem and effective quality management system are needed to facilitate certification, especially among small and women-led companies.

Source: Sustainability (IDOS), G. I. of D. and. (n.d.). Drivers and constraints for adopting sustainability standards in small and medium-sized enterprises (SMEs). Retrieved 14 July 2022 from <https://www.idos-research.de/en/discussion-paper/article/drivers-and-constraints-for-adopting-sustainability-standards-in-small-and-medium-sized-enterprises-smes/>; World Bank. (2010). Economics of adaptation to climate change—Synthesis report. World Bank. <https://documents1.worldbank.org/curated/en/646291468171244256/pdf/702670ESW0P10800EACCSynthesisReport.pdf>



Chapter 3

Shifting relations across value chain actors

- Digital tools offer opportunities for small businesses 24
- COVID-19 pushed firms to rethink their sourcing strategies 26
- Sector associations helped firms adapt to environmental risks 29

Shifting relations across value chain actors

Strong relationships with the multiple actors in value chains and business support networks are key to build competitiveness and resilience. These relationships help firms find new customers and suppliers and stay informed about technologies and policies relevant to their operations. Connections also enable a business to reach out to provide information about itself and its offering through marketing and outreach efforts.

The COVID-19 pandemic emphasized the importance of connections and how critical they are in building resilience, including to climate change. Survey results identified digital technologies, sourcing strategies and sector associations as important factors affecting how Colombian SMEs connect.

COVID-19 forced many companies to rethink their use of technology and how they source their inputs. Despite recent progress, many smaller businesses have no online presence and do not use other digital technologies. The pandemic highlighted the dangers of not diversifying supply chains, which also exposes firms to greater climate change risks. Thanks to the lessons learned during the pandemic, Colombian SMEs now try to diversify their input suppliers.

Effective BSOs connect firms, build their internal capacities and work to improve the business environment. Companies engaged with sector associations in Colombia have better access to information and are more likely to prepare for future risks, for example. However, the reach and capacities of these organizations could be further improved to reach specific types of companies, like women-led firms.

Digital tools offer opportunities for small businesses

For the economy as a whole, the increased use of digital technologies can effectively drive growth and structural change.⁶⁶ At the firm level, adopting ICT can offset some disadvantages of SMEs' small size. An online presence

or use of platforms reduces search and transaction costs in interactions with suppliers and customers, and offers easier access to new market segments at home and abroad.⁶⁷

Digital technologies also enabled firms to overcome pandemic-related challenges and interact virtually with suppliers, customers and their own employees.⁶⁸ While many companies in Colombia use digital tools and e-commerce has grown rapidly, more progress can be made to bolster competitiveness and resilience in the digital future, particularly among the smallest firms. Continued efforts also must be made to incorporate rural areas into the digital transformation. The high cost of internet and insufficient internet infrastructure in these regions can hamper the adoption of digital technologies by SMEs.⁶⁹

The potential of digital technologies becomes evident during crises. Digital tools give firms quicker access to information and more rapidly scaled responses to new opportunities or means of managing threats.⁷⁰ About 62% of surveyed firms recently adopted new channels to interact with buyers and suppliers to prepare for future crises.

Growing internet access, along with new digital payment infrastructures, has led to a thriving e-commerce market in Colombia. More than 70% of the internet-using population bought products and services online in 2021, making Colombia the third-largest e-commerce market in Latin America.⁷¹ Total online sales, including retail and service sales, reached COP 12.2 trillion (\$2.8 billion) in the first quarter of 2022, a 47.6% increase over the first quarter of 2021.⁷²

Colombian SMEs use digital tools in different ways, including to advertise and collect information on their markets and customers. Effective advertising and market information improve firm performance.⁷³ Businesses must collect and analyse information about what customers want so they can produce goods and services that meet this demand. The evidence from the SME

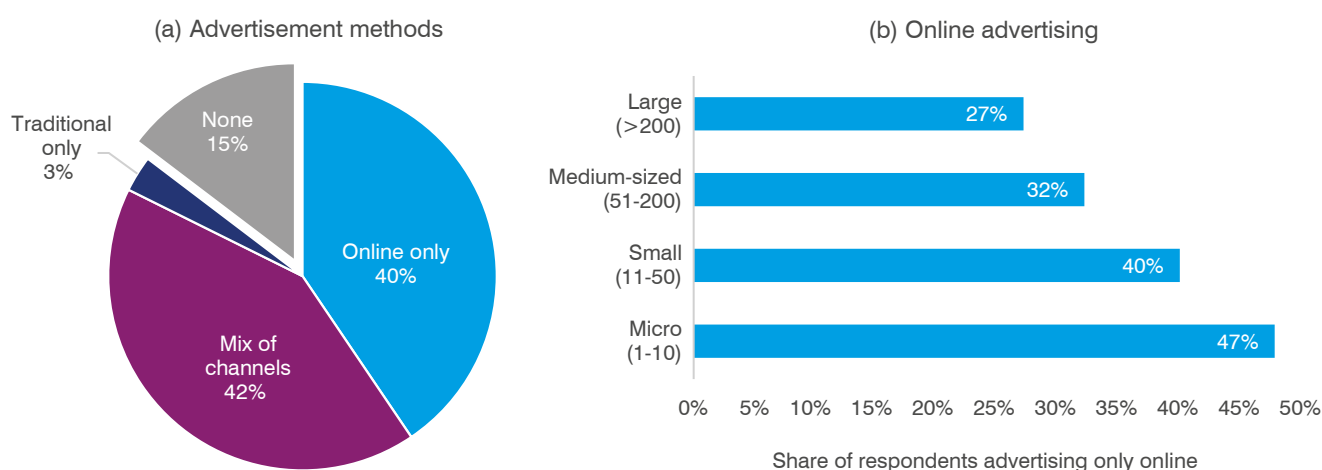
Competitiveness Survey indicates that 85% of companies in Colombia advertise.

Digital advertising campaigns have gained a prominent place in Colombian businesses' marketing strategies, with 82% advertising online and 40% advertising exclusively online (Figure 9a). More than two-thirds of respondents (68%) had a business website to showcase or sell their products or services. This is in line with global trends, where firms are increasingly promoting their goods and services online as the cost of digital advertising falls compared to print and broadcast.⁷⁴ Indeed, online

channels are now the main form of advertising in many Organisation for Economic Co-operation and Development (OECD) countries.⁷⁵

Digital advertising permits easy content adaptability, efficient consumer targeting and greater reach for the amount spent. As a result, smaller businesses that have fewer resources to commit to advertising are more likely to use digital advertising than traditional channels.⁷⁶ Nearly half of surveyed microenterprises advertised online exclusively, compared to 40% of small, 32% of medium-sized and 27% of large firms (Figure 9b).

Figure 9 Smaller companies depend more on online advertising



Note: Respondents were asked: 'In the last year, did this company engage in any of the following forms of advertising: (i) Leaflet, poster or newspaper advertising, (ii) Radio or television advertising, (iii) Internet or social media advertising?'

Source: ITC calculation based on SME competitiveness data collected by FENALCO.

ICT also provides new channels for firms to access information. The SME Competitiveness Survey found that website owners and online advertisers tended to have more complete information about their customers than firms without a website or advertising using only offline channels. About half of website owners and 45% of online advertisers had extensive information about their customers' profiles compared to 29% of non-website owners and 26% of firms that only advertised offline.

Online advertising helps businesses gain insights about current and new customers. Websites and social media platforms that track visitors offer demographic, location and other information that is useful for sales, marketing and growing the customer base.⁷⁷



Information on customers, in turn, is key to better targeting products and services to customers' needs. While 75% of companies with extensive information about their customers reported having efficient inventory management systems, only 29% of those with little customer data said they had strong systems in place. When firms have insights about the demand of customers, they can also manage better their inventory.⁷⁸

Digital transformation has been prioritized in Colombia's development planning as a way to achieve economic and social goals for the country. The government has sponsored trainings to support the growth of the ICT sector and offered financial support to help expand ICT access among disadvantaged groups.⁷⁹ The policy framework can still be improved, for example, by building capacities to counter cybercrime and addressing challenges such as the public's lack of trust in online retailers.⁸⁰

COVID-19 pushed firms to rethink their sourcing strategies

Businesses must be flexible to succeed in a competitive global environment. Firms must diversify their supplier base to better adapt to changing market conditions and customer needs. This, in turn, fuels the firm's growth in good and bad times.

The pandemic exposed the risks that companies face by relying too heavily on a narrow base of suppliers.⁸¹ ITC's SME Competitiveness Outlook 2021 found that enterprises that were independent of their largest supplier were 13 percentage points less likely to report problems accessing inputs during the pandemic, compared with firms that relied heavily on their largest supplier.⁸²



Although Colombia may have been somewhat sheltered from external volatility by its limited, but growing, involvement in international value chains (Box 3), the pandemic highlighted challenges in sourcing imported and domestically produced inputs. About 45% of Colombian respondents to the ITC COVID-19 Business Impact Survey reported facing difficulty accessing inputs at the beginning of the crisis.⁸³ This is because production and logistics disruptions in countries of origin, along with closed borders and new trade restrictions, reduced Colombian imports.

In nominal terms, Colombia's imports fell by 19.4% in March–October 2020 from the same period in 2019. This decline implies a considerable drop in the supply of intermediate products, which have represented about half of Colombia's gross imports during the past two decades.⁸⁴

Evidence from the SME Competitiveness Survey shows that many Colombian companies depend on just a few input sources. A third of surveyed firms relied heavily on their main supplier. However, those that relied the most

Box 3 Colombia's value chain participation is low, but seems to be growing

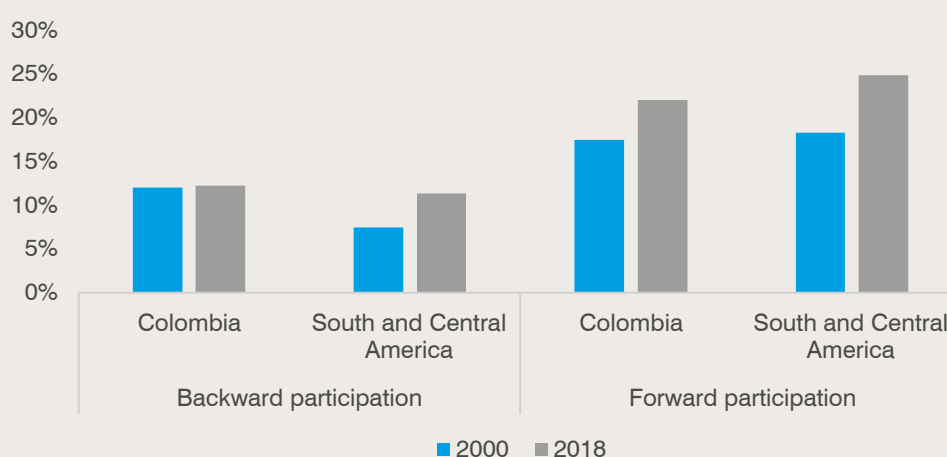
While deeper integration with international value chains has the potential to boost efficiency, innovation and access to higher-quality capital and inputs, these opportunities have not been fully realized in Colombia. Instead, the country's role in GVCs has traditionally been limited to the supply of limited commodities.

This is gradually changing. Colombia is becoming more involved in international value chains through the expansion of domestic production for export, without an accompanying increase in imports of intermediate goods. Colombia's share of foreign value added in its

gross exports – goods and services sourced from other countries to produce exports, also known as backward participation in international value chains – did not grow substantially between 2000 and 2018.

By contrast, the country is increasing its share of domestic value added in exports (domestic goods and services supplied to Colombian exports, known as forward participation). At 22%, however, this forward participation still lagged behind the regional average of 24.9% in 2018.

Forward participation in international value chains has grown in Colombia



Note: Backward participation in international value chains is defined as the share of foreign value added in gross exports. Forward participation in international value chains is defined as the share of domestic value added in gross exports.

Source: OECD.Stat.

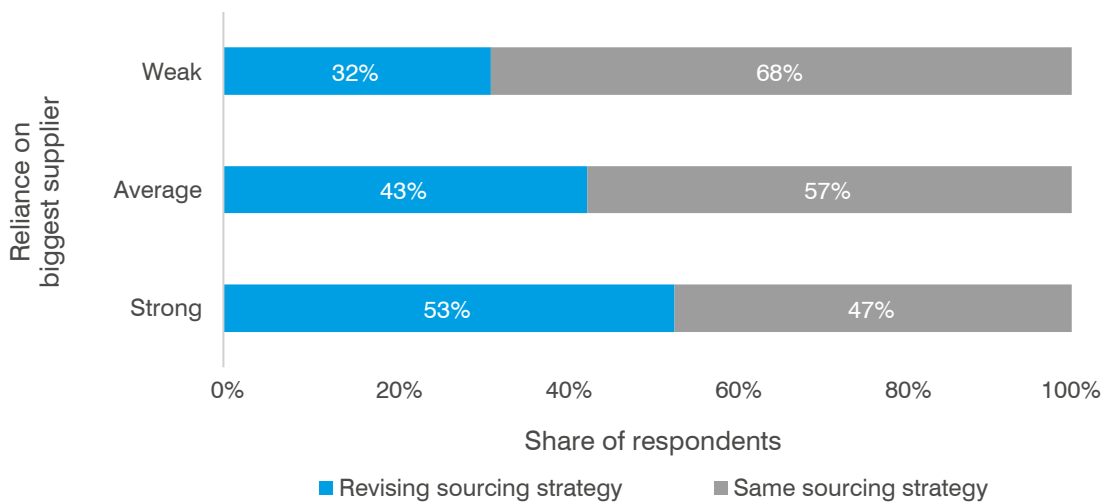
Source: World Bank. (2020). World Development Report 2020: Trading for Development in the Age of Global Value Chains. World Bank. <https://www.worldbank.org/en/publication/wdr2020>

on their biggest suppliers were more likely to revise their sourcing strategies to prepare for future crises.

The survey found that 53% of firms with strong reliance on their top supplier modified their sourcing strategy to

prepare for future crises, compared to 32% with weak reliance (Figure 10). This association was strongest among manufacturing and services firms, for which the value of inputs relative to total output is highest.⁸⁵

Figure 10 Firms reliant on main supplier altered sourcing strategies



Note: Respondents were asked: ‘Specify what steps are being taken to prepare your business to future crises: (i) Revising the sourcing strategy (e.g. number of suppliers, their geographic location)’. They were also asked ‘Please rate your reliance on your biggest supplier’ with answer options ranged from 1 (strong reliance) to 6 (little reliance). Responses of 1–2 were deemed ‘strong’, 3–4 ‘average’ and 5–6 ‘weak’.

Source: ITC calculation based on SME competitiveness data collected by FENALCO.

Like the input sourcing challenges that arose during the pandemic, extreme weather events – made more common and severe by climate change – risk disrupting supply chains by destroying inventory or damaging transportation infrastructure. Supply chain stability appears to be a major worry in Colombia. Many Colombian companies (59%) were concerned about scarcity or decreases in input quality due to environmental risks. By comparison, just 18% of firms in sub-Saharan Africa identified the scarcity of inputs as a significant risk.⁸⁶

Businesses that depend on specialized inputs and have fewer opportunities to diversify their sourcing may be particularly vulnerable to the effects of climate change.⁸⁷ Indeed, the survey data show that firms with certifications and those trading internationally were more concerned about scarcity or decreases in input quality due to environmental risks than those without certifications or only selling to domestic markets.

Suppliers play a role in the ability of companies to meet customer requirements and expectations and, in some

cases, to comply with legal and regulatory requirements.⁸⁸ Therefore, many firms assess their suppliers. This involves measuring and monitoring supplier performance to ensure compliance with the firm’s requirements and to find opportunities to reduce costs, mitigate risk and improve.⁸⁹ It is one of the most important components of supply chain management and influences the long-term commitments and performance of the firm.

Respondents that relied heavily on their main supplier appeared to be aware of the risks of this relationship; they assessed their suppliers more often than those relying less heavily on them. Among Colombian firms that strongly depended on their biggest supplier, 46% evaluated their suppliers’ performance often compared to just 24% of firms with weak reliance.

Firms that trade internationally have a greater need to assess suppliers, as input quality has consequences for the additional mandatory and voluntary standards to which exporters tend to be subjected.⁹⁰ Holders of internationally recognized certificates (such as safety, quality and

sustainability certificates) also assess their suppliers' performance more frequently. While 43% of certified firms often reviewed supplier performance, only about a quarter of non-certified firms did so.

Businesses that assess and broaden the base of suppliers on which they depend benefit from the stability and leverage this offers. However, making these changes implies costs and may make supply chain management more complex.⁹¹ Policy responses and assistance in reaching trade partners can help to reduce the costs to SMEs.

Sector associations helped firms adapt to environmental risks

Business support organizations, which deliver services to and represent the interests of companies, are central to effective ecosystems.⁹² BSOs include chambers of commerce, sector associations, trade promotion organizations, investment promotion agencies, cooperatives, logistics companies and financial institutions, which all seek to promote firms' growth by providing services and representing their interests.

Colombian BSOs are active in all sectors and provide a wide range of services to enterprises, including through

the involvement of many in regional SME councils. Almost all surveyed firms in the country (96%) reported that they engaged with business support organizations.

Sector-specific associations – from the Colombian Association of Banana Growers to the Colombian Association of Travel and Tourism Agencies – play a unique role in providing sector-specific support and networks, facilitating sectoral collaboration and collective learning. The SME Competitiveness Survey found that participation in sector associations is linked to better collaboration and exchange of market and business information. A quarter of the firms involved with a sector association said they regularly exchanged market information and solved common problems with their peers, compared to less than 10% of those not engaged.

Clusters can also boost information exchange and collaboration between enterprises.⁹³ To this end, Colombia launched its national cluster policy Rutas Competitivas in 2012.⁹⁴ It aims to foster cluster creation at the regional level.⁹⁵ As of November 2022, 135 clusters had been registered in the Colombia Cluster Network (Red Cluster Colombia), representing more than 12,000 companies.⁹⁶

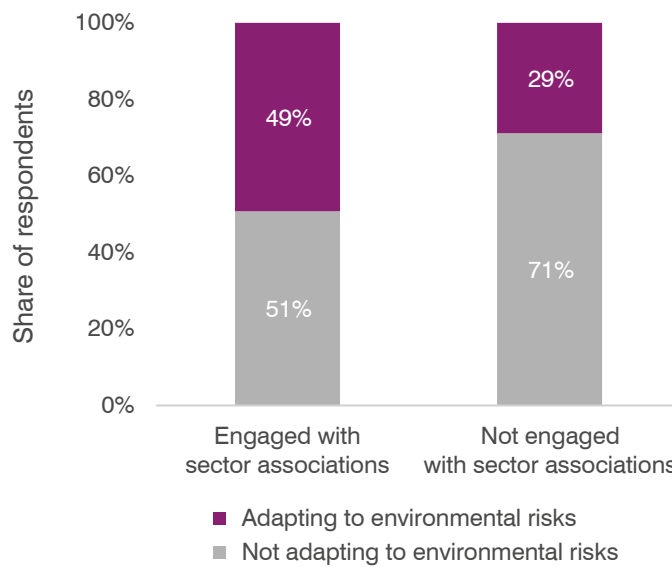
Industry associations also play a role in supporting the green recovery and environment-friendly growth of



businesses.⁹⁷ Indeed, firms that interact with a sector association were more likely to invest in adaptations to reduce their environmental risks. Almost half of the firms (49%) that engaged with a sector association also adopted adaptive measures, compared to 29% of firms that did not engage with a sector association (Figure 11).

By providing information, technical assistance and training, and coordination, these organizations help to overcome the knowledge gaps, limited capacities and other barriers that hinder SME investment in climate change adaptation.⁹⁸

Figure 11 Companies engaged with sector associations adapt more



Note: Respondents were asked: 'In the last three years, did your company invest in any of the following measures to reduce the environmental risks that your company is facing?' and 'Are you actively engaged with any of the following types of institutions: trade promotion organisations, investment promotion organisations, chambers of commerce, sector associations?'

Source: ITC calculation based on SME competitiveness data collected by FENALCO.

Participation in industry associations was not evenly distributed, however. Women-led firms tended to interact less with sector associations than those led by men (45% vs 58%). This gender gap is not unique to Colombian businesses. Around the world, women are less likely to belong to business organizations such as chambers of commerce and sector associations.

There are several possible causes of this lower participation rate of women-led businesses. For instance, many women may be unaware of the benefits of membership. Or they may question the benefits of membership due to concerns that these (predominantly male) associations will not take their particular needs seriously, as women rarely hold leadership positions in these organizations, limiting their potential to develop connections and influence the use of resources.⁹⁹

One response to this has been the establishment of dedicated associations for female entrepreneurs and business leaders, such as the Asociación de Mujeres Empresarias de Colombia.

Less access to the networks, mentorship opportunities, information and advocacy tools offered by BSOs puts women-led businesses at a disadvantage. For example, women-led firms were less likely than men-led firms to have taken measures to adapt to and reduce environmental risks (34% vs 44%). This underlines the need for equitable access to information, along with the technical and financial support, that can be enhanced by working with peers and sector associations.¹⁰⁰

Policy insight: Strengthening connections for competitive value chains

Colombian SMEs' connections affect their operations, their capacity to adopt new practices and their preparedness for future unexpected events. Expanding and building on firms' connections will need to include efforts on digital connectivity, supply chain diversification and business support organizations.

While most surveyed firms maintained a web presence and many advertised online, smaller firms have been slower to incorporate digital technologies into their operations and relationships with customers. These businesses would benefit from access to resources on ICT adoption. Resources on technologies and platforms with lower fixed costs would be especially useful.

More generally, digitalization among Colombian SMEs and across the country must be accelerated to support the growth in demand for e-commerce. This requires developing more ICT infrastructure and skills – especially targeting disadvantaged groups – and strengthening public trust in online services and retailers.

The extent to which SMEs' supply chains are diversified depends partly on structural factors, though policy can also

make it less expensive for firms to obtain information about potential suppliers and form new business connections. Domestically, sector associations and BSOs can help to aggregate firm and market information. Internationally, trade policy may be a useful tool to facilitate the importation of inputs, along with trade facilitation measures, particularly to improve external border agency cooperation.

Business support organizations have yet to realize their full potential to influence the competitiveness and resilience of firms. The focused membership of sector associations means they may be especially useful platforms for cooperation and collaboration on common challenges. This was seen in the relationship between engagement with these associations and environmental risk preparedness.

Strengthening the capacities of sector associations while increasing their engagement with SMEs – notably women-led businesses – would therefore nurture the competitiveness and crisis preparedness of smaller businesses. As BSOs operate within a support ecosystem, there are opportunities for these organizations to review and enhance the efficiency of the services they provide collectively.

Source: Trade Facilitation Indicators | Compare your country. (n.d.). Retrieved 20 July 2022 from <https://www.compareyourcountry.org/trade-facilitation/en/1/default/COL/default>





Chapter 4

Fostering capacity to respond to future crises

Well-matched skills help companies cope with crises 34

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Fostering capacity to respond to future crises

The ability of a firm to adapt to new conditions in markets and the operating environment determine its capacity to change. Recent disruptions arising from the pandemic, social unrest, global economic uncertainty and climate change show how quickly and dramatically the situation of firms can change, punctuating their need for adaptability. Findings from the SME Competitiveness Survey in Colombia show that improving skill matching, access to finance and innovation are all critical to building SMEs' capacities to change.

Competitive and resilient firms depend on skilled workers and access to financial services suited to their needs. While many firms are satisfied with the skills of their workers, they are also sceptical of their potential to find new workers with needed skills. Skills and needs must be better matched to tackle persistent labour market inequalities. Also, many firms took on debt during the pandemic that they will have trouble repaying. The lingering financial challenges of SMEs will need to be addressed to enhance stability and resilience.

Innovative products and processes can greatly influence growth. Although Colombia has lagged behind other Latin American and Caribbean countries on innovation, this can be improved. Innovative businesses can play a central role in the country's mitigation of and adaptation to climate change.

Well-matched skills help companies cope with crises

Firms that want to change and innovate must employ skilled workers. Skills are especially important as rising prices create new pressures on firm competitiveness. The transformational changes brought by technology and climate change only add urgency to the need for skill upgrading. Skilled employees are more likely not only to deliver high-quality inputs, but also to be flexible enough to adjust when triggered by changes.¹⁰¹ Access to skilled labour has been shown to increase the technical efficiency of SMEs and their capacity to absorb foreign technologies, and to enable them to enter more knowledge-intensive activities.¹⁰²

Many surveyed firms said their employees were equipped with the skills needed to do their jobs. However, they also expressed concerns about their potential to find new suitably skilled employees. Ensuring good matching of skills and needs will help enhance firm resilience and inclusive growth.

Most employers (73%) were satisfied with the skill set of their current workforce and only 1% were dissatisfied, while 26% were in between. Services firms and companies in Bogota were most pleased with the skills of their employees, with 77% and 90% reporting a good skills match, respectively. The higher rates of satisfaction in Bogota should not be surprising; studies elsewhere have suggested that workers and firms are more selective in urban areas because it is easier to find jobs and employees in these areas. As a result, denser cities tend to have better skill matching.¹⁰³



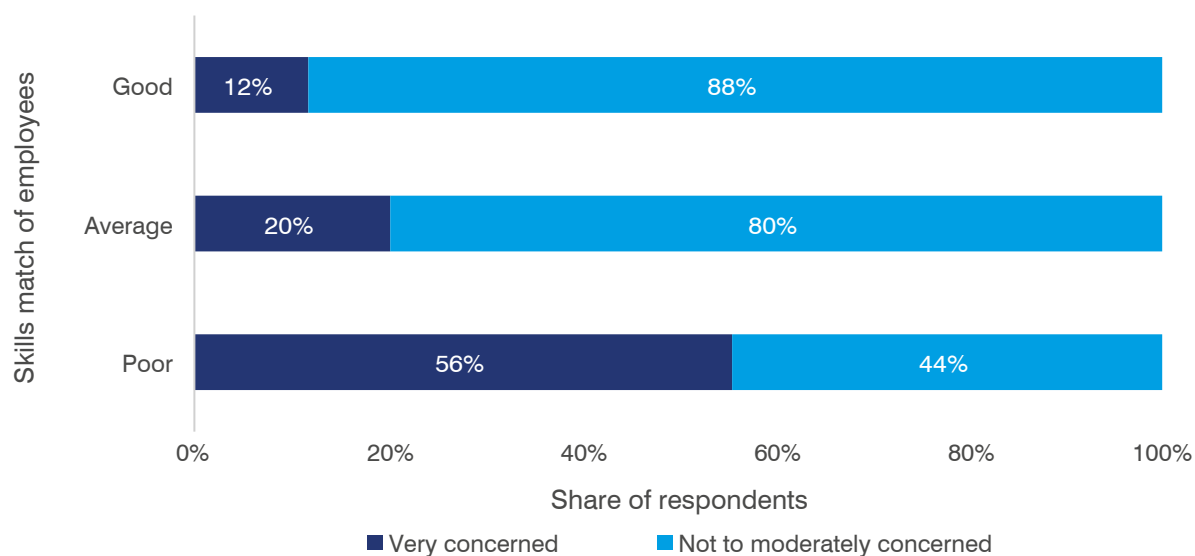
A firm's ability to find skilled workers has implications for its resilience. Worker skills directly drive performance by making efficient use of inputs and equipment. Skilled workers are also complementary to innovation and other drivers of firm productivity and growth. Through these effects on firm efficiency and capacity for change, skills are essential to the capacity to adapt to changing circumstances.¹⁰⁴

Well-matched workers also tend to be better at developing firm-specific skills and finding creative solutions to problems. As a result, they are well-placed to find alternative means of operating during crises that affect input supplies, internal resources and operations, or relationships with clients.¹⁰⁵

The SME Competitiveness Survey results illustrated this connection between skills and resilience. Colombian companies with good matches between the skills of their workforce and their needs tended to be less worried about recovering from the pandemic than those without good skills matching. Only 12% of firms reporting good skills matches reported being very concerned about their recovery, compared to 56% of businesses with poor skills matches (Figure 12).

Skilled workforces were also associated with fewer job losses at the enterprise level. While less than a quarter of firms with good skills match had laid off staff during the pandemic, one-third of firms with poor skills matches had done so. These results are consistent with the experiences of companies elsewhere, where those with appropriately skilled workforces tended to weather the pandemic better.¹⁰⁶

Figure 12 Good skills matching eases firms' worries about recovery



Note: Respondents were asked 'How concerned are you about the recovery of your business from the COVID-19 crisis?'. They were also asked 'Please rate the extent to which the skill set of currently employed workers matches the needs of this company' with answer options ranged from 1 (poor match) to 6 (good match). Responses of 1–2 were deemed 'poor', 3–4 'average' and 5–6 'good'.

Source: ITC calculation based on SME competitiveness data collected by FENALCO.

Good skill matching depends in part on the quality of education and training. Most interviewed firms rated positively the quality and cost of education and skill development organizations such as the Colombian National Service for Vocational Education (SENA). Only 13% reported that these were low quality and just 7% considered them to be high cost.

Access to education in Colombia has been expanding, supporting the growth of a skilled workforce. The share of Colombians who had completed at least an upper secondary level of education increased to 53.2% in 2020 from 39.1% in 2010.¹⁰⁷ Alongside general education, Colombia's technical and vocational education and training (TVET) system includes secondary technical education, university and technological schools, and

technical professional institutes, as well as non-formal and informal systems.¹⁰⁸

Student performance has been improving as well. The OECD's Programme for International Student Assessment found that while 15-year-old students in Colombia perform below the OECD average in reading, science and mathematics, their mean performance rose between 2006 and 2018.¹⁰⁹

Although Colombian firms perceive educational institutions positively, they are somewhat pessimistic about their prospects of finding skilled workers on the labour market. In total, 43% of respondents said skilled workers were moderately available in the labour market, while only 20% said they were highly available. This suggests difficulties matching graduates with jobs. As in many other middle-income countries, matching challenges in Colombia are apparent in the high unemployment rates of young people with advanced or intermediate levels of education.¹¹⁰

To better match the skills of Colombian youth to the needs of companies, the country could expand its dual education offering. This is an educational approach that has apprentices dividing their time between an educational institution and a firm providing work experience and practical training. It helps to better align education with labour market needs and has the potential to lower youth unemployment.¹¹¹ A first foray into this topic has been made through SENA's pilot apprenticeship programme, developed in cooperation with Germany's Federal Institute for Vocational Education and Training.¹¹²

While these policies are being developed, firm-level human resource practices can partly compensate for the challenge of finding skilled workers. Survey respondents with a strong established hiring process were more likely to report good skills matching among employees. However, fewer than half of businesses reported having a firmly established hiring process and 22% said they had none or a weak hiring process.

Hiring and skills matching at Colombian companies will need to be improved in a way that also addresses inequalities in labour market outcomes. Unemployment rates are consistently higher among youth and women, who also have lower rates of labour force participation.¹¹³ Youth and female unemployment rates have grown during

the pandemic, even more than the overall unemployment rate, which rose to 13.7% in 2021 from 10.5% in 2019.¹¹⁴

Young and female workers can often only find jobs at smaller or informal firms. The SME Competitiveness Survey confirms that micro and small firms were more likely than medium-sized and large businesses to hire young and female employees.

The survey also confirms the persistence of gender and youth employment gaps since the beginning of the pandemic. In fact, 42% of respondents had mostly female full-time employees. The gender employment gap was narrower in Bogota than in other regions. This is not surprising, given the higher share of total employment among women in urban areas (85% of all employed women in Colombia and 74% of all employed men are located in Bogota and other urban areas).¹¹⁵

Young workers were similarly underrepresented in most surveyed businesses. Fewer than 4% of firms had a majority of full-time employees younger than 25 years old, and those that did were mainly in the services sector. Generating quality jobs, equipping workers with needed skills and fostering efficient matching will be needed to make progress on inclusive and resilient growth.

Smaller firms risk debt trap after COVID-19 crunch

Firms need financing for their daily operations and to implement business strategies and invest. Access to affordable funding to innovate and diversify is critical for competitiveness. However, SMEs often struggle to obtain financing because of their limited collateral, higher rates of informality and weaker financial literacy.¹¹⁶

The COVID-19 pandemic highlighted the need for SMEs to be able to access finance while also destabilizing their longer-term prospects. Much of the new debt that helped Colombian firms survive the crisis has become a serious burden for borrowers. Combined with the financial constraints that prevent many businesses from investing in preparedness for future crises, this points to the need for improving access to suitable sources of financing and financial literacy.

The unexpected costs of navigating the pandemic increased businesses' demand for financing, while shifting how this financing could be secured. The supply

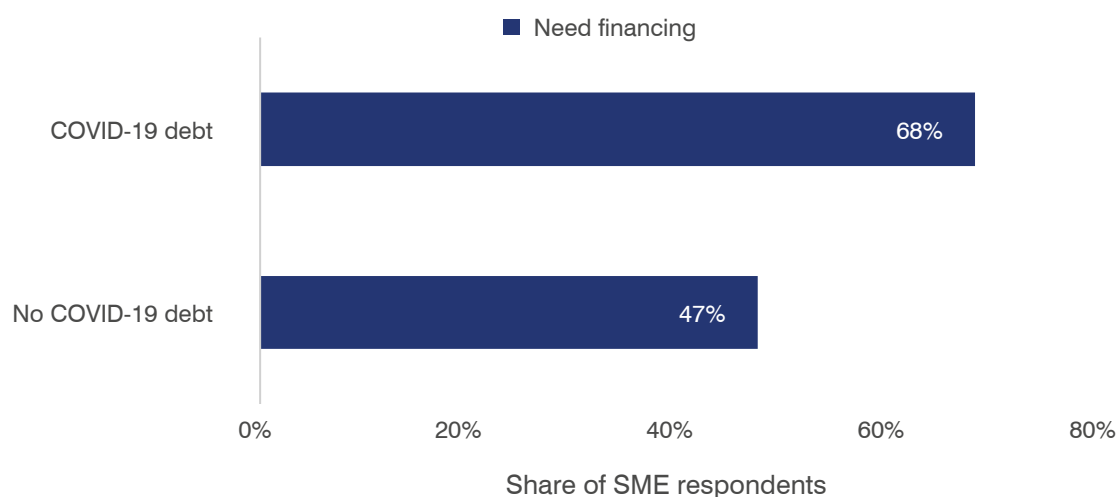
of early-stage equity and some other forms of financing declined in 2020. Borrowing costs, on the other hand, fell with efforts to stimulate the economy. SMEs in Colombia and many other middle-income countries benefited from falling interest rates.¹¹⁷

Financial measures enacted by the government early in the pandemic made it easier for Colombian firms to access loans.¹¹⁸ For many businesses around the world, this situation resulted in either a vicious cycle of unmet financing needs that increased the risk of insolvency,¹¹⁹ or encouraged borrowing that created debt overhangs weighing on growth potential.¹²⁰

The SME Competitiveness Survey shows that 43% of Colombian SMEs took on new debt in response to the short-term cash flow pressure of operating during the pandemic. Most of these firms are struggling to repay these obligations, and debtor firms continue to face financial challenges. Most (65%) surveyed firms that assumed debt during the pandemic said they would be unable to repay it within one year.

The firms that borrowed money during the COVID-19 crisis were also more likely to need additional financing: 68% of these companies said they required external financing, compared to 47% of SMEs that did take out pandemic-related debt (Figure 13).

Figure 13 Companies with pandemic-related debt need more money



Note: Respondents were asked: 'How long will it take the business to pay back COVID-19-related debt?' and 'Is this establishment in need of any of the following forms of financing: (i) A loan; (ii) Equity financing; (iii) Financing through the issuing of bonds; (iv) A line of credit; (v) Letters of credit.'

Source: ITC calculation based on SME competitiveness data collected by FENALCO.

More than half of the companies interviewed (55%) said they needed external financing. Most sought loans (59%), followed by equity financing (53%) and lines of credit (49%).

Micro and agricultural businesses had the greatest need for external financing (67% and 74%, respectively) compared to about half of larger firms, manufacturers and services firms. Smaller companies and agricultural firms tend to face more barriers in terms of affording finance, meeting collateral requirements and staying informed on financial matters. Colombia has a relatively high number of informal firms and these businesses, which tend to be small, are often excluded from formal sources of financing because they are informal.¹²¹

The SME Competitiveness Survey found that most of the firms that needed further external financing (more than 70%) were very concerned about their recovery from the crisis. Just 28% of firms that had no need of additional external financing voiced similar worries about crisis recovery. This suggests that many firms face debt overhang problems, where high levels of debt prevent further borrowing and investment.¹²²

The financial difficulties created by COVID-19 reveal how firms need financial resources to plan and cushion any unexpected future events that can disrupt their operations. Financial preparedness is particularly relevant for SMEs,

which tend to be more sensitive to cash flow risks and external financial instability.¹²³

More than half (54%) of the surveyed firms said they were preparing for future external crises, but those that needed external financing were less likely to have taken steps

to prepare. Among the firms that had not prepared, the main reason (for 43%) was a lack of financial resources (Figure 14). This suggests that many businesses have been seriously weakened by the pandemic and are unprepared for future disruptions.

Figure 14 Firms lack financial resources to prepare for future crises



Note: Respondents were asked: 'Are you taking any steps to prepare the business for future external crises?' and if the answer is 'No', 'What prevents you from taking steps to prepare your business to future crises?'

Source: ITC calculation based on SME competitiveness data collected by FENALCO.



This is especially true for smaller and agricultural firms. The additional financial constraints these companies face have kept them from investing in their resilience. Survey evidence confirms this. SMEs were less likely to invest in measures to prepare themselves for the next crisis (55%) than large firms (74%). The top reason microenterprises said they did not prepare was a lack of financial resources (55%). Large businesses, on the other hand, cited difficulty identifying effective measures as their main reason not to prepare themselves.

Financing preparedness was also a challenge for farmers due to banks' perception of risks, collateral requirements and limited operations in rural areas.¹²⁴ As a result, agricultural firms were the least likely to invest in preparedness and the most likely to cite financial constraints as the reason for their inaction. Some 62% of Colombian farmers who were interviewed said they did not invest in crisis preparedness measures because of inadequate financial resources.

Innovation is critical to success and crisis preparedness

Firms must innovate to stay ahead of an ever-changing competitive landscape.¹²⁵ This involves process innovations, which improve how output is created, and product innovations, which lead to new products or improved versions of existing goods. Business model innovation may lead to a rethinking of operations and value propositions to customers.¹²⁶ Innovation brings many benefits, including lower costs, a way to add value and the potential for growth in new and established markets. It also helps companies adapt to changing circumstances.

There is room for more innovation in Colombia. At just 0.3% of GDP in 2019, Colombia's research and development (R&D) expenditure was well below the averages of other upper middle-income countries (2%) and Latin America and the Caribbean (0.7%).¹²⁷ Moreover, only a small part of the R&D that does take place in Colombia involves the private sector: only 2.5% of researchers work in companies, while 95.7% work in academia. By comparison, these shares in OECD countries average 48.1% and 38.2%, respectively.¹²⁸

Evidence from the SME Competitiveness Survey shows that research and development activity is quite rare at the firm level. More than half of the interviewed firms said they invested few or no resources in R&D. In fact, 34% did not invest at all in R&D and only 6% held a registered patent.

Just 27% of surveyed firms said they regularly innovated, while 45% said they sometimes innovated and 28% said they rarely innovated.

Larger businesses tended to invest more in R&D and innovation. While some small firms can leverage their dynamism and responsiveness to change to drive innovation, many are slow to innovate because they lack economies of scale, face financial constraints to investment and are typically less technology-intensive.¹²⁹

In fact, innovation does not necessarily entail new and sophisticated inventions. Even small innovations in operations can benefit businesses. Digital tools can reduce expenses associated with production, the search for information and delivery. For example, an ITC survey of companies in francophone Africa in 2022 shows that 85% of those that used digital technologies reported higher sales and four-fifths of them cut costs. Digital technologies also help firms in French-speaking Africa communicate better with value chain partners.

In fact, exporting and involvement in international value chains are positively associated with innovation. The survey conducted in Colombia reveals that nearly half of exporters said they regularly innovated, compared to just 24% of non-exporters. When it comes to R&D investment, 31% of exporters reported committing a large amount of resources to research and development, compared to 10% of non-exporters.

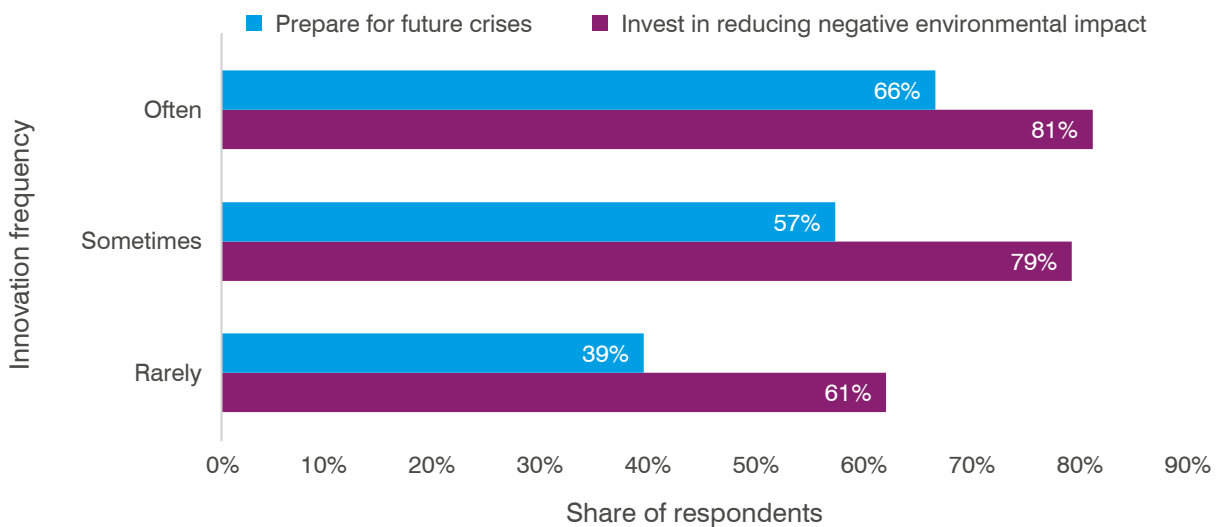
Previous research confirms that SMEs that engage with GVCs have a greater capacity for innovation because there is transfer of know-how and technological upgrading.¹³⁰ In addition, SMEs may improve their capacities by importing foreign intermediate goods.¹³¹ Exporters also need to be more productive and innovative to maximize output and reduce costs when they export to markets with tougher competition.¹³²

Innovation is a driver of firm resilience.¹³³ Indeed, companies must innovate to survive periods of crisis.¹³⁴ Innovation appears to have helped exporters and value chain participants survive the pandemic even though they were more exposed to supply-and-demand shocks than firms only selling domestically.¹³⁵ Multi-country surveys in ITC's SME Competitiveness Outlook 2021 indicate that firms that invested more in R&D before the pandemic were more likely to adopt resourceful strategies to cope with the crisis. They were, for example, twice as likely to create new or customized products.¹³⁶

The SME Competitiveness Survey found that innovative Colombian companies were more likely to ready themselves for future crises. Among the firms with high rates of innovation, 66% had begun to prepare, compared to only 39% of firms with low innovation rates (Figure 15). Similarly, 68% of firms with high R&D investments also

prepared for future crises, compared to 46% of firms with low R&D investments. Colombian firms that take steps to innovate or build their capacities for innovation are therefore likely to be better positioned to strengthen their resilience as well.

Figure 15 Innovative firms were more likely to prepare for future crises



Note: Respondents were asked: 'In the last three years, did your company invest in any of the following measures to reduce the environmental risks that your company is facing?' and 'Are you taking any steps to prepare the business for future external crises?'. They were also asked 'Please rate the frequency with which your company develops and implements new or improved processes or products' with answer options ranged from 1 (rarely) to 6 (often). Responses of 1–2 were deemed 'rarely', 3–4 'sometimes' and 5–6 'often'.

Source: ITC calculation based on SME competitiveness data collected by FENALCO.

Innovation will also be very important to help companies adapt to climate change. For example, gradually rising temperatures threaten farmers in particular. Research suggests that sugarcane and coffee – which are among the most important crops grown in Colombia – are highly heat-sensitive. Firms in the sugarcane industry will have to switch to more heat-resistant varieties and coffee producers should shift production to higher altitudes to adapt.¹³⁷

In addition, innovation can reduce emissions by creating goods and services that lower emissions from consumers or act as greener substitutes; using fewer emission-intensive inputs and production processes; and applying remedial measures to compensate for emissions in production.¹³⁸

While adaptation measures depend on the company activity, firms can take concrete actions – starting with analysing how efficiently they use resources (such as lighting, water, gas and transportation). By installing LED

bulbs, improving building insulation or even installing solar panels, for instance, businesses can reduce their costs and lower emissions. In agriculture, replacing fossil fuel-intensive pesticides and fertilizers with organic substitutes reduces costs and the carbon footprint.¹³⁹

Engaging with the circular economy allows firms to access new partnerships, expand business networks, generate additional revenue and find ways to cut costs. One circular practice is to reintegrate into production or sell waste generated in regular production processes, eliminating or reducing the need to pay for disposal.

Businesses engaged in manufacturing can strengthen their relationships with clients and consumers by offering to fix broken products or by encouraging buyers to return items that have reached the end of their first stage of life. This allows the firm to obtain information about the wear and tear of its goods to inform future product design and marketing.¹⁴⁰

The survey in Colombia found that firms with higher innovation levels were more likely to have invested to reduce their environmental impact than firms with low levels of innovation (81% vs 61%). Similarly, firms with higher levels of R&D tended to make these investments more often than firms with low levels of R&D (82% vs 69%). Such ‘eco-innovation’ also reinforces competitiveness by developing transferrable know-how, agility and skills.¹⁴¹

Enhancing capacities for innovation may therefore encourage companies to invest in mitigation. Generally, however, smaller firms are less capable of making these

investments.¹⁴² While 74% of surveyed companies had invested in measures in the previous three years to reduce the environmental impact of their operations, smaller firms made fewer of these investments. Micro firms were the least likely to invest (65%) compared to 74% of small firms, 84% of medium-sized companies and 98% of large firms. Supporting SMEs will mean helping them to overcome financial and other barriers to environmental innovation.¹⁴³

Policy insight: Supporting dynamic and resilient firms

The experiences of Colombian businesses during the pandemic and recent social unrest across the country clearly show how resilience depends on the capacity of firms to adapt to changing market conditions. Spreading these capacities to more firms will require new measures and forms of assistance on skills and skill matching, access to finance and innovation.

The concerns expressed by surveyed firms about the availability of workers with relevant skills suggest that the accessibility and relevance of education and training can be improved. A broad range of policy areas will be involved in efforts to address these shortcomings. More progress is needed to expand access and quality of education. Dialogue with the private sector on curricula design is needed as well. Beyond basic skills, general education and TVET programmes should align their focus with hiring firms’ expectations.

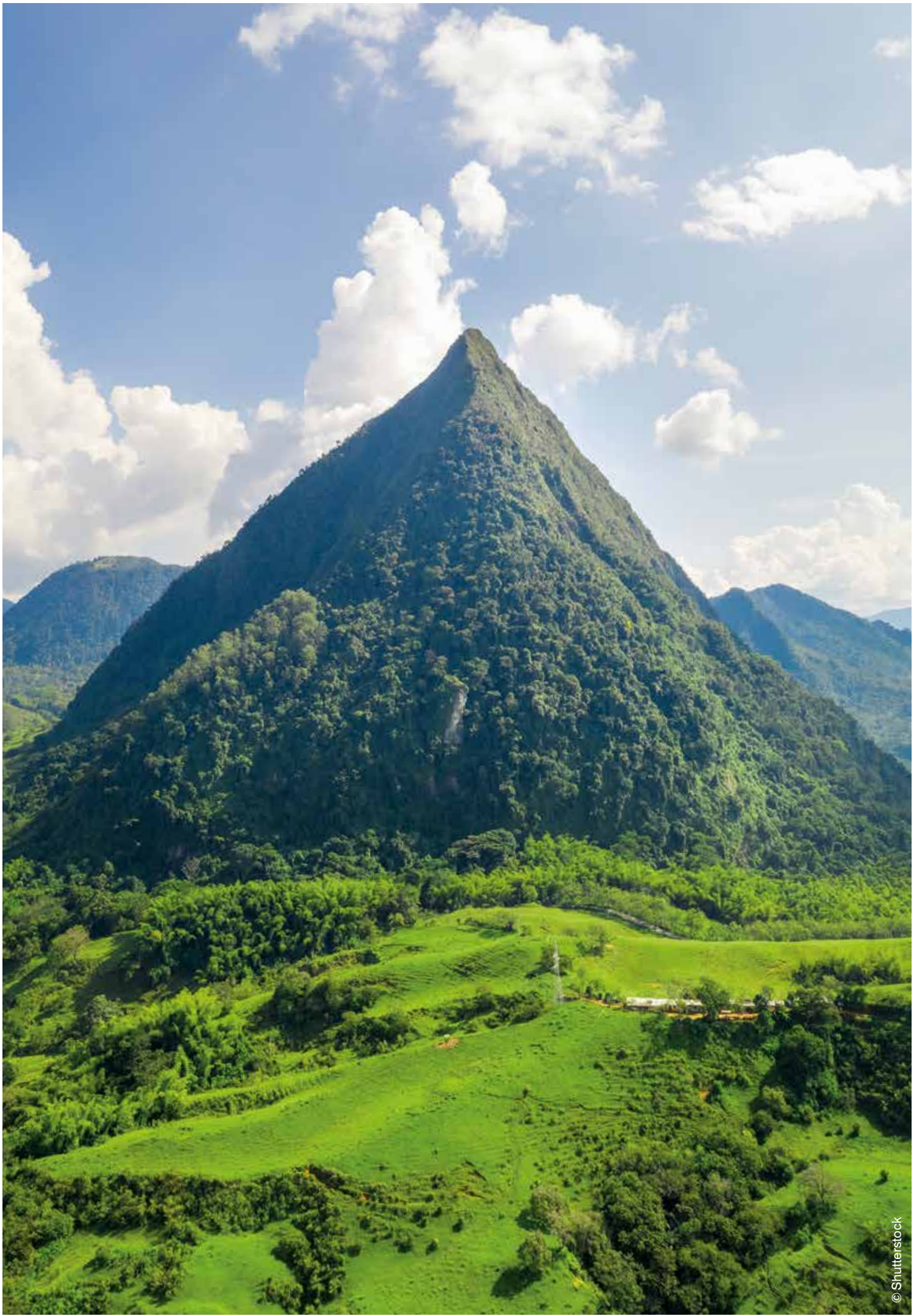
Beyond education and training, labour market policies will need to support formalization and better skill matching by more effectively balancing flexibility and protections for workers. Ensuring that the skills of youth and women are recognized will enhance inclusiveness and ensure the potential of these workers is not wasted. Identifying and addressing barriers to female labour force participation, such as better access to childcare, should be considered.

Many SMEs offset declining revenues during the COVID-19 crisis by taking on more debt. This may pose challenges to business solvency. Several countries have introduced modified insolvency and bankruptcy schemes, such as debt repayment moratoria, delayed payments and flexible and tailored arrangements. These measures may be useful on a temporary basis to provide breathing space for Colombian companies running into financial difficulties during the pandemic and to avoid their unnecessary bankruptcy.

As part of a longer-term solution, increasing non-debt support – such as grants, equity and quasi-equity financing to recapitalize firms – may also contribute to mitigating the risk of over-indebtedness and reducing repeated risks in the future.

In addition to their direct influence on competitiveness and resilience, improved worker skills and access to finance also support innovation at the firm level. However, the low levels of R&D taking place in Colombia signal a more fundamental need to develop a system in the country to educate businesses on easy-to-achieve, cost-effective ways to innovate. Stronger connections with international flows of knowledge and technology – such as through more active trading and participation in international value chains – should also help to shore up businesses’ innovation capacities.

Source: OECD (2020). Insolvency and debt overhang following the COVID-19 outbreak: assessment of risks and policy responses. OECD. https://read.oecd-ilibrary.org/view/?ref=916_916885-2mmnsxy9du&title=Insolvency-and-debt-overhang-following-the-COVID-19-outbreak-assessment-of-risks-and-policy-responses



Chapter 5

Policies for competitiveness and resilience

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Policies for competitiveness and resilience

Colombia's small businesses contribute extensively to the economy, generating employment, income and exports. However, the COVID-19 crisis has strongly affected smaller firms, which are struggling to recover. Based on the lessons from this challenging moment, it is critical to enact policies and programmes to foster the competitiveness of SMEs that will also support their resilience.

The results of the SME Competitiveness Survey spotlight the areas of greatest need to ensure that small Colombian firms can contribute to inclusive, sustainable and resilient growth. Policy reforms could prioritize supporting innovation and digitalization by SMEs, developing workers' skills and enhancing labour market efficiency; strengthening business support institutions and firms' access to information; and building a better business environment for small companies, including by enhancing access to finance.



Supporting innovation and digitalization

While the survey finds that SMEs are less likely than large firms to carry out research and development or other innovative activities, some smaller and younger businesses have the potential to drive innovation and technological upgrading. The capacities of Colombian SMEs must be enhanced so they can lead change as innovators and effective users of digital technologies, adapt to climate change and manage other threats.

More dedicated strategies may be needed to create an innovative private sector. The triple helix model – which explains the dynamic interactions among the private sector, the public sector and universities and research centres that aim to build the innovative capacities of each – may offer a framework that leverages strengths in Colombia.¹⁴⁴ More collaboration between academic institutions and businesses could encourage commercially oriented R&D in the country.

Internationalization is another underexploited driver of innovation in Colombia. Among survey respondents, exporters were about twice as likely to innovate regularly as non-exporters. Trade can lead to the technology and knowledge transfers that boost innovation and productivity. In some cases, these can spill over beyond the firms that engage directly with international buyers and suppliers. Investment also supports these knowledge and technology flows.

Relative to GDP, net inflows of foreign direct investment in Colombia in recent years have been higher than among other upper middle-income countries.¹⁴⁵ These inflows could be better leveraged to achieve goals for SME exporting and private sector development more generally. ProColombia's responsibilities in both export and investment promotion should help in this regard.¹⁴⁶

Further progress on digitalization in Colombia will also require additional investment in infrastructure and the development of the full spectrum of ICT skills. While internet infrastructure has improved considerably, it is still underdeveloped. The number of secure internet servers per million people in Colombia in 2020 was just 20.7% of the Latin America and Caribbean regional average.¹⁴⁷

The digital economy in Colombia remains quite small, and its further development and SME digitalization would be mutually reinforcing. For small enterprises in other sectors of the economy, targeted trainings could focus on practical

ICT skills relevant to their businesses, such as on using e-commerce platforms and online advertising.

Fostering skill development and efficient labour markets

Most firms responding to the SME Competitiveness Survey were satisfied with their workers' skills. However, their concerns about the availability of suitably skilled workers signal the need to improve skill matching and develop the digital and other skills citizens will need in the future world of work. This means improving the quality and relevance of education and skill development while at the same time addressing longstanding labour market challenges.

The quality of basic and advanced education and training must be improved to equip Colombians with skills demanded by labour market. Regular dialogue between education institutions and the private sector on changing expectations about workers is also needed to maintain relevant curricula. Programmes to develop skills in ICT and other rapidly evolving technologies must be created and reviewed regularly.



Labour market policies need to be balanced so skill matching is efficient and inclusiveness is taken into consideration. Labour market regulations should be modified as needed to permit greater flexibility and reduce the costs of operating and employing workers formally.

Government programmes to help unemployed people find jobs could make labour markets more efficient. Colombia typically spends less on such policies than other countries in the region.¹⁴⁸ However, innovative initiatives including the Colombia Workforce Development Social Impact Bond, which funds trainings and other employment support measures, may provide a model that can be broadened.¹⁴⁹

Strengthening business support organizations

Strong institutions are the basis of competitive and resilient enterprises. Business support organizations that can respond to the needs of companies lower the costs of finding information and building connections, strengthen firm capacities and fortify the business environment.

Expanding the capacities of sector associations will increase the benefits that SMEs already derive from engaging with these organizations. Taking a systemic approach, Colombian and foreign sector associations should connect to share information and cooperate on common issues. Effective sector associations are well positioned to help build firm capacities in priority areas such as management skills, digital skills, certification and financial literacy.

BSOs could also do more to support Colombian businesswomen. As the survey results show, women-led firms are less likely to be involved with industry associations and may be disadvantaged as a result, such as in their lower rates of certification. Sector associations, chambers of commerce and others should consider offering dedicated programmes for women-led firms and mentorship opportunities for female entrepreneurs.

Support organizations and policy reform could encourage SMEs to export by helping them to start exporting or become more involved in trade. This would help Colombia reach development goals on export growth and regional integration. Chambers of commerce, sector associations and other BSOs can help to lower exporters' costs by providing information and analysis on high-potential market segments.

Institutions engaged in quality management, such as the Colombian Institute of Technical Standards and Certification, must be capable of supporting exporters. At a policy level, trade barriers – especially the growing use of non-tariff barriers – hinder Colombia's participation in GVCs. And while the country has made progress in improving trade facilitation and outperforms its regional and country income group averages, there is room to improve external border agency cooperation, documents and appeal procedures.¹⁵⁰

Building a better operating environment for small firms

A range of factors affect the business environment where firms operate, including legislation and regulations, infrastructure access and quality, and the capacities of relevant institutions. Policy priorities of high relevance for Colombian SMEs include infrastructure quality, access to finance and competition.

Easing infrastructure bottlenecks and improving the reliability of infrastructure, especially in rural areas, are essential to create the conditions for small companies to invest in upgrading their own capacities. Quality infrastructure is also needed to manage natural disaster risks and other consequences of climate change. To increase exports, attention must be paid to ports and other infrastructure directly related to trade.

SMEs and other firms should be consulted about priorities for new infrastructure, which must be aligned with national development planning. There is further scope to pursue public-private partnerships in infrastructure development, especially beyond road construction. This requires effective regulatory and management capacities, however.

Access to finance is a central concern for small firms as it directly affects their ability to innovate, become certified, develop skills, adopt new technologies and trade. Closer cooperation among businesses, regulators and the finance sector can lead to the development of products better tailored to meeting these goals.

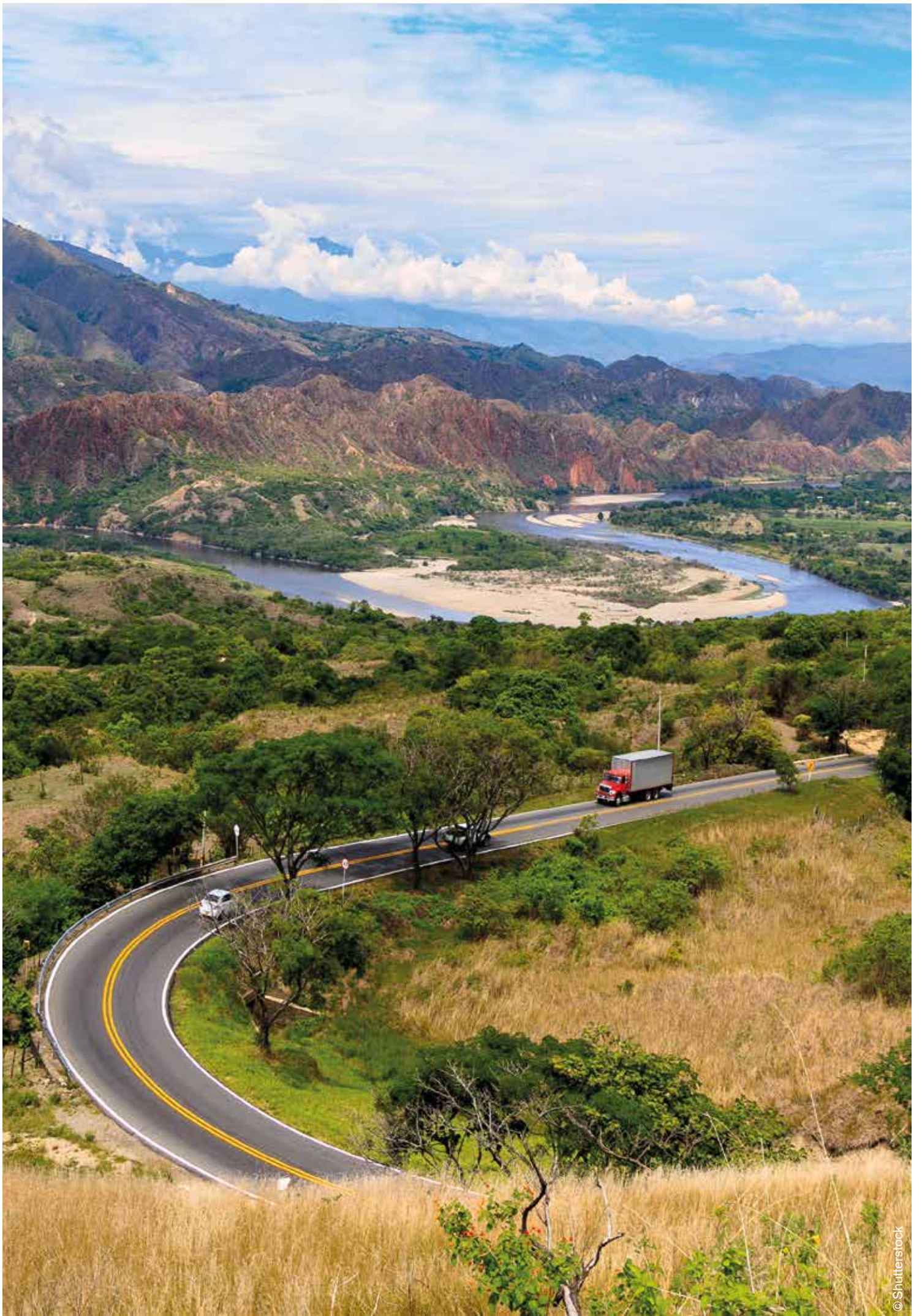
Many survey respondents expressed concerns about debt repayment and the need for new financing. This illustrates that access to equity financing must be more transparent and open. The regulatory sandbox launched in 2018 by Colombia's financial regulatory authority should encourage

relevant financial innovation – if the needs and concerns of SMEs can be addressed.

A lack of competition contributes to slow productivity growth, as a relatively small number of large businesses hold dominant market positions in Colombia. Furthermore, there are few new entrants to challenge these large firms.¹⁵¹ Less administrative red tape and a stronger oversight role for the Superintendencia de Industria y Comercio might boost competition in the country.

The limited diversification of SMEs' suppliers, as revealed in the survey, is a consequence of inadequate competition. Searching for other suppliers could become less expensive if BSOs offered information about alternative sources of inputs through business directories or other means.





Annex

About the SME Competitiveness Survey

About the SME Competitiveness Survey

Many factors influence the competitiveness of an economy in domestic and international markets. ITC provides a holistic view of enterprise competitiveness in the following definition:

Competitiveness is the demonstrated ability to design, produce and commercialize an offer that fully, uniquely and continuously fulfils the needs of targeted market segments, while connecting with and drawing resources from the business environment, and achieving a sustainable return on the resources employed.

The importance of competitiveness in driving firm survival, growth and trade makes it a key element in economic development. For this reason, ITC has developed an analytical framework to understand firm competitiveness and how it can be improved over time. It consists of three pillars that drive competitiveness, each subdivided into three themes.¹⁵²

The three pillars of competitiveness are compete, connect and change.

The capacity to compete assesses the ability of firms to deliver output of appropriate quantity, timeliness, quality and cost to meet current market expectations. This ability to meet short-term market requirements is influenced by firm-level operational characteristics, such as efficient inventory management, professional financial management and compliance with internationally recognized standards, as well as factors at the business ecosystem and national level, including electricity and transport infrastructure and services.

The capacity to connect assesses the ability of enterprises to use information, goods and services to build strong linkages with actors in their business ecosystem for successful firm operations and growth. At the firm level, this includes efforts to disseminate marketing information to current and potential buyers and build better relationships with suppliers and other value chain actors.

Collaborating with other firms in the sector, and linking with chambers of commerce and other business support organizations, forges connections within the business ecosystem to access market information, products and

services. Information and communications technology infrastructure and services support these connections and are influenced by national level factors.

The capacity to change assesses the ability of enterprises to adapt their business model in response to, or anticipation of, dynamic market forces. When companies can build a forward-looking business strategy and mobilize required funds and skills to implement it through innovation, they draw on their current competitiveness, market connections and their knowledge to improve their competitiveness today and in the future.

Access to finance, innovation networks and appropriately skilled workers in the business ecosystem are key ingredients in the implementation of these changes. At the national level, the political environment and governing structures with their approaches to education, innovation and research affect the incentives for firms to invest in change.

These three pillars of competitiveness can be examined at three levels of the economy.

At the **firm level**, their ability to manage resources adeptly influences their competitiveness.

At the **business ecosystem level**, factors that support firm competitiveness but are outside the firm – including the availability of skilled workers, infrastructure and business support organizations – are important.

The **national environment** includes the macroeconomic and governmental factors that establish the fundamentals for the functioning of markets in the economy.

The SME Competitiveness Grid bridges a gap in composite indicators that focus on macroeconomic determinants of competitiveness rather than local or microeconomic determinants. The importance of macroeconomic determinants is fully recognized, however, and is reflected in the 'national environment' level of the competitiveness grid. ITC's *SME Competitiveness Outlook 2015* provides a more detailed description of the SME Competitiveness Grid and the methodology behind it.

What are SMEs?

This report classifies firms by size based on the number of employees. Small and medium-sized enterprises are defined as companies with 200 employees or fewer. The term ‘SME’ thus includes micro-sized firms, understood as those with 10 or fewer employees. It also covers small companies, defined as those that have between 11 and 50 employees, and medium-sized ones with 51 to 200 employees.

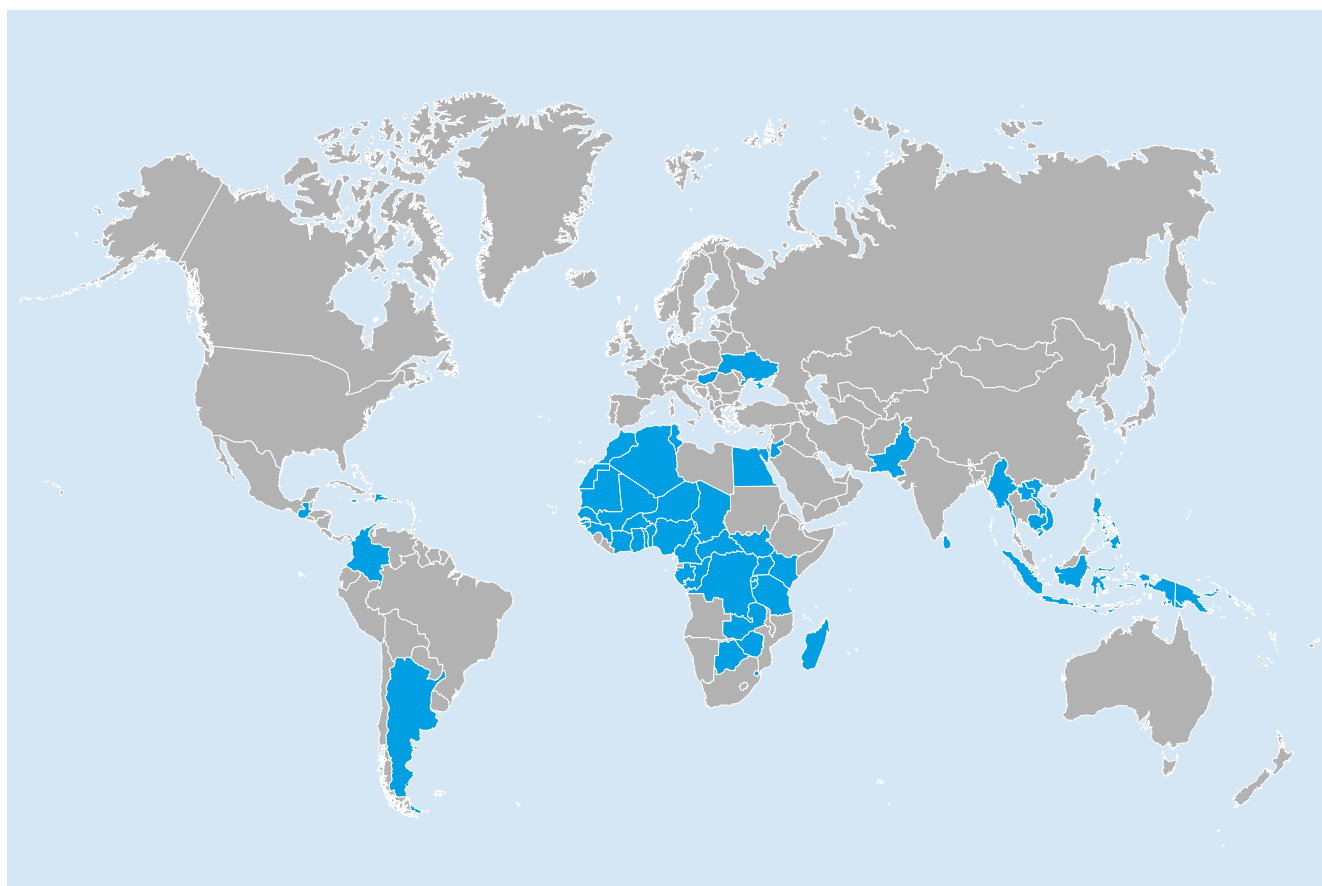
This classification of firms by number of employees is from Colombian Law 905 of 2004. It is, however, different from both the country’s latest 2019 legal definition and the ITC definition. The 2019 Colombian law classifies firms by size based on the annual income of the ordinary activity of a company, and its sector classification.¹⁵³ ITC defines SMEs as companies with fewer than 100 employees.¹⁵⁴

The classification used in this report, based on the 2004 Colombian law, represents a compromise that uses an employee-based metric as per ITC and is rooted in past Colombian practice.

How to measure the competitiveness of small firms?

Measuring all dimensions of competitiveness can be difficult. ITC created the SME Competitiveness Survey (SMECS) to allow countries to collect the data they need to measure the competitiveness of their enterprises. As of August 2022, more than 36,000 firms had been surveyed in 57 countries, including Argentina, Kenya and the Philippines.

Figure 16 SME Competitiveness Surveys across the world



Source: ITC.

SMECS are typically deployed in partnership with domestic trade and investment support institutions. ITC gives these institutions the software to gather and maintain an active database on micro, small and medium-sized enterprises, and helps their staff select samples and train interviewers.

SMECS helps governments and trade support institutions better understand the needs of their companies. Policymakers and trade support institutions can use the findings to identify and address bottlenecks to competitiveness; compare the competitiveness of enterprises based on size, sectors and location; and better match firms with potential investors and buyers.

How to understand the competitiveness of small firms?

This report uses the conceptual framework described above to evaluate Colombian SME Competitiveness Survey data and assess the competitive position of small and medium-sized companies in the country.

The report analyses data from three levels in the SME Competitiveness Grid: national, ecosystem and firm-level.

The national environment is examined based on a review of secondary data and related literature. Firm and ecosystem-level competitiveness are evaluated from firm-level survey data collected through SMECS.

The report is structured according to selected themes in the SME Competitiveness Grid. Themes were included in the report analysis depending on whether the data indicate that Colombia has a particular strength or weakness in that domain, or if previous research suggests the topic is important to the country's SMEs.

A disaggregated analysis of the SMECS dataset in Colombia yields additional insight on each theme. Subsamples from each sector are analysed to assess sector-specific challenges and strengths. Results vary by firm size, defined according to the number of employees. Women-led and youth-led firms are compared to their counterparts.

Where relevant, and notably in the final chapter, policy recommendations highlight opportunities to address issues that have been identified in the analysis of the data. The report presents highlights of the study of the data, given the limited space available. More analysis was conducted, and additional information can be extracted from the data.



Endnotes

- 1 (World Bank, 2021a)
- 2 (ILO, 2021; World Bank, 2021a)
- 3 (Placek, 2022a)
- 4 (Human Rights Watch, 2021)
- 5 (ITC, 2021b)
- 6 (Ministerio de Comercio, Industria y Turismo, 2022)
- 7 The firm size definitions are based on the specifications described in Decree 957 of 2019 and are thus based on economic sector and volume of sales. The numbers reflect the share of registered firms by size for the year 2020. (OECD, 2022b)
- 8 (Consejo Privado de Competitividad, 2021)
- 9 (OECD, 2022b)
- 10 (Martinez, 2015)
- 11 (ITC, 2021b)
- 12 International Trade Centre. *Research and data – SME Competitiveness Survey: SMECS*. <https://intracen.org/resources/data-and-analysis/research-and-data>
- 13 The National Trade Federation of Colombia is known locally as the Federación Nacional de Comerciantes Empresarios FENALCO.
- 14 Micro, small and medium-sized enterprises are defined as firms with fewer than 200 employees (see Annex).
- 15 (Consejo Nacional de Política Económica y Social, 2019; OECD, 2022b)
- 16 The service and manufacturing sectors represented 68% and 18% of GDP, respectively, in 2021 while the agriculture sector represented only 14.1%. (Oficina de Estudios Económicos, Ministerio de Comercio, Industria y Turismo. See <https://www.mincit.gov.co/getattachment/1c8db89b-efed-46ec-b2a1-56513399bd09/Colombia.aspx>)
- 17 Export Potential Map, see <https://exportpotential.intracen.org/en/?type=country&code=170>
- 18 Colombia's exports exceeded \$39 billion in 2019, according to the World Bank's World Integrated Trade Solution. See <https://wits.worldbank.org/CountryProfile/en/Country/COL/Year/2019/Summary>
- 19 (Consejo Privado de Competitividad, 2021)
- 20 (ITC, 2022)
- 21 (World Bank, 2021b)
- 22 (Crisis24, 2020)
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- 26 (DANE, 2022a)
- 27 (O. Medina, 2022)
- 28 DANE website. Empleo y desempleo: Información julio 2022. Departamento Administrativo Nacional de Estadística. Retrieved from <https://www.dane.gov.co/index.php/estadisticas-por-tema/mercado-laboral/empleo-y-desempleo>
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- 30 (Turkewitz, 2021)
- 31 (Bocanegra, 2021)
- 32 (Placek, 2022b)
- 33 (FAO, 2022)
- 34 (ITC, 2020, 2021b)
- 35 IndexMundi website. Coffee, Other Mild Arabicas Monthly Price – Colombian Peso per Kilogram. Retrieved from: <https://www.indexmundi.com/commodities/?commodity=other-mild-arabicas-coffee&months=60¤cy=cop>
- 36 (Ministerio de Agricultura y Desarrollo Rural, 2022)
- 37 (Baffes & Koh, 2022; FAO, 2022)
- 38 (M. A. Medina, 2021)
- 39 (Rueda, 2020)
- 40 (Ramírez Cañón, 2022)
- 41 (Dini & Zurita, 2021)
- 42 (Consejo Privado de Competitividad, 2021; World Bank, 2021b)
- 43 (OECD, 2020a)
- 44 (Consejo Privado de Competitividad, 2021; Romero, 2021)
- 45 Producers of all sizes could access the scheme initially. After it became clear that mainly agribusinesses and producers with medium-sized farms had received credit, however, large-scale producers were excluded. Source: (CIRAD, 2021)
- 46 (CIRAD, 2021; Ministerio de Agricultura y Desarrollo Rural, 2020)
- 47 (ITC, 2021b)
- 48 (OECD, 2022a)
- 49 (*Home | Logistics Performance Index*, n.d.)

- 50 (OECD, 2017a)
- 51 (Ulaga, 2003)
- 52 (OECD, 2019a)
- 53 Companies were considered to have delivered goods and services on time if they answered a percentage higher than 90 to the question, 'In the last year, what percentage of this company's goods or services were delivered on time?'
- 54 (*Integrating Climate Change Information and Adaptation in Project Development*, n.d.). Building climate-resilient infrastructure can involve a package of management measures (such as changing maintenance schedules and including adaptive management to account for uncertainty in the future) and structural measures (e.g. raising the height of bridges to account for sea level rise or using natural infrastructure such as protecting or enhancing natural drainage systems).
- 55 (Saad et al., 2021)
- 56 (Fainshmidt et al., 2017)
- 57 (*UIS Statistics*, n.d.)
- 58 Values for 'larger' firms were calculated as the average across small, medium-sized and large respondents.
- 59 (OECD, 2021b)
- 60 (Dejardin et al., 2022)
- 61 (ITC, 2021b)
- 62 See, for example, (Brandi, 2017)
- 63 (Sustainability (IDOS), n.d.)
- 64 (OECD, 2020c)
- 65 This difference is not statistically significant, possibly due to the small sample size of women-led exporters.
- 66 (Matthess & Kunkel, 2020)
- 67 (*Small Goes Digital*, 2021)
- 68 (ITC, 2021b)
- 69 (Erb, 2019)
- 70 (*Enhancing SMEs' Resilience through Digitalisation*, 2021)
- 71 (Chevalier, 2022)
- 72 (Cámara Colombiana de Comercio Electrónico et al., 2022)
- 73 (Agostini et al., 2015)
- 74 (Mandel, 2019)
- 75 (OECD, 2021a)
- 76 (Ma & Du, 2018)
- 77 (Liu-Thompkins, 2019)
- 78 (Choi et al., 2018)
- 79 (OECD, 2017b)
- 80 (OECD, 2019b)
- 81 (McKinsey, 2020a); (ITC, 2021b)
- 82 (ITC, 2021b)
- 83 ITC COVID-19 Business Impact Survey.
- 84 (*OECD Statistics: Trade in Value Added (TiVA): Principal Indicators*, n.d.).
- 85 (*OECD Statistics*, n.d.)
- 86 (ITC, 2021b)
- 87 (McKinsey, 2020b)
- 88 (Gordon, 2005)
- 89 (Bødal, 2021)
- 90 (ITC & Physikalisch-Technische Bundesanstalt, 2011)
- 91 (Asian Development Bank, 2021)
- 92 ITC News (16 April 2020). Blog: Resilience and recovery for good: Business support organizations critical actors for business survival. Retrieved from <https://intracen.org/news-and-events/news/blog-resilience-and-recovery-for-good-business-support-organizations-critical>
- 93 (Rosenfeld, 1997)
- 94 (Ministerio de Comercio, Industria y Turismo, n.d.)
- 95 (European Cluster Collaboration Platform, n.d.)
- 96 Red Cluster Colombia, see: <https://redclustercolombia.gov.co/>
- 97 ITC News (16 April 2020). Blog: Resilience and recovery for good: Business support organizations critical actors for business survival. Retrieved from <https://intracen.org/news-and-events/news/blog-resilience-and-recovery-for-good-business-support-organizations-critical>
- 98 (Dougherty-Choux et al., 2016)
- 99 See, for example: (Pere Plaza et al., n.d.), (Hallward-Driemeier, 2013)
- 100 (ITC, 2021b)
- 101 (ITC, 2015)
- 102 (Jansen & Lanz, 2013)
- 103 (Carlino et al., 2007)
- 104 (McKinsey, n.d.)
- 105 (Arrow, 1962; Bergin et al., 2019)
- 106 (ITC, 2021b)
- 107 (*World Development Indicators | DataBank*, n.d.)
- 108 (*Dynamic TVET Country Profiles*, n.d.)
- 109 (*PISA 2018 Results (Volume I)*, n.d.)
- 110 (*Shaping Skills and Lifelong Learning for the Future of Work*, 2021)
- 111 (Smeck et al., 2020)
- 112 (BIBB, 2021)
- 113 (*World Development Indicators | DataBank*, n.d.)

- 114 (DANE, 2022b)
- 115 (ILO, n.d.)
- 116 (OECD, 2020b)
- 117 (*The Impact of COVID-19 on SME Financing*, n.d.)
- 118 (Dini & Zurita, 2021)
- 119 (Kaya, 2022)
- 120 (Didier et al., 2021)
- 121 (OECD, 2020b)
- 122 (ITC, 2021a)
- 123 (Bhamra & Dani, 2011)
- 124 (Gutiérrez, 2017)
- 125 (Lawson & Samson, 2001)
- 126 (Massa & Tucci, 2013)
- 127 (*World Development Indicators* | *DataBank*, n.d.)
- 128 (Consejo Privado de Competitividad, 2021)
- 129 (Cordeiro & Vieira, 2012)
- 130 (UNCTAD, 2010)
- 131 (Bilgin et al., 2012)
- 132 (Mayer et al., 2011)
- 133 (Rollo et al., 2021)
- 134 (ITC, 2021b)
- 135 (Borino et al., 2021)
- 136 (ITC, 2021b)
- 137 (Boshell et al., 2018); (Ceballos-Sierra and Dall'Erba, 2021)
- 138 (OECD, 2011)
- 139 (ITC, 2021b)
- 140 (ITC, 2021b)
- 141 (ITC, 2021b)
- 142 (ITC, 2021b)
- 143 (Ghisetti et al., 2017)
- 144 (Etzkowitz & Loet Leydesdorff, 1995)
- 145 (*World Development Indicators* | *DataBank*, n.d.)
- 146 ProColombia is the government agency in charge of promoting international tourism, foreign direct investment, non-traditional exports and the country brand of Colombia.
- 147 (*World Development Indicators* | *DataBank*, n.d.)
- 148 (OECD, 2019c)
- 149 (Trotta et al., 2021)
- 150 (OECD, n.d.)
- 151 (OECD, 2022a)
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