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Promoting Cross-border E-commerce in the Southern Cone

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PROMOTING CROSS-BORDER E-COMMERCE IN THE SOUTHERN CONE

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Promoting cross-border e-commerce in the Southern Cone

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Abstract

E-commerce has boomed around the world, creating new opportunities for firms in the Southern Cone region to reach new customers, diversify their export markets, and grow their sales. E-commerce adoption is also boosting the region's logistics, payments, and financial services providers that service online sellers. Regional governments have also worked to promote e-commerce. This report takes stock of the state of e-commerce in the Southern Cone, leveraging data on e-commerce adoption and transactions; a survey of how firms in Argentina, Brazil, Chile, Paraguay, and Uruguay are using e-commerce and what challenges they face to growing their online sales; and policy data on the regional governments' adoption of policies conducive to e-commerce. The report also offers policy recommendations for the region to support firms in growing their cross-border online sales.

1 · Nextrade Group.

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1. ACRONYMS

AI	Artificial Intelligence
APEC	Asia-Pacific Economic Cooperation
B2B	Business to Business
B2C	Business to Consumer
C2C	Consumer to Consumer
CATI	Computer-assisted telephone interviews
CBPR	Cross-Border Privacy Rules
CDC	Consumer Protection Code
CORFO	Corporación de Fomento de la Producción for its acronym in Spanish
CPTPP	Comprehensive and Progressive Agreement for Trans-Pacific Partnership
CRM	Customer Relationship Managemen
DEPA	Digital Economic Partnership Agreement
ERP	Enterprise Resource Planning
ESCAP	Economic and Social Commission for Asia and the Pacific
EU	European Union
GDP	Gross Domestic Product
GDPR	General Data Protection Regulation (GDPR)
IADB	Interamerican Development Bank
OECD	Organization for Economic Cooperation and Development
R&D	Research and Development
SMEs	Small and Medium Enterprises
U.S.	United States
UNCTAD	United Nations Conference on Trade and Development
UPU	Universal Postal Union
USAID	U.S. Agency for International Development

2. INTRODUCTION

E-commerce – the sale and purchase of goods and services online – is booming in the Southern Cone economies and their export markets, creating new opportunities for the region's firms to grow and diversify their exports. The growth of e-commerce is also boosting the growth in Southern Cone logistics, payments, and financial services sectors.

Southern Cone governments have long been committed to e-commerce development to enable trade, for example by creating capacity-building and funding initiatives to enable businesses to engage in cross-border e-commerce and digital transformation. The regional governments have also collaborated to enable intra-regional e-commerce. In 2021, the Southern Common Market (Mercosur), consisting of Argentina, Brazil, Paraguay, and Uruguay, issued an e-commerce agreement to allow cross-border transfers of data, ban duties on electronic transmissions, and protect the personal data of e-commerce users, among other commitments.[2]

The purpose of this report is to assess the growth and relevance of cross-border e-commerce in the Southern Cone (especially Argentina, Brazil, Chile, Paraguay, and Uruguay), and identify policies and programs to promote e-commerce further. Specifically, this report uses trade, business survey, and policy data to:

- Review Southern Cone economies' intra- and extra-regional e-commerce in goods and services and how the region compares to other regions in the relevance of cross-border e-commerce;

- Assess through a business survey and case studies how different types of firms are digitizing and using e-commerce to engage in trade and enter regional and global value chains; and

- Analyze the challenges faced by businesses to engage in cross-border e-commerce and discuss policies to further promote regional firms' cross-border e-commerce.

The following section discusses challenges of measuring e-commerce. Section three looks at the growth of e-commerce in Southern Cone over the past five years and going to 2025. Section four focuses on the survey data, on how Southern Cone firms use e-commerce to engage in trade, while section five assesses the challenges firms face to engage in e-commerce. Section six discusses

2 · O'Farrell Mairal, M. (2021). "Nuevo Acuerdo de Comercio Electrónico del Mercosur," Marval. Retrieved from: https://www.marval.com/publicacion/nuevo-acuerdo-de-comercio-electronico-del-mercosur-13969.

the state of Southern Cone economies' policies, programs, and practices to enable e-commerce. Section seven concludes with policy and programmatic recommendations for accelerating Southern Cone firms' use of e-commerce and their online sales growth.

3. THE CHALLENGE OF MEASURING E-COMMERCE

There are various definitions for "e-commerce." In this paper, we follow internationally accepted definitions set out by the OECD in the mid-2000s and subsequently summarized into the following definition adopted in 2009 (OECD, 2011, p. 72):

> · *An e-commerce transaction is the sale or purchase of goods or services, conducted over computer networks by methods specifically designed for the purpose of receiving or placing of orders.*[3]
>
> · *The goods or services are ordered by those methods, but the payment and the ultimate delivery of the goods or services do not have to be conducted online. An e-commerce transaction can be between enterprises, households, individuals, Governments, and other public or private organizations.*

There are various types of e-commerce transactions — completely digital ones where the product or service is discovered online and the sale and payment are also made digitally online, and hybrid models where the product or service is marketed and discovered online but the transaction is finalized by phone or messaging app and payment with a cheque or cash. This paper considers all these forms of e-commerce given that Southern Cone firms engage in both, often as a journey – where they start out with hybrid commerce and gradually engage in more fully digital transactions.

Measuring e-commerce is challenging because, in many countries, there are no official statistics. Following UNCTAD (2023), there are two approaches to gathering data on the value of e-commerce[4]:

3 · The OECD clarifies that the definition includes orders made through web pages, extranet, or electronic data interchange (EDI5) but excludes orders placed by telephone, fax, or manually typed email. The UNCTAD Manual for the Production of Statistics on E-commerce and the Digital Economy (UNCTAD, 2021a) also relies on the OECD but recommends collecting data only on orders received or placed over the Internet, including by email.
4 · UNCTAD (2023) *Measuring the value of E-commerce.* United Nations, Geneva. Retrieved from https://unctad.org/publication/measuring-value-e-commerce.

· **Direct approach.** Businesses are asked to report a monetary value for their e-commerce sales.
· **Share approach.** Involves asking respondents to provide a monetary value for a relevant total, such as annual turnover or sales revenue, and also to give the percentage share of that total arising from e-commerce sales.

According to UNCTAD (2023), only 22 countries in the world systematically measure e-commerce using one of the two approaches (or a combination of them). The majority of those 22 countries are developed, and only one is a Latin American country (Mexico). Most countries have yet to produce statistics on e-commerce use, and there are no consistent, publicly available global data on e-commerce flows within or across countries.

Further, while cross-border e-commerce in goods is part of countries' cross-border trade data, customs declarations do not capture how the sale was made. Perhaps the best proxies for cross-border e-commerce in goods might be data that are Universal Parcel Union (UPU), parcel shipments, and shipment data from express shippers. These, however, do not necessarily capture B2B (Business to business) e-commerce flows. In addition, there are some examples of alternative data collection to characterize the evolution and patterns of international e-commerce for some countries.[5]

There is comprehensive and high-quality data on e-commerce in services, where researchers have developed a means to capture the share of "digitally deliverable" services trade (consisting, for example telecommunications, business, and professional services that can be sold and provided digitally).

Overall, however, disaggregated data on sales made online within and across countries remain limited.

Some private providers like Statista have however made efforts to bring comparative commerce use and flow data together. Given the lack of official e-commerce data for Southern Cone countries, in this study, we use Statista data.[6,7]

5 · Carballo, Salas Santa, and Volpe Martincus (2020) "What Happened to Cross-Border E-Commerce Under the Pandemic?" IDB (https://blogs.iadb.org/integration-trade/en/what-happened-to-cross-border-e-commerce-under-the-pandemic/) and Carballo, Velasquez, and Volpe Martincus. (2022) "A Year and a Half into the Pandemic: How Did Cross-Border E-Commerce Evolve?" IDB (https://blogs.iadb.org/integration-trade/en/a-year-and-a-half-into-the-pandemic-how-did-cross-border-e-commerce-evolve/) use data on all credit and debit card purchases made abroad in the framework of Uruguay's franchise regime to characterize the evolution and patterns of international e-commerce in the country.
6 · We also use data from Crunchbase, a private company that provides business information about private and public companies and its content includes the name, industry, sub-sectors, age, size, funding, city, founders, etc. of the companies.
7 · Herrera (2023) estimates e-commerce for Paraguay combining data from the Central Bank with data from a private company that manages electronic payments. However, in this study we do not use those estimates since they are not comparable with Statista estimates and would prevent comparisons across countries. See Herrera Ingrid. *El comercio electrónico en Paraguay: avances, proyecciones y desafíos*. Washington DC: BID, 2023. Retrieved from: https://publications.iadb.org/es/el-comercio-electronico-en-paraguay-avances-proyecciones-y-desafios.

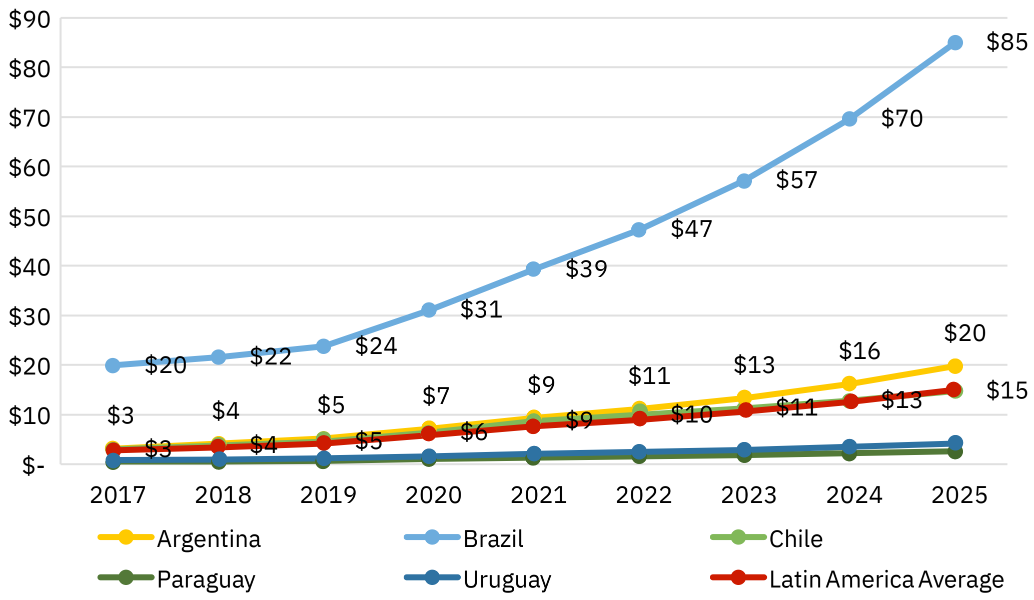
The figures in this data are based on the sale of physical goods (B2C- business to consumer-) via a digital channel to a private end consumer. This encompasses purchases via desktop computers (including notebooks and laptops) as well as purchases via mobile devices (e.g., smartphones and tablets).[8] All monetary figures refer to the annual gross revenue and do not factor in shipping costs. Statista determines market sizes by a combined top-down and bottom-up approach, based on a specific rationale for each market segment. As a basis for evaluating markets, they use annual financial reports of the market-leading companies and industry associations, third-party studies and reports, survey results from their primary research (e.g., Statista Global Consumer Survey), data on shopping behavior (e.g., Google Trends, Alibaba Trends), and performance factors (e.g., user penetration, price/product). They combine these data with country-specific data such as gross domestic product (GDP), consumer spending, internet penetration, and population to estimate the market size for each country. In the forecasts, they select the forecasting technique based on the behavior of the market. For example, the S-curve function and exponential trend smoothing are well suited for forecasting digital products and services due to the non-linear growth of technology adoption. The main drivers are GDP per capita, consumer spending per capita, internet penetration, and population.

4. RISE OF E-COMMERCE AND E-COMMERCE ECOSYSTEM IN SOUTHERN CONE COUNTRIES

Southern Cone economies' e-commerce markets are growing rapidly in the wake of Covid-19, and above the global average (figure 1-3). According to Statista's estimates of online sales of goods to consumers ordering on diverse devices, Brazil remains the region's largest e-commerce market, with $47 billion in online sales of goods, or 65 percent of the total, in 2022. Consumers are also spending more online; per capita spending is highest in Chile and Uruguay at $484 and $704 per year, respectively. It is important to note that these are merely estimates from one source; the benefit of Statista's data is that it is globally comparative and thus used here, given the lack of comparative official statistics of e-commerce.

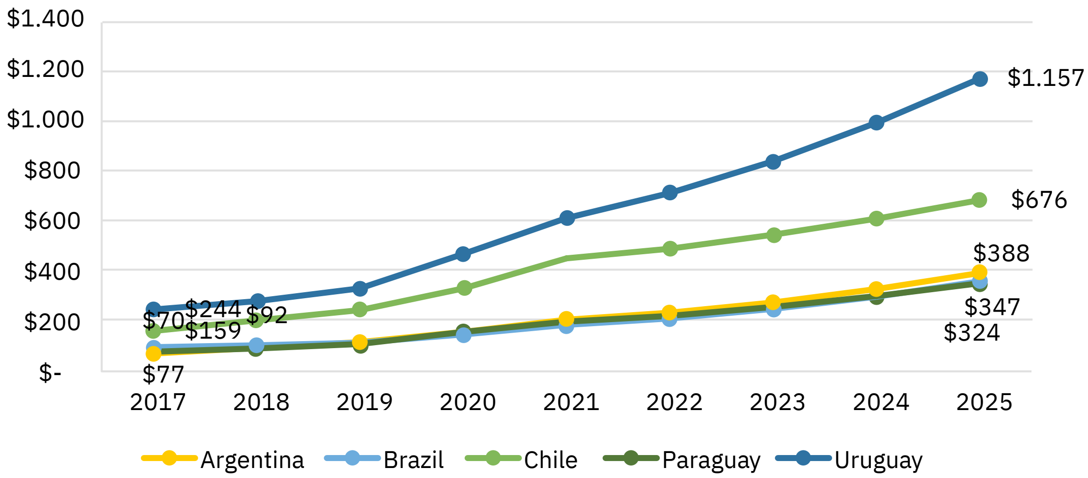
8 · The following are not included in the e-commerce data from Statista: digitally distributed services (see instead: eServices), digital media downloads or streams, digitally distributed goods in B2B markets, and the digital purchase or resale of used, defective, or repaired goods (re-commerce and C2C).

Figure 1 · E-commerce revenue (in billions)



Source: Authors on the bases of Statista.

Figure 2 · E-commerce revenue per capita (goods only)

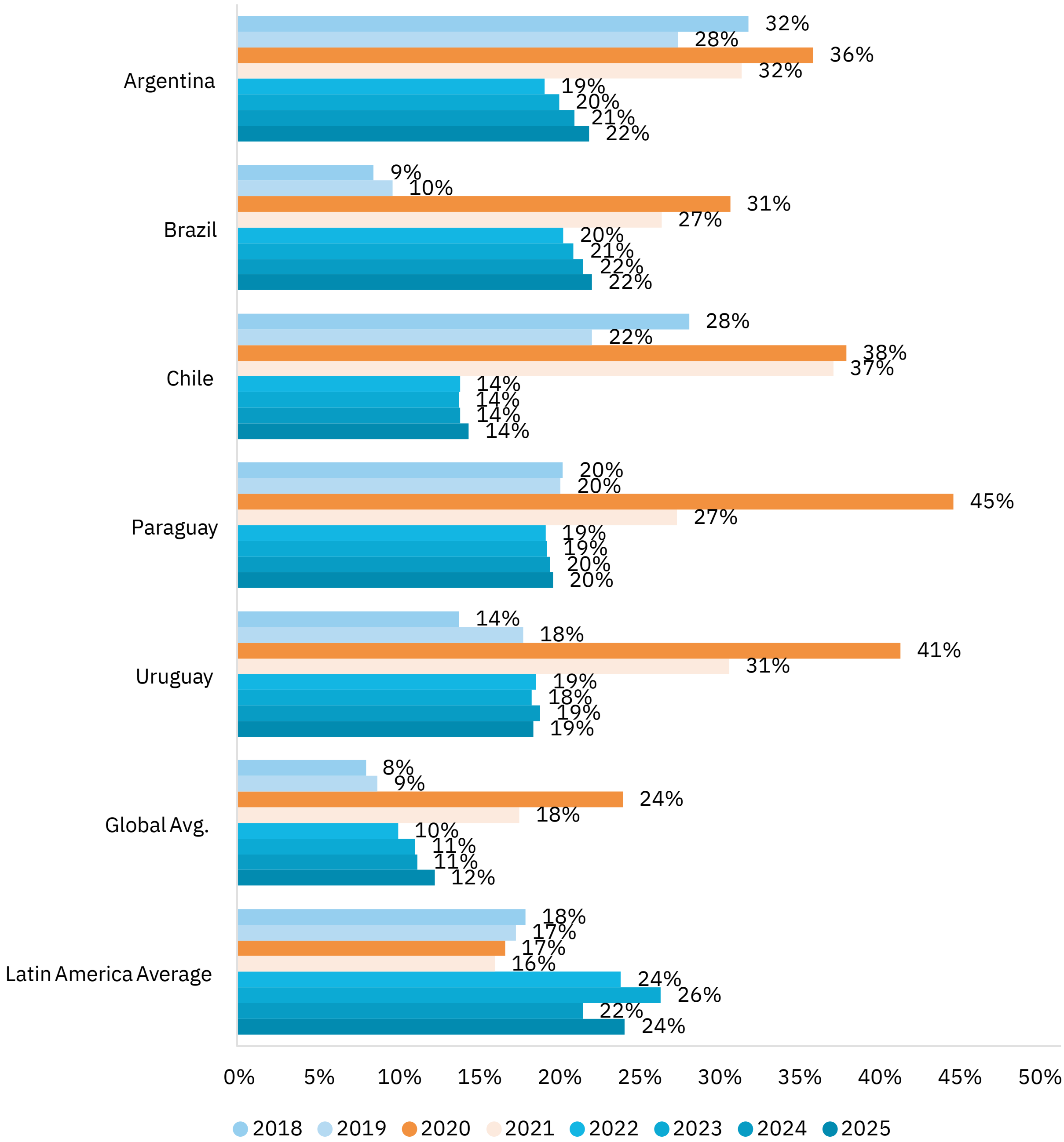


Source: Authors on the basis of Statista.

Overall, e-commerce sales in the region grew on average by 20 percent in 2019 and accelerated to 38 percent in 2020 and 31 percent in 2021 during COVID-19 (figure 3). Retail online transactions in goods are still, however, rather limited in the region compared to the world's most vibrant e-commerce markets, China and

South Korea, where e-commerce retail on goods is 7 and 8 percent of all retail, respectively. This suggests that e-commerce still has significant growth potential in the region. According to estimates by Statista, e-commerce transactions are poised to keep growing at double digits in the next three years, much above the region's economic growth.

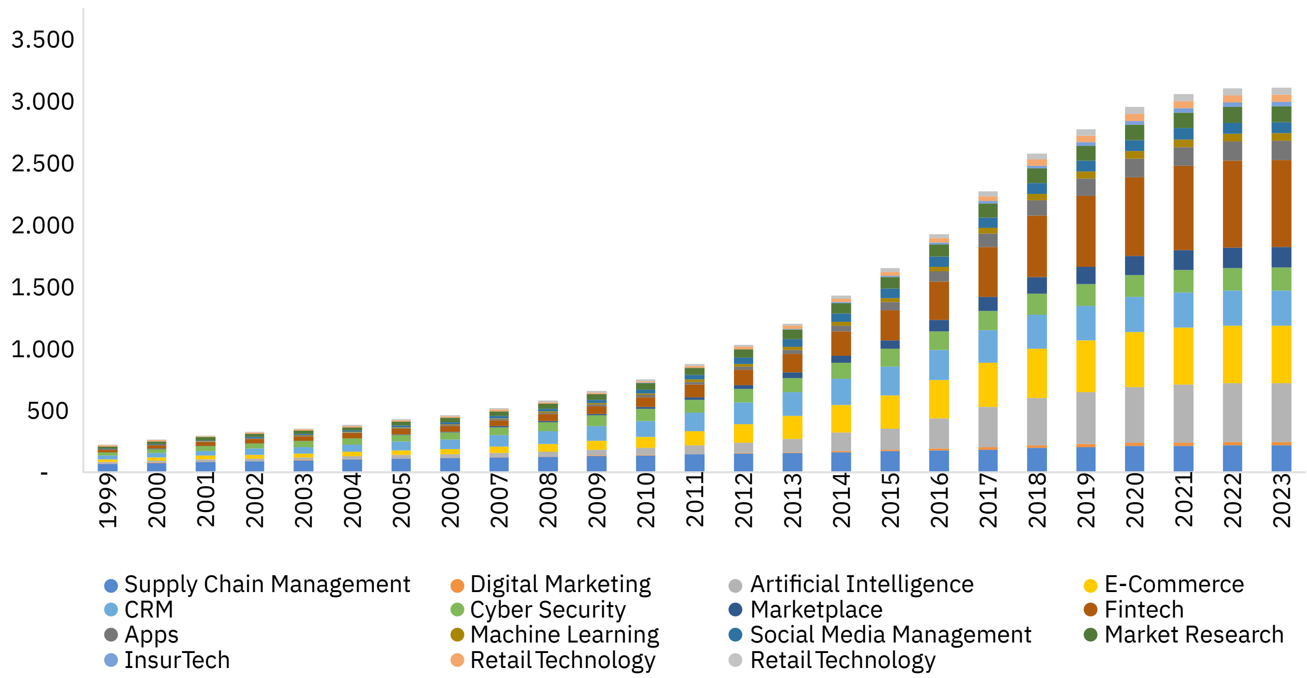
Figure 3 · E-commerce revenue growth year on year, by country



Source: Authors on the basis of Statista.

The growing use of e-commerce in the region has been propelled by a vibrant e-commerce ecosystem, with e-commerce marketplaces, various digital service providers, and logistics, payments, and financial services firms proliferating especially in the past decade (figure 4, Annex I). Also funding in the regional ecosystem has expanded, reaching to $9.7 billion in 2015-19, while average per-firm funding volumes have decreased, indicating a move from large private equity transactions and mergers and acquisitions to smaller startup fundings and creation of self-funded startups.

Figure 4 · E-commerce Ecosystem in the Southern Cone by sector (Number of businesses created, cumulative)



Source: Authors on the basis of Crunchbase.

How has e-commerce impacted the region's trade?

There is no comprehensive data on Southern Cone economies' cross-border e-commerce in goods. Survey data in the next section will however provide an indication of the importance of cross-border e-commerce for various firm segments. However, data on cross-border flows of digitally deliverable services (or B2B e-commerce in services) suggests that the region's digitally deliverable services trade has been robust, with exports growing at an annual average of 6.1 percent and imports at 8.2 percent in 2007–2021, outpacing the growth of total commercial services trade in all regional economies except Paraguay (figures 5-6).[9]

By now, digitally deliverable services exports make up more than 60 percent of all commercial service exports in Brazil, Argentina, and Uruguay, holding up better than overall commercial services exports during Covid (figure 7). In terms of absolute volumes, Brazil is the Southern Cone's leading digital services exporter, making up 61 percent of the total in 2021, while Uruguay has had the fastest growth in digitally deliverable services, with a five-fold increase in volumes between 2007 and 2021. Professional and technical services and telecommunications and computer services exports have grown particularly significantly, reflecting demand for knowledge-intensive businesses services by foreign manufacturing, agricultural, and services industries.[10]

Regional digital service providers have also become more integrated into regional and global manufacturing and services value chains.[11] Still, however, most digital services produced and sold in Southern Cone countries are destined for domestic use in such industries as manufacturing or other services. The largest volumes of digitally deliverable services that are sold to foreign markets are primarily professional and technical services destined for North American and European manufacturing sectors. Imports exceed exports and each Southern Cone country has a trade deficit in digital services. The use of foreign digital services is in general positive for the region: anecdotal and econometric evidence suggest that the use of high value-adding imported services fuels firms' productivity and export competitiveness.

9 · See Interamerican Development Bank (IADB) studies on technology and trade; for example, Estevadeordal, Antoni; Rodríguez Chatruc, Marisol; Volpe Martincus, Christian, "New Technologies and Trade: New Determinants, Modalities, and Varieties," February 2020 https://publications.iadb.org/en/new-technologies-and-trade-new-determinants-modalities-and-varieties

10 · In using the term "digitally deliverable services," we follow the US Bureau of Economic Analysis's definition of five categories of services: business, professional and technical services such as computers and information services, legal, architectural, consulting and advertising services; royalties and license fees paid for the use of intellectual property; financial services such as online banking and investment activities such as market research and buying and selling shares; insurance services such as digital transmission of premiums and payments for claims online; and telecommunications services including video conferences, email and internet access services.

11 · Suominen, K. (2021). *Bolstering East Asian-Latin American value chains through digitally deliverable services.* Economic and Social Commission for Asia and the Pacific (ESCAP). Retrieved from: https://www.fealac.org/filedown.do?idx=465ac1816b9853a6acdec8ef23fe7f4d

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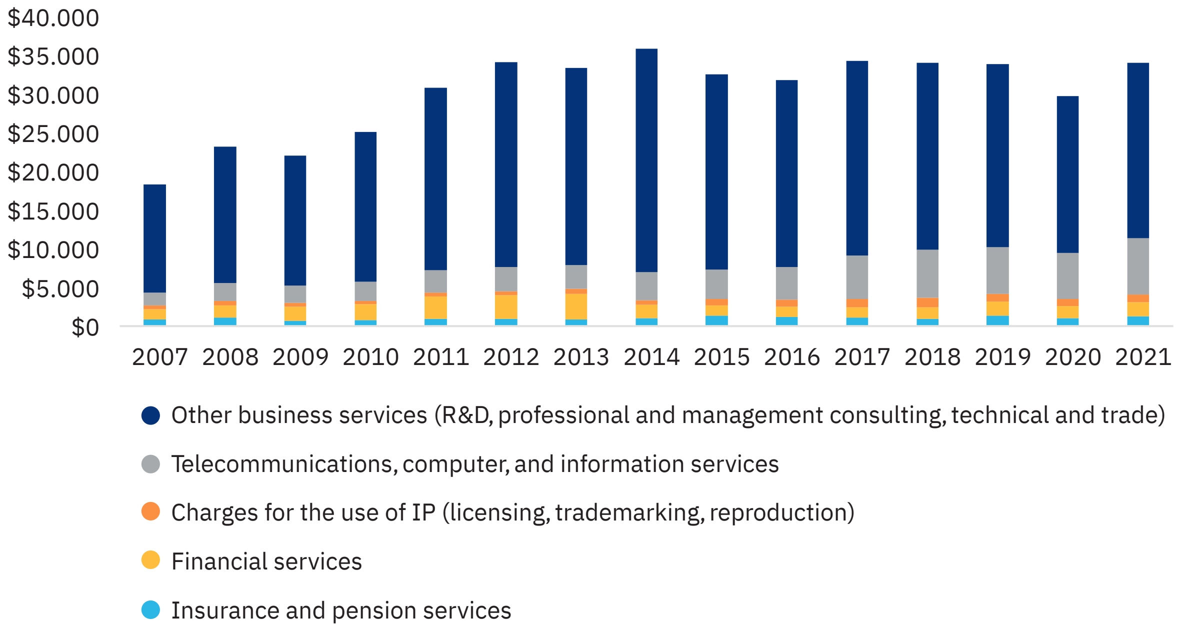
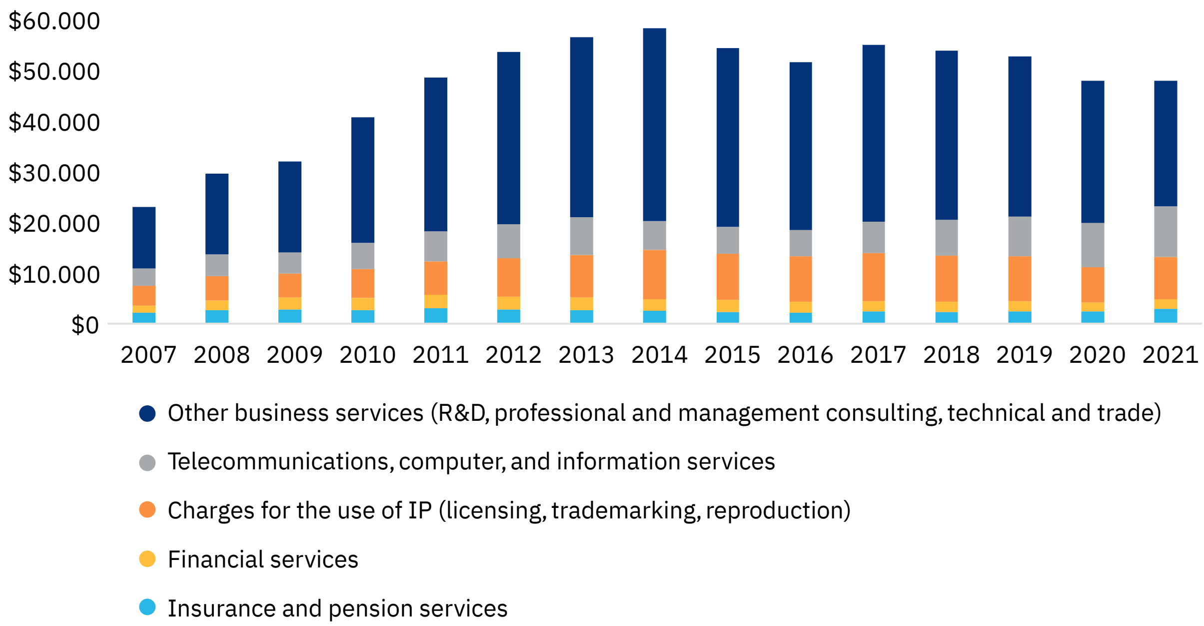
Figure 5 · Southern Cone digitally deliverable services exports (in millions USD)



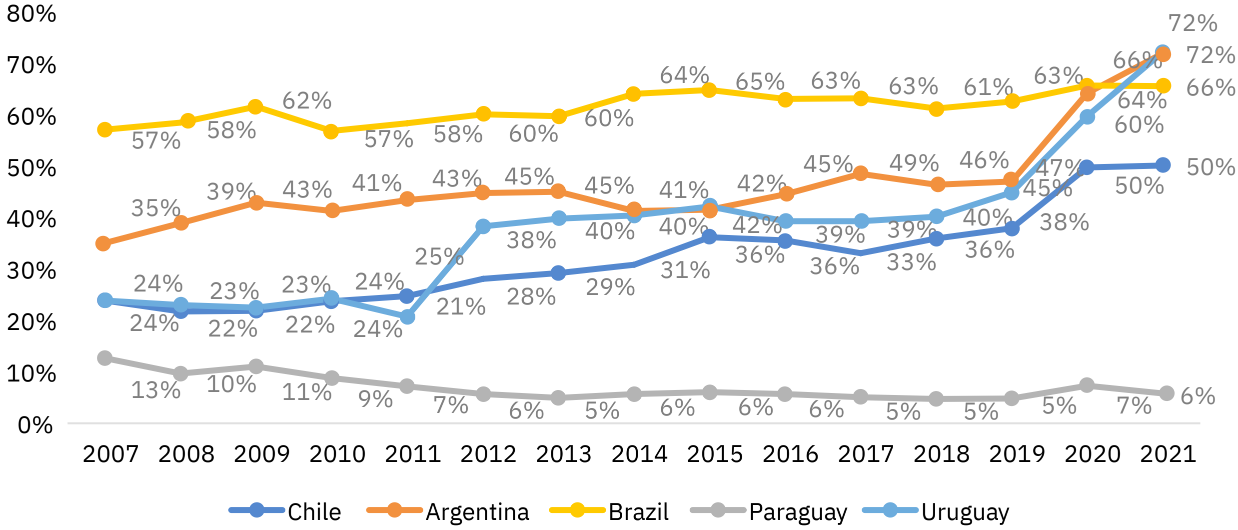
Source: Authors on the basis of World Trade Organization data.

Figure 6 · Southern Cone digitally deliverable services imports (in millions USD)



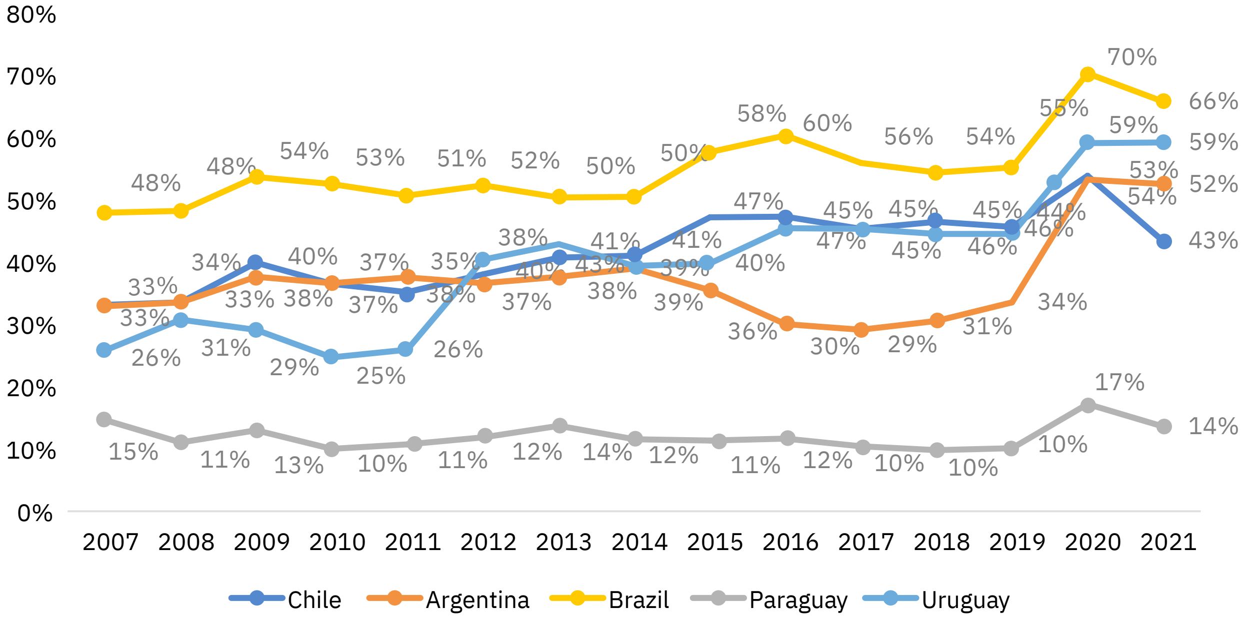
Source: Authors on the basis of World Trade Organization data.

Figure 7 · Southern Cone digitally deliverable services exports as share of all commercial services exports in 2007-21



Source: Authors on the basis of World Trade Organization data.

Figure 8 · Southern Cone digitally deliverable services imports as share of all commercial services exports in 2007-21



Source: Authors on the basis of World Trade Organization data.

5. HOW SOUTHERN CONE FIRMS USE AND BENEFIT FROM E-COMMERCE FOR TRADE

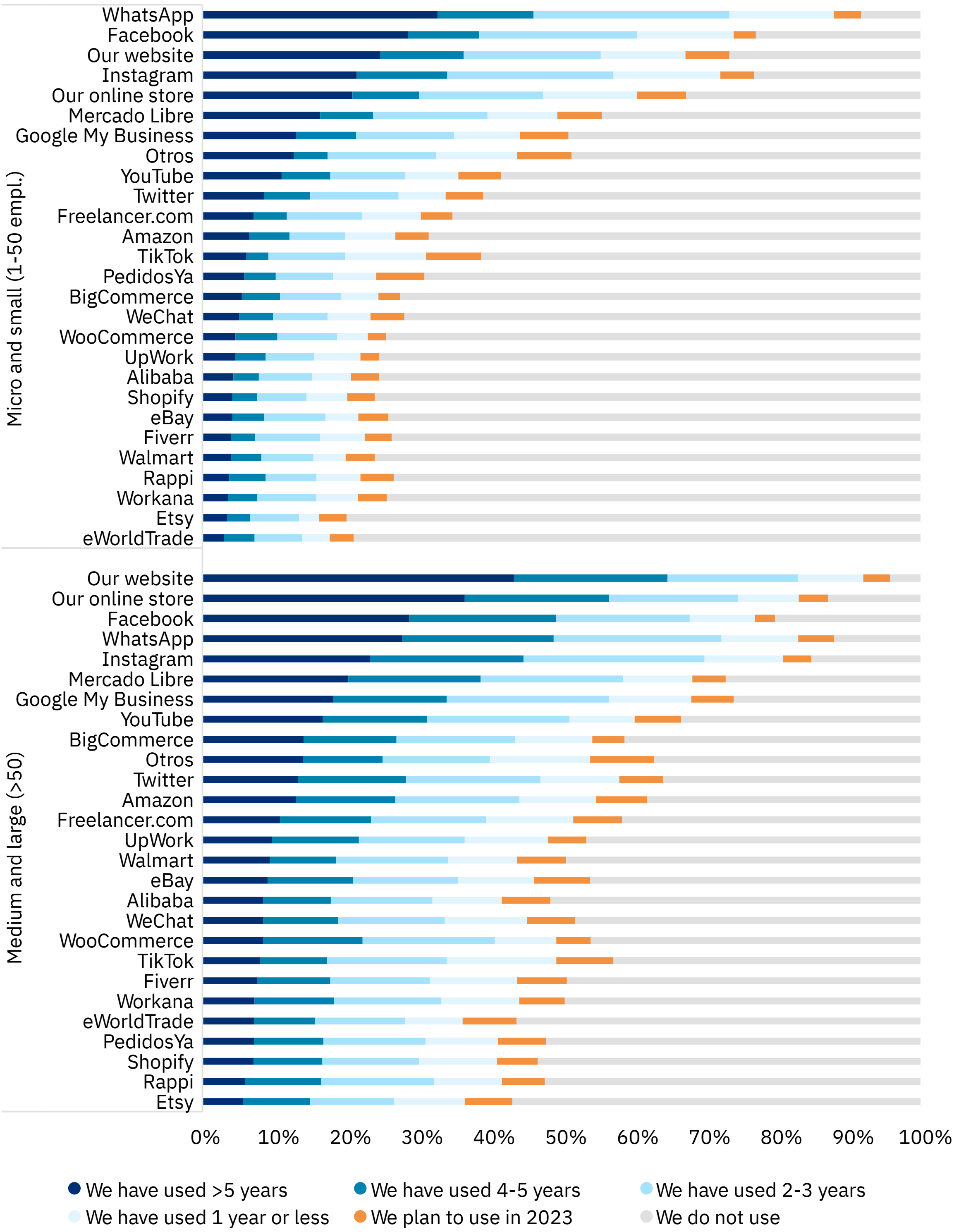
Southern Cone economies have had significant growth in e-commerce in the past three years, both in their domestic economies and in trade in services. Behind these trends are hundreds of thousands of regional firms that have been digitizing their sales channels and operations, in order to increase their sales. Where then are the regional firms in their e-commerce journeys, and to what extent are they able to leverage e-commerce to engage in trade? And what challenges do regional firms face to engage in e-commerce and export using digital channels?

This report explores these questions through an online survey with 1,978 firms that was fielded on 6 February-16 March 2023 (see appendix II for the methodology). Some 40 percent of the firms are in agricultural, manufacturing, wholesale and retail sectors, 11 percent are in construction, and the rest in various service sectors; over one-half are micro and small enterprises with up to 50 employees (see descriptive data in appendix II). Altogether 75 percent sell to individual consumers, 50 percent to business, and 14 percent to governments; 29 percent sell to both individual consumers and businesses.

The first striking finding in the data is the remarkable wave of adoption of digital sales channels among the regional businesses over the past few years. Among both micro and small and medium and large firms, the usage of regional online marketplaces such as Mercado Libre and global marketplaces such as Amazon, Alibaba, Freelancer, and eBay has doubled in the past three years (figure 9). In addition, even if starting from a high base, the use of social media platforms such as Facebook and Instagram as well as messaging apps, first and foremost WhatsApp, has also increased by about 20-30 percent, depending on firm size, in the past three years. Medium and large firms are somewhat more advanced in the use of marketplaces that enable them to transact with buyers around the world: approximately 40-45 percent of medium and large businesses use marketplaces to sell their goods and services, as do 15-20 percent of micro and small firms.

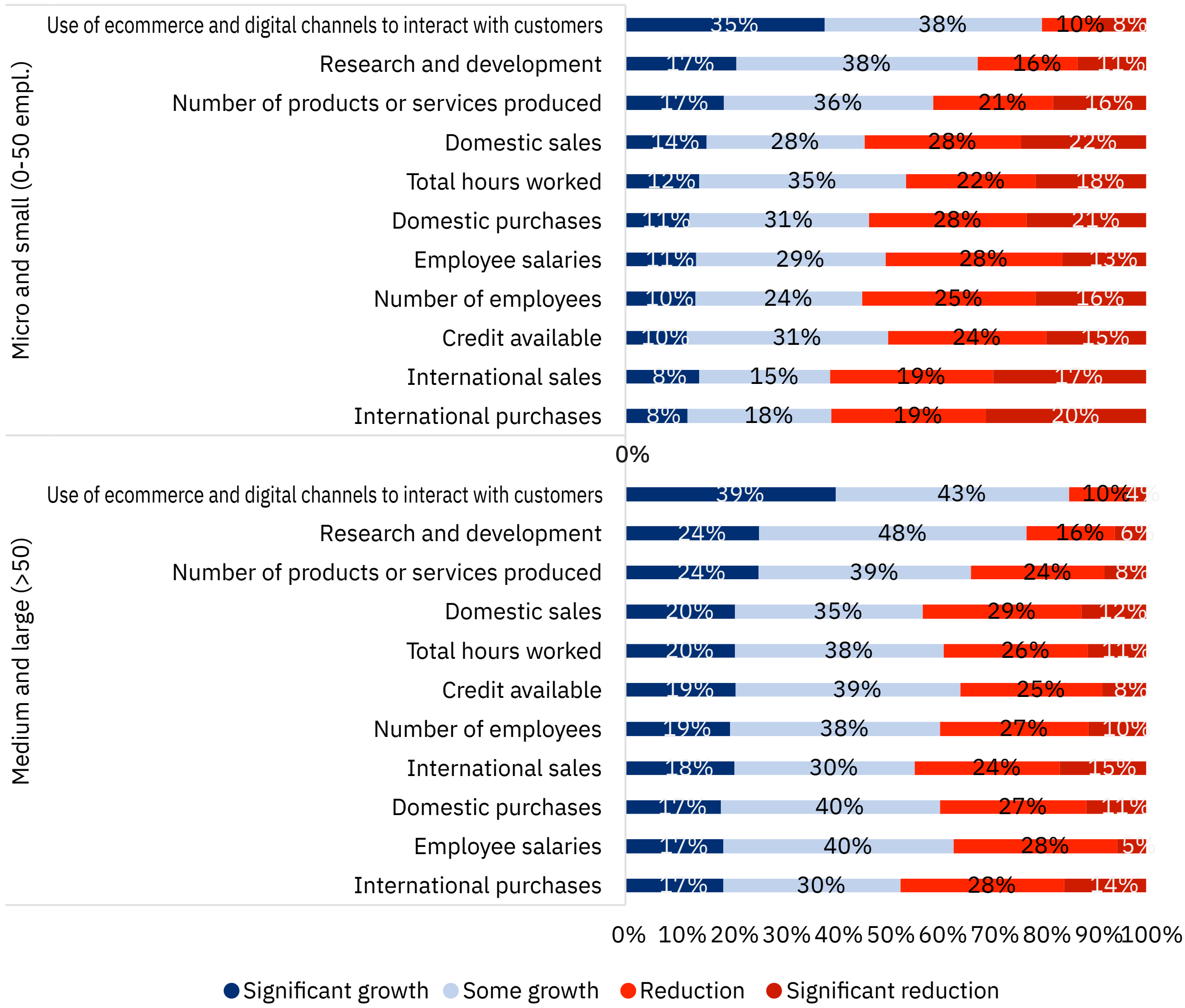
E-commerce use has been a key growth lever for the regional firms during Covid-19, with 73 percent of micro and small enterprises and 82 percent of medium and large enterprises highlighting significant growth or some growth in e-commerce use in 2020-2021, compared to 2019 (figure 10). E-commerce use trumps the many other efforts businesses have made during Covid-19, such as increasing research and development activity and diversifying their offerings.

Figure 9 · Adoption of selected digital marketing and sales channels in the past five years



Source: Authors' survey.

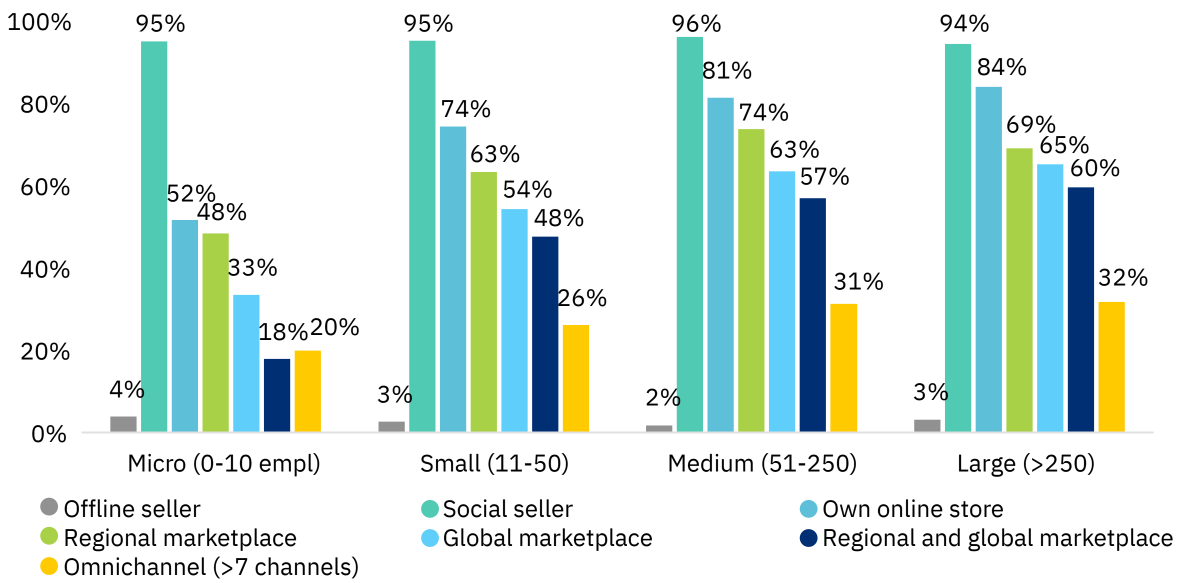
Figure 10 · Firms' response to question, what happened to you during Covid in 2020-21, compared to 2019?



Source: Authors' survey.

By 2023, firms' usage of one type or another social channel is nearly universal across firm size categories among micro small medium and large enterprises (figure 11). Most businesses in all firm size categories also report having an online store, and the majority of small, medium and large enterprises also report selling on one or several regional marketplaces. In addition, 18 percent of microenterprises and 60 percent of large businesses report leveraging *both* regional and global marketplaces to sell their goods and services. Particularly larger firms are so-called omnichannel sellers that leverage multiple digital channels to interact and transact with their customers. Recent research suggest that a larger number of channels enhances firms' sales prospects, by enabling customers to review a new vendor from multiple channels and to have multiple possible purchase journeys.[12]

Figure 11 · Southern Cone firms' use of online channels in 2023, by firm size

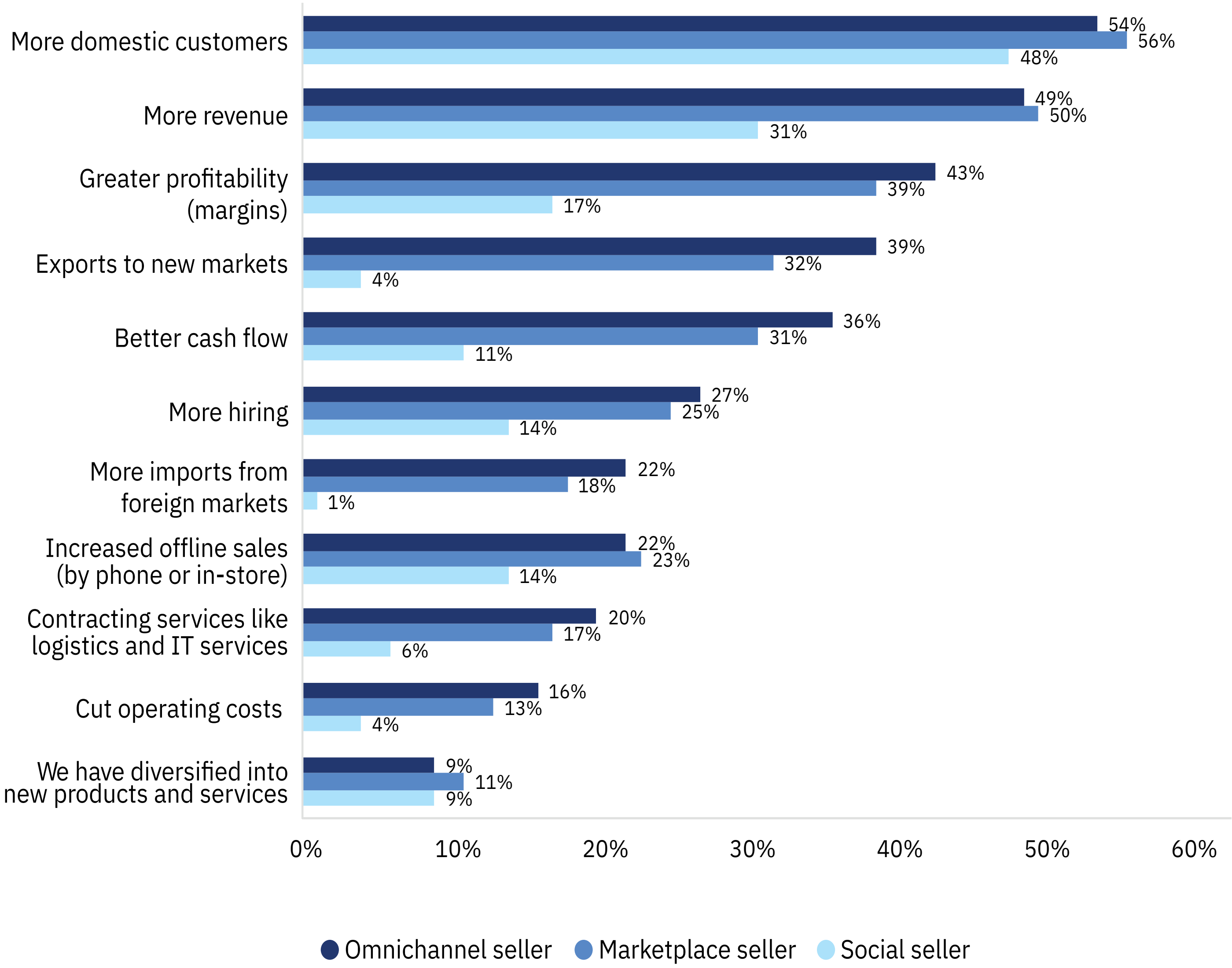


Source: Authors' survey.

E-commerce adoption is benefiting regional firms. Marketplace sellers and sellers with their own online stores report particularly strong gains from e-commerce in terms of new clients, revenues, and export opportunities (figure 12). Marketplace sellers also appear to create backward linkages to suppliers in their economies and benefit their communities. About a fifth of marketplace sellers have contracted new services in their domestic markets, and a third have increased hiring as a result of selling online. Social sellers are significantly less likely to attain these gains; however, they too report having acquired new customers, improved customer experience, and expanded sales to existing customers as a result of using online channels.

12 · Arora A., Harrison L., Lun Plotkin, C., Magni, M., and Stanley, J. (2022). "The new B2B growth equation". McKinsey and Company. Retrieved from: https://www.mckinsey.com/capabilities/growth-marketing-and-sales/our-insights/the-new-b2b-growth-equation

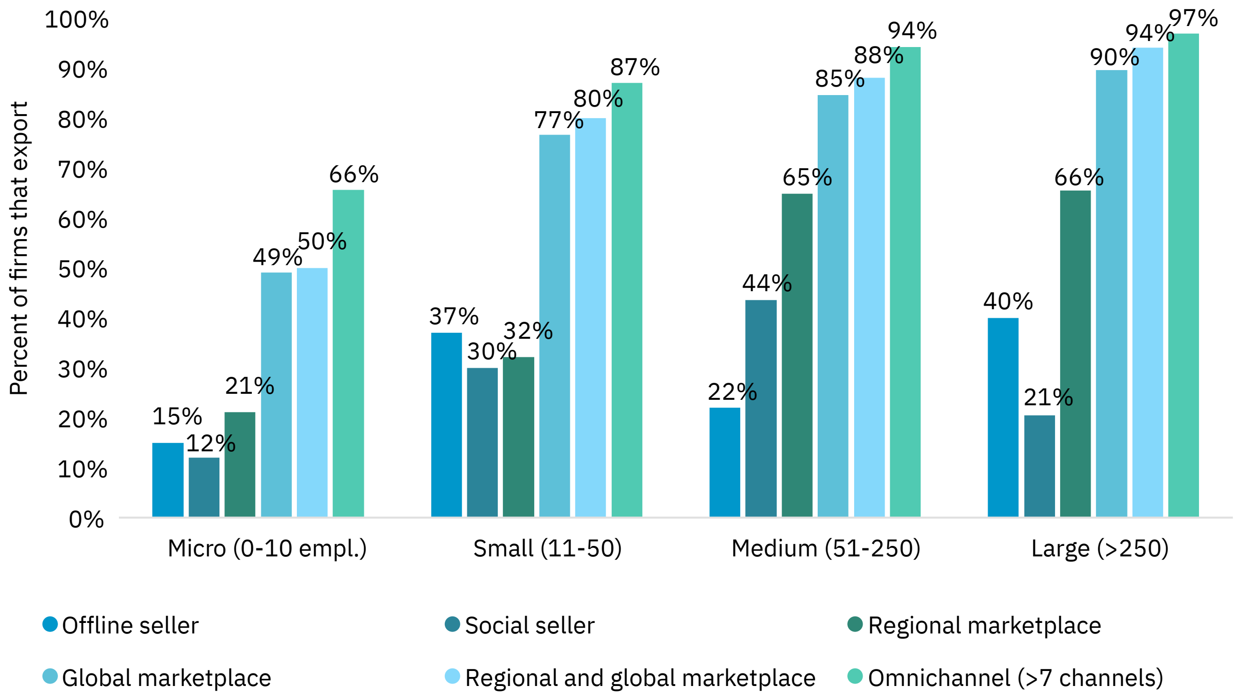
Figure 12 · Benefits from the use of e-commerce, percentage of firms surveyed



Source: Authors' survey.

Furthermore, e-commerce and marketplace use correlate with export activity across firm size categories. For example, whereas only 15 percent of microenterprises that do not take advantage of online channels export, as many as 49 percent of micro enterprises that use regional marketplaces and 50 percent of micro enterprises that use global marketplaces report export activity (figure 13). The patterns are similar across firm size categories: regional and global marketplace sellers have higher export participation rates than offline sellers as well as social sellers, and firms that use both regional and global marketplaces are likeliest to export.

Figure 13 · Export activity, by online presence and firm size



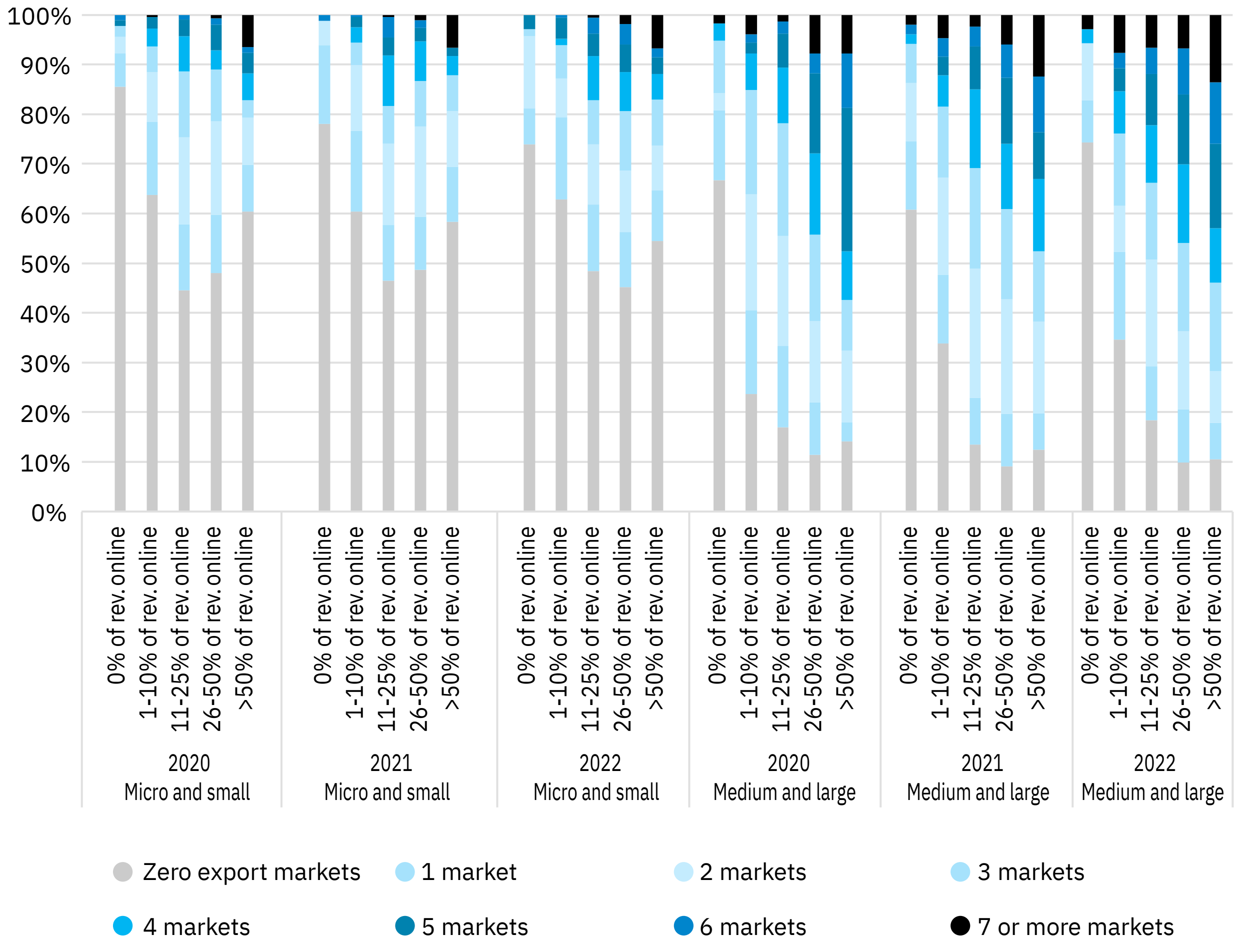
Source: Authors' survey.

Of course, the use of marketplaces and e-commerce does not necessarily cause Southern Cone firms to trade – the correlation between exporting and e-commerce use may simply mean that existing exporters have self-selected into using e-commerce. However, the correlation between exporting and e-commerce is not accidental: firms intentionally use global online marketplaces *in order to* expand their markets and reach the hundreds of millions of foreign buyers that use these platforms.[13]

Further emphasizing the links between e-commerce and trade, there is a correlation between e-commerce intensity and export diversification across firm size categories. Firms for which e-commerce is particularly relevant also export to a wider range of markets than firms that are less digitized (figure 14). Particularly medium and large firms have also grown more diversified in their export markets between 2020-22.

13 · There are multiple studies on this point. See for example: Carballo, J., Rodríguez Chatruc, M., Salas Santa, C., Volpe Martincus, C. (2020). *Online Business Platforms and International Trade*. IDB Working Paper Series IDB-WP-01131. Retrieved from: https://publications.iadb.org/publications/english/viewer/Online-Business-Platforms-and-International-Trade.pdf

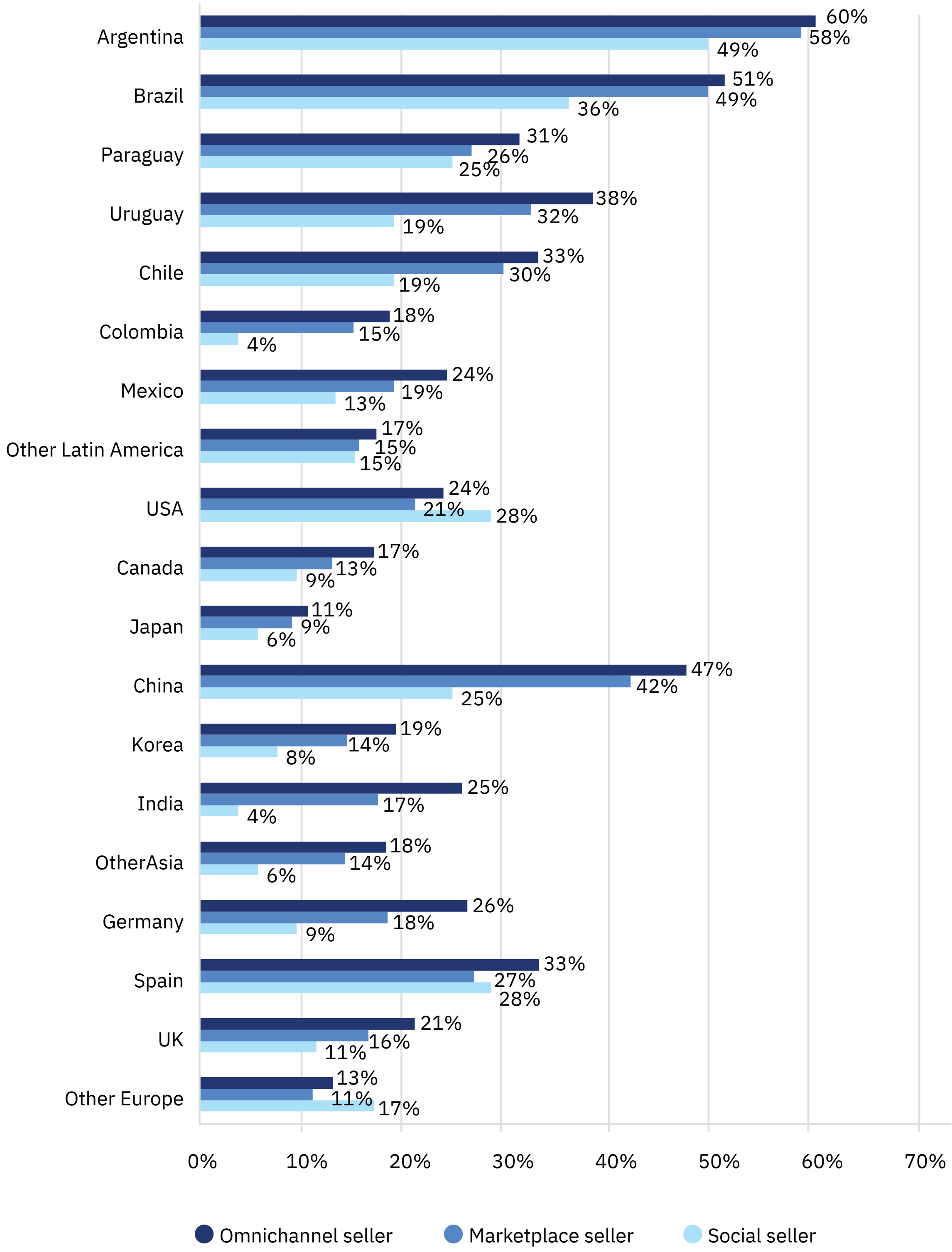
**Figure 14 · **Share of revenue gains from online sources and number of export markets



Source: Authors' survey.

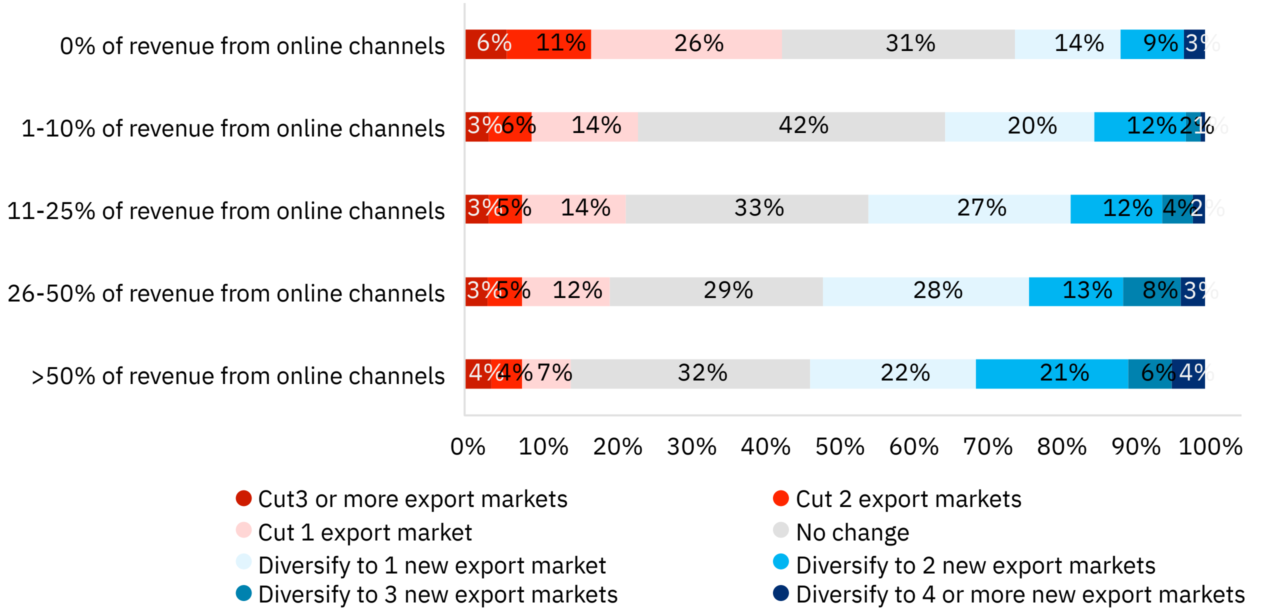
The use of e-commerce and number of channels also correlates with sales to more distant markets: omnichannel and marketplace sellers are likelier to export to Asian and European markets than are social sellers – which are more focused on the South and North American markets (figure 15). This in part reflects the diversification of export markets that occurred among digitized sellers during Covid. Firms that use e-commerce intensively have also been particularly likely to diversify their export and import markets after the Covid-19 shock, both to access new customers and diversify vendors and manage supply chain shocks (figures 16-17). For example, 31 percent of firms that derive more than 50 percent of their revenues online also diversified into two or more export markets, compared to only 12 percent of offline sellers.

Figure 15 · Southern Cone's omnichannel, marketplace and social sellers' export markets



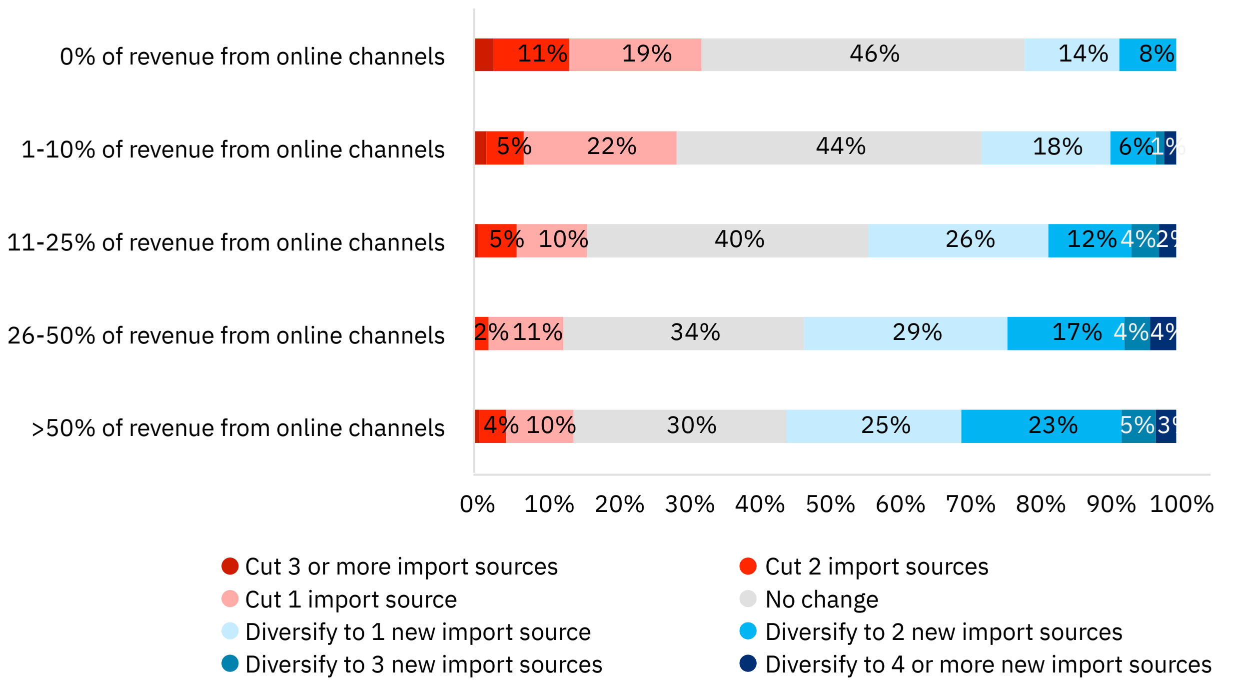
Source: Authors' survey.

Figure 16 · Southern Cone firms' diversification of export markets in 2021-22 from 2020 levels, by intensity of online sales



Source: Authors' survey.

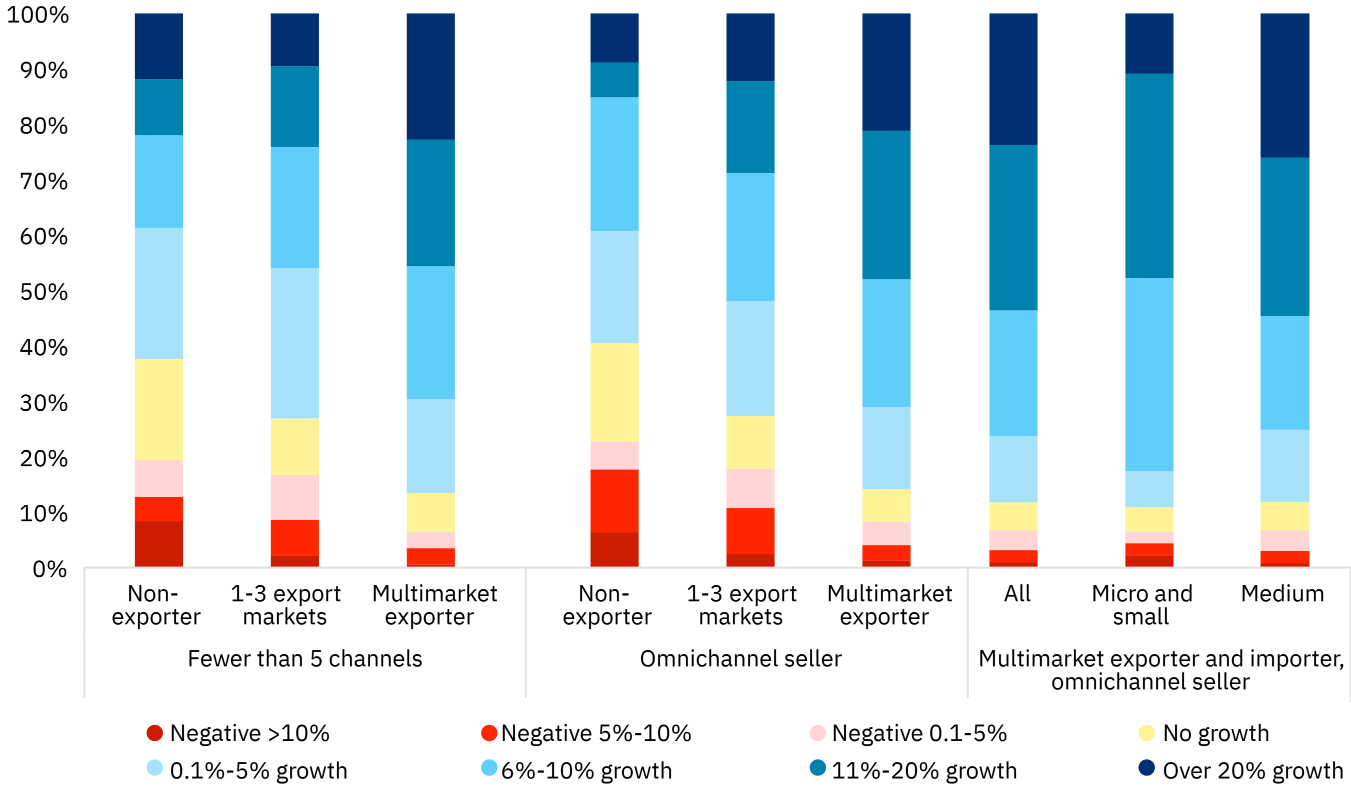
Figure 17 · Southern Cone firms' diversification of import markets in 2021-22 from 2020 levels, by intensity of online sales



Source: Authors' survey.

In turn, diversification of online sales channels and export markets and import sources is strongly correlated with firms' growth: firms that are omnichannel sellers and multimarket exporters outperform firms that leverage only a few online channels and export to only a few markets or do not export at all (figure 18). In addition, firms that have diversified their import sources have done well, possibly signaling that the supplier diversification has translated into greater resilience.

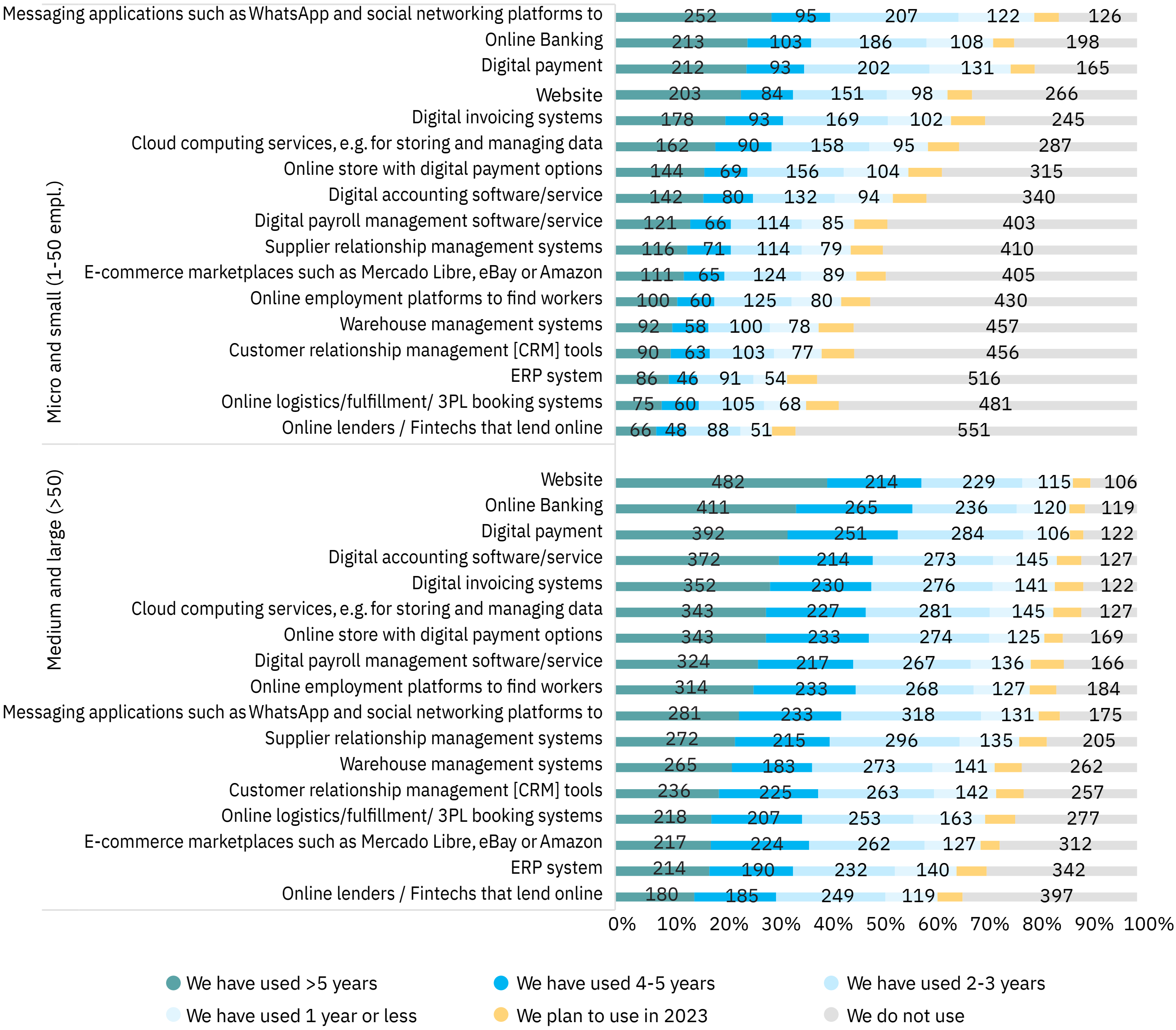
Figure 18 · Southern Cone firms' growth in 2022, by diversification of export and import markets and sales channels



Source: Authors' survey.

In addition to leveraging digital services and tools for their sales and marketing, businesses in the Southern Cone region have over the past three years been on a remarkable spree of digitizing many other parts of their businesses. Significant majorities of even micro enterprises have adopted basic digital services such as online banking and digital payments; the use of digital invoicing systems and cloud computing services is also quite advanced (figure 19). Majorities of medium and large firms are also using customer relationship management (CRM) systems, supplier relationship management systems, online fulfillment services, enterprise resource planning (ERP) systems to manage their operations, and Fintechs and online lenders to access fast-disbursing working capital.

Figure 19 · Adoption of digital services and technologies, by firm size



Source: Authors' survey.

Especially marketplace and omnichannel sellers use digital services and technologies across their operations (figure 20). Indeed, one likely driver of their success in trade and growth is that they have not only digitized their sales and marketing, but that they have digitized their entire enterprises, using bundles of technologies that enable them to streamline and scale their operations and compete in the global online marketplace. Social sellers are much less likely to use technologies, and leverage more basic services such as digital payment and banking services, online job platforms to identify talent, and online accounting tools. However, this too is changing: 44 percent of micro and small and 54 percent of medium and large social sellers are prioritizing the digital transformation of their marketing and sales channels in 2023-24; digitizing their finance and accounting and fulfillment are also high priorities (figure 21). For medium and large firms, already digitized in their sales channels, digital transformation of finance and accounting are among top priorities.

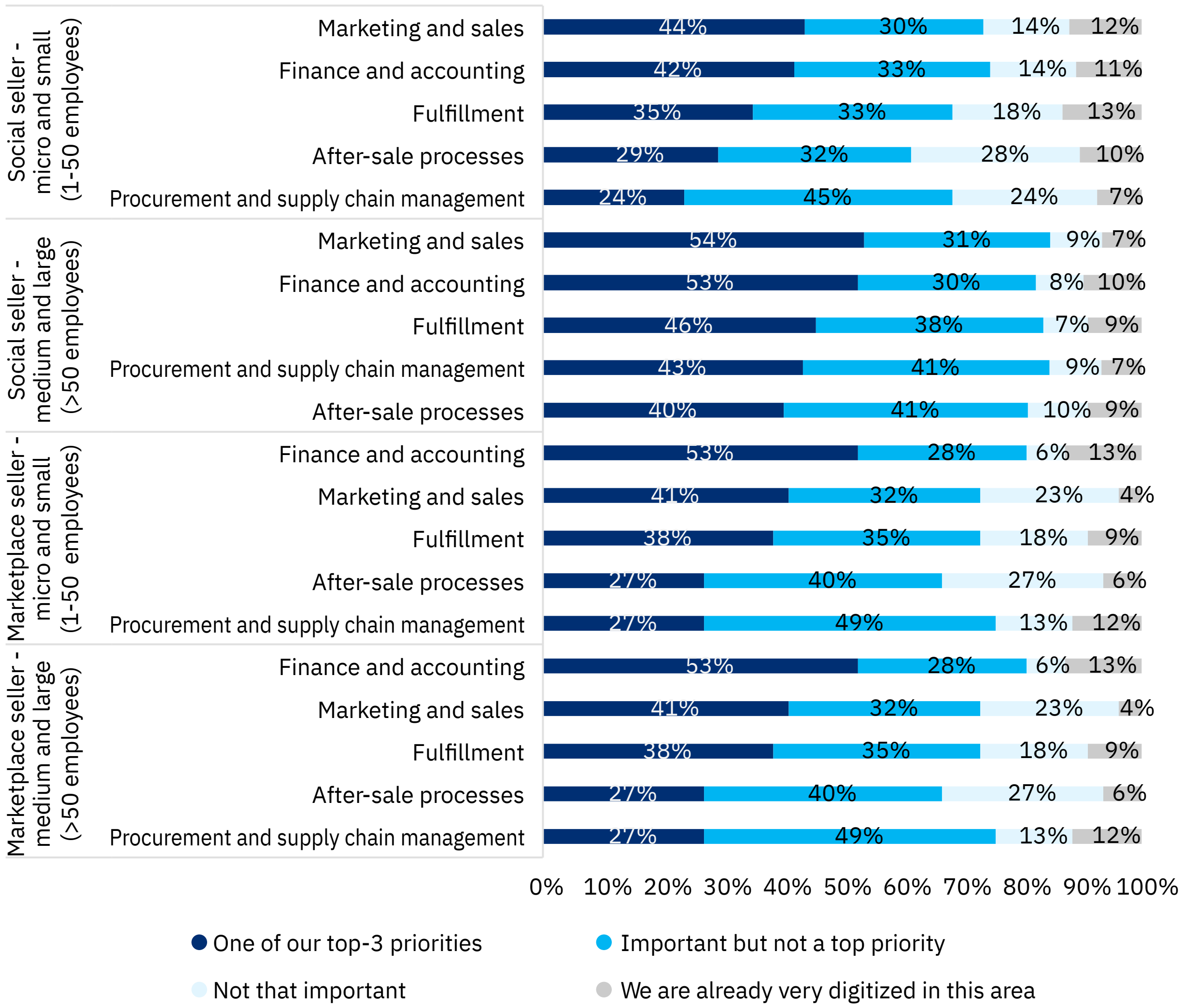
Figure 20 · Complementarities in the use of digital technologies
Darker cells imply greater overlap in use of digital services and technologies; 1.0 is full correlation

	Social seller	Own online store	Regional marketplace	Global marketplace	Omnichannel	Regional and global marketplace	Digital payment
Social seller							
Own online store	0.20						
Regional marketplace	0.21	0.38					
Global marketplace	0.20	0.40	0.41				
Omnichannel	0.29	0.51	0.57	0.64			
Regional and global marketplace	0.18	0.39	0.75	0.73	0.70		
Digital payment	0.15	0.30	0.23	0.20	0.24	0.22	
Online Banking	0.11	0.23	0.21	0.25	0.28	0.25	0.41
CRM	0.06	0.31	0.27	0.34	0.43	0.36	0.21
SRM	0.08	0.31	0.24	0.35	0.40	0.34	0.21
Online fulfillment booking	0.06	0.30	0.21	0.24	0.26	0.27	0.32
Digital accounting	0.07	0.34	0.28	0.40	0.45	0.38	0.22
Payroll management software	0.05	0.29	0.19	0.35	0.36	0.32	0.26
ERP system	0.04	0.27	0.20	0.30	0.38	0.29	0.16
data	0.07	0.21	0.17	0.25	0.26	0.24	0.16
Online lenders / Fintechs	0.12	0.31	0.29	0.41	0.51	0.42	0.20

	Online Banking	CRM	SRM	Online fulfillment booking	Digital accounting	Payroll manageme nt software	ERP system	Cloud computing services to store data
Social seller								
Own online store								
Regional marketplace								
Global marketplace								
Omnichannel								
Regional and global marketplace								
Digital payment								
Online Banking								
CRM	0.26							
SRM	0.29	0.61						
Online fulfillment booking	0.33	0.34	0.43					
Digital accounting	0.26	0.50	0.55	0.42				
Payroll management software	0.30	0.47	0.53	0.46	0.53			
ERP system	0.26	0.47	0.43	0.30	0.50	0.46		
data	0.26	0.36	0.38	0.34	0.33	0.42	0.34	
Online lenders / Fintechs	0.25	0.43	0.41	0.28	0.47	0.41	0.47	0.34

Source: Authors' survey.

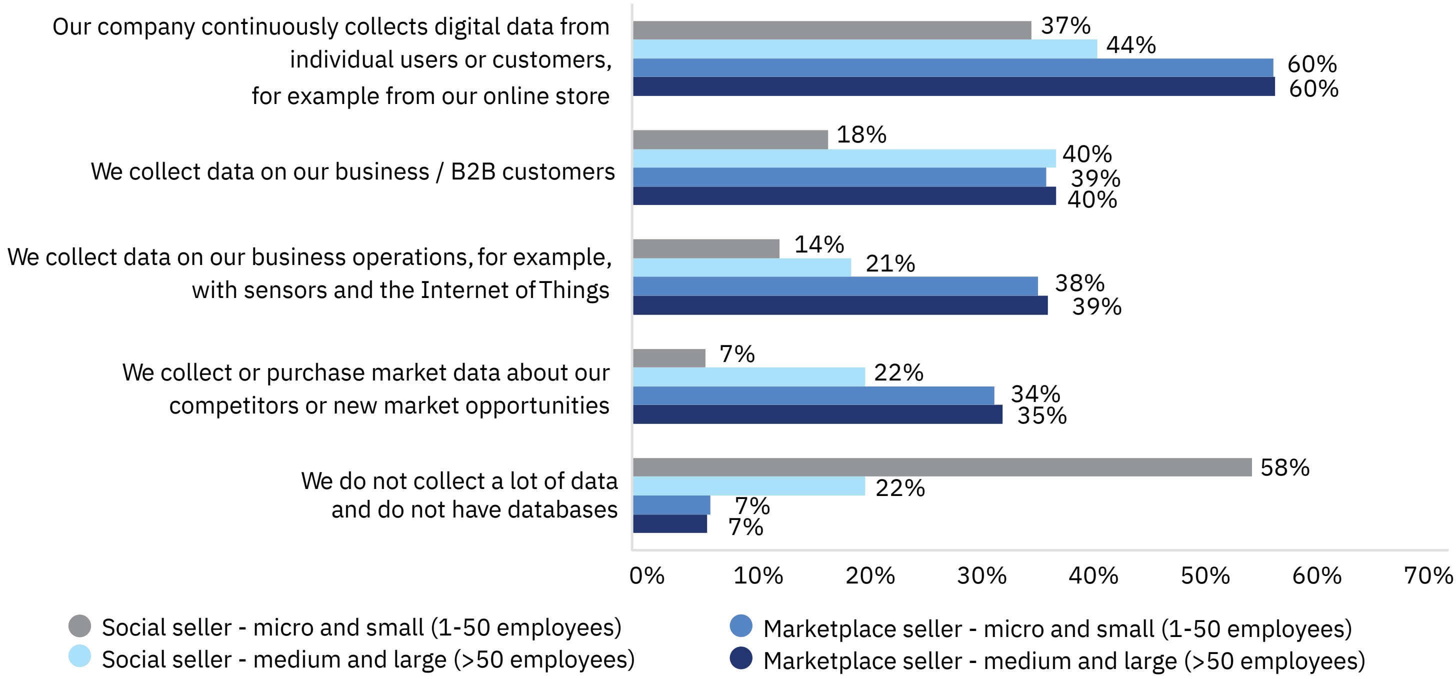
Figure 21 · Firms' views on the need for digital transformation across business functions, by type of seller



Source: Authors' survey.

Online sellers' growth is also buoyed by the use of data from their customers, markets and online platforms. Southern Cone firms of all sizes and marketplace seller-exporters in particular collect as well as export and import data. Sixty percent of marketplace sellers collect data on individual users and customers and nearly 40 percent collect data on business customers and operations (figure 22). Meanwhile 58 percent of micro and small and 22 percent of medium and larger social sellers do not collect and leverage data. Firms that sell on marketplaces and export also appear likelier than social seller-exporters and non-exporters to export and import data from online platforms and affiliates and to their foreign subsidiaries (table 1). This suggest that access and ability to move data is a key competitive lever for online seller-exporters to grow their cross-border e-commerce sales.

Figure 22 · Southern Cone firms' collection of different types of data, by firm size and type of seller



Source: Authors' survey.

Table 1 · Share of firms that transfer data across borders, by size and export orientation

	Micro and small (0-50 employees)			Medium and large (>50 employees)		
	Nonexporter	Social seller-exporter	Marketplace seller-exporter	Nonexporter	Social seller-exporter	Marketplace seller-exporter
To foreign subsidiaries of our company	3%	11%	28%	9%	20%	30%
From affiliates of our company to us	11%	15%	38%	25%	24%	40%
From online platforms to us	25%	33%	53%	35%	60%	55%
From other foreign companies	4%	12%	28%	8%	20%	30%
From individual consumers in other countries	5%	15%	31%	10%	24%	32%
From foreign governments	1%	4%	11%	4%	12%	12%
No, data does not move across borders	62%	46%	11%	40%	16%	8%

Source: Authors' survey.

Table 2 summarizes the characteristics and performance of three different types of archetype online sellers. Firms that draw over 50 percent of their revenues online outperform firms that derive only a limited share of their revenues online, in revenue growth and export and import participation and diversification. They tend to be somewhat larger and older firms and based in first and second-tier cities, and sell to both B2B and B2C customers, sell knowledge-intensive services and goods, and invest heavily in digital services and technologies. Firms that have more limited e-commerce intensities are likelier to be based in third-tier cities and rural regions, be younger and less-export-driven, and sell a variety of lower-skilled services. As the regional governments look to promote firms in e-commerce, these various firm segments clearly require differentiated approaches and support. The following section turns to the challenges faced by the different types of sellers, especially ones that prioritize exports as a growth lever.

Table 2 · Summary of the characteristics and performance of Southern Cone firms of different e-commerce intensities

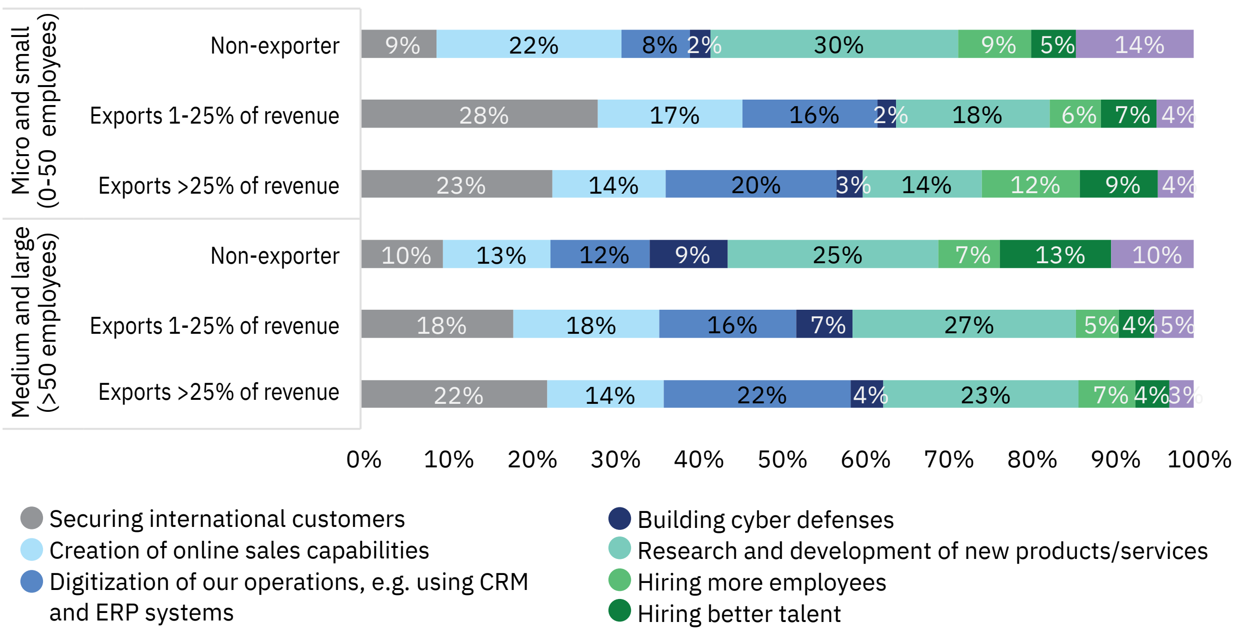
	Online sales 0-10% of revenue	Online sales 11-50% of revenue	Onlien sales >50% of revenue
Share of all firms	19%	50%	31%
>50 employees	41%	53%	62%
% that are 0-1 years old	14%	9%	11%
% that are >10 years old	38%	48%	47%
% in third-tier cities or rural regions	25%	13%	12%
% woman-owned	30%	23%	27%
> 50% of management team female	19%	15%	31%
B2B seller	42%	52%	51%
B2C sellers	71%	75%	78%
Both B2B and B2C	19%	31%	32%
Sell goods	37%	45%	42%
Sell digital / IT services	14%	19%	25%
Invest >5% of revenue in digital services	33%	59%	73%
Social seller	25%	10%	9%
Regional or global marketplace seller	44%	67%	71%
Omnichannel seller	27%	51%	51%
Export	43%	73%	72%
Import	48%	76%	73%
Twoway trader	36%	68%	66%
Export to >3 markets	11%	32%	40%
Import from >3 markets	9%	28%	36%
Export diversification increased 2020-22	6%	39%	59%
Import diversification increased 2020-22	5%	49%	59%
Exports making up >25% of sales in 2022	11%	39%	54%
Imports making up >25% of purchases in 2022	9%	36%	52%
Positive revenue outlook in 2023	63%	78%	85%

Source: Authors' survey.

6. PRIORITY CHALLENGES TO SOUTHERN CONE FIRMS' CROSS-BORDER E-COMMERCE

Exporting, e-commerce, and digitization remain high priorities for Southern Cone firms. Asked about their investment priorities in 2023-24, firms of all sizes reported online sales capabilities and digitization of operations as their top priority (figure 23). Securing further international customers is the number one priority especially for micro and small exporters. R&D is also a high priority, especially for medium and large firms.

Figure 23 · Southern Cone firms' top investment priority for 2023-24, by firm size and export status



Source: Authors' survey.

However, gaps in connectivity, trade costs, and ability to operate and scale in the digital economy continue arresting regional firms' growth. Asked about the leading barriers to their exports and growth, the top challenges for good sellers are around trade finance and logistics as well as maintaining their online presence, accessing quality internet, and market access barriers in domestic markets for importing goods; for services sellers ability to move data across borders, manage cybersecurity, and manage online presence are relevant, as are rules to access markets (figures 24-25).

Figure 24 · Top-8 “extremely important” or “important” barriers to firms’ growth and trade in 2023-24, firms selling goods

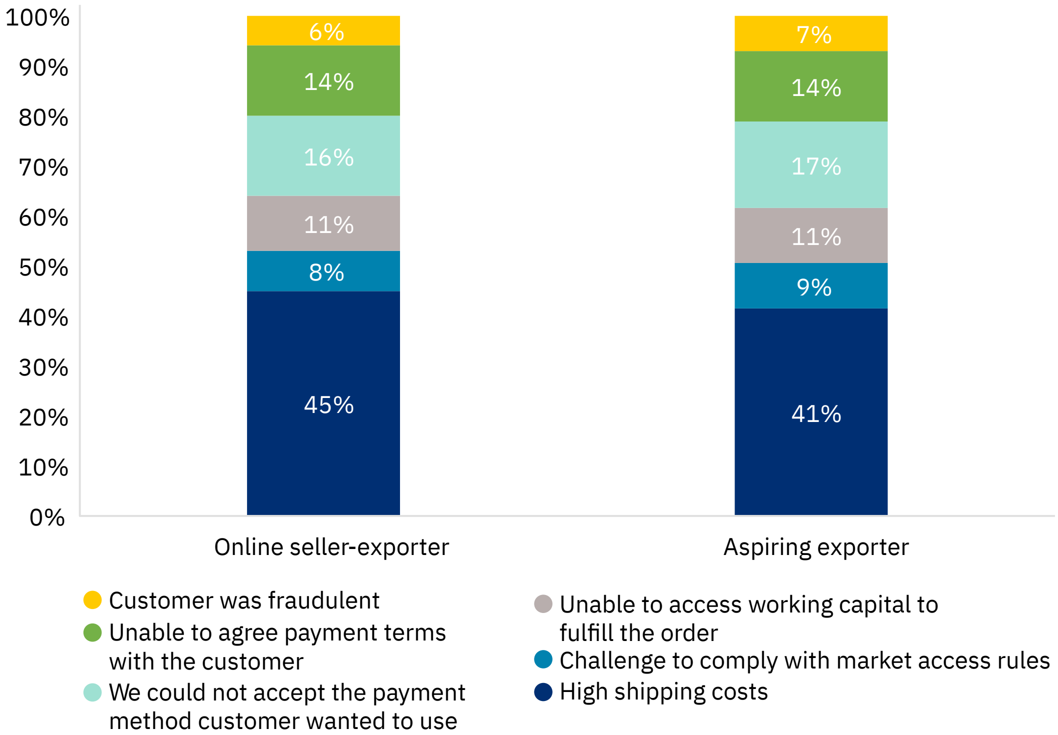
Source: Authors’ survey.

Figure 25 · Top-8 “extremely important” or “important” barriers to firms’ growth and trade in 2023-24, firms selling services

Source: Authors’ survey.

International logistics costs are a very tangible challenge for firms: asked why they may have lost an export sale, over 40 percent of firms that sell products point to high logistics costs (figure 26). The low interoperability of domestic and foreign digital payments systems and complications to agree on payment terms with foreign customers have also derailed export sales. Shipping-related costs also worry small and medium enterprises (SMEs) deeply heading into 2023-24, where firms' leading concern is a potential recession, followed by inflationary pressures and high shipping costs.

Figure 26 · Top reasons firms have lost export sales

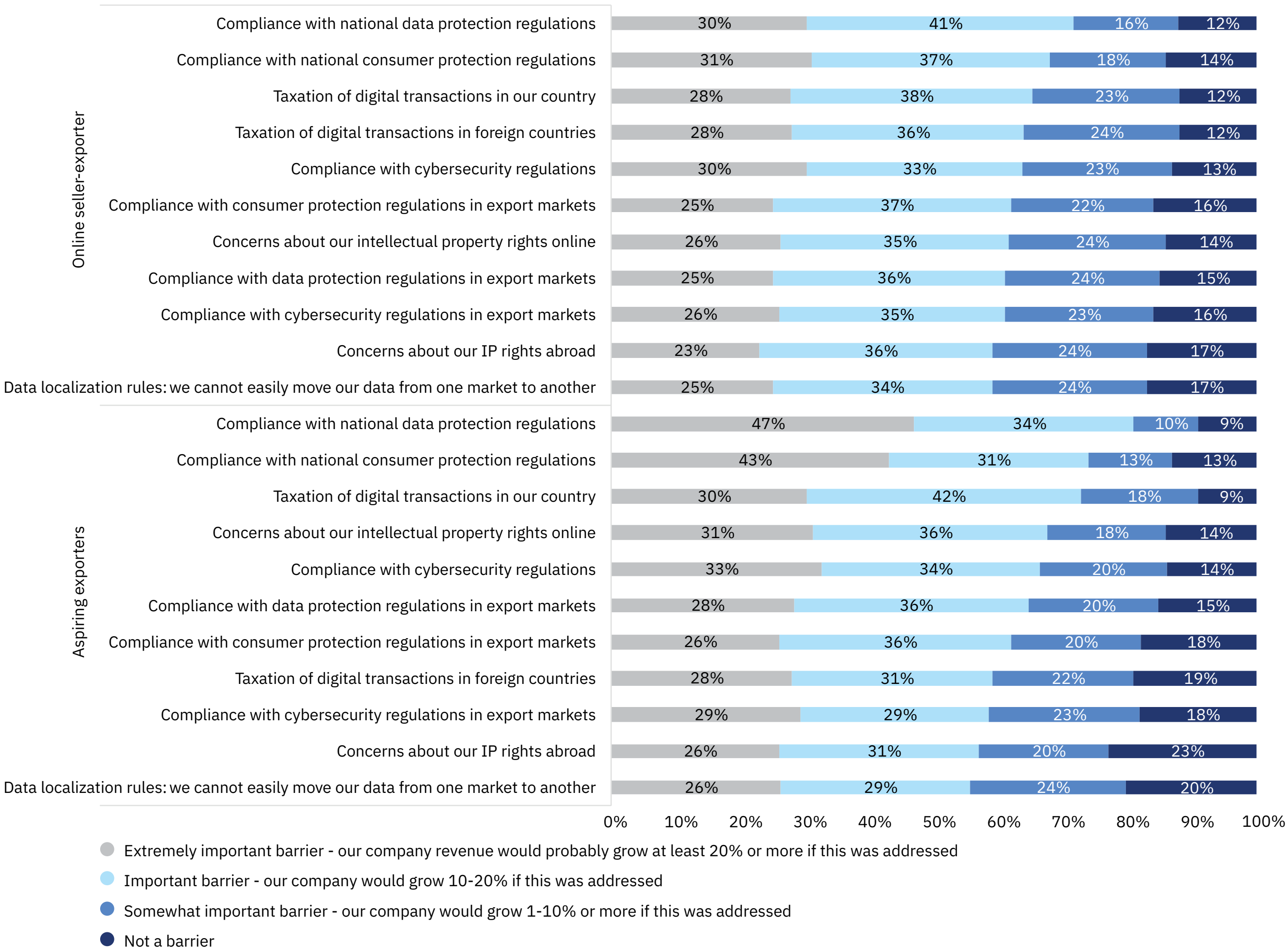


Source: Authors' survey.

Online sellers in particular are also facing numerous digital policies and regulations that can be daunting especially for smaller firms to understand and implement – and comply with also in export markets (see selected policies by country in Appendix III). As their leading digital policy challenges, both online -seller exporters and aspiring exporters cite national data privacy and consumer protection laws, cybersecurity regulations and taxes on online transactions. Solving these challenges would, according to more than a quarter of exporters and over a third of aspiring exporters, enable them to grow their revenues by more than 20 percent (figure 27).

The top "extremely important" barriers facing exporters and aspiring exporters are rather similar across the regional economies, pointing to a common regional agenda to support firms' compliance with digital regulations and their e-commerce development and digital transformation, improve internet connectivity and reduce logistics costs and quality of warehousing and fulfillment.

Figure 27 · Digital policy-related challenges to firms' growth and trade in 2023-24, by export status

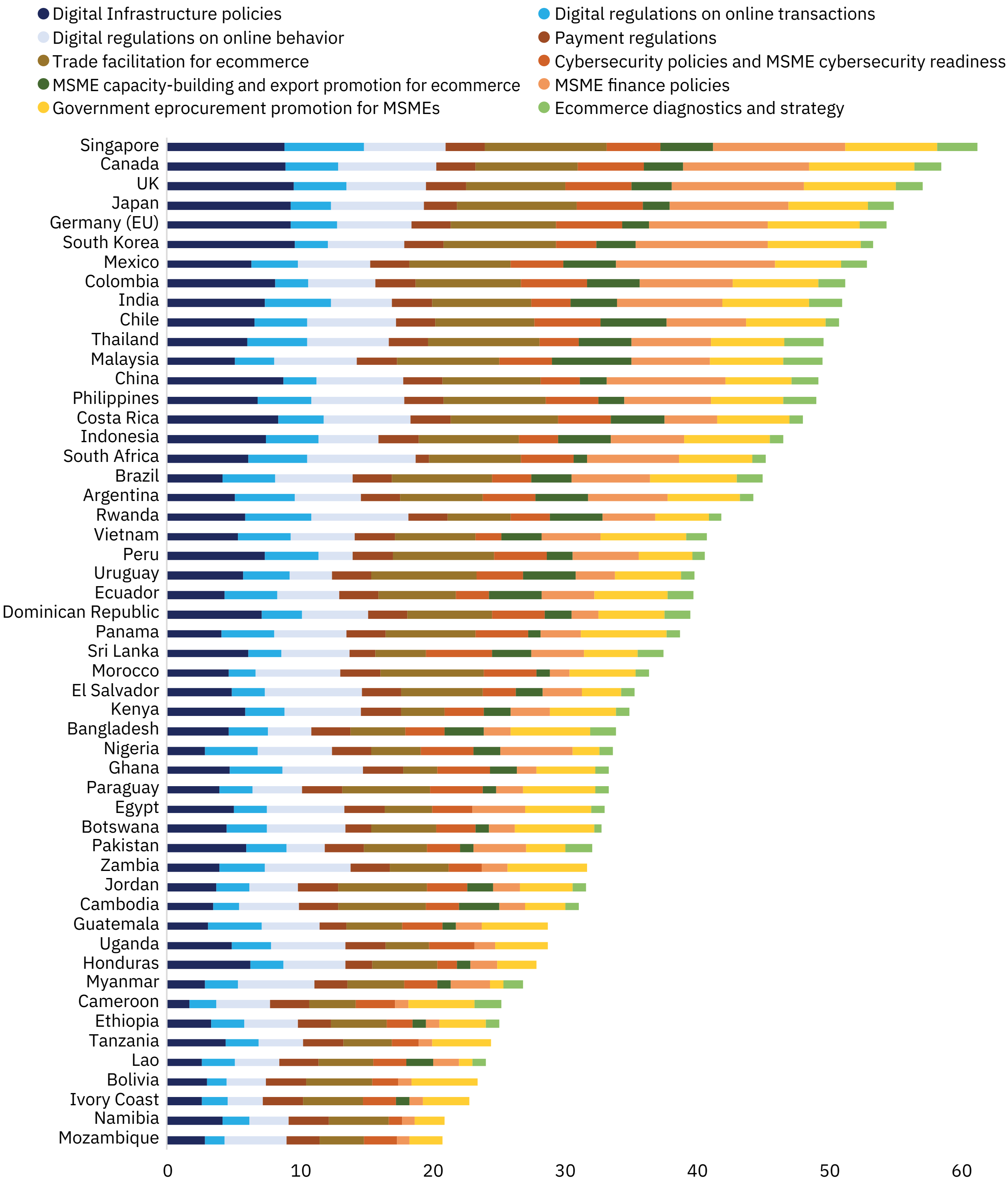


Source: Authors' survey.

7. PRIORITY POLICIES TO ENABLE CROSS-BORDER E-COMMERCE

Southern Cone firms are facing various logistical, regulatory, and connectivity challenges to engage in cross-border e-commerce and translate e-commerce use into growth opportunities. The regional governments have already made strong progress in adopting and implementing domestic policies conducive to e-commerce. In a 2021 comparative mapping supported by the U.S. Agency for International Development (USAID) of over 100 policies in 10 major policy domains pertinent to e-commerce in over 50 economies, most of them emerging and developing, reveals that especially Argentina, Brazil, Chile, and Uruguay have adopted a great many policies that that are conducive to e-commerce (figure 28).

Figure 28 · eTrade Alliance Digital Policy and E-commerce Index 2020–21 (maximum: 75)



Source: Suominen, Kati, Erica Vambell, and Mariah Furtek (2021), "Expanding MMSE E-commerce in Developing Countries: Digital And E-commerce Policy Index And Path Forward" Report for the U.S. Agency for International Development and Alliance for eTrade Development, https://www.allianceforetradedevelopment.org/e-commerce-policy-report-index

Some examples of good policies and practices in the region include:

· In the area of e-commerce export promotion, the Brazilian Export Promotion Agency (Apex-Brasil) launched six years ago the E-xport Brasil Program that involves a broad portfolio of services, including training, mentoring, intelligence and trade promotion for Brazilian companies to export using e-commerce. Chile's export promotion agency ProChile launched the Exporta Digital program to make it easier for Chilean companies to export goods and services through digital channels. Exporta Digital provides information on how to set up a virtual store, which platforms are the most suitable for selling online, and how to manage digital marketing, digital payments, and logistics.[14] Uruguay's export promotion agency Uruguay XXI's Cross-Border e-Commerce Program provides beneficiary companies with personalized advice in order to increase their capacity to export to the United States, Mexico and Canada through global marketplaces such as Amazon, eBay and Walmart.[15]

· To promote firms' cash flow and access to finance, the region has been a global pioneer in the use of electronic invoicing, the practice of submitting and formalizing every business invoice with the government. E-invoicing has helped pre-empt fraud in online transactions, improve accounting practices, and enable businesses to have more reliable cash flow. In addition, Brazil in particular has championed open banking practices and open finance environment to enable business financing via data sharing and competition among financial services providers.[16]

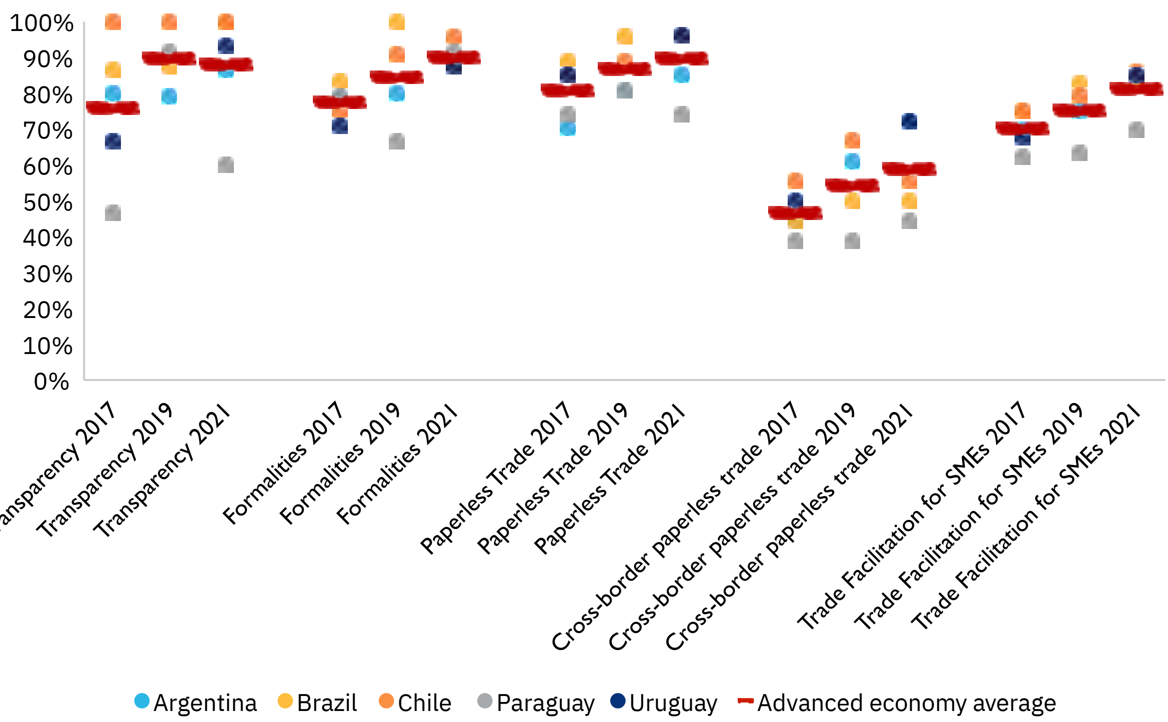
· The region's governments have also made progress on trade facilitation and paperless trade. Brazil, Argentina, Uruguay, and Paraguay have made strides in testing blockchain to improve interoperability among national customs agencies through the bCONNECT platform. Paraguay trails behind its regional peers in the adoption of these policies, but all countries still require more work to enable cross-border paperless trade in particular (figure 29).

14 · ProChile. ExportaDigital. Accessed March 2023. Retrieved from: https://acceso.prochile.cl/minisitio/exportadigital_/

15 · Uruguay XXI. Cross-border e-Commerce Program. Accessed March 2023. Retrieved from: https://www.uruguayxxi.gub.uy/es/quiero-exportar/herramientas/programa-de-e-commerce-cross-border/

16 · Central Bank of Brazil. Open Finance. Accessed March 2023. Retrieved from: https://www.bcb.gov.br/en/financialstability/open_finance

Figure 29 · Adoption of trade facilitation and paperless trade measures, by country



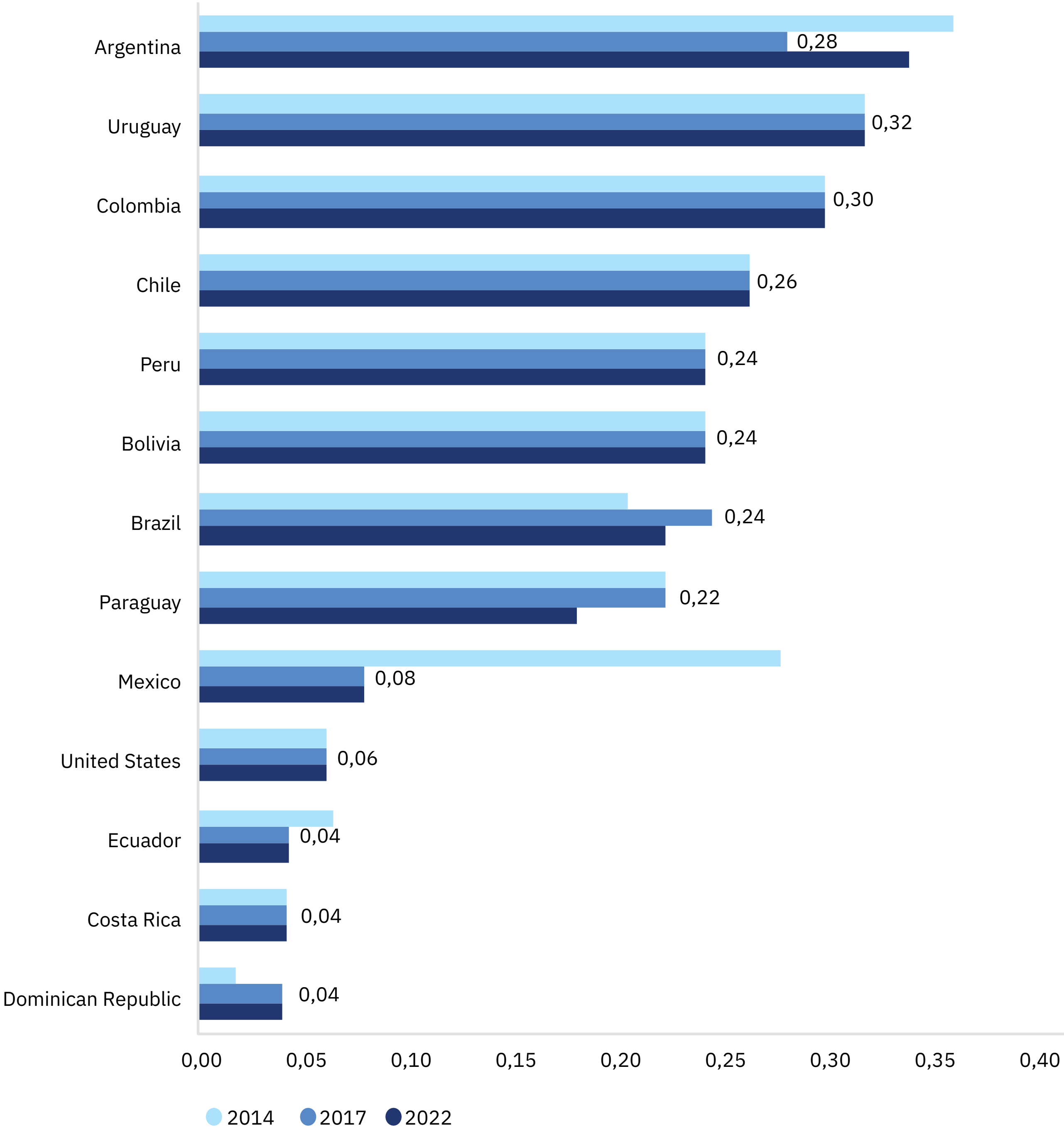
Source: Author on the basis of the UN Trade Facilitation and Paperless Trade Database.

The OECD's Digital Trade Restrictiveness Index provides a useful overview of the digital trade policy environment in the LAC region.[17] Per the data, Argentina and Uruguay therein have some of the more restrictive policies (figure 30). For example, Argentina applies some specific restrictive policies such as performance requirements that affect cross-border digital trade and national payment security standards that deviate from international standards. However, Southern Cone economies' digital policy restrictions have remained rather similar over the years and are well below the restrictiveness levels of the worst performers such as India, Russia, or Kazakhstan. For example, most regional countries apply non-discrimination as a principle when dealing with foreign investors and operators, and offer recourse for foreign investors and operators and have a dispute settlement mechanism to resolve disputes arising from cross-border digital trade. No Southern Cone or LAC country has restrictions on internet banking, limitations on downloading and streaming that would affect cross-border digital trade, or discrimination against foreign firms on trademark protection.
This OECD's index is correlated inversely, as can be expected, with the eTrade

17 · Organization for Economic Cooperation and Development (OECD), "Digital Services Trade Restrictiveness Index," https://stats.oecd.org/Index.aspx?DataSetCode=STRI_DIGITAL

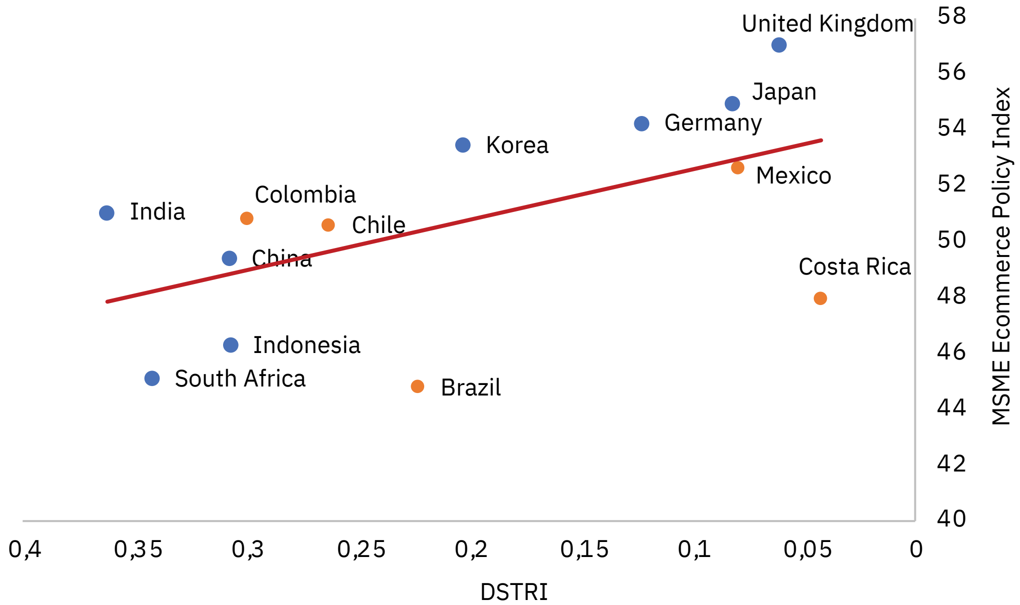
Alliance's index of policies conducive to MSME e-commerce (figure 31). In terms of bilateral digital trade, the regional economies have rather convergent digital policies with each other and with the United States; their policies do deviate from those of China (figure 32).

Figure 30 · Digital trade restrictiveness index for Latin America and the Caribbean



Source: OECD Digital Trade Restrictiveness Index.

Figure 31 · Correlation between the OECD's Digital Restrictiveness Index and eTrade Alliance's MSME E-commerce Policy Index



Source: OECD Digital Trade Restrictiveness Index and eTrade Alliance's MSME E-commerce Policy Index

Figure 32 · Pairwise digital trade restrictiveness index for Latin America and key trading partners, 2022 (redder = less convergent)

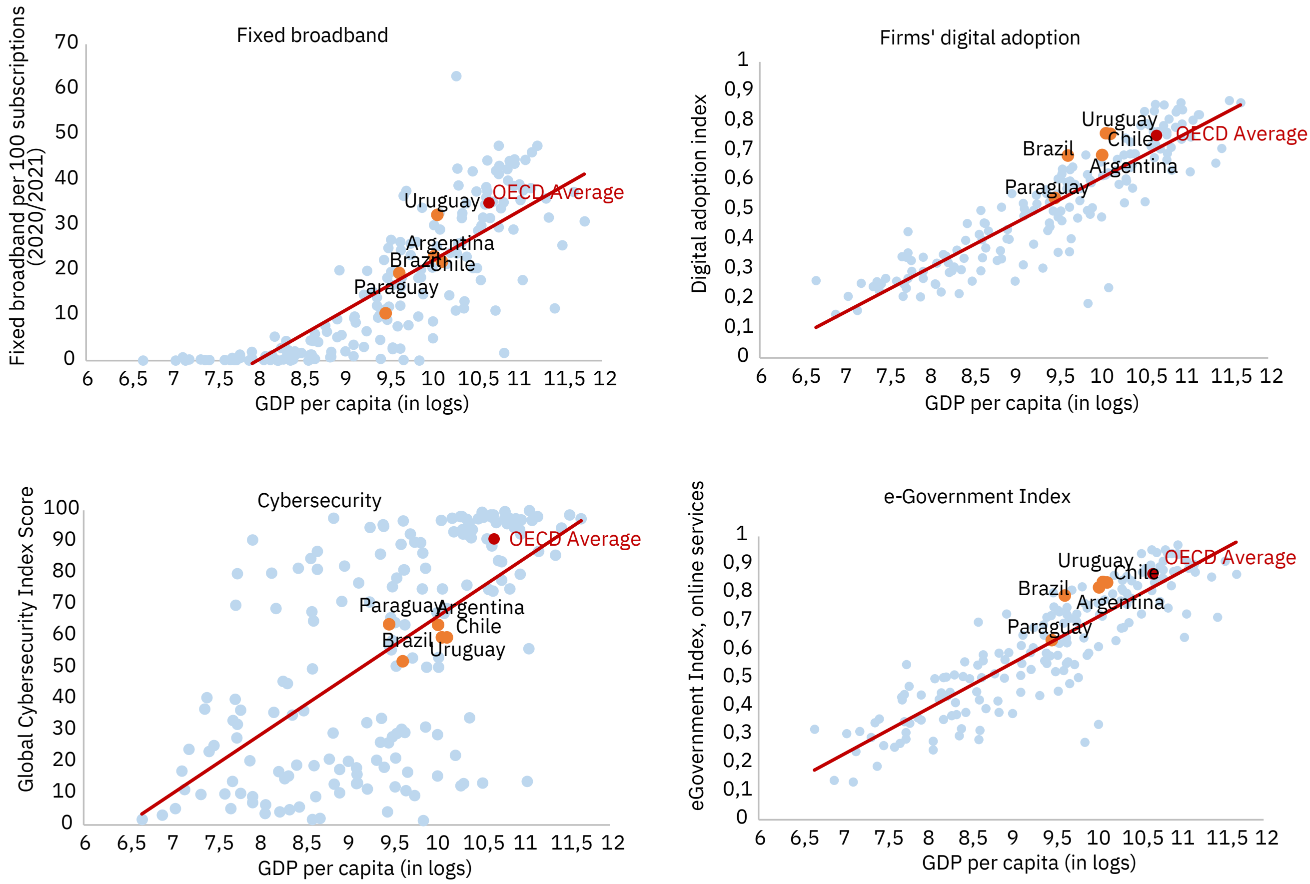
Partner	Chile	Colombia	Costa Rica	Mexico	Argentina	Bolivia	Brazil	Ecuador	Guatemala	Paraguay	Peru	Uruguay	China	Germany	Spain	United States
Reporter																
Chile	..	0,28	0,18	0,26	0,36	0,26	0,28	0,22	0,21	0,32	0,26	0,34	0,41	0,22	0,26	0,16
Colombia	0,28	..	0,10	0,14	0,08	0,14	0,16	0,10	0,24	0,20	0,06	0,06	0,45	0,18	0,06	0,28
Costa Rica	0,18	0,10	..	0,08	0,18	0,08	0,14	0,04	0,18	0,14	0,08	0,16	0,39	0,20	0,08	0,22
Mexico	0,26	0,14	0,08	..	0,22	0,12	0,14	0,08	0,22	0,18	0,12	0,20	0,34	0,16	0,12	0,26
Argentina	0,36	0,08	0,18	0,22	..	0,22	0,24	0,14	0,28	0,16	0,10	0,06	0,53	0,22	0,10	0,28
Bolivia	0,26	0,14	0,08	0,12	0,22	..	0,22	0,08	0,15	0,10	0,12	0,20	0,30	0,24	0,12	0,18
Brazil	0,28	0,16	0,14	0,14	0,24	0,22	..	0,18	0,33	0,28	0,14	0,22	0,37	0,18	0,14	0,36
Ecuador	0,22	0,10	0,04	0,08	0,14	0,08	0,18	..	0,14	0,10	0,04	0,16	0,39	0,16	0,04	0,22
Guatemala	0,21	0,24	0,18	0,22	0,28	0,15	0,33	0,14	..	0,16	0,18	0,30	0,29	0,14	0,18	0,20
Paraguay	0,32	0,20	0,14	0,18	0,16	0,10	0,28	0,10	0,16	..	0,14	0,18	0,41	0,26	0,14	0,16
Peru	0,26	0,06	0,08	0,12	0,10	0,12	0,14	0,04	0,18	0,14	..	0,12	0,43	0,12	0,00	0,26
Uruguay	0,34	0,06	0,16	0,20	0,06	0,20	0,22	0,16	0,30	0,18	0,12	..	0,47	0,24	0,12	0,26
China	0,41	0,45	0,39	0,34	0,53	0,30	0,37	0,39	0,29	0,41	0,43	0,47	..	0,31	0,43	0,41
Germany	0,22	0,18	0,20	0,16	0,22	0,24	0,18	0,16	0,14	0,26	0,12	0,24	0,31	..	0,12	0,30
Spain	0,26	0,06	0,08	0,12	0,10	0,12	0,14	0,04	0,18	0,14	0,00	0,12	0,43	0,12	..	0,26
United States	0,16	0,28	0,22	0,26	0,28	0,18	0,36	0,22	0,20	0,16	0,26	0,26	0,41	0,30	0,26	..

Source: OECD Digital Trade Restrictiveness Index.

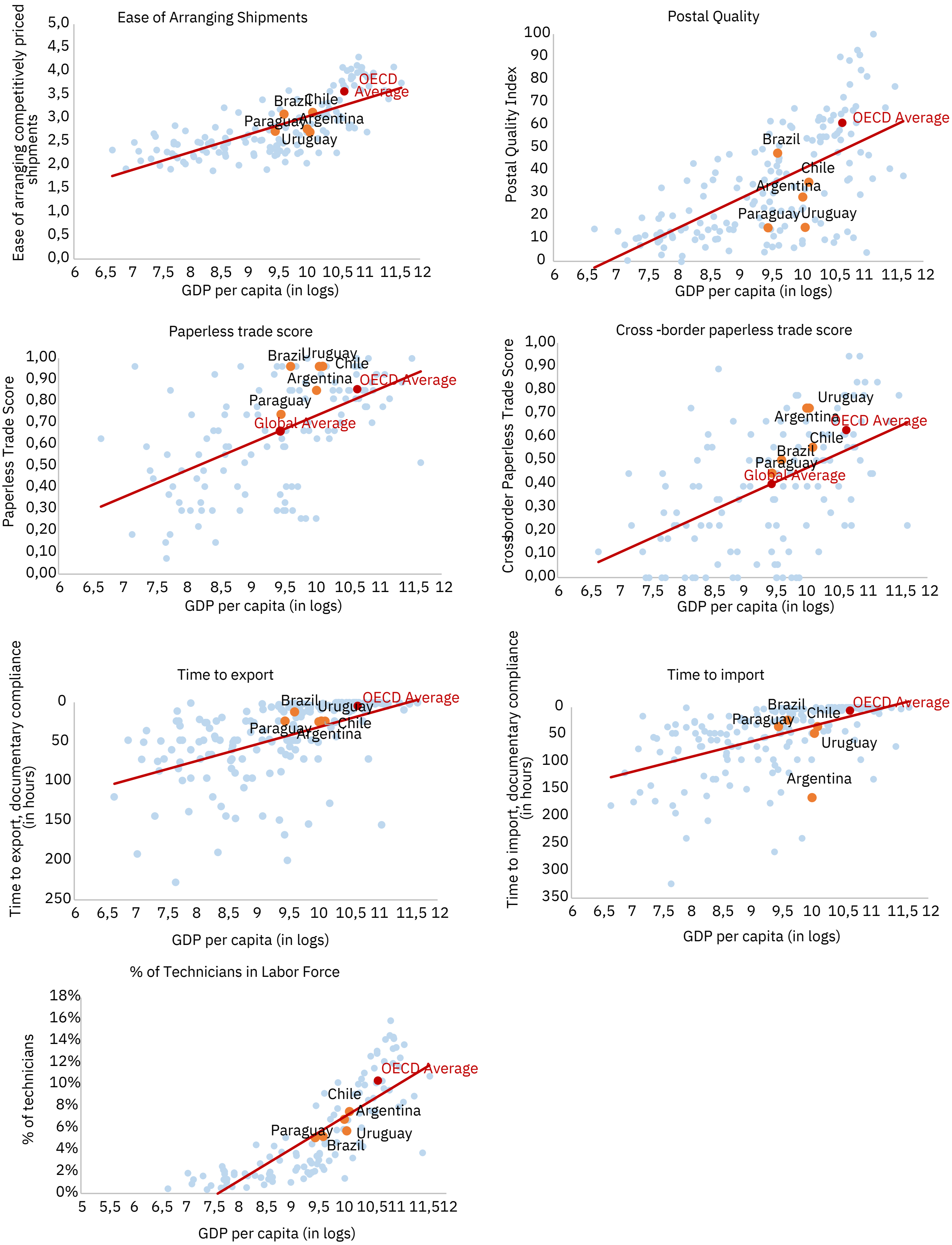
As for the outcomes of various policies pertinent to e-commerce, Southern Cone economies do well compared to countries at the same level of development but still in most areas trail OECD nations (figure 33).

Southern Cone governments have also collaborated to promote intra-regional e-commerce. In 2021, Mercosur members signed the E-commerce Agreement, committing to such common policies as free cross-border transfers of data required for commercial activities, protection of personal data, banning the localization of computing facilities as well as of duties on electronic transmissions.[18] The text echoes the pioneering e-commerce chapter of the 2018 Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) that Chile belongs to with 10 other partners, and the text of the Chile-Argentina free Trade Agreement of 2019 (table 3).

Figure 33 · Selected policy outcomes pertinent to e-commerce



18 · MERCOSUR. Electronic Commerce Agreement. (2021). Retrieved from: https://www.mercosur.int/documento/acuerdo-sobre-comercio-electronico-del-mercosur/



Sources: World Bank World Development Indicators, Universal Postal Union, International Labor Organization, and the UN Trade Facilitation and Paperless Trade Database.

Table 3 · Selected Digital Trade Provisions in Leading Trade Agreements

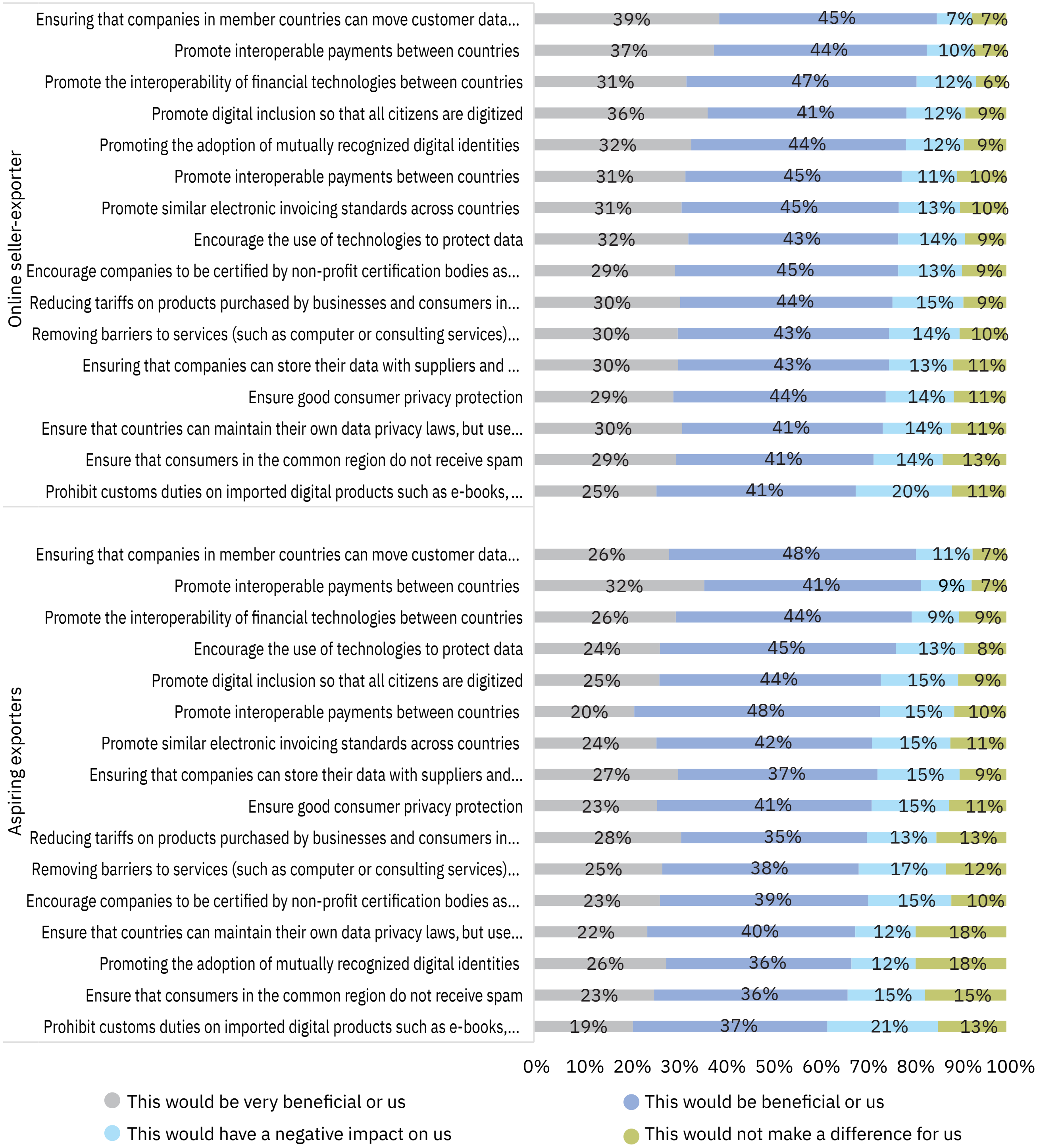
Provision	CPTPP (2018)	USMCA (2019)	Argentina-Chile FTA (2018)	U.S.-Japa DTA (2020)	RCEP (2020)	DEPA (2020)	SADEA (2020)	Mercosur Ecommerce Agreement (2021)	UK-Australia FTA (2021)	UK-Singapor Digital Economy Agreement (2022)	Korea-Singapor Digital Partnership Agreement (2021)
Moratorium on customs duties on electronic transmissions and digital products	Binding	Binding	Best endeavor	Binding	Non-binding	Binding	Binding	Binding	Binding	Binding	Binding
Non-discriminatory treatment for digital products	Binding	Binding	Best endeavor	Binding		Binding	Binding	Binding	Binding		Binding
Ban on data localization (localizing "computing facilities" such as servers)	Binding	Binding	Binding	Binding	Non-binding	Binding	Binding	Binding	Binding	Binding	Binding
Free cross-border transfer of data of personal information	Binding	Binding	Binding	Binding	Non-binding	Binding	Binding	Binding	Binding	Best endeavor	Binding
Protect consumers' personal information	Binding	Binding	Binding	Binding	Non-binding	Binding	Binding	Binding	Binding	Binding	Binding
Consumer protection laws preventing deceptive commercial activities	Binding	Binding	Binding	Binding	Non-binding	Binding	Binding	Binding	Binding	Binding	Binding
Measures against spam or unsolicited messages	Binding	Binding		Binding	Non-binding	Binding	Binding	Binding	Binding	Binding	Binding
Prohibit forced transfer of source code as a condition for market access	Binding	Binding	Binding	Binding			Binding		Binding	Binding	Binding
Collaboration on cybersecurity management	Binding	Binding		Binding	Non-binding	Binding	Binding	Binding	Best endeavor	Binding	Binding
Safe harbor for internet intermediaries		Binding		Binding							
Open government data		Binding		Binding		Binding	Best endeavor		Best endeavor	Best endeavor	Best endeavor
Interoperable electronic invoicing			Best endeavor			Best endeavor	Best endeavor		Best endeavor	Best endeavor	Best endeavor
Interoperable electronic payments system						Best endeavor	Best endeavor		Best endeavor	Best endeavor	Best endeavor
Interoperable digital identities						Best endeavor	Best endeavor		Best endeavor	Best endeavor	Best endeavor
Cooperation in fintech sector						Best endeavor	Best endeavor		Best endeavor	Best endeavor	Best endeavor
AI governance						Best endeavor	Best endeavor		Best endeavor	Best endeavor	Best endeavor
Data innovation									Best endeavor	Best endeavor	Best endeavor
Digital innovation and emerging technologies										Best endeavor	
Logistics best practices										Best endeavor	Best endeavor
Standards and technical regulations										Best endeavor	Best endeavor
Cooperation / promotion of digital inclusion						Best endeavor		Best endeavor	Best endeavor	Best endeavor	

● Binding ● Best endeavor ● Non-binding

Source: Author on the basis of Suominen (2022).

Our survey suggests that Southern Cone companies are strongly in favor of the kind of data privacy and transfer rules included in the Mercosur E-commerce Agreement and the CPTPP: both online seller-exporters and aspiring exporters look favorably on provisions that require signatories to adopt laws that bolster consumers' data privacy, encourage them to use of technologies to safeguard data, and allow data transfers across border and firms to store data where it is most convenient (figure 34), describing these as "very" or "somewhat" beneficial.

Figure 34 · Southern Cone companies' views on digital policies included in various free trade agreements



Source: Authors' survey.

In short, the Southern Cone region is well on the way in developing digital policies and regulations conducive to e-commerce, innovating new practices and technologies conducive to e-commerce, and working with extra-regional partners on e-commerce development.

To further enable firms in the region to overcome the challenges to e-commerce and export – build and maintain a competitive online presence, deal with proliferating digital regulations, reduce trade barriers and logistics costs, and ensure world-class connections – the regional governments can work on e-commerce capacity-building, promoting pen and interoperable digital trade policy frameworks, and facilitate and digitize trade compliance.

First and foremost, there is an urgent need to **better measure e-commerce** in Latin America and the Caribbean. The Interamerican Development Bank (IDB) is supporting the generation of such data and can coordinate efforts in guiding governments on implementing systematic and standardized collection of e-commerce data, through, for example:

· Annual surveys of businesses on their e-commerce use, channels, and volumes.
· Use of e-commerce-related questions in national household and economic censuses.
· Annual surveys on the pain points facing businesses to digitize and sell online.
· Mappings of the adoption of e-commerce-related policies, regulations, and best practices.
· Monitoring of countries' compliance with their e-commerce commitments in trade agreements.
· Supporting customs administrations to capture and measure cross-border e-commerce.[19]

In the areas of e-commerce **capacity-building**, governments can:

· **Support firms' digital transformation and piloting of new technologies.** The most successful online seller-exporters are also highly digitized companies: use of digital services, data, and technologies enables them to streamline their operations, save costs, and scale their sales. Majorities of Southern Cone businesses look to further digitize their marketing and sales channels and business operations, workstreams, and supply chains. Southern Cone government agencies can promote public-private partnerships with local and global technology companies that can help firms to learn about and pilot digital services and technologies and help finance digital transformation. There are good examples in the region; for example, Chile's CORFO (Corporación de Fomento de la Producción for its acronym in Spanish) offers co-financing of up to 70 percent

19 · See World Customs Organization (2022). *Framework of Standards on Cross-Border E-Commerce.* Retrieved from: https://www.wcoomd.org/-/media/wco/public/global/pdf/topics/facilitation/activities-and-programmes/e-commerce/wco-framework-of-standards-on-crossborder-e-commerce_en.pdf?db=web

in digital transformation projects, up to US$40,000.[20] This is also an area where governments will find opportunities for public-private partnerships with global marketplaces, fintechs and logistics and payment providers[21]. To strengthen the digital capabilities of MSMEs is also important to train human resources for the development of digital skills and establish tax incentives on digital payments for greater acceptance.[22]

· **Promote firms' working capital to sell online.** Firms that engage in e-commerce and need to fulfill orders promptly and often need access to fast-disbursing working capital loans. Survey data from Mexico indicate that online sellers increasingly turn to Fintechs to access loans of this kind.[23] Yet, many businesses are still unaware or suspicious of the opportunities to borrow from Fintechs, and also worry about Fintechs' relatively high cost of capital. Governments could helpfully support Fintech lending to online sellers through awareness-building and by offering guarantees on Fintech-issued loans to enable Fintechs to lend to a broader set of firms and/or lower their cost of capital. Is also important to ensure security without compromising the user experience for the governments to develop mechanisms to detect fraud; regulate the use of consumer data; and generate the necessary infrastructure for digital identity validation (onboarding and APIs).[24]

· **Promote firms' access to quality warehousing and logistics technologies and modern warehousing models.** Cost and quality of logistics and warehouses are an "extremely important barrier" for over a quarter of Southern Cone online seller-exporters. Yet there is also important innovation in the regional logistics sector, in such areas as cargo consolidation, route optimization, online freight exchanges, and last-mile delivery, to streamline fulfillment and lower logistics costs. The regional governments could enable business to learn about and test new warehousing and logistics technologies and business models and facilitate SMEs' access to modern class A warehouses built from scratch to support the logistics value chains.[25]

20 · Comunidad Empresas. "Cómo financiar la digitalización y transformación digital". Accessed March 2023. Retrieved from: https://ce.entel.cl/emprendedores/articulos/como-financiar-la-digitalizacion-y-transformacion-digital/

21 · There is also opportunity to apply these lessons in tourism. See, for example: Tappatá, M. and Lotitto, E. (2021). *Maximizando los beneficios del uso de plataformas Traveltech en América Latina.* IDB. Retrieved from: https://publications.iadb.org/es/maximizando-los-beneficios-del-uso-de-plataformas-traveltech-en-america-latina

22 · Carballo, I., Garnero, P., Chomczyk, A., Henao Monje, J. (2021). *Expansión de herramientas financieras digitales para impulsar el comercio electrónico de las MiPyMEs de América Latina.* IDB. Retrieved from: https://publications.iadb.org/es/expansion-de-herramientas-financieras-digitales-para-impulsar-el-comercio-electronico-de-las

23 · Suominen, K. (2021). "Do Fintechs Support Small Businesses in E-commerce? Early Insights from Mexico," eTrade Alliance, Retrieved from: https://www.allianceforetradedevelopment.org/e-commerce-and-fintechs-in-mexico

24 · Carballo, I., Garnero, P., Chomczyk, A., Henao Monje, J. (2021). *Expansión de herramientas financieras digitales para impulsar el comercio electrónico de las MiPyMEs de América Latina.* IDB. Retrieved from: https://publications.iadb.org/es/expansion-de-herramientas-financieras-digitales-para-impulsar-el-comercio-electronico-de-las

25 · For further ideas, see, for example: Mariscal, E., Flores-Roux, E., Guerrero, R., Elbittar, A. (2021). *Eliminación de barreras al comercio digital: desafíos de logística*. IDB. Retrieved from: https://publications.iadb.org/es/eliminacion-de-barreras-al-comercio-digital-desafios-de-logistica

· **Provide scalable online capacity-building and financing for social sellers to build online stores and make their first online transactions.** Most Southern Cone firms market their goods and services via a few social media channels and a messaging app, instead of leveraging multiple online channels or marketplaces. These "social sellers" can be supported to create their own online stores and onboarding marketplaces that could enable them to scale their customer bases and export. To enable these sellers to move to marketplace sellers at scale could be accomplished, for example, through microlearning applications that provide customized skills development and guidance.

· **Work with marketplace sellers to grow and diversify their cross border online sales and markets.** While substantial shares of Southern Cone region's online sellers export, there are opportunities to enable online seller-exporters to further diversify export markets, in partnership with export promotion agencies.[26]

Companies in the region also look to learn to comply with digital regulations and have in place internationally interoperable policy frameworks that enable them to scale more easily across markets. To further develop the **enabling digital policy environment** for e-commerce, the region's governments can:

· **Monitor the E-commerce Agreement's implementation and impacts and assess areas for improvement.** The Mercosur E-commerce Agreement did not require major changes in the members' existing laws and practices.[27] However, to remain credible and impactful, the agreement's implementation and impact should be monitored regularly. The members could, for example, carry out annual technical reviews of the implementation of the agreement, engage in regular public-private dialogues to harvest regional businesses' views on the impacts of the agreement on their operations and trade, and promote discussion on emerging good digital policies and practices around the world.[28]

· **Promote firms' compliance with digital policies and use of technologies to securely transfer, store, and process data.** Southern Cone region's firms report significant challenges in dealing with national data privacy and consumer protection rules, which points to a need for awareness-building and simple online stools by which firms can self-assess their compliance. Businesses could also be supported to leverage emerging technologies such as confidential computing

26 · For selecting the companies poised to succeed in e-commerce, see a data-driven method here: Suominen, K. (2021). *Roadmap for Empowering Women-Led Firms in E-commerce and the Digital Economy*. Retrieved from: https://www.allianceforetradedevelopment.org/_files/ugd/478c1a_5df4888ac626485fb1b16f-3cee8972c0.pdf
27 · Lerman, C., Szlak, G., Suyai Mendiberri, L. (2022). *MERCOSUR Electronic Commerce agreement: Challenges and opportunities.* Asociación por los Derechos Civiles. Retrieved from: https://adc.org.ar/wp-content/uploads/2022/09/MERCOSUR-ElectronicCommerceAgreement_ChallengesAndOpportunities-1.pdf
28 · There is also work ahead to detail and seek to align regional internet intermediary liability rules, as is done in the USMCA. See for example: Bustos Frati, G., Palazzi, P., Rivero, S. (2021). *Responsabilidad de intermediarios de internet en América Latina: Hacia una regulación inteligente de la economía digital.* IDB. Retrieved from: https://publications.iadb.org/es/responsabilidad-de-intermediarios-de-internet-en-america-latina-hacia-una-regulacion-inteligente-de

and encryption that secure data at rest, in transit, and in use are developing rapidly; some forecasts suggest that by 2025, one-half of large U.S. companies will have adopted privacy-enhancing technologies for multiparty analytics.[29] Confidential computing could enable cloud computing applications, whereby two companies could combine data sets without accessing each other's data.[30] These technologies are promising for Southern Cone firms to share and gain insight from data without compromising data privacy.

· **Promote self-regulation by firms and region's participation in the Global CBPR.** Another way to promote good digital behaviors is self-regulation and -certification schemes. One such model is the Asia-Pacific Economic Cooperation (APEC) Cross-Border Privacy Rules (CBPR) system, a data privacy certification that enables certified businesses to transfer data across borders, has become paralleled by the new Global CBPR Forum among Australia, Canada, Japan, Korea, the Philippines, Singapore, Taiwan, and the United States.[31] The Global CBPR Forum intends to develop an independent international certification system, based on the APEC CBPR. In practice, certified businesses would be able to transfer data among the APEC CBPR and Global CBPR members from point A to point B, then continue transferring the data to points C and D as useful, while still adhering to data privacy standards and protections.[32] Southern Cone governments could consider joining this global initiative to facilitate businesses' use and transfer of data with numerous extra-regional partners.[33]

· **Promote interoperability in payments and finance**. Southern Cone governments can also promote interoperability of national payment systems, Fintechs, and digital identities, as done in the Digital Economic Partnership Agreement (DEPA) of 2020 between Chile, New Zealand, and Singapore. There are also useful provisions in the recent digital trade agreements between the United Kingdom and Southeast Asian nations and between South Korea and Singapore to promote data and digital innovations as well as digital standards and technical regulations.

· **Future-proof national and regional digital regulatory frameworks, for example with provisions on cloud and AI governance and digital inclusion.** The regional digital

29 · Gartner. (2020). Gartner Identifies the Top Strategic Technology Trends for 2021. Press Release. Retrieved from: https://www.gartner.com/en/newsroom/press-releases/2020-10-19-gartner-identifies-the-top-strategic-technology-trends-for-2021

30 · Merritt, T. (2020). "Top 5 Things to Know About Confidential Computing," TechRepublic. Retrieved from: https://www.techrepublic.com/article/top-5-things-to-know-about-confidential-computing/.

31 · U.S. Department of Commerce. Global Cross-Border Privacy Rules Declaration. Accessed March 2023. Retrieved from: https://www.commerce.gov/global-cross-border-privacy-rules-declaration

32 · Knight, R. (2022). "From Regional to Global: The CBPR System Goes Global". BBB. Retrieved from: https://bbbprograms.org/media-center/bd/insights/2022/10/25/cbpr-system-goes-global

33 · U.S. Department of Commerce. Global Cross-Border Privacy Rules Declaration. Accessed March 2023. Retrieved from: https://www.commerce.gov/global-cross-border-privacy-rules-declaration

policy agenda needs to keep evolving as technologies mature and change. For example, as regional businesses and government agencies engage in a digital transformation and adopt cloud-based solutions, governments can promote interoperability in cloud governance and ensure cloud markets are open to competition. Similarly, with artificial intelligence (AI)applications permeating all parts of the economy, governments can help ensure national AI regulations promote the deployment of AI applications and enable interoperability in AI governance with other nations.

In terms of **trade and trade facilitation policies**, the region can further work to:

· **Reduce trade barriers, including tariffs and nontariff barriers**. Mercosur economies' intraregional trade remains limited by tariffs, non-tariff barriers, and private trade restriction agreements, and members' imports from extra-regional partners are still subject to considerable tariffs, estimated to average 13 percent.[34] Border restrictions will keep hampering online sellers' diversification and inflate trade costs and shipment times.

· **Simplify the movement of goods and information.** For the movement of goods and information from one country to another, coordination and dialogue between countries is necessary. Therefore, governments could work on harmonizing import and export processes in the region; facilitating the implementation of an efficient reverse logistics process; and minimizing restrictions on cross-border data flows. Finally, to reduce local bottlenecks that require only internal efforts in each country, it is necessary to rethink the role of postal companies to empower them for the new environment; avoid applying onerous ex ante regulations to local delivery platforms; and undertake a comprehensive customs modernization program[35].

· **Further promote paperless trade and digitization of border clearance.** Southern Cone governments have gradually adopted paperless trade practices and sought greater interoperability among border agencies. These efforts need to be sustained and accelerated through further paperless trade and digitization of trade processes and interoperability among border agencies within countries and among them.

There is also a great deal of work ahead to **enhance the digital backbone and firms' capabilities to engage in e-commerce, such as promoting connectivity and cybersecurity.** Business' concerns about internet connections as an obstacle to e-commerce point to an urgent need to improve broadband connectivity and address cybersecurity challenges in the region, especially for the region's less

34 · Palermo, T. (2022). "Mercosur divided". GIS. Retrieved from: https://www.gisreportsonline.com/r/mercosur-divided/

35 · For further ideas, see, for example: Mariscal, E., Flores-Roux, E., Guerrero, R., Elbittar, A. (2021). *Eliminación de barreras al comercio digital: desafíos de logística*. IDB. Retrieved from: https://publications.iadb.org/es/eliminacion-de-barreras-al-comercio-digital-desafios-de-logistica

digitized firms to be incentivized to invest in their digital transformation. In addition, Covid-19 has significantly increased fraud and cyberattacks; governments can work further with startups and technology companies, as done for example in the United States by state and local governments, to incentivize the development of cybersecurity solutions customized for smaller firms' needs and budgets. In Chile, the government has worked with the University of Santiago to provide scholarships for a Cybersecurity training program to firms and employees who provide cybersecurity services.

8. CONCLUSION

Southern Cone firms' use of digital channels that enable them to transact with customers remotely, such as online stores and marketplaces, has expanded remarkably in the past three years in all firm size categories. Also, the use of digital technologies and services such as digital payments, online banking, digital invoicing, CRM and ERP systems, and cloud services has been expanding rapidly.

This report has reviewed the implications of e-commerce use on the regional firms' trade opportunities. The survey data suggests that there is a close association between e-commerce use and trade: the most e-commerce-driven firms are particularly engaged in trade and have been diversifying their export markets and import sources most notably during Covid-19. In turn, firms that diversified their trade lanes outperform their peers in revenue growth in 2022 and forecast strongest revenue and profitability growth for 2023.

However, the regional e-commerce markets are still far from capacity, when assessed against the world's leading e-commerce markets, and the majority of firms are in the early stages of their e-commerce journeys. The survey data indicates compliance with digital regulations, gaps in internet connections, high trade costs, and gaps in the trade infrastructure such as in warehouse capacity and quality arrest firms' export expansion and diversification across markets. Surveyed firms forecast significant revenue gains were these challenges resolved.

While the regional enabling environment for e-commerce is improving, the data assessed here suggest there is a need for further trade facilitation and paperless trade practices, reductions in tariff and non-tariff barriers, and ensuring that the common e-commerce commitments are implemented, for the regional countries to facilitate intra-regional e-commerce. Enhancing firms' internet connectivity and cybersecurity capabilities will be key to sustained success in e-commerce and enabling firms that are early in their e-commerce journeys to see payoffs from digital transformation.

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10. APPENDIX I – E-COMMERCE ECOSYSTEM

Table I-1 · Selected companies in the Southern Cone E-commerce Ecosystem

Industry	Name	Country	Customer type	Description and services
Marketplaces	Mercado Libre	Argentina	Small business sellers and individual buyers	Latin America's largest B2C marketplace, also includes payments credit and logistics arms
	Americanas	Brazil	Small business sellers and individual buyers	Brazil's second largest online marketplace with over 40 million products
	NocNoc	Uruguay	Global businesses selling in Latin America	Enables sellers around the world to easily access 15 marketplaces offering their products to over 650 million consumers in Latin America every month
Headless e-commerce platforms	VTEX	Brazil	Online businesses	End-to-end omnichannel commerce platform including marketplace management, online stores, and order management
	Nuvemshop (Tiendanube)	Brazil	Online businesses	Enables businesses to create their own online store, integrating products, payments and shipping with different sales channels, such as social media, marketplaces and physical stores
	Instance	Chile	Online businesses	Centralizes the operational processes of an order received by any digital platform such as through a marketplace, e-commerce store, or social media
E-commerce solutions	Maeztra	Brazil	Online businesses	On-demand solutions for online businesses, including strategic and technical consulting, design and experience, and technology and development
	Olist	Brazil	Online businesses	End-to-end e-commerce solutions including an ERP, online marketplace integration, creation of online stores, and logistics solutions
	Teo	Paraguay	Small businesses in digital transformation	Digital transformation solutions for small businesses including online stores, improved logistics, online payments, digital ID services, and management
Logistics	Moova	Argentina	Online businesses	Logistics platform based on AI for optimized e-commerce deliveries
	Loggi	Brazil	Businesses that need delivery services	On-demand couriers, next day and last mile delivery for e-commerce companies
	FreteBarato	Brazil	Online businesses	Shipping platform for online sellers to connect with carriers at low costs
Warehousing and Fulfillment	ClicOH	Argentina	Online businesses	Logistics solutions for online sellers including last mile delivery, pick up points, and fulfillment services
	Amplifica	Chile	Online businesses	Dark stores and warehouses for storage of e-commerce products, as well as delivery services and a platform to integrate and connect sales channels
Payments	PagBrasil	Brazil	Global online sellers selling to Brazil	Online payment processing designed specifically for the Brazilian market
	AstroPay	Brazil	Online businesses	Payments solution integrated with more than 200 banks and payment systems
	dLocal	Uruguay	Businesses selling to high-growth, emerging economies	Payment processing specializing in local payments in emerging markets, including receiving local credit and debit cards, bank transfers, and cash payments, as well as issuing payments to contractors, agents, and sellers

Source: Authors' own elaboration

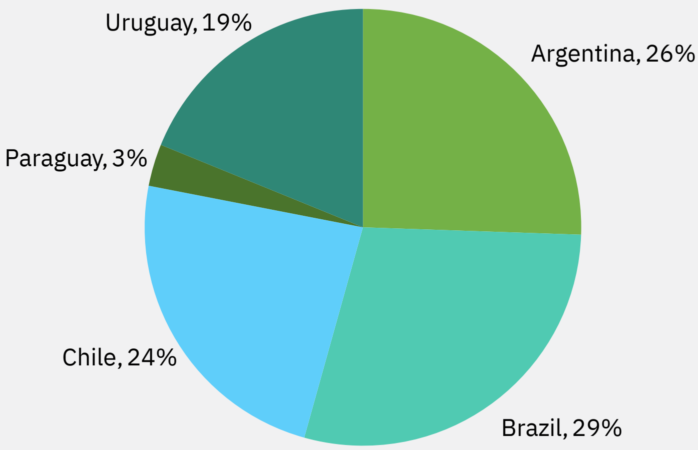
11. APPENDIX II – SURVEY AND SAMPLE

Survey methodology

The online survey had three main parts covering altogether some 30 questions on (1) firm characteristics (such as size, sector, age, geolocation, technology-intensity, etc.); (2) firm performance (such as revenue growth, export participation and intensity, market and product diversification, employment growth), and (3) firms' pain points and needs to engage in e-commerce (such as trade policy-related challenges, market access requirements and standards, and customs procedures; quality and availability of logistics services; and such variables as access to talent, services, technologies and trade and digital transformation finance).

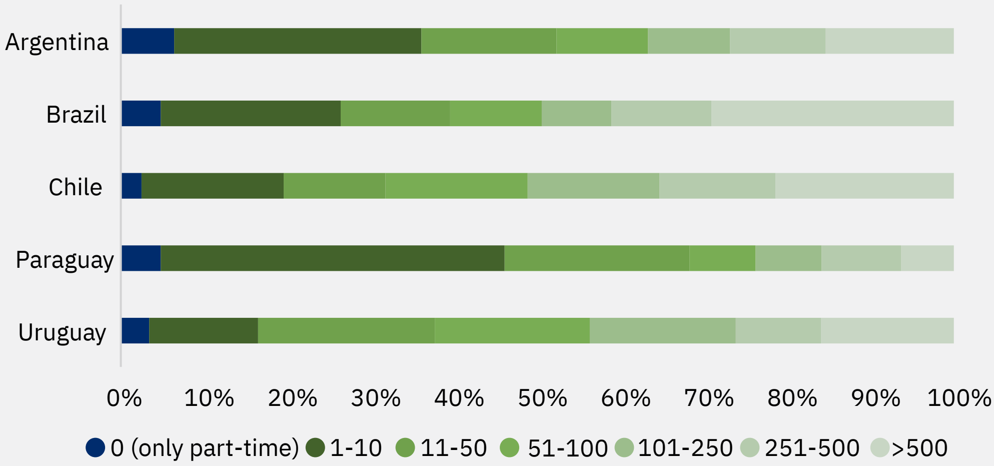
The survey was fielded with online survey platform Pollfish with 1,978 firms (yielding a 54% response rate) on 6 February-16 March 2023 that has panels of millions of business respondents and enable us to secure a large sample at limited cost. Although the sample is not designed to be representative, it has large variation in variables such as number of employees, sector, and location (see graphs below).This method is scalable and saves considerable amount of time and resources compared to computer-assisted telephone interviews (CATIs). In several prior studies utilizing both CATI and online surveys in a country simultaneously, Nextrade Group has found that online surveys as executed using the methodology described here have minimal tradeoffs: they produce very similar patterns as CATI surveys and even if the surveys are unsupervised, they produce robust, high-quality responses from serious survey-takers. This in part owes to robust quality control before, during, and after the survey, through such practices as questions to identify inattentive survey-takers and digital fingerprinting to prevent duplicates.

Figure II -1 · Sample by Country



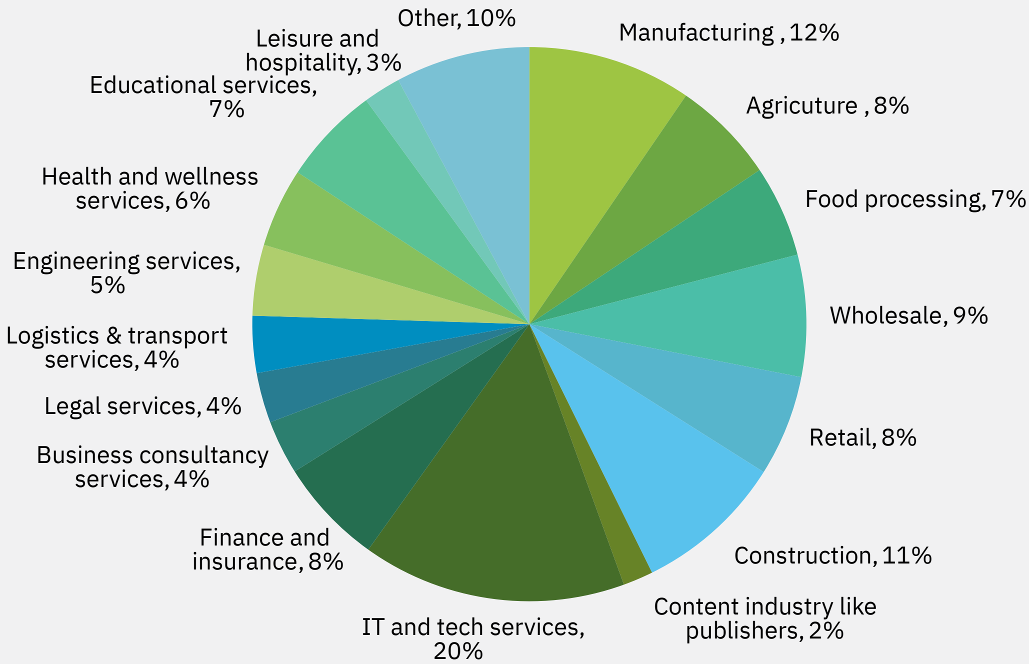
Source: Authors' survey.

Figure II -2 · Sample by number of employees by country



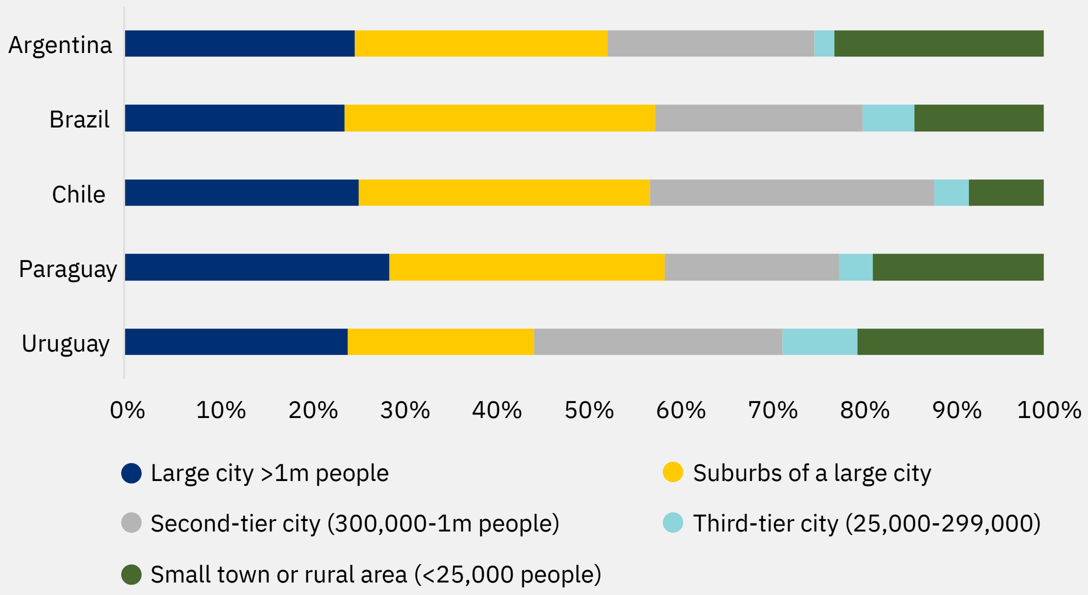
Source: Authors' survey.

Figure II -3 · Sample by Sectors



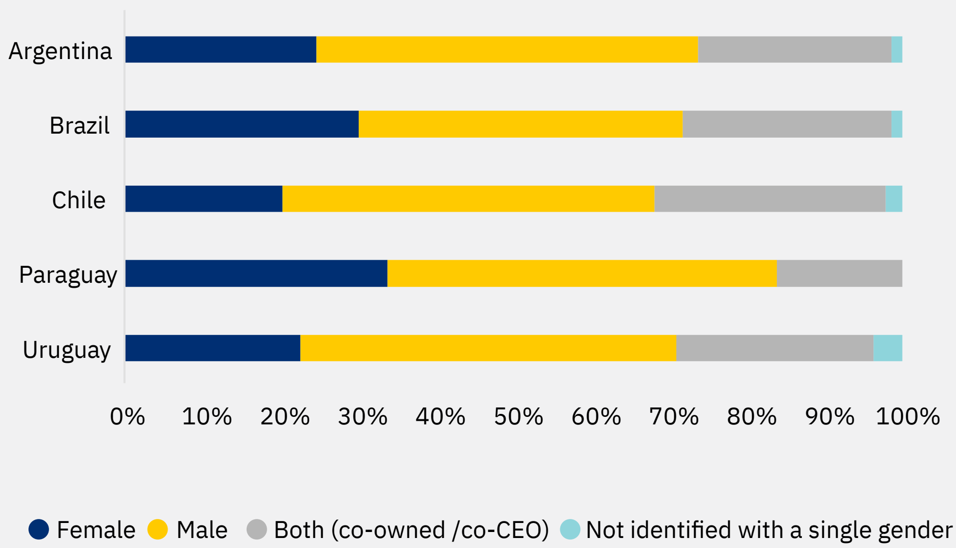
Source: Authors' survey.

Figure II -4 · Sample by Location



Source: Authors' survey.

Figure II -5 · Sample by Gender of CEO



Source: Authors' survey.

12. APPENDIX III– SELECTED DIGITAL POLICIES IN SOUTHERN CONE REGION

Policy area	Country	Description
Data privacy and transfer	Argentina	Argentina executed the Personal Data Protection Act in 2000 to protect the privacy of personal data. The law aligns with general data protection regulation (GDPR), and Argentina was the first Latin American country to achieve an 'adequacy' qualification for data transfers from the EU.[1] In 2016, the government issued new regulation to govern cross-border transfers, allowing transfer under certain circumstances, or through adequacy requirements, or with user consent.[2]
	Brazil	The Brazilian General Data Protection Law of 2018 entered into force in September 2020 to regulate how personal data is collected, used, processed and stored. The law is broadly aligned with GDPR. Transfer is allowed under certain circumstances, or through adequacy requirements, or with user consent.[3]
	Chile	Chile's Personal Data Projection Law of 1999 regulates the processing of personal data in public and private databases. The law does not provide or require any special provisions for the international transfer of personal data. As of 2021, the country was considering amending the law to include cross-border transfer provisions.[4]
	Paraguay	Paraguay's Law No. 6544/20 on the Protection of Personal Credit Data entered into force in October 2020. The law protects both the personal and credit data of data subjects. The law contains adequacy requirements for transfer of data to third countries and international organizations.[5]
	Uruguay	Uruguay's Data Protection Act of 2008 established the right to data protection as a fundamental right. Amendments since 2008 include proactive responsibility and data protection officers.[6] The law allows data transfer under certain circumstances, or through adequacy requirements, or with user consent.[7] Uruguay obtained European Union (EU) adequacy in 2012.[8]
Consumer protection	Argentina	Consumer protection rights are mainly governed by the Argentine Civil and Commercial Code and the Consumer Protection Law No. 24,240 of 1994. In 2022, the law was amended to increase sanctions amounts on a variable basis, whereas before sanctions were fixed.[9] Resolution 104/2005 in 2005 addressed consumer protection carried out through the internet specifically.[10]
	Brazil	Brazil introduced the Consumer Protection Code (CDC) in 1990. The code was amended in 2013 by Decree No. 7962/2013 in reaction to the growing number of online transactions in Brazil, introducing new obligations especially on e-commerce.[11]
	Chile	Chile adopted the Consumer Protection Law in 1997 and amended the law in 2011 with Law 20543. Under the law, specific rules apply to products and services supplied online.[12]
	Paraguay	Paraguay passed the Consumer Protection Law No. 1334 in 1998. In 2013, the government passed the Electronic Commerce Law No. 4868, establishing obligations related to consumer protection in e-commerce.[13]
	Uruguay	Uruguay passed the Consumer Defense Law - Law No. 17,250 in 2000.[14] To date, there are no e-commerce specific consumer protection regulations.
Cybersecurity law	Argentina	Argentina does not have general legislation on cybersecurity. The Criminal Code provides sanctions for crimes committed through computerized means, and there are related regulations such as on Computer Crime, Digital Signature, and setting up a Cybersecurity Committee.[15] The country has also instituted specialized protection units for Cybercrime and adhered to the Budapest Convention in 2017.[16] In 2019 the government issued the first National Cybersecurity Strategy, and in 2023 launched a public consultation for the second strategy.[17]
	Brazil	In Brazil, cybersecurity requirements are generally provided by regulatory agencies, such as the central bank, the Securities and Exchange Commission, the National Telecommunications Agency, and the Brazilian Private Insurance Authority. The government also approved a National Cybersecurity Strategy in 2020 and ratified the Budapest Convention in 2022.[18][19]
	Chile	In Chile, there is no general law that regulates cybersecurity. There are related laws such as on computer crimes, and the Senate introduced a bill in March 2022 to establish a framework law on cybersecurity and critical information infrastructure.[20] Chile has a National Cybersecurity Policy 2017-2022.[21] Chile acceded to the Budapest Convention in 2017.[22]
	Paraguay	Paraguay does not have a general cybersecurity law. Cybersecurity is regulated by the Criminal Code, E-Commerce Law, Personal Credit Data Protection Law, and other sectoral regulations. In 2017 the government drafted a National Plan on Cybersecurity in collaboration with the private sector, academia, and members of civil society.[23] Paraguay acceded to the Budapest Convention in 2018.[24]
	Uruguay	Uruguay does not have a general law on cybersecurity. The Data Protection Law contains some sections regarding cybersecurity. In late 2022, the government was considering a draft bill on Cybercrime.[25] There is no specific Cybersecurity Strategy or Plan, but the Uruguay Digital Agenda 2025 Objective X is on strengthening cybersecurity.[26] Uruguay is an observer country to the Budapest Convention.[27]

Source: authors' own elaboration.

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