

Tourism in Central America and the Dominican Republic in the face of digital technologies

Challenges and opportunities for MSMEs

Leda Peralta



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This document was prepared by Leda Peralta, Economic Affairs Officer, under the supervision of Jorge Mario Martínez, Head of the International Trade and Industry Unit of ECLAC Subregional Headquarters in Mexico. We are grateful to Jennifer Alvarado, Research Assistant of the International Trade and Industry Unit, for her technical and statistical support through the analysis of tourism indicators and the compilation and analysis of a regional survey. We are also grateful for the support by Elsa Gutiérrez, Research Assistant and Gender Focal Point, and Sara Hess, Associate Economic Affairs Officer, for their advice and analysis of inclusion and gender issues. We are grateful for the work and information produced by the consultants Marisela Bonilla, Lissette Gil, Otto Rivera and Luis Sánchez.

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United Nations publication
LC/MEX/TS.2021/10
Original: Spanish
Distribution: L
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Printed at United Nations, Santiago

This publication should be cited as: L. Peralta, *Tourism in Central America and the Dominican Republic in the face of digital technologies: challenges and opportunities for MSMEs* (LC/MEX/TS.2021/10), Mexico City, Economic Commission for Latin America and the Caribbean (ECLAC), 2021.

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Abstract

Tourism micro, small and medium-sized enterprises (MSMEs) recognize the importance of digital tools to attract tourists, showcase the company and sell products and services. However, they make basic use of these tools to communicate and promote the company, missing opportunities to improve their competitiveness, productivity and sustainability. This study analyses the state of the digital transformation of tourism MSMEs in the member States of the Central American Integration System (SICA), both their internal capacities and external conditions that affect their ability to innovate. The study follows a cross-cutting gender analysis and describes the innovation capacity of rural tourism companies.

The main gaps in digital transformation revolve around three themes: use, access and time. Companies are connected but only use tools such as social media and messaging platforms in a basic way. Limited digital capabilities result in unawareness of new technologies, difficulty to outsource or monitor digital services and a basic use of business management tools. Access presents various types of barriers, mainly the quality of broadband in relation to its cost, the high penetration of prepaid mobile plans and the cost of equipment and digital services, such as digital marketing or data analytics. Finally, most companies are microenterprises where a great diversity of tasks is divided between small staffs, so there is little time available to innovate. Women face an additional challenge due to the proportion of unpaid care work they undertake. Innovation, facilitated by digital tools, has the potential to provide solutions to the most persistent challenges faced by MSMEs: business management, access to financing, professionalization and life-long learning.

Resumen

Las micro, pequeñas y medianas empresas (mipymes) turísticas reconocen la importancia de las herramientas digitales para atraer a los turistas, dar visibilidad a la empresa y vender sus productos y servicios. Sin embargo, hacen uso básico de estas herramientas para comunicarse y promocionar la empresa, desaprovechando oportunidades para mejorar su competitividad, productividad y sostenibilidad. En este estudio se analiza el estado de la transformación digital de las mipymes turísticas de los países miembros del Sistema de la Integración Centroamericana (SICA), tanto sus capacidades endógenas como las condiciones del entorno que afectan su capacidad de emprender procesos de innovación. Se incluye un análisis transversal de género y se analiza la capacidad de innovar de las empresas turísticas rurales.

Las principales brechas a la transformación digital giran en torno a tres temas: uso, acceso y tiempo. Las empresas están conectadas pero solo usan de manera básica las herramientas como redes sociales y plataformas de mensajería. Las capacidades digitales limitadas resultan en desconocimiento de nuevas tecnologías, dificultad para subcontratar y supervisar servicios digitales, y un uso básico de herramientas de gestión empresarial. El acceso presenta diversos tipos de barreras, principalmente la calidad de la banda ancha en relación con su costo, la alta penetración de planes móviles prepago y el costo de los equipos y los servicios digitales como mercadeo digital o analítica de datos. Finalmente, la mayoría son microempresas donde la gran diversidad de tareas se divide entre pocas personas, por lo que se hay poco tiempo disponible para innovar. Las mujeres enfrentan un reto adicional debido a que deben incluir labores de cuidado no remunerado en sus actividades diarias. La innovación, facilitada por las herramientas digitales, tiene el potencial de brindar soluciones a los retos más persistentes que enfrentan las mipymes: gestión de la empresa, acceso a financiamiento, y profesionalización y formación continua.

Introduction

The COVID-19 pandemic has accelerated the productive transformation driven by the digital revolution. Worldwide, teleworking grew by 324% between the first and second quarters of 2020, and electronic commerce grew by 157% within the same period in Latin America (ECLAC, 2020a). In contrast, the sectors that require physical contact and interaction, such as tourism, are in the midst of a crisis. The digital activity of tourism decreased by 83% and America received 69% fewer tourists between 2019 and 2020 (UNWTO, 2021). Losses of \$16.9 billion are estimated in the Central American Integration System (SICA) region, where the Dominican Republic, Panama and Costa Rica would have the greatest nominal impact (ECLAC, 2021b).

The impact of the pandemic on tourism mainly affects micro, small and medium-sized enterprises (MSMEs) that have low resilience to respond to a crisis of this magnitude and duration. It is estimated that the pandemic could cause the closure of 2.7 million companies in Latin America and the Caribbean, around 19% of the total. Microenterprises face the highest risk, with 21% estimated to close, followed by 7% of small and 3% of medium-sized enterprises. Retail MSMEs would be the most affected, followed by hotels and restaurants (ECLAC, 2020b). These types of companies employ many women and young people.

In addition to the emergency caused by the pandemic, MSMEs in the region already faced a gap in their productivity, ability to innovate and digitalisation compared to large companies and MSMEs in other regions. Partly, this relates to the low levels of adoption of information and communication technologies and digital services to boost production. Although there is high penetration of prepaid mobile broadband and intense activity in social media, little use is made of more sophisticated tools to get to know customers, innovate products and services, and transform business models, such as data analytics, the internet of things and artificial intelligence.

Digitalisation gaps revolve around three issues: (i) enabling infrastructure; (ii) cost, and (iii) capabilities. Tourism MSMEs, especially in rural areas, face challenges related to the coverage and penetration of fixed and mobile broadband, and the quality-price ratio of telecommunications and electricity services. The cost is reflected in affordability issues caused by the quality of the utilities and in the difficulty of MSMEs to acquire digital products and

services. The prevalence of microenterprises, including family-owned and sole proprietor businesses, limits the availability of resources to invest in technology, although these investments could optimize the productive process and alleviate the burden of some tasks. Finally, MSMEs have basic digital skills, such as the use of business websites, email, social media and digital marketplaces. However, they have limited knowledge of new technologies and how they benefit their industry, limited financial resources to hire specialized personnel or companies, and face difficulties to access financing for innovation. In addition, smaller companies have limited personnel that undertakes a variety of tasks, thus, limiting the time available to learn and innovate.

This study analyses the state of the digital transformation of tourism MSMEs in the member States of the Central American Integration System (SICA) and the potential of digital tools to increase their competitiveness and productivity and facilitate their recovery from the crisis caused by the Covid-19 pandemic. The tourism sector is at a standstill and expectations of a slow recovery provide an opportunity to take advantage of the time and shorten the digital gap faced by tourism MSMEs in the region. It is important to keep in mind that, despite the urgency to facilitate the digital transformation of tourism MSMEs, the subsistence and well-being of families and communities that depend on tourism must be priority.

This document is divided into five chapters. The first chapter gives an overview of the MSMEs in the SICA region and describes the financial and technological conditions that affect their ability to undertake digital transformation processes. Chapters II and III focus on the tourism sector in the region and on the digital maturity of MSMEs to respond to changing tourism trends. The chapters analyse the performance of the countries, the profile of their visitors and the main trends in tourism to understand the gap that separates MSMEs from their visitors. Chapter IV delves into the capacities of MSMEs to adopt electronic commerce as a key element for digital transformation and proposes a roadmap to increase its adoption and sophistication of other potential uses. Finally, based on the findings of the research, chapter V discusses some recommendations to inform public policies and instruments to promote tourism MSMEs and to support their digital transformation.

Chapter I

The setting for a digital transformation

A. Introduction

The digital revolution or fourth revolution has transformed productive processes, value chains and the relationship between consumers and producers. The sophistication of information and communication technologies and digital services optimizes production, facilitates business management, and brings customers and suppliers closer together. The ubiquity of technology has blurred the boundaries between physical and digital production systems, and innovative business models intertwine digital products and services with their offer of goods and face-to-face activities. The incorporation of digital tools in operational and production activities has the potential to increase business productivity, a pending issue of MSMEs in the region, and improve their competitiveness through innovative products, services and business models.

Data is at the centre of this revolution, both due to our continuous creation and our ability to analyse it and turn it into useful information. Internet protocol traffic went from 100 gigabytes (GB) per day in 1992 to 45,000 GB per second in 2017 and it is expected to reach 150,700 GB per second in 2022 (UNCTAD, 2019). This growth is facilitated by the penetration of internet, which brings millions of new users online every year, and the expansion of the internet of things (IoT). The computing power to store and process data through edge computing facilitates the analysis of big data obtained from social media, platforms, applications and software; and artificial intelligence applications turn this big data into useful information for users.

While the data and technology exist, companies need digital and business skills to turn them into intelligence and monetise them. In other words, the digital transformation represents the capability of companies to innovate their business models and optimize their productive process and management by taking advantage of the data and technologies of the digital revolution.

This chapter describes the digital transformation process and the skills required to undertake this task. Subsequently, micro, small and medium-sized enterprises (MSMEs) in the SICA region are described, as well as their digital and financial environment to understand their capacity to undertake the digital transformation of their businesses.

B. Digital transformation

The digital revolution has been driven by technologies and digital services that transform the way we produce and consume. The main transformational effect of digitalisation is the reduction of transaction costs and marginal costs of production and distribution. Its impact is produced through three mechanisms: the creation of digital goods and services, the addition of value by incorporating the digital in non-digital goods and services, and the development of production, exchange, and consumption platforms (ECLAC, 2016).

The International Telecommunication Unit (ITU) defines digital transformation as a continuous process of multi-modal adoption of digital technologies that fundamentally change the way government and private sector services are ideated, planned, designed, deployed, and operated such that they are personalized, paperless, cashless, presenceless, frictionless and consent-based (ITU, 2019).

There are several models to assess the state of the transformation based on the levels of adoption of the different digital tools. Depending on the ubiquity in the use of tools and digital services and the pace of changes implemented, four levels of maturity can be defined in the digital transformation process (see table I.1).

Table I.1
Levels of digital transformation maturity

Level	Features	Approach
Initial	<ul style="list-style-type: none"> • Acknowledge the usefulness of digitalisation • Start some experiments within the organization • Goals, resources and vision are disconnected • Siloes of information with limited exchange • Lack of focus • Significant duplications and redundancies 	<ul style="list-style-type: none"> • Digitize paper-based processes • Automate individual tasks, without integration • Reduce costs
Adoption	<ul style="list-style-type: none"> • Develop transformation strategy, including organizational, cultural and structural issues • Limited investments and integration • Gradual changes and integration 	<ul style="list-style-type: none"> • Optimize processes • Automation with limited integration • User experience • Security
Expansion	<ul style="list-style-type: none"> • Managerial support and resource allocation • Strategic alignment of the entire organization • Intentional experimentation • Teams dedicated to business and customer focused goals 	<ul style="list-style-type: none"> • Digital products • Data-driven services • Data monetisation • Use of the cloud and own software development • Customers at the centre of the strategy
Sustainability	<ul style="list-style-type: none"> • Agile and reliable ecosystem that offers complete solutions • Assisted by artificial intelligence and data analytics • Innovative business culture • Management of change and uncertainty • Internal collaboration and creation through the use of data 	<ul style="list-style-type: none"> • Business innovation • Client retention • Prediction • New industries and markets

Source: Elaborated by the author, on the basis of International Telecommunications Unit (ITU), "Digital transformation and the role of enterprise architecture", *Thematic Reports* (978-92-61-29011-5/2019).

The stages show the intensity in the use of tools and data to produce and do business, regardless of the type of service or product offered by the enterprise. In other words, digital transformation also occurs in face-to-face activities or activities that are not normally

considered digital, such as tourism. The goal is to take advantage of digital tools and data to optimize business operations, improve worker and customer satisfaction, create new products or services, and connect with new industries or enterprises.

The digital transformation is facilitated by digital skills (see table I.2). It is estimated that a 1% increase in basic digital skills generates a 2.5% increase in labour productivity, while a 1% increase in advanced digital skills results in a 3.7% increase in labour productivity (European Commission, 2020). Therefore, it should be recognized that each student or enterprise will have specific needs for digital skills. The ITU (2018) recommends that digital transformation strategies identify the digital skills development goals for the following groups:

- Primary education
- Secondary education
- Tertiary education for students and digital technology development and design experts
- Work-related digital skills training programs for out-of-school youth, including for freelancers and part-time workers
- Work-related digital skills training programs for adults requiring re-skilling
- Skills for life in the digital economy for the entire population

Table I.2
Digital skills levels

Level	Skills	How to get them
Basic	<ul style="list-style-type: none"> • Using a keyboard or touch screen to operate a device • Using software to download applications and create documents • Complete basic internet transactions (search, send and receive emails, fill out forms) 	<ul style="list-style-type: none"> • Formal training • Self-learning • From colleagues
Advanced	<ul style="list-style-type: none"> • Artificial intelligence • Big data • Cybersecurity • Digital entrepreneurship • Internet of Things • Virtual reality 	<ul style="list-style-type: none"> • Advanced formal education • Intensive programming courses (bootcamps) • Online learning

Source: International Telecommunications Unit (ITU), *Digital Skills Toolkit* (978-92-61-26521-2), 2018.

Within the tourism sector, the digital transformation has three areas of implementation.

- (i) Interaction between enterprises and customers: the relationship with customers is made possible and personalized through data analysis; and the local experience is interweaved with the digital experience before, during and after the visit.
- (ii) Management of the tourist destination: the analysis of big data and trends allows national and local governments to focus policies and development instruments in the territory; interoperability and digital government improve the relationship with the public administration; and the diversity of tools allow environmental monitoring and sustainable use of natural resources.
- (iii) Business management: digital tools provide solutions to the main challenges faced by MSMEs, that is, the management of the enterprise, access to financing and life-long learning (see table I.3).

Table I.3
Examples of uses of digital tools in micro, small and medium tourism enterprises

Use in the MSMEs technology	Business management	Relationship with customers	Training and professionalization	Environmental sustainability
3D printing and advanced materials	<ul style="list-style-type: none"> • Everyday items (cutlery, furniture, hangers) • Smart design and maintenance through digital twins 	<ul style="list-style-type: none"> • Handicrafts • Souvenirs • 3D printing services • Export of products via digital design 	<ul style="list-style-type: none"> • Digital design of tourism products and services 	<ul style="list-style-type: none"> • Construction, little debris • Food, no waste
Artificial intelligence	<ul style="list-style-type: none"> • Creation of customer profiles • Inventory optimization • Planning staff activities 	<ul style="list-style-type: none"> • Virtual concierge • Chatbots • Virtual, augmented and mixed realities 	<ul style="list-style-type: none"> • Personalized training programs 	<ul style="list-style-type: none"> • Monitoring of water and energy use • Capacity management
Big data analytics	<ul style="list-style-type: none"> • Data monetisation • Business performance management 	<ul style="list-style-type: none"> • Customize visitors' stay • Design offers and communication strategies according to customer profiles 	<ul style="list-style-type: none"> • Analysis and data collection 	<ul style="list-style-type: none"> • Projected water and energy use • Identification of food consumption patterns
Blockchain	<ul style="list-style-type: none"> • Protection of data and transactions • Financial management 	<ul style="list-style-type: none"> • Secured transactions • New payment methods 	<ul style="list-style-type: none"> • Certification of competencies 	<ul style="list-style-type: none"> • Traceability of products and services • Certification of sustainability
IoT and sensors	<ul style="list-style-type: none"> • Contactless check-in and payment • Inventory control 	<ul style="list-style-type: none"> • Comfort setting • Voice control 	<ul style="list-style-type: none"> • Interactive learning 	<ul style="list-style-type: none"> • Temperature control • Diagnosis and maintenance
Robotics and cobotics	<ul style="list-style-type: none"> • Operational tasks, such as room cleaning 	<ul style="list-style-type: none"> • Customer service • Autonomous vehicles • Drones for distribution 	<ul style="list-style-type: none"> • Programming • Maintenance 	<ul style="list-style-type: none"> • Efficient use of resources • Waste sorting
Cloud and edge computing	<ul style="list-style-type: none"> • Pay per use • Personalized solutions 	<ul style="list-style-type: none"> • Share and save information • Receive feedback on the experience 	<ul style="list-style-type: none"> • Ubiquity and affordability of educational materials 	<ul style="list-style-type: none"> • Reduction in energy use to process data
Fintech	<ul style="list-style-type: none"> • Access to financing • Collaboration 	<ul style="list-style-type: none"> • Multiple payment methods • Contactless payment 	<ul style="list-style-type: none"> • Financing for life-long education 	<ul style="list-style-type: none"> • Green financing • Financial protection against disasters and climate change

Source: Elaborated by the author.

These technologies have the potential to facilitate production, optimize the use of resources, improve consumer experience, improve staff satisfaction and performance, secure the data contained in important transactions, trace processes, and analyse and monetise the data produced in every interaction. However, it is also important to consider the risks associated with the adoption capacity of the region and its enterprises.

Perhaps, the main risk is the widening digital gap between developing and developed countries, between urban and rural populations and companies, and between socio-demographic groups, which particularly affects women, the elderly and low-income families. This digital gap is further exacerbated by other infrastructure and education gaps that

hinder a more intensive and advanced use of digital tools. For example, many rural, peri-urban or communities located in high-risk areas are left out of distribution circuits, so they cannot profit from the benefits of electronic commerce.

The region is also delayed in the modernization of the public administration by transitioning to digital governments and designing regulations that would facilitate the inclusive, sustainable and safe use of digital tools. Limited progress is observed, both in the public and private sectors, in the security, protection and privacy of digital transactions, especially in relation to user data.

In addition, the region continues to be a consumer of digital products and services designed and produced in other regions, and a market concentration with monopolizing tendencies of some digital platforms is being noticed. These platforms tend to become monopolies for three reasons: (i) network effects: the more users on a platform, the more valuable it becomes for everyone; (ii) the platforms' ability to extract, control and analyse data, especially given their position as intermediaries, and (iii) once the platform gains traction and offers integrated services, the costs to users of switching to an alternative service provider start to increase (UNCTAD, 2019). This risk is evident in the tourism sector, where few online travel agencies (OTA) are the main marketing channels for tourism enterprises. Despite having their own websites, many extra-regional tourists prefer to book through OTA due to their convenience and reliability. These intermediary agencies charge commissions of up to 25%, which especially affects the profits of smaller enterprises.

Msme face additional challenges that make digital transformation even more complex. Fewer staff, limited capacity to invest or access financing for investment, and a digital skills gap limit the sophistication in the use of technologies and digital services. The following section provides an overview of the region's MSMEs to understand their endogenous capacities and the exogenous conditions that facilitate or hinder their ability to undertake a process of digital transformation.

C. What are micro, small and medium-sized enterprises?

Digital transformation and innovation are pending challenges in Latin America and the Caribbean, and especially affect MSMEs. Different studies developed by ECLAC show that MSMEs face difficulties to innovate, causing wide productivity gaps in comparison to large companies and MSMEs from other regions. Likewise, public policies have not achieved the expected impacts to improve their competitiveness and participation in value chains (see Dini and Stumpo, 2019; Peralta, 2019).

Part of the complexity when designing and implementing MSMEs promotion policies lies in the diversity of the sector in terms of geographical location of the enterprises, variety of activities and industries in which they are engaged and differentiated needs according to size (micro, small or medium) and type (need or opportunity).¹ In addition, it is necessary to incorporate a gender approach that recognizes the importance of women in the retail and tourism sectors, these policies must address their financial exclusion, and acknowledge the higher proportion of unpaid care work that women undertake.

This section analyses the MSMEs sector in the SICA region using information available on national enterprise directories or registries, and the results of MSMEs surveys and status reports. Subsequently, it analyses the conditions surrounding MSMEs by focusing on two areas.

¹ Entrepreneurships "out of necessity" arise from to the lack of income for subsistence or the need for additional sources of income. Entrepreneurships "by opportunity" arise from the identification of an opportunity in the market.

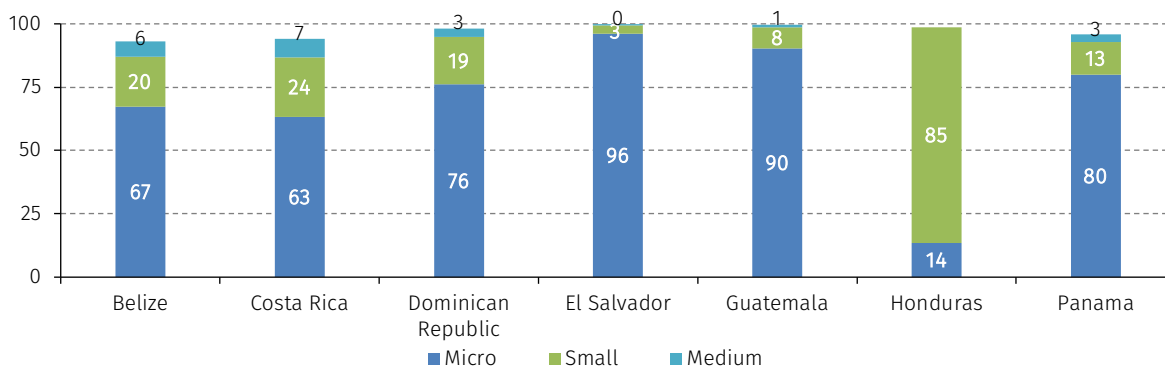
First, the digital context regarding telecommunications infrastructure and use of ICT tools and second, the financing conditions faced by enterprises.

1. Participation of micro, small and medium-sized enterprises

The definition of micro, small and medium-sized enterprises (MSMEs) vary by country and among some national institutions. In addition, MSMEs are geographically dispersed and engaged in a variety of economic activities, which complicates inter-institutional articulation and coordination by the governing bodies. In general, this situation makes it difficult to gather information about MSMEs, both due to the different interests of each institution, and the variety of mechanisms to gather information. Some of the main limitations include information collected on a discontinuous or ad hoc basis; methodological differences and non-comparable databases; information not publicly available; and little disaggregation of some of the available information. However, msme play an important role in the productive fabric of countries by generating employment. They also participate in local development and family economy.

Although the number of micro, small and medium-sized enterprises vary, overall, MSMEs participation is high, from 93% in Belize to 99% in El Salvador and Guatemala (see figure I.1). According to the Annual Trade and Other Services Survey (2010), Nicaragua exhibits a similar behaviour, with a participation of 98.6% MSMEs.

Figure I.1
SICA: participation of micro, small and medium-sized enterprises^{a b}
(Percentages of the total)



Source: Elaborated by the author, on the basis of national directories or registries of economic establishments and businesses available in each country: Belize (2016), Costa Rica (2019), El Salvador (2012), Guatemala (2017), Honduras (2015), Panama (2009) and the Dominican Republic (2019).

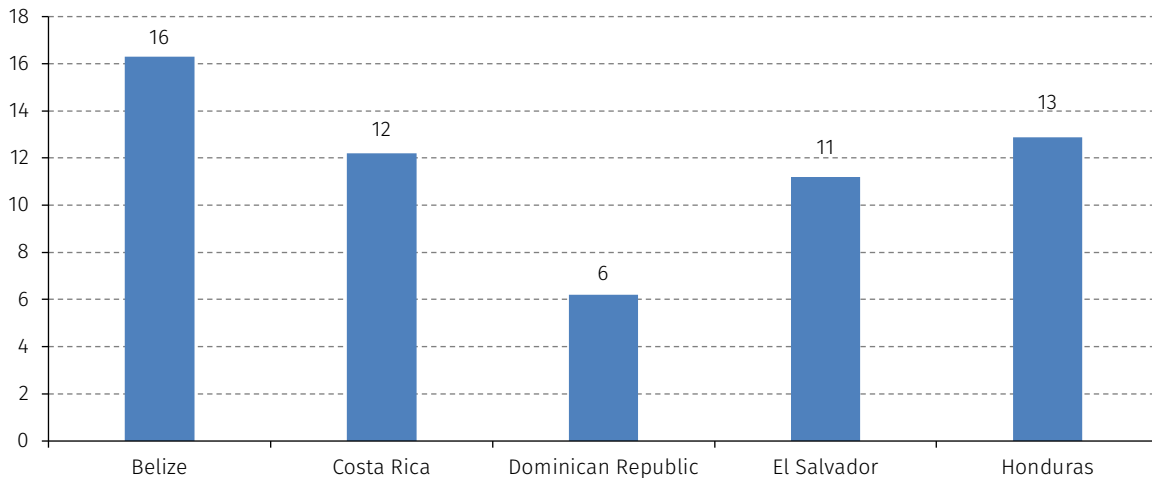
^a Elaborated based on the information available on national directories or registries of economic establishments and businesses and under the definition of MSMEs in each country.

^b In Honduras, enterprises are classified as micro (13.6%) and small and medium (85.1%).

These records only contain information about formal enterprises, so it can be assumed that MSMEs participation could be higher when considering informal or semi-formalized companies. There is also a high percentage of registered MSMEs in capital cities and urban areas. In all countries, more than 50% of all MSMEs were registered in two main cities. In addition to differences in population, this situation could relate to low levels of entrepreneurship in rural areas, as well as difficulties to formalize businesses in rural areas or ease to start formal enterprises in urban areas. Considering the scope of analysis of this study, it is important to explore these questions, especially if it is known that many of the region's tourist attractions are located in rural and coastal areas, and that there is tourist offer in these places.

Accommodation and food establishments registered in Belize, Costa Rica, El Salvador, Honduras and the Dominican Republic (see figure I.2) represent between 6.2% in the Dominican Republic and 16.3% in Belize of the total number of registered establishments.

Figure I.2
Selected countries: registered accommodation and food establishments
(Percentages of the total number of registered enterprises)



Source: Elaborated by the author, on the basis of national directories or registries of economic establishments and businesses available in each country: Belize (2016), Costa Rica (2019), El Salvador (2012), Guatemala (2017), Honduras (2015), Panama (2009) and the Dominican Republic (2019).

In Belize, 97.5% of accommodation and food establishments employ less than 50 people and in Honduras 99% are classified as MSMEs. Similarly, in Costa Rica MSMEs account for 96% (67.7% micro, 23.7% small and 4.5% medium) and in the Dominican Republic 97.8% (72.3% micro, 22.8% small and 2.7% medium) of all accommodation and food businesses.

2. State of the micro, small and medium-sized enterprises

The contents, scope and periodicity of the surveys and state reports of MSMEs vary throughout the region. However, they draw a picture of the main characteristics and challenges faced by these enterprises. Table I.4 summarizes four elements contained in all surveys or situation reports,² which also represent the main difficulties faced by MSMEs in the region: business management, resources and financing, associativity, and access and use of information and communication technologies (ICT). Given the diversity of information available, some examples are presented to illustrate common findings within the region.

The availability of accounting records varies from country to country. However, it tends to be low, both in formal and informal enterprises and it is evident within the microenterprise segment. For example, in the Dominican Republic only 51% of microenterprises have accounting records, compared to 97.6% of small and medium-sized enterprises. In Nicaragua, 95% of large companies keep formal accounts, in contrast to 2.5% of micro, 15.1% of small and 66% of medium-sized enterprises. This condition is exacerbated in informal enterprises.

² This section was prepared on the basis of information contained in the following sources by country: Belize: Thiagarajan (2019); Costa Rica: University of Costa Rica (2018); El Salvador: CONAMYPE (2017); Honduras: Gallardo and Berrios (2013); Nicaragua: Central Bank of Nicaragua (2010) and COSEP/ILO (2015); Panama: University of Panama (2015) and Dominican Republic: Ortiz, Cabal and Mena (2014).

Regarding the availability of resources to start and operate the business, most MSMEs use their own funds and those of family and friends, followed by commercial and public banks. There is low use of the commercial banking system and little use of financing for development or government programs. In some cases, enterprises tend to rely more on moneylenders, including informal moneylenders, rather than development funds and programs. A sample of enterprises in Belmopan showed that 60% started with their own funds and 40% started with family funds. Own resources are also the main source of funding to start a business in Costa Rica (80.7%), El Salvador (67.5%), Honduras (56.6%), Nicaragua (75.6%) and Panama.

Table I.4
SICA: some characteristics of micro, small and medium-sized enterprises

Area	Common findings
Business management	<ul style="list-style-type: none"> • Limited availability of formal accounting records, especially in micro and informal enterprises. • Limited control of income and expenses, records of receipts and production costs.
Resources and financing	<ul style="list-style-type: none"> • Most enterprises use their own resources to start and operate the businesses. Funding from family and friends is also common. • Limited use of commercial banking. • Difficulty to access bank products due to interest rates and collaterals. • Difficulty to obtain financing to acquire technology. • Reliance on lenders rather than development funds.
Associativity	<ul style="list-style-type: none"> • Most recognize the potential of associativity to strengthen the sector and other benefits. • Also recognize limitations on its sustainability and relevance. • Limited associativity, especially in smaller enterprises.
Access and use of information and communication technologies	<ul style="list-style-type: none"> • Most have computers or mobile devices. • Diversity in broadband quality, but generally below industry requirements. • Main use: instant messaging (WhatsApp) and social media (Facebook and Instagram). • Varied presence of business websites.

Source: Elaborated by the author, on the basis of S. Thiagarajan, "Challenges faced by micro and small businesses in Belize", *International Journal of Business and Applied Social Science*, vol. 5, issue 3, 2019 [online] 10.33642/ijbass.v5.n3p1; University of Costa Rica, "Report on the results. III National Survey of Micro, Small and Medium Enterprises in Costa Rica, 2018", *Development Observatory*, 2018; National Commission for Micro and Small Enterprises (CONAMYPE), *National Survey on Micro and Small Enterprises, 2017, 2017*; M. Gallardo and M. Berrios, *Honduras Business Survey 2012: analysis of results (978-92-2-328283-7)*, Geneva, International Labour Organization/Honduran Council of Private Companies, 2013; Central Bank of Nicaragua, *Results of the Survey on Microenterprises 2010*, Economic Division, Economic Statistics Directorate 2010; Superior Council of Private Companies/International Labour Organization (COSEP/OIT), *Sustainable Business Survey Nicaragua 2015: identification of obstacles to business development (9789223302771)*, Geneva, 2015; University of Panama, *Microenterprise in Panama, 2015 (978-9962-12-180-0)*, International Network of Researchers in SME (REDIPYME), 2015 and M. Ortiz, M. Cabal and R. Mena, *Micro, small and medium enterprises in the Dominican Republic, 2013*, Fondo Micro, 2014.

In general, enterprises face difficulties accessing financing products. In El Salvador, 22% of the enterprises highlighted the lack of resources to invest as one of the main problems affecting their growth and 54% consider that it is very difficult or difficult to access credit to invest. In Honduras, 63.7% of the enterprises consider that interest rates have a very negative or negative impact on businesses, and 25.3% stated that the main obstacle in obtaining loans is the lack of collaterals. Meanwhile, in Nicaragua, 57% of enterprises have difficulty accessing loans (58% micro, 53% small, 42% medium and 28% large). This difficulty increases if the loan is destined to acquire technology, 62% of the enterprises indicated that they faced difficulties.

Associativity provides important advantages to enterprises, but its use tends to be limited. For instance, despite the fact that 44% of Salvadorian enterprises consider that associativity contributes to strengthen the sector, only 2.8% is member of a trade union, business association or cooperative. Similarly, in Costa Rica, 86.7% of the enterprises surveyed are not associated. According to disaggregated data from Honduras and Nicaragua, the level of associativity tends to increase with the size of the enterprise. In Honduras, 9% of microenterprises are associated, compared to 18% of large ones. In Nicaragua, the level of associativity is 6% and 87%, respectively.

Finally, there is mixed performance in the use of technology and internet. Although companies have computers or mobile devices, the connection speed tends to be lower than the requirements of the tourism sector. For instance, in Costa Rica, 79.5% of micro, 90.2% of small and 93.3% of medium-sized enterprises have computers connected to the internet. However, most (67%) have less than 10GB broadband.

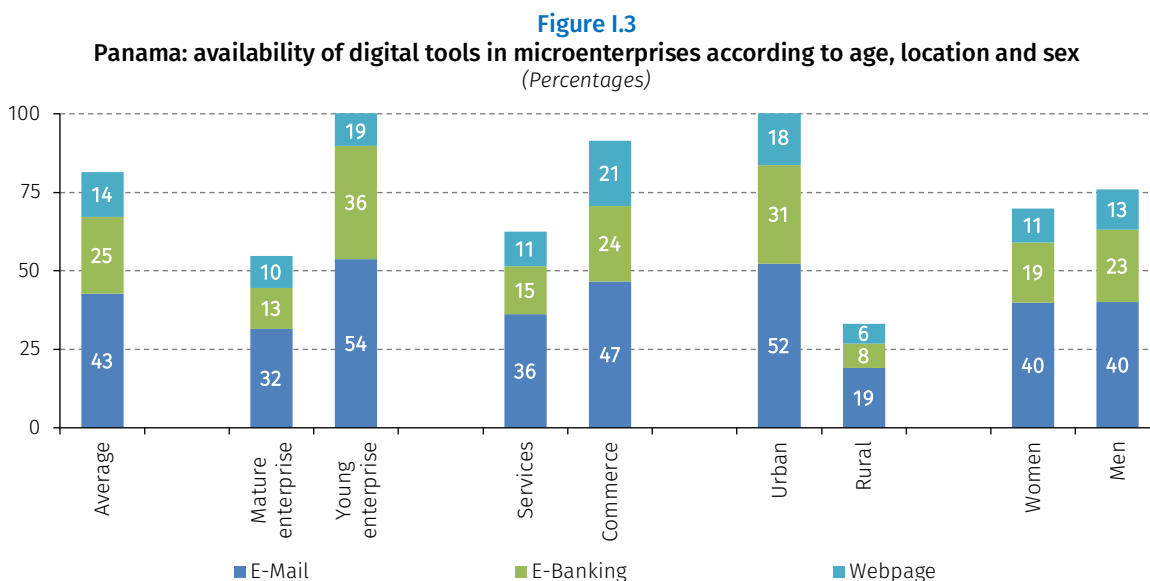
The use of social media and instant messaging predominates, specifically Facebook and WhatsApp. The number of websites fluctuates: 47% of Costa Rican enterprises, 0.7% of Salvadorian enterprises and 14% of Panamanian enterprises reported having a business website. This area is important as business websites would allow to collect user data, personalize products or services, and protect the intellectual property of the enterprises, especially photographs.

Disaggregated information about Panamanian microenterprises shows some gaps between urban and rural enterprises, as well as businesses owned by women or men (see figure I.3). Three groups of enterprises show less ICT adoption: mature, in the service sector and in rural areas. In contrast, young enterprises and those located in urban areas show higher levels of adoption of ICT, above the average.

In addition to the general information on MSMEs, situation reports have been prepared on tourism MSMEs in Nicaragua and the Dominican Republic (FUNIDES, 2019; MICM and ASONAHORES, 2018). This section analyses the findings contained in those reports to identify particular challenges and opportunities for tourism enterprises.

In Nicaragua 56% of tourism enterprises are microenterprises, 38% are small and 6% are medium-sized. On average, businesses employ seven people permanently, of which three are women, and two people temporarily. Similarly, microenterprises represent 62% of Dominican tourism businesses.

Many of these enterprises are informal or semi-formal. 90% of Dominican microenterprises operate as unregistered enterprises and only 4% have a national taxpayer registration number and keep formal accounting systems. In Nicaragua, 89% of tourism MSMEs are registered with the Tax Collection Office (DGI) and 73% with the Nicaraguan Social Security Institute (INSS). Using the INSS information as a measure of formality, enterprises owned by women show lower levels of registration, 58%, compared to enterprises owned by men (88%) and mixed (82%).



Source: University of Panama, *La microempresa en Panamá, 2015* (978-9962-12-180-0), International Network of Researchers in SME (REDIPYME), 2015.

Limited digital skills are evident in both countries and very similar to MSMEs in general. In the Dominican Republic, enterprises recognize the importance of having personnel trained in the use of ICT to support the tourism sector, and the ability to innovate quickly to respond to changing demands. Nicaraguan enterprises show high use of social media and online platforms and low penetration of business websites; and tourism advertising continues to follow a traditional approach. Women make slight less use of social media and online platforms; and 15% of them do not use any type of advertising, compared to 10% of men.

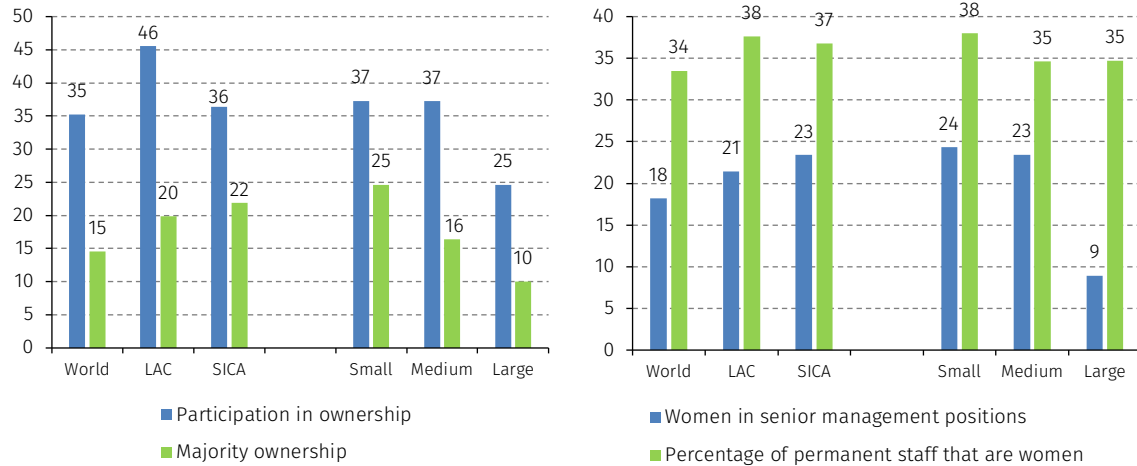
The Dominican Republic case reveals that, although tourism MSMEs tend to have stronger productive structures, create better quality jobs, and recognize the importance of technology, they face digital access and use gaps similar to MSMEs in general.

3. Female participation

The participation of women in the MSMEs sector is higher in microenterprises (self-employment), 79.8%, followed by 15% employed in microenterprises and 5.2% in small enterprises. Businesses owned by women tend to use less labour and capital and focus in fewer sectors than businesses owned by men (CENPROMYPE, 2013). For instance, 51% of microenterprises in the Dominican Republic are owned by women; however, their participation decreases to 14% in small enterprises. In contrast, men own 65% of small businesses (Ortiz, Cabal and Mena, 2014).

This trend is recurrent in reports from the World Bank, 25% of small enterprises are mainly owned by women, compared to 10% of large ones (see figure I.4). This could be due, among other reasons, to self-employment in MSMEs, to the search for flexibility to make business work compatible with unpaid care work, and to the lack of inclusive practices in larger companies. For instance, 56% of Salvadorian female heads of households start a business as a way of self-employment with the dual purpose of making a living from home and balancing household care activities (CONAMYPE, 2017).

Figure I.4
Selected regions: participation of women in enterprises^a



Source: Elaborated by the author, on the basis of World Bank: Belize, Costa Rica and Panama (2010); El Salvador, Honduras, Nicaragua and the Dominican Republic (2016); Guatemala (2017).

^a Small enterprises, 5 to 19 employees; medium enterprises, 20 to 99 employees; and large enterprises, more than 100 employees.

The pandemic has exposed higher risk of employment and income loss in sectors with high participation of women. In Latin America, 57% of women work in high-risk sectors, compared to 41% of men. Some of these highest risk sectors employ the majority of employed women in the region and are also characterised by high rates of informal businesses, low wages and low skill levels. Specifically, 9.2% of women in the region are employed in the accommodation and food sector and represent 62% of the total employment in the sector. In addition, only 26% are affiliated to social security systems and 32% are self-employed. Women are mainly employed in microenterprises; 70% are employed in enterprises that employ less than five people and face difficulties accessing credit, have few assets and are expected to recover slower if fiscal measures and bonus packages are not offered to respond to the crisis (ECLAC, 2021b).

D. Digital setting

The SICA region has made significant progress in the coverage and penetration of telecommunications infrastructure. Around 85% of the population is covered by 4G infrastructure and 80% of the population has access to mobile broadband, mainly through prepaid plans. However, fixed broadband penetration in households is lower and there is great variability among the countries in the region (Jung, 2021). The region exhibits high penetration of mobile internet and intense use of tools such as social media and instant messaging. However, it is necessary to accelerate the pace to facilitate the productive use of these tools.

1. Broadband³

4G broadband coverage is around 90% in the SICA region. However, mobile broadband penetration is lower, approximately 80%. Although penetration is high, the difference between coverage and penetration shows population segments that could have access to the telecommunications infrastructure but do not have resources to access these services.

³ See an extensive analysis at the Regional Broadband Observatory of ECLAC.

Furthermore, only 15% of mobile connections are post-paid, far behind Latin America (24%) and the member States of the Organization for Economic Cooperation and Development (OECD) (67%). Greater limitations in available data could lead to less creation of value (Jung, 2021).

The gap in fixed broadband penetration is greater and does not seem to be narrowing compared to developed countries. Households connected to the internet can be categorized into three groups: (i) Guatemala, Honduras and Nicaragua, between 10% and 20%; (ii) Belize, El Salvador and the Dominican Republic, about 30%, and (iii) Costa Rica and Panama, between 50% and 55%. Although the last two countries perform better than the Latin American average, they are below the OECD region, close to 90%. If access to fibre optics in homes is considered, the region does not reach 10% of households, compared to 35% in the OECD region. In general, the mobile network tends to be more developed, allowing it to reach greater penetration (Jung, 2021).

(a) Download speed

Mobile devices have boosted broadband penetration in the region. Table I.5 compares the region's performance to global and regional leaders; the significant gap could jeopardize the use of mobile phones for productive purposes.

Table I.5
Countries in the SICA region and selected countries: average speed of fixed and mobile broadband, 2020

Fixed Broadband Speed			Mobile Broadband Speed		
Position	Country	Broadband (Mbps)	Position	Country	Broadband (Mbps)
1	Singapore	241.1	1	United Arab Emirates	170.3
20	Chile	149.19	59	Uruguay	35.40
36	Panama	99.45	73	Dominican Republic	27.81
82	Costa Rica	39.04	78	Costa Rica	26.9
80	Belize	40.52	82	Guatemala	25.41
104	Dominican Republic	25.99	88	Honduras	23.29
132	Honduras	18.1	95	Belize	21.09
134	Nicaragua	17.9	103	Nicaragua	19.6
135	El Salvador	16.68	109	Panama	18.06
140	Guatemala	15.03	112	El Salvador	17.51

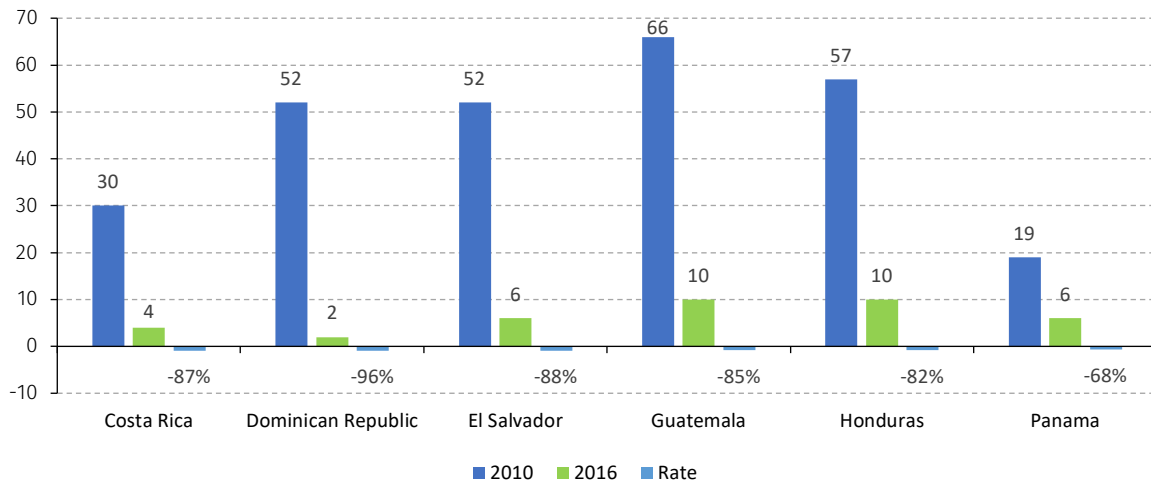
Source: Speed Test Global Index, 2020 [online] <https://www.speedtest.net/global-index>, mobile Broadband in August and fixed broadband in November.

It is estimated that 44% of Latin American countries have fixed broadband connection speeds lower than 25 Mbps and it reaches 67% in mobile broadband. These speeds do not allow data-intensive activities (ECLAC, 2020a).

(b) Cost

The growth in demand for internet services through fixed broadband connections has had a positive impact on its cost, which facilitates access in economic terms to the inhabitants of the SICA region. Figure I.5 shows a significant reduction in prices between 2010 and 2016. The Dominican Republic stands out, where the cost of fixed broadband has been reduced by 96%, going from 52 to 2 dollars for 1 mega per second of download.

Figure I.5
Selected countries in the SICA region: average price of fixed broadband for 1 mega per second of download, 2010-2016
 (Dollars)



Source: Regional Dialogue on the Information Society, "Indicators", 2016 [online] <http://dirsi.net/web/web/en/indicators>.

Technological development and a greater supply of internet providers have reduced the prices of services, but the cost continues to be an access barrier. Affordability analyses in Latin America show that the cost of mobile and fixed broadband services for the population in quintile I reaches 14% and 12% of their income, respectively (ECLAC, 2020a). In El Salvador this cost reaches 20% and 15%, respectively and in Costa Rica it reaches around 7%. The Broadband Commission for Sustainable Development recommends a threshold of 2% of the income to categorize an internet service as affordable.

This is reflected in an access gap among households. Information from 12 Latin American countries reveals that 81% of households in quintile V have access to internet, in contrast to 38% in quintile I. Information is available for three countries in the SICA region: in El Salvador and the Dominican Republic, about 45% of households ranked in quintile V have access, compared to 4% of households ranked in quintile I in El Salvador and 11% in the Dominican Republic. In Costa Rica, 91% of households ranked in quintile V and 58% ranked in quintile I have access to internet (ECLAC, 2020a).

2. Rural connectivity

Rural populations and enterprises face a clear gap in access to the internet. It is estimated that 67% of urban Latin American households are connected, in contrast to 23% of rural households (ECLAC, 2020a). Research conducted by the Inter-American Institute for Cooperation on Agriculture (IICA), the Inter-American Development Bank (IDB) and Microsoft in seven Latin American countries reveals that 71% of the urban population has access to significant connectivity services, in contrast to 37% in rural areas, which represents a gap of 34 points. The study proposes three clusters of countries according to their connectivity, in which the SICA countries are located (see table I.6).

These analyses highlight a connectivity gap between urban and rural areas. It should be noted that, beyond the availability of telecommunications infrastructure, the cost and quality of services are important constraints in rural areas. In addition, there are skills gaps that limit the use of the available tools, both in terms of digital literacy and the use of the internet for

business management and production purposes. Finally, despite the fact that mobile coverage has increased, these connections could face two challenges: (i) the quality of the applications available for mobile devices and the responsiveness of the websites, and (ii) the high prevalence of prepaid plans that limits the availability of data.

Table I.6
Latin America and the Caribbean (24 countries): significant rural connectivity clusters

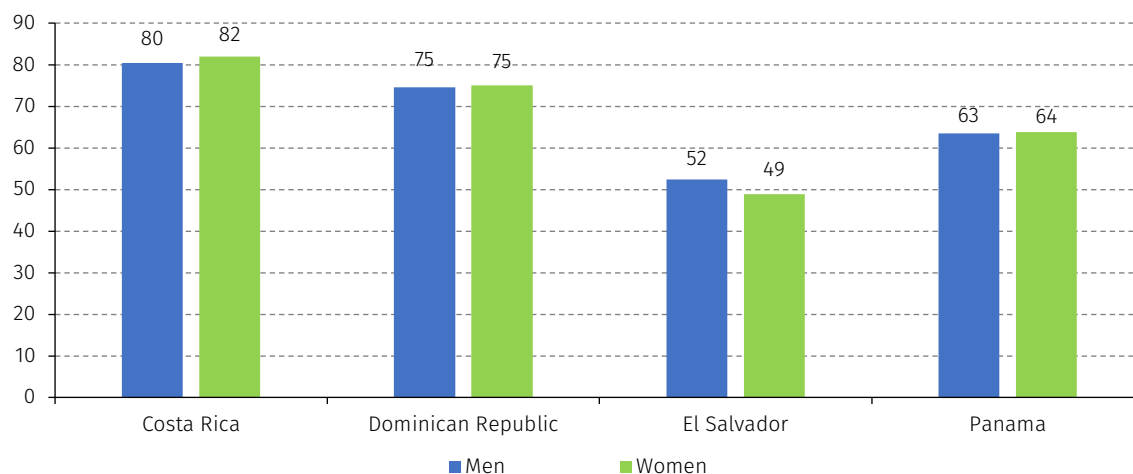
Level of connectivity	Countries	Characteristics
Low	Belize, Bolivia (Plural State of), El Salvador, Guatemala, Guyana, Honduras, Jamaica, Nicaragua, Peru and Venezuela (Bolivarian Republic of)	Between 71% and 89% of the rural population does not have access to connectivity services of sufficient quality.
Medium	Argentina, Ecuador, Mexico, Paraguay, Dominican Republic, Trinidad and Tobago and Uruguay	Between 64% and 71% of the rural population does not have access to connectivity services with minimum quality standards.
High	Bahamas, Barbados, Brazil, Chile, Colombia, Costa Rica and Panama	Between 53% and 62% of the rural population does not have access to significant connectivity services.

Connectivity: Inter-American Institute for Cooperation on Agriculture, Inter-American Development Bank, Microsoft (IICA/IDB/Microsoft), *Rural connectivity in Latin America and the Caribbean, a bridge for sustainable development in a time of pandemic*, 2020.

3. Gender

Worldwide, 48% of women and 55% of men use the internet. The Americas show the smallest gap, with 77% of women and 76% of men using the internet. The analysis of the gender gap in internet use shows progress in countries of the SICA region available information (see figure I.6). Three of the four countries analysed show a majority of female users slightly above men.

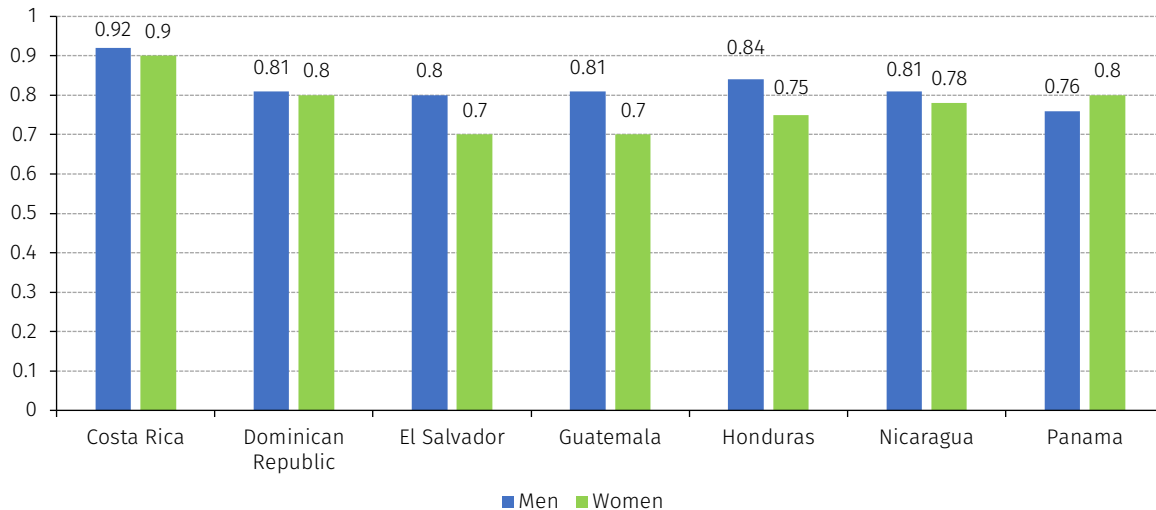
Figure I.6
Selected countries of the SICA region: access to internet by sex, 2019
(Percentages of the total population)



Source: International Telecommunications Union (ITU), "Digital transformation and the role of enterprise architecture", *Thematic Reports* (978-92-61-29011-5), El Salvador, Costa Rica and Panama, 2019 and the Dominican Republic, *Digital Skills Toolkit* (978-92-61-26521-2), 2018.

Likewise, the gap in mobile phone ownership is narrowing, with Panama leading the way, and Costa Rica, Nicaragua and the Dominican Republic approaching parity (see figure I.7).

Figure I.7
SICA region (selected countries): mobile phone ownership, men and women, 2020
 (Percentages of total owners)



Source: Inter-American Institute for Cooperation on Agriculture, Inter-American Development Bank, Microsoft (IICA/IDB/Microsoft), *Rural connectivity in Latin America and the Caribbean, a bridge for sustainable development in a time of pandemic*, 2020.

4. Use

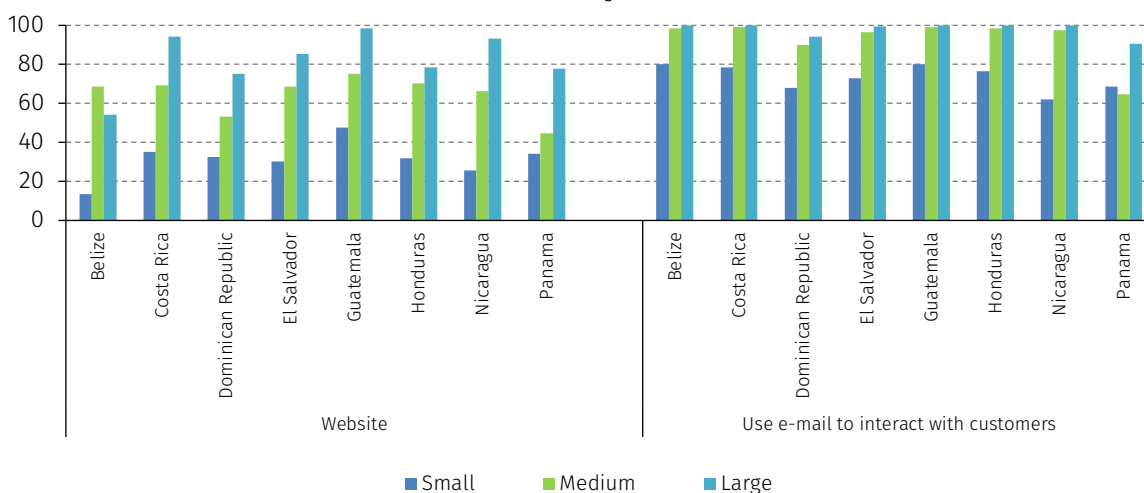
High mobile penetration has facilitated an intense use of instant messaging and social media, especially Facebook, with a penetration of 60% in Mesoamerica. However, these tools are mainly used to connect and communicate, with limited uses in production.

Most of Mesoamerican enterprises are connected to the internet (93%), in line with Latin America and the OECD region. However, this does not automatically translate into use of ICT for production. For instance, around 65% of employees in OECD member States use computers compared to only 35% of employees in Mesoamerica, and only 25% of enterprises use the internet to make purchases (Jung, 2021).

Along these lines, a World Bank survey reveals that, on average, 43% of enterprises within the SICA region have a website and 80% use email to interact with their customers (see figure I.8). This performance varies significantly according to the size of the enterprises. There is less variation in the use of e-mail, 98% in large, 93% in medium and 73% in small-sized enterprises. However, it increases in relation to the use of websites, 82% of large enterprises have a website, compared to 31% of small and 65% of medium-sized enterprises.

This use profile is also seen among the general population. A GSMA report (2019) shows the different ways that people use ICT in high-income countries and low- and middle-income countries (see figure I.9). Low and middle-income countries use these tools to communicate and exceed the level of use in high-income countries. The trend is reverted when it comes to using them in productive processes and for informative purposes.

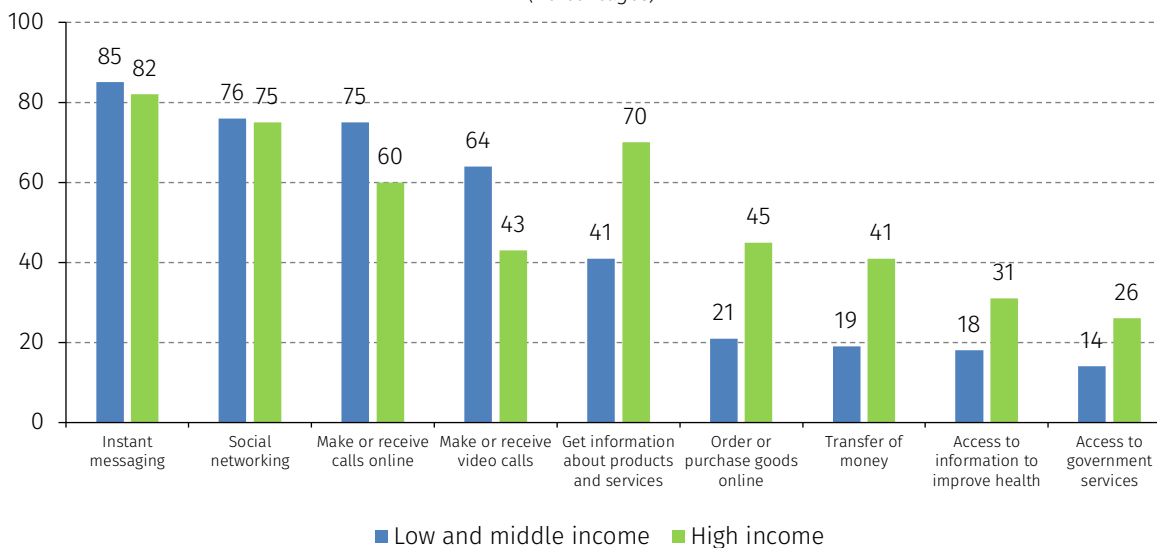
Figure I.8
Countries of the SICA region: use of basic digital technologies according to the size of the enterprises^a
 (Percentages)



Source: World Bank: Belize, Costa Rica and Panama (2010); El Salvador, Honduras, Nicaragua and the Dominican Republic (2016); Guatemala (2017).

^a Small enterprise, 5 to 19 employees; medium enterprise, 20 to 99 employees; and large enterprise, more than 100 employees.

Figure I.9
Activities undertaken on mobile internet according to level of income of the countries, 2018
 (Percentages)



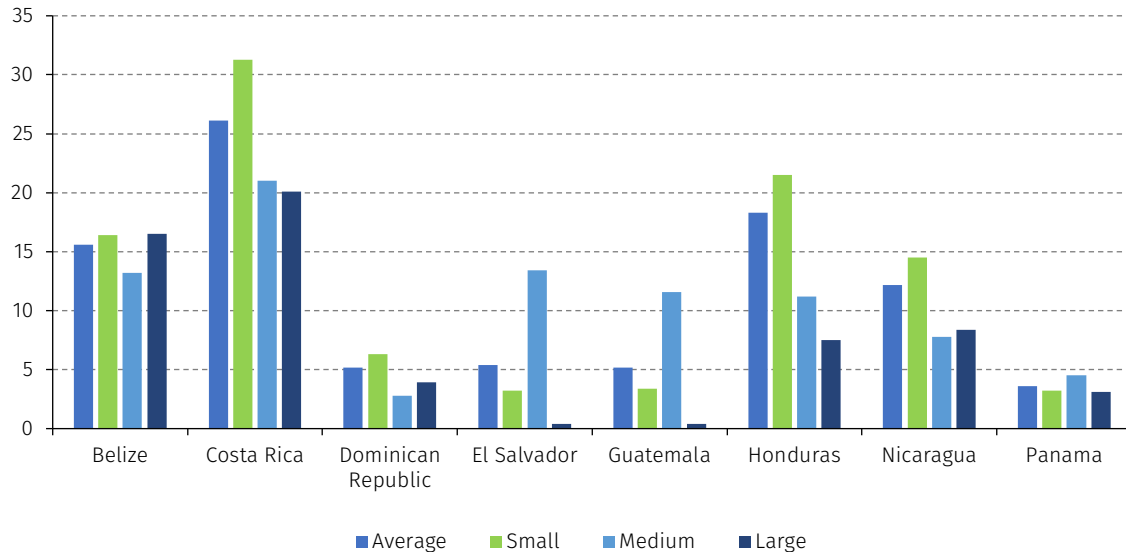
Source: Group Special Mobile Association (GSMA), *Connected Society: The State of Mobile Internet Connectivity 2019*, 2019.

E. Financial inclusion

Leveraging digital tools for production requires support for online transactions. This section focuses on aspects of financial inclusion that lead to greater use of online products and services.

Access to financing tends to be one of the main obstacles faced by Latin American enterprises. The World Bank finds that access to financing in Latin America and the Caribbean is the main obstacle faced by 27% of enterprises. This situation is also identified in enterprises in the SICA region, and it especially affects smaller enterprises (see figure I.10).

Figure I.10
Countries of the SICA region: access to financing as the main obstacle according to the size of the enterprise^a
(Percentages)



Source: World Bank: Belize, Costa Rica and Panama (2010); El Salvador, Honduras, Nicaragua and the Dominican Republic (2016); Guatemala (2017).

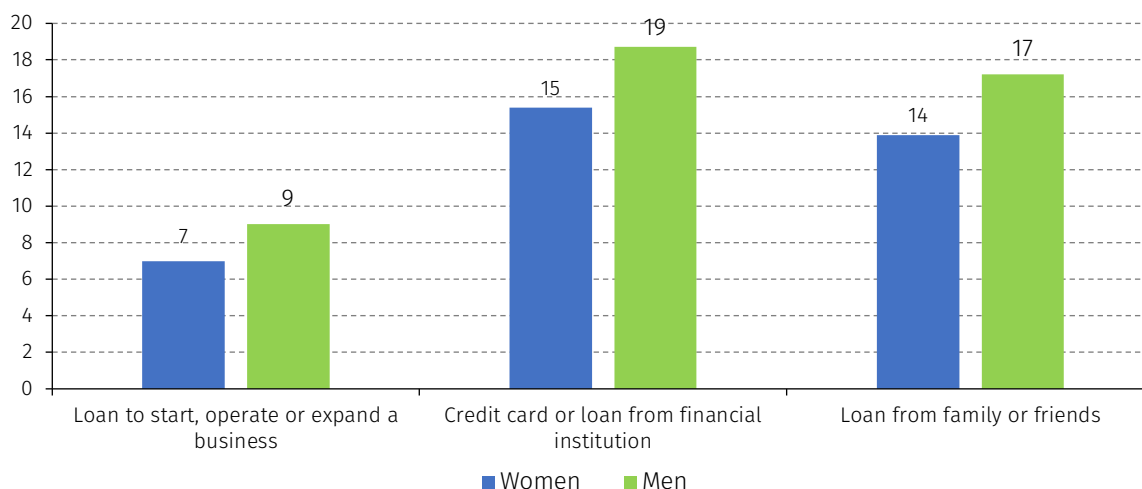
^a Small enterprise, 5 to 19 employees; medium enterprise, 20 to 99 employees; and large enterprise, more than 100 employees.

The information from the World Bank also confirms the importance of own funds to start and operate enterprises and less use of banking institutions. For instance, on average, 85% of enterprises within the SICA region have a savings or checking bank account and 43% have a bank loan or line of credit. In small enterprises it represents 82% and 36%, respectively. However, only 30% of enterprises access the banking system to finance their investments, falling to 24% among small enterprises. Similarly, 34% of enterprises access the banking system to finance their working capital, 29% of small enterprises.

In general, 66.3% of financing for investment comes from own resources, compared to 21.2% financed by banks. In the case of small enterprises, 69.4% depend on their own funds and 17.4% access the banking system.

A World Bank survey on financial inclusion confirms the low use of investments and loans from financial institutions, as well as the importance of funding from family and friends (see figure I.11). Women tend to access these products to a lesser extent than men.

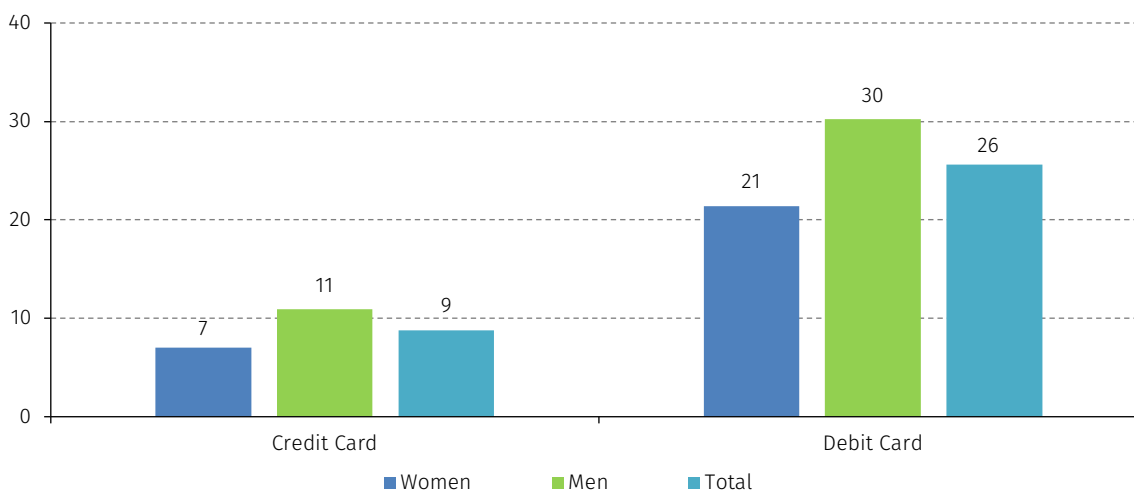
Figure I.11
Countries of the SICA region: use of financing options by sex, 2017
(Percentages of the population over 15 years of age)



Source: Elaborated by the author, on the basis of World Bank, Global Financial Inclusion Database [online database] <https://databank.bancomundial.org/Financial-Inclusion/id/7e9e6e6>.
 Note: Data for Belize correspond to 2014.

This trend is also seen in areas such as debit and credit card ownership (see figure I.12). In addition, there is a rural gap that has direct effects on the digitalisation of tourism MSMEs in these areas. The availability of mobile money accounts is 5.4% for men and 2.4% for women, in rural areas it is 3.7%, below the total average of 3.9%. Mobile money is especially important in rural areas, where high mobile penetration could allow access to modern financial products and facilitate participation in e-commerce.

Figure I.12
Countries of the SICA region: credit and debit card ownership by sex, 2017
(Percentages)



Source: Elaborated by the author, on the basis of World Bank, Global financial inclusion database [online database] <https://databank.bancomundial.org/Financial-Inclusion/id/7e9e6e6>.
 Note: Data for Belize correspond to 2014.

Chapter II

The transformation of tourism

A. Introduction

Chapter I provides an overview of MSMEs in the SICA region and their ability to undertake processes of digital transformation. There is a majority of microenterprises with important shares of self-, family and subsistence employment. These conditions hinder optimal business management, as well as the ability to interact with clients and respond to changing demands. The heavy workload, coupled with unpaid care work, limits the time and resources available to learn and innovate services and products.

Furthermore, the existing digital gap between MSMEs and large businesses, and between enterprises located in rural and urban areas, deepens the difficulties of transformation of tourism MSMEs, many of which are located in remote areas. In addition to the gap in quality and coverage of telecommunications infrastructure, MSMEs also struggle to cover the costs of equipment and services, such as digital marketing, data analytics and customer relationship management.

Despite these obstacles, tourism plays an important role in the national and local development of the countries of the SICA region. On one hand, most suppliers of tourism goods and services are MSMEs that employ women and young people. On the other hand, tourism has become an engine to boost development in rural and coastal areas, which host most of the region's tourist attractions. In addition, the tourism sector is innovative and early-adopter of technological tools. Unfortunately, there is little information available about the accomplishments and challenges faced by tourism MSMEs in general, as well as their digital transformation process.

This chapter analyses tourism in the SICA region and identifies the main trends in inbound tourism, both before the pandemic and during the emergency.

B. Tourism sector in Central America and the Dominican Republic⁴

The tourism offer of the SICA region is based fundamentally on two pillars: cultural tourism (autochthonous culture, archaeological wealth, and ancient ruins of Mesoamerican culture, as well as colonial cities of Spanish America) and beach and tropical rainforest tourist destinations.

1. Main indicators

The SICA region received 17.4 million international tourists in 2019, 1.2% of tourist arrivals worldwide. The Dominican Republic is the country in the subregion with the highest number of arrivals (6.4 million), followed by Costa Rica (3.1 million), El Salvador, Guatemala and Panama (1.8 million), Nicaragua (1.3 million), Honduras (0.7 million) and Belize (0.5 million). Inbound tourism receipts reached 20,000 million dollars, the Dominican Republic received 37.5%, followed by Panama (22.5%), Costa Rica (20%), El Salvador (6.5%), Guatemala (6%), Honduras, Nicaragua and Panama (2.5% each).

The average spending by tourists visiting the region is 1,078.8 dollars. Panama holds the highest expenditure rate per tourist, 2,580 dollars. In Costa Rica, a tourist spends an average of 1,280 dollars, in the Dominican Republic an average of 1,160 dollars and in Belize an average of 1,010 dollars. El Salvador, Guatemala and Honduras record a spending rate per tourist in the range of \$700 to \$760, while spending by tourists visiting Nicaragua is \$400 on average.

Exports generated by inbound tourism in the group of countries that make up the SICA region amounted to 23.2 billion dollars. The Dominican Republic and Panama registered over 7,000 million dollars, while Honduras, Nicaragua and Belize had the lowest exports of approximately 500 million dollars. Inbound tourism exports account for 45% of total exports in Belize, 36% in the Dominican Republic, 28% in Panama, 19% in Costa Rica, 18% in El Salvador, 8% in Guatemala, 6% in Nicaragua and 5% in Honduras. The gross domestic product (GDP) of the travel and tourism sector as a percentage of the total GDP is significant in Belize, where it reaches 37.2%. It is followed by the Dominican Republic (16.3%), Panama (13.6%), Costa Rica (12%), Honduras (11.7%), El Salvador (11%), Nicaragua (10.1%) and Guatemala (6.2%) (see table II.1).

Table II.1
Countries of the SICA region: main indicators of the tourism sector, 2019

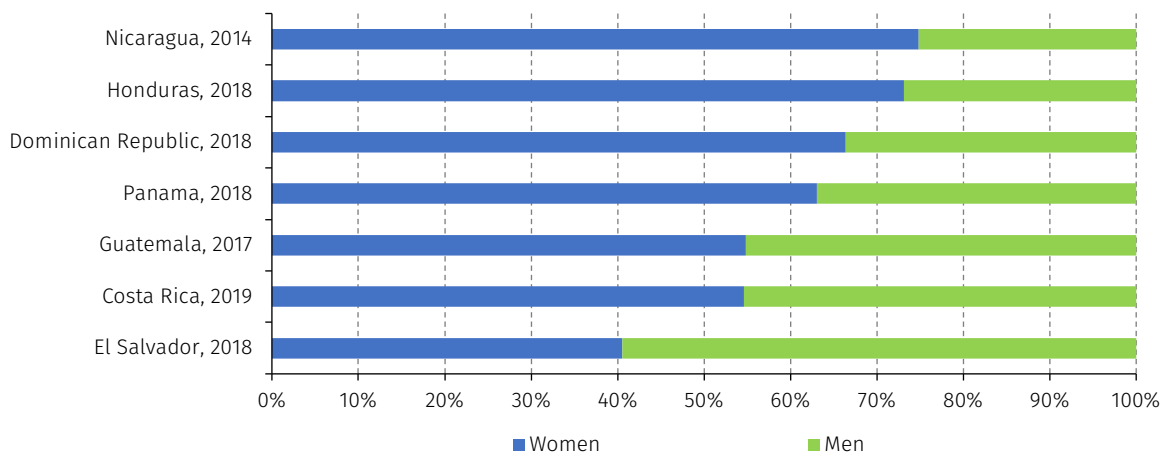
Country	International tourist arrivals (millions)	Inbound tourism receipts (billions of dollars)	Spending per tourist (dollars)	GDP travel and tourism (percentages of total GDP)	Employment (percentages of total employment)	Inbound tourism exports (billions of dollars)	Tourism as a percentage of exports (percentages)
Belize	0.5	0.5	1 010	37.2	39.3	0.5	45
Costa Rica	3.1	4	1 280	12	11.7	4.1	19
Dominican Republic	6.4	7.5	1 160	16.3	17.3	7.5	36
El Salvador	1.8	1.3	740	11	11.6	1.7	18
Guatemala	1.8	1.2	700	6.2	6.5	1.2	8
Honduras	0.7	0.5	760	11.7	12.2	0.6	5
Nicaragua	1.3	0.5	400	10.1	10.4	0.5	6
Panama	1.8	4.5	2 580	13.6	14.7	7.1	28

Source: Elaborated by the author, on the basis of UNWTO Tourism Dashboard, Country Profile-Inbound Tourism [online] <https://www.unwto.org/country-profile-inbound-tourism> y World Travel Tourism Council, Economic Impact Reports [online] <https://wtcc.org/Research/Economic-Impact>.

⁴ Section prepared by Jennifer Alvarado, Research Assistant, International Trade and Industry Unit of ECLAC Subregional Headquarters in Mexico.

Tourism is also an important generator of jobs in the region. In Belize, the tourism sector accounts for 39.3% of the country's total employment, 17.3% in the Dominican Republic, 14.7% in Panama, 12.2% in Honduras, 11.7% in Costa Rica, 11.6% in El Salvador, 10.4% in Nicaragua and 11.7% in Guatemala. Likewise, the tourism sector is key in creating jobs for women as it offers flexible working hours and part-time jobs. In the SICA countries, women represent, on average, 61.1% of the employees in accommodation and food businesses, although it should be noted that women's employment is characterised by being of low level and poor remuneration (ECLAC, 2020c). Figure II.1 shows a majority of women employed in the accommodation and food sector in all countries, except El Salvador.

Figure II.1
Selected countries of the SICA region: structure of the employed population in the accommodation and food sector, by sex, latest year available
 (Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), "Recovery measures in the tourism sector in Latin America and the Caribbean: an opportunity to promote sustainability and resilience", *COVID-19 Reports*, Santiago de Chile, 2020c.

Given the importance of the tourism sector in the economy of the SICA countries and the prevalence of tourists (with the exception of Belize and Honduras), the following section describes the tourists that visit the countries in the region to know their profile and the main purpose of visit. This information will be used to describe tourism MSMEs in each country in the following chapters of this document.

2. Profile of the tourists

The SICA region is made up of countries that depend mainly on the arrival of extra-regional tourists such as Belize, Costa Rica and the Dominican Republic, as well as countries where intra-Central American tourism prevails, such as El Salvador, Guatemala and Nicaragua. Most of the extra-regional tourists come from North America, especially from the United States, followed by Europe. Most tourists visit the region for vacations, recreation and leisure purposes, as well as to visit family and friends. Visits due to personal ties probably result in different consumption profiles from extra-regional tourists. These profiles call to consider the interests of these groups and how to offer innovative products to those who visit frequently.

The main reason for selecting destinations in the SICA region is family and friends recommendations, followed by the use of the internet and websites advertisement. Unlike the rest of the region, in the Dominican Republic travel agencies also play an important role in marketing the country, especially in Europe.

The average tourists visiting the region are between 24 and 45 years old and they are likely to stay in hotels or with relatives, depending on the purpose of the visit.

Most trips are self-organized followed by agencies or tourist packages to a lesser extent. For instance, 78% of tourists who travelled to Costa Rica planned their own trip, as did 80% of tourists to El Salvador, 98% to Guatemala and 99% to Nicaragua. The main activities enjoyed by tourists are related to sun and beach, adventure, ecotourism and cultural tourism (see table II.2). Rural tourism is also gaining importance, as well as niche-tourism such as medical or educational.

Table II.2
SICA region: main tourist activities enjoyed by visitors

Type of tourism	Motivation	Activities or sites
Adventure	Tends to be associated with a physical activity, cultural exchange, interaction and engagement with nature. This experience may involve some kind of real or perceived risk and may require significant physical or mental effort.	Surf Caving Tubing Kayaking
Cultural	Learn, discover, experience, and consume the tangible and intangible cultural attractions and products in a tourist destination.	Archaeological sites Museums Markets Villages
Ecotourism	Observe, learn, discover, experience and appreciate biological and cultural diversity with a responsible attitude to protect the integrity of the ecosystem and enhance the well-being of the local community.	Trekking National reserves Volcanoes
Coastal	Land-based tourism activities which take place on the shore of a sea, lake, or river.	Enjoy beaches Water activities Fishing

Source: Elaborated by the author, on the basis of World Tourism Organization (WTO), *UNWTO Tourism Definitions*, Madrid, 2019a.

In summary, sun and beach activities prevail, but there is an interest in activities related to ecological tourism, mainly in Costa Rica, an area in which MSMEs have a great positioning opportunity given the characteristics of this type of tourism. Another important aspect to be considered is that most tourists organize their trips on their own and, in most cases, they search on websites, so the digitalisation of tourism MSMEs is essential to have visibility. Thus, it is necessary to match the needs of extra-regional visitors from developed countries with high ICT penetration and frequent use of digital and social media to make purchases and book trips, with the digital skills of tourism MSMEs, especially those located in rural areas, where many of the region's attractions seem to be located.

3. Effects and impacts of the COVID-19 pandemic in the tourism sector⁵

ECLAC assessed the effects and impacts of the COVID-19 pandemic in the inbound tourism sector in the SICA region by using the Disaster Assessment Methodology. Given the nature of the activities that the tourism sector encompasses (travel, entertainment, restaurants, shopping, among others), restrictions on mobility and personal contact to mitigate the spread of the virus have had a strong impact on the sector.

⁵ Section based on ECLAC (2021a).

The estimation of losses compares two situations. The first (baseline) reflects what would have happened without the COVID-19 pandemic and the second reflects the situation caused by the pandemic. Three scenarios were built based on assumptions of the date of development and massification of an effective immunization vaccine against the virus. Each scenario considers four elements: (i) the generalized closure of borders; (ii) the downfall of economic activity in the countries of origin of tourists; (iii) the reluctance of tourists to travel in the midst of the current crisis, and (iv) the potential fall of income. In addition, based on the losses, the impacts on GDP, salaries, operating surpluses, mixed income and potential loss of jobs, were estimated for the countries with the required information available.

Table II.3 shows the compilation of the impacts of the COVID-19 pandemic within the tourism sector within the SICA region in 2020. The estimate was made with regards to income, tourism sector GDP, and remuneration of employees and workers, operating surplus, mixed income and employment.

Table II.3
Countries of the SICA region: estimation of the impacts of the covid-19 pandemic in the tourism sector, 2020

Country	Expected revenue without pandemic (millions of dollars)	Loss of income in the tourism sector (millions of dollars)	Impacts on the GDP of the tourism sector (percentages of variation)	Impacts on employee and worker compensation (percentages of GDP)	Impacts on operating surplus (percentages of GDP)	Impacts on mixed income (percentages of GDP)	Job loss (percentages of the total employed population)
Belize	583	445					
Costa Rica	3 900	2 933	-2	-0.9	-1	-0.2	-2
Dominican Republic	7 819 ^a	6 033	-4	-1.9	-1.6	-1.3	-5
El Salvador	1 395	1 104	-1.6	-0.5	-0.6	-0.4	-2.7
Guatemala	1 584	1 193	-0.7	-0.19	-0.17	-0.24	-0.6
Honduras	813	626	-0.9	-0.6	-0.5	-0.2	-0.8
Nicaragua	338	230	-0.7	-0.37	-0.22	-0.17	
Panama	5 449	4 289	-2.3	-0.7	-1.5	-0.4	-1.3

Source: Economic Commission for Latin America and the Caribbean (ECLAC), *Evaluation of the effects and impacts of the COVID-19 pandemic on tourism in Latin America and the Caribbean: Implementation of the Disaster Assessment Methodology* (LC/TS.2020/162), Santiago de Chile, 2021a.

^a Tourism income in 2019.

Losses in the eight countries of the SICA region are estimated at 16.9 billion dollars. The Dominican Republic, Panama and Costa Rica will suffer the highest nominal impact, the situation is repeated in other indicators. The projection of losses represents, on average, 76% of the expected income if the pandemic had not occurred. In this context, it is appropriate to analyse and implement strategies to mitigate the adverse economic and social effects of the pandemic on tourism, among which is the digitalisation of tourism MSMEs. Digitalisation not only contributes to closing the digital gap that separates MSMEs in the SICA region from large companies or MSMEs in other regions, but also to respond to the changing needs of travellers and trends in tourism.

C. Trends

Trends in tourism before the pandemic were already pointing towards digitalisation and sustainability, guided by the profile of the millennial or Y and the centennial or Z travelers.⁶

1. Pre-pandemic trends

(a) Profile of the tourists

The reduction in costs has driven a growing number of travellers, especially middle-class, to explore new destinations. Also, the aging of the population has promoted specialized tourism that shows high performance and growth but demands accessible infrastructure and multigenerational experiences. For example, according to TripAdvisor (2019) experiences for families showed the greatest growth in 2019, with 204%. Finally, millennials and centennials represent 20% of international travels, but they will be the bulk of tourism in 2040. These generations grew up with the internet and are tech savvy, so they have permanent access to information and demand quick and satisfactory answers without intermediaries. They tend to take frequent (more than four per year) but short trips, and seek unique, personalized and sustainable experiences.

(b) Local experiences

Hyper connection and over tourism have made tourists look for authenticity, unique experiences and contact with local communities. A survey by Booking (2019a) revealed that 60% of respondents would use an application or website that highlights destinations where tourism could have a positive impact on communities and 68% want their money to go back to the host community (Booking, 2019b). 89% of people surveyed by TripAdvisor (2018) stated that seeing new places and cultures that they have not experienced before is important when traveling. In this sense, 34% chose their last destination to experience the culture, society and people. Similarly, Booking (2019b) found that 72% of global travellers are seeking authentic experiences that are representative of the local culture.

(c) Sustainability

The tourism industry produces around 5% of global greenhouse gas emissions. It can also cause socio-environmental conflicts over access to water, land use and tenure, and other effects on host communities. However, it plays an important role in establishing a balance between the use of resources and their protection. Tourism has the potential to contribute to a transition to efficient and renewable energy, and its link to the agricultural sector is undeniable: some 200 million meals are produced every day. These links are increasingly favoured by a new generation of conscious travellers who revalue local products and discover new destinations (OECD, 2018). According to Booking (2019a), 54% of travellers want to contribute to reducing over tourism and 51% would change their original destination for a lesser known but similar alternative if it would reduce their environmental impact.

Another survey on sustainability reveals that, although the importance of traveling sustainably is recognized, travellers find it difficult to act sustainably during their trips. 72% of travellers believe that people need to act now and make sustainable travel choices and 56% would use alternatives to offset their carbon footprint. Likewise, 62% would feel better knowing that they are staying in a sustainable lodging, so 70% would choose an eco-friendly lodging even if they were not looking for it and 73% would like to stay in an eco-friendly or green lodging at least once in the next year. However, 72% are unaware of the existence of sustainability

⁶ Millennials or Generation Y were born between 1980 and 1995 and Centennials or Generation Z were born between 1996 and 2010. Reference ranges may vary slightly depending on the source.

certifications and 46% recognize that it is more difficult to make sustainable decisions during their vacations than in their day-to-day activities at home (Booking, 2019a). Therefore, tourism enterprises have a great potential to offer products and services that make it easier for tourists to make sustainable decisions.

(d) Technology and digital services

The ubiquity of the internet and the tools of the digital revolution have made trips increasingly cheap, efficient and accessible. They also allow service providers to better understand their users, make behavioural projections and predict demand. On the other hand, users demand tailored and immediate responses and push enterprises to try new fields, such as the creation of transmedia content and the use of social media.

Among so many tools and options, the need to disconnect arises, causing a tension between authenticity and hyper connection; technology can help hyper-personalize these experiences. For instance, 46% of Booking users would use an application that would allow them to explore and book activities quickly, easily and in real time while traveling, and 44% plan to use an application to plan their activities and have their information centralized (Booking, 2019a).

Even though these generations carry out their transactions on the internet, they take advantage of social media to get feedback and comments on the product or service they plan to buy. Word-of-mouth is especially relevant as potential travellers take advantage of reviews made on social media, booking sites and feedback platforms. For instance, a TripAdvisor survey (2018) revealed that 86% of travellers do not book their lodgings without having read reviews.

In short, technology has two direct effects on the visitors' experience. On the one hand, it facilitates the stays through applications, maps and electronic payments. Comfort is also adjusted by electronic gadgets and the internet of things. On the other hand, personalized and real-time services are offered, such as virtual concierges, availability of transmedia content and personalized activities.

(e) Mobility

Tourist air traffic is expected to grow from 3,800 million in 2016 to 7,200 million in 2035. This growth requires modernizing the processes and infrastructure of the sector. For example, entry visas are described as one of the biggest bureaucratic inefficiencies for travellers. It is also important to boost co-modal transportation, taking advantage of land, rail and river connections. This has the dual purpose of reducing emissions and connecting national and intra-regional tourist destinations. Likewise, it would create redundancy and resilience to the effects of disasters and climate change, reducing wasted trips and time.

2. Reconfiguration of trends

These trends continue during the COVID-19 pandemic, but they are reconfigured due to the particular acceleration of digital transformation. In other words, digitalisation is the thread guiding these changes. In addition, some requirements related directly to the control of the COVID-19 infection are added, such as hygiene, flexibility in reservations and social distancing requirements. Although these measures are linked to the crisis, it is possible that some of them will remain after the pandemic.

(a) Everything digital

The personalization of experiences is key and made possible by the amount of information available about users. Furthermore, 59% of surveyed travellers want technology to offer them "wildcard" and surprise options that would introduce them to something entirely

new (Booking, 2019a). Beyond the experience at the destination itself, the customer experience in each establishment should be hassle-free.

The use of data entails both creating content that attracts potential visitors and continuing to obtain data during their stay. Social media and business websites provide information on visitors' behaviour and preferences, which could feed digital marketing systems, data analytics and artificial intelligence. ICT are also part of the marketing of destinations, especially as experiences offered through virtual reality and augmented reality gain importance. Finally, digital tools enhance the experience on site, so that contactless transactions (contactless pay), virtual concierges and intelligent spaces facilitated by the internet of things (IoT) provide comfort and seamless experiences.

Mobile phones are the main facilitating tool, both for the tourism business sector and for tourists. On the one hand, its penetration in the SICA region facilitates the digital presence of tourism MSMEs and allows them to build communication channels with their clients. On the other hand, tourists are hyper-connected and require quick responses from their providers. Expedia (2017) revealed that 73% of people use their mobile phones while traveling, a number that reaches 78% in generation Z.

(b) Linkages

The search for local experiences and the growth of multigenerational trips already indicated the transition to complete destinations that provide a consistent experience. Booking (2019a) revealed that 62% of surveyed travellers would choose a destination that offers all of their favourite activities and sights near each other to save travel time.

The importance of certainty and convenience and the hyper localization of supply chains have become evident during the pandemic. These same characteristics are transferred to the tourism sector and are evidenced in elements that become important, such as ease of booking, flexibility to cancel trips, hygiene certifications, proximity, or search for quality health facilities in case of an emergency. These conditions provide an opportunity to create routes or tourist circuits facilitated by ICT, as well as routes tailored to each person or group.

This trend points towards linkages at all levels: institutional, business and intersectoral. The management of the destination would allow to enhance the strengths of the site and take advantage of the weaknesses to improve and provide a better experience to the visitors. For instance, incorporating limited land connectivity to some sites could be part of the adventure to reach the destination. Booking found that 61% of travellers would take a longer route to experience more of the trip and 57% would not mind taking longer to reach their final destination if they do so by using an unconventional mode of transport (Booking, 2019a). The limited internet connection is also taken advantage by lodgings that offer disconnected or exotic experiences.

Institutional articulation allows an integrated management of tourist destinations by focusing on the territory through available public, government and business data. This management facilitates the convergence of the community and its attractions and the creation of enabling conditions (education, health, mobility, health, electrical power and telecommunications). Tourism business association facilitates the creation of a destination that offers everything tourists need, it could also create economies of scale and new tourism services or products through collective innovation.

Intersectoral linkages offer an enormous potential both to innovate the experience at the destination and establish new communication channels with visitors. The agricultural, gastronomic, and digital sectors are positioned as the main partners. On one side, the search for local and sustainable experiences leads to appreciating local gastronomy and the use of fresh and seasonal ingredients. On the other side, companies can reach their customers, improve transactions, and create loyalty through the tools created by sectors such as gaming and fintech.

(c) Natural and local destinations

Previous trends already pointed to a slower, natural, and sustainable tourism and to the appreciation of local experiences. Although the trend remains it is also affected by the pandemic. On one side, lockdowns have had a double effect in terms of our relationship with nature. Long lockdown periods make people look for outdoor activities, leave cities and search for open spaces. In addition, people are more aware of the impact of human activity on natural systems. On the other side, families are reuniting after long periods of separation and look for multi-generational destinations where they can protect the health of the most vulnerable members.

Social distancing has also had effects on travel habits both due to the capacity of the establishments and the anxiety provoked by the possibility to get infected. Tourism in cities is expected to decrease, while tourism in natural, rural, or isolated areas is expected to increase.

Finally, border closures and uncertainty have paralyzed international travel, leading to an increase in local tourism. Local tourists and the creation of new tourism circuits and products become more important. Although this trend might change after the pandemic, it is advisable to take advantage of the momentum to consolidate consumption habits and identify destinations that may be sustained by national tourism.

Despite the reduction of inbound tourism and the slow expected recovery, there is an increase of teleworkers and digital nomads who seek to do tourism for long periods and work during their stay. It is estimated 40% of workers in the United States and Europe could telework (ECLAC, 2020a) and during the pandemic, technology-based companies have permanently moved their staff to remote work. Mainly, European and Caribbean countries offer special visas for teleworkers and digital nomads. There is limited progress in the SICA region to offer options for long-stay tourism; in addition, medical and accommodation insurance requirements may discourage tourists with this profile.

(d) Security and trust

Security and protection are important in several moments of the trip. First, personal physical safety, both at the destination and in transit to the destination. This is particularly important in view of the growth of rural tourism and mobilization to remote or desolate areas. It is also important to protect women's safety, especially given the increase of women traveling alone.

The impact of climate change and disasters also remind the need to elaborate risk response and reduction plans. Tourism establishments are usually located close to touristic attractions such as volcanoes, coasts and rivers, which exposes them to the effects of disasters and endangers the health of staff and visitors. Also, the impacts on roads may limit visits and emergency response.

The COVID-19 pandemic also brings new hygiene needs to protect tourists and service providers. On one side, it is important to provide staff with protection gear and healthcare in case of infection. On the other side, visitors look for clean and ample spaces with controlled capacity and cleaning devices. ICT provide some tools such as facemasks sanitization, contactless payment and capacity management through artificial intelligence.

The acceleration of digitalisation, especially e-commerce, also requires secure transactions. Besides traditional credit or debit card payments, there are online payments and cryptocurrencies. The latter have been increasingly used due to the high level of protection to both parties.

Finally, transparency is crucial to secure customer loyalty, especially the use of their data. This area is related to the protection of data used in transactions, but also to the transparency in the use, sale, or distribution of data collected in the company's platforms.

Chapter III

Tourism micro, small and medium-sized enterprises in the digital revolution

A. Introduction

This chapter describes tourism micro, small and medium-sized enterprises (MSMEs) based on several studies conducted by ECLAC in 2020. The studies sought to understand the state of digital transformation in tourism MSMEs, focusing on the main gaps and opportunities that arise from the digital revolution, which are accelerated during the COVID-19 pandemic.

The first study assessed the status of digital transformation of tourism MSMEs in the SICA region. There is scarce information about digitalisation in tourism MSMEs and compiled for the SICA region; therefore, it was necessary to elaborate an assessment of the progress, opportunities and challenges of these enterprises. Additionally, it would provide a clear view of what implies and how to achieve the digital transformation of tourism MSMEs.

Also, two case studies were conducted in Costa Rica and the Dominican Republic. The purpose of these research was to study rural tourism business models based on innovation and digital transformation. The studies focus on Osa (Costa Rica) and Pedernales (Dominican Republic) due to their potential as natural and alternative destinations and their location in rural areas. The information was collected through visits to the communities, interviews with local business-owners and specialists, and review of project documents and local development plans.

These studies contribute to the limited knowledge of the opportunities and challenges faced by rural tourism MSMEs. Despite their statistical limitations, the studies provide qualitative information that confirms the conditions faced by MSMEs as described in previous sections and identify specific challenges in the tourism sector. It is also possible to identify lessons and good practices to guide focalized policies and territorial management plans.

In general, the studies show that the capacity of tourism MSMEs to use the tools of the digital revolution to improve their productivity and competitiveness is linked to three areas: use, access and time. Enterprises are connected but make basic uses of tools such as social medias and messaging platforms. Limited digital skills result in lack of knowledge of new technologies, difficulty to subcontract and supervise digital services and basic use of business management tools. Access is limited by several obstacles, mainly the quality-cost ratio of broadband in remote areas and the cost of digital equipment and services such as digital marketing or data analytics. Finally, the studied enterprises were mainly family-owned or microenterprises where numerous tasks are distributed among few people, leaving little time available for innovation. Women face an additional challenge as they need to consider unpaid care work in their daily activities. In addition, enterprises have very limited capacities to invest continuously in digital products and services.

The findings confirm the digital gap observed in MSMEs in general; between rural and urban areas, between developing (destinations) and developed countries (tourists), and among demographic groups. The tourism sector is an early adopter of digital tools and shows willingness to use them to connect with its customers. However, use is basic with focus on communication and marketing, which hinders the sector's ability to understand how digital tools could contribute to freeing up staff's time, optimizing task planning and purchases and responding to the profile of each visitor, as well as the uses of digital tools for learning, access to funding and business management.

B. Digital transformation of tourism MSMEs

This section presents the findings of focus group discussions conducted in Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama and the Dominican Republic, and an in-depth interview with representatives of the sector in Belize. The focus groups had the participation of 83 people who provided information about the use of digital tools and its challenges. Sessions were held on Teams or Zoom communication platforms. The events were organized and convoked in coordination with national tourism authorities, tourism chambers and associations and national specialists.

Each session started with a presentation about digital transformation in the tourism sector to have a common ground that facilitated the discussions. Discussions were guided by an interactive questionnaire containing 22 questions that were answered digitally and discussed as a group. The sessions were held virtually, which unfortunately excluded MSMEs that did not have access to internet. In this regard, participants included tourism associations or chambers and public institutions that represented and discussed the needs and conditions of the MSMEs that are not connected.

Attendance was 83 people, 55% women and 45% men. According to age, 59% is in the segment of 30-45 years old, 26% of 46-60, 9% of 18-29 and 7% of 61-80.

Although the invitation to participate was equally distributed among rural and urban enterprises, most participants represented urban enterprises (79%). This could be the first evidence that there is a digital gap, and how this hinders the capacity of rural enterprises to participate in online activities.

According to activity, 46% of the enterprises are dedicated to accommodation, 20% to guide or tour operation, 8% to food and 26% to other activities.

1. Main findings

(a) Internet connectivity

There are few studies about internet use in the tourism MSMEs, especially in the SICA region. It is important to recognize the study's bias towards digitalised enterprises, or at least connected to the internet. However, during the focus groups and interviews, there was a generalized perception that most tourism MSMEs are connected to the internet and have a digital presence, at least basic. Businesses recognize the need to be available in online travel agencies, have presence in social media, and establish communication channels with customers. Those enterprises that are not connected tend to offer disconnected experiences focused on relaxation and meditation.

Nevertheless, having an internet connection service is not enough to ensure the service quality. Inconveniences were identified, mainly in rural areas or areas far from urban centres. In these places the internet signal is unstable and does not meet the conditions offered by the service provider. The inconveniences detected in the service were caused by the instability of electrical power and the means of transmission since climatic factors affect the quality of satellite connections. Fixed broadband connections were affected by outdated infrastructure that hinders speed enhancements or make the service unstable. In addition to the participants' testimonies, this reality was verified during the focus groups, as power outages, high network latency and interruptions due to storms were observed.

Enterprises rates connectivity as very good (11%) or good (28%). Most, 46%, rates it as acceptable and 16% as bad or very bad. Most enterprises' access to the internet that does not meet the digital needs of the tourism sector, especially considering the visitor profile.

It was also observed that enterprises do not know the full offer of service providers and connectivity options, which prevents them from analysing and comparing all options to identify the best fit for their needs.

The tourism sector, especially the accommodation sector, has the particular characteristic that the internet connection must meet the needs of the hotel administration, the event rooms and the guests. Therefore, MSMEs have a higher need to have sophisticated connection services to cater to the demands of multiple users.

In Latin America, 55% of the users of fixed broadband have a connection over 25 MB. This challenge is greater for tourism MSMEs that require connection speeds over 75 MB for the connectivity services they must offer their customers. In the SICA region, only Panama and Costa Rica surpass the broadband speed average at national level and are classified in the high-speed category (minimum 25) for fixed broadband connections.

(b) Cost of services

The intermediate quality of the telecommunication services does not match the high service rates paid by tourism MSMEs. Furthermore, some enterprises contract two internet providers to have redundancy to frequent outages.

According to 60% of the enterprises the main limitation to their digital transformation is the high cost to implement new digital tools and to hire advisory services to make adequate use of free technological tools. Therefore, although MSMEs identify technological tools that benefit the business, they do not have the financial resources to invest in the implementation or acquisition of such technologies.

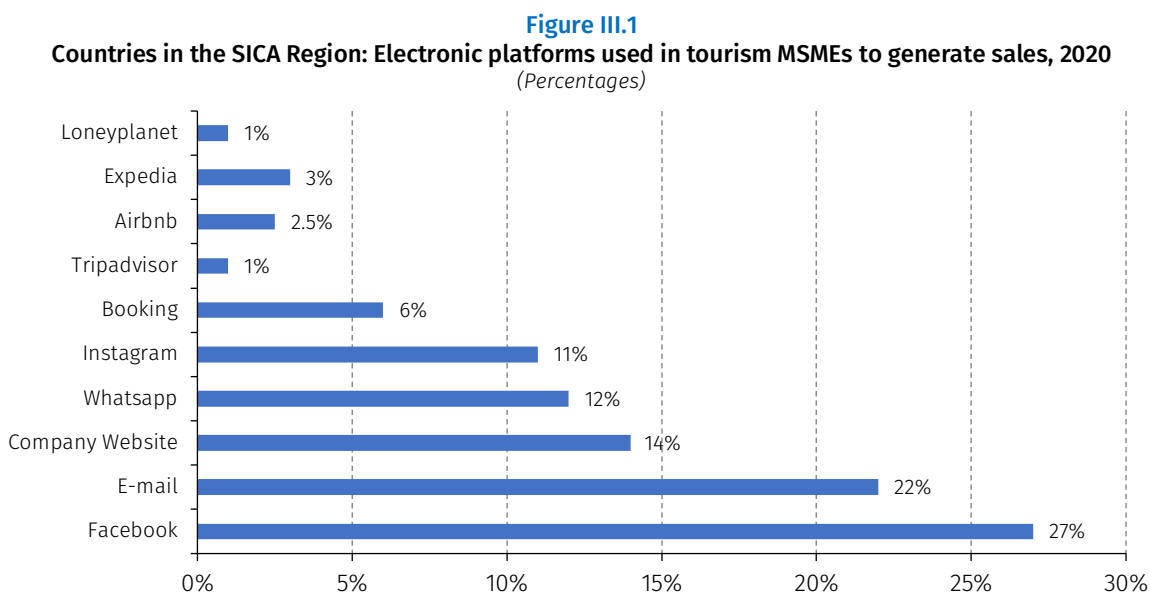
Intermediaries also pose an important cost to tourism, especially the fees charged by online travel agencies and other platforms. The fees are between 20% and 25%, which reduces the profit margin and increases the level of administrative complexity due to differentiated rates.

In addition to the transaction cost, MSMEs must also manage information about requests and reservations on the platforms where they offer their services to avoid overbooking. Very often, companies appoint an employee to handle such information; thus, increasing operations costs in managing digital commercialization channels.

(c) Digital skills

The region shows limited capacities both in the enterprises and the offer of digital services. Tourism MSMEs recognize this limitation and face the challenge of not having personnel with basic technological skills to manage reservation platforms, social media, or videoconference platforms. The main limitations are few staff to take on additional tasks to the normal operation of the establishment and limited financial resources to invest in equipment and contract or outsource services.

Use of social media and instant messaging is intense (see figure III.1) but appears not to be linked to a business or digital marketing strategy. There is also little use of the data generated in social media and lack of knowledge of the potential of websites and search engines. This is reflected in the fact that 8 out of 10 enterprises use the internet to access their e-mail and social media, send quotations, and provide connectivity services for their customers.



Source: Focus groups on the digital transformation of the tourism sector, 2020.

However, all the enterprises acknowledge the importance of online presence and devote time through a staff member to conduct basic digital tasks. In addition, some enterprises have tried to invest, but they have found an insufficient offer in the region: 5 out of 10 enterprises interviewed claim that there is a limited offer of digital services by companies in the field of technology. They also indicated that at times, the service compliance metrics are not clear to both parties, which generates distrust in the tourism sector MSMEs.

(d) Knowledge of new technologies

According to 80% of the enterprises the main limitation to their digital transformation is not knowing about new technologies, their benefits and possible uses in the tourism sector. This lack of knowledge prevents them from identifying how to adapt their tourism services or products with new technologies to improve the digital experience of their customers.

In addition, tourism MSMEs face the challenge of learning how to use or implement existing technologies that have been adopted internationally, such as social media or commercialization platforms. In some cases, enterprises decide not to use them due to the effort and time required to learn how to use them.

This situation is more acute among businesses owned by women since their time is divided between the business and unpaid care work. This reduces effective time to generate new technological knowledge and implement it in the operation of the enterprise.

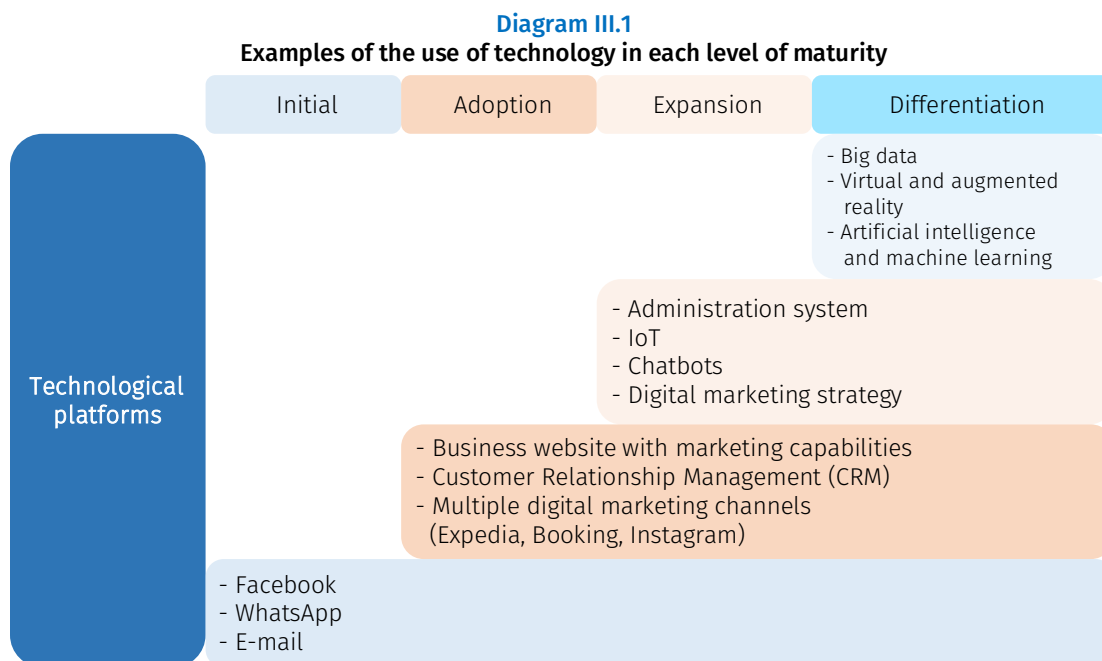
2. Digital maturity of MSMEs

Based on the information presented in the previous section, the study adapted⁷ a maturity model to the tourism MSMEs sector (see diagram III.2). The following levels of maturity are used:

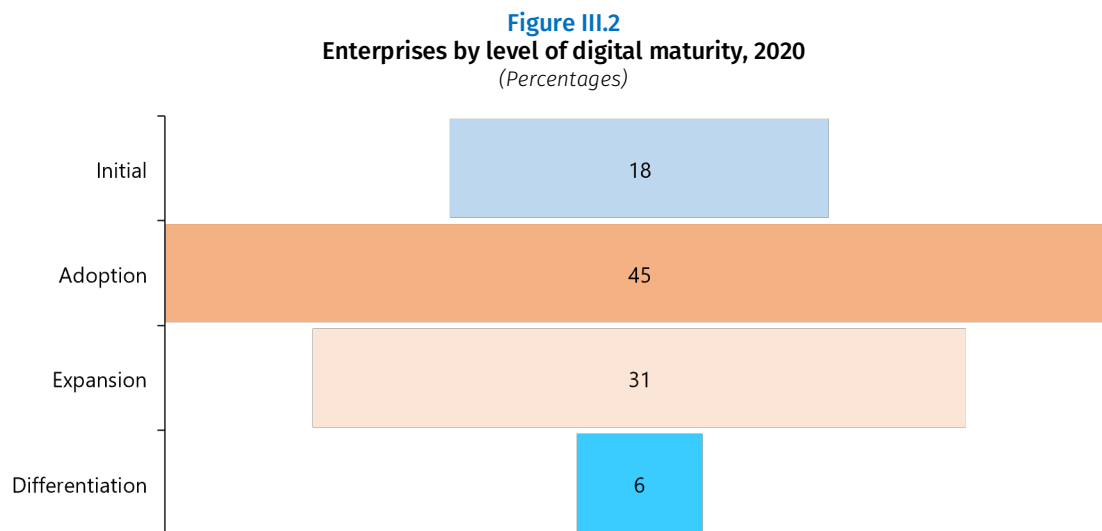
- Initial. The enterprises show slow digital adaptation, usually use technology to establish communication channels with customers and work teams and make limited use of digital sales channels.
- Adoption. The enterprises show higher use of technology, use digital marketing more intensity and use digital tools to manage internal processes.
- Expansion. The enterprises have adopted digital processes in their operation and start innovating by using emerging technologies or 4.0, this is reflected in the use of multi-channel digital marketing strategies and provision of digital services to customers as part of the good or service consumption experience.
- Differentiation. The enterprises use technology intensively, which, in most cases is a differentiation factor from enterprises in the same sector. Enterprises innovate continuously and customers choose them for the digital experience offered in the consumption of their goods and services.

During the focus groups 45% of the enterprises self-identified at the adoption level, characterised using technology in basic processes of internal communication and marketing of goods or services and low technological innovation. Technology and data are not used to innovate the business model towards an offer with more digital content or create unique experiences for customers. Only 37% of the enterprises is taking advantage of the potential of digital tools in the production process, while most (63%) use these tools in basic communication and promotion processes (see figure III.2).

⁷ Model designed based on Forrester, the integrated model of capacity maturity, the multidimensional digital culture model, and McKinsey's digital quotient.



Source: Transformatec, on the basis of Forrester and information collected from the focus groups, 2020.



Source: Focus groups on the digital transformation of the tourism sector, 2020.

C. Tourism innovation in rural areas

The information obtained in the focus groups was complemented with two case studies in rural areas in Costa Rica and the Dominican Republic. Although representatives of chambers and associations of rural tourism MSMEs participated in the focus groups and the participation of rural enterprises was promoted, their participation was always minority. In addition, there is limited documentation available about the gaps faced by rural MSMEs, specifically tourism MSMEs. Therefore, the case studies allow to understand the meaning of the digital gap in the daily operation of the enterprises and the tourist destination.

As discussed, before the pandemic, travellers already looked for local experiences, and the pandemic has made travellers seek natural, outdoors, or remote destinations. Rural tourism has the potential to grow, supported by both internal and external tourism. This section discusses the capacity of tourism MSMEs in two rural destinations to innovate their business models and start a digital transformation process. The selection of the rural destinations was based on three features: (i) innovative in their business model; (ii) using ICT and digital services, and (iii) focused on environmental sustainability and social inclusion. Considering the work developed by ECLAC in value chains, the Osa Peninsula (Costa Rica) and Pedernales (the Dominican Republic) were selected. Research was conducted onsite through in-depth interviews with business owners, representatives of associations and other community groups, and public sector representatives.

1. The Osa Peninsula (Costa Rica)

The Osa Peninsula is in the province of Puntarenas and belongs to the Brunca region. The territory is the home to 2.5% of the planet's biodiversity and hosts the last tropical rainforest in the pacific coast of Central America. Despite this natural wealth, the Osa Peninsula is characterised by low development, high poverty rates, little economic diversification and marked seasonality. It faces social and economic challenges that have led to illegal activities and destruction of the environment.

The "Caminos de Osa" initiative was established in 2013 to position community-based rural tourism as a motor for development in the region. The project was implemented through public-private partnerships and sought to strengthen the community. The territory has presence of 33 regional offices of public institutions. There are state offices, financial services, and academia, which improves coordination in the territory and knowledge about the needs of the communities. An important factor is that the project based its strategy on empowering persons as tourism business owners and was based on the capabilities of the territory. It followed a collaborative, participative and inclusive approach.

(a) Development model

Caminos de Osa is conceptualized around the Corcovado National Park, which covers most of the territory of the Osa Peninsula. The project created several tourism services such as lodging, food and transportation that have created knowledge among the local MSMEs of the importance of rural tourism. Given the nature of community-based rural tourism, the site offers authentic interaction and direct experiences with the community and local people.

A four-route trekking network was designed to attract a segment of tourists interested in natural resources and adventure: Caminos del Oro, del Agua, de la Selva, y Osa Elemental. The purpose of the routes is to increase the number of visitors to the area by offering a variety of activities and services along the trails that lead to the Corcovado National Park. The four routes link 43 MSMEs ventures located in different communities that share a development vision and respect the essence of the region. Each trail encompasses about 16 enterprises that offer accommodation, food, transportation and tour services, which allows tourists to travel the Osa Peninsula while generating wealth for the communities.

The project also connected the MSMEs with large national and international tour operators. National tour operators, in addition to promoting the product, acted as mentors and quality supervisors. Alliances between national and local operators were promoted, which facilitated access to the international tourism market for the rural tourism enterprises in the zone.

(b) Governance

The management model is based on five pillars: customers, the environment, the community, collaborators and institutions. The model balanced the enterprise and the target audience while producing a synergic effect that promotes the creation of value for the enterprise and ensures environmental sustainability.

The Caminos de Osa Association (ACO by its acronym in Spanish) was established in 2015 to manage the destination and guarantee the continuation of the model from the role of Destination Management Organization (DMO). It acts as a coordination and cooperation legal entity to boost initiatives for the strategic development of the territory by promoting dialogue and interinstitutional and intersectoral collaboration. ACO's strategic actions include: (i) define and promote a common vision of tourism development through the execution of specific actions; (ii) ensure the development of the destination; (iii) ensure the quality of the visitor's experience, and (iv) position the destination's products by implementing marketing and commercialization strategies.

(c) Capacity building

The project implemented a capacity building and support plan for the 43 participating businesses for two years. The plan was based on empowering owners and had a perspective of social and environmental accountability. The topics included life skills and social coexistence, tourism services, quality of the offer, formalization of enterprises, financial administration, marketing, commercialization and associativity.

This approach also had a strong impact on women's empowerment. According to data provided by ACO, 65% of the female participants lead enterprises, some of them have diversified their enterprises, have participation quotas in decision-making about the tourism network and participate in integral development associations, cooperatives, businesswomen groups, and local governments, among others.

Business and marketing plans were designed around the Caminos de Osa brand and based on the profile of visitors. The marketing plan was implemented by creating a website (caminosdeosa.com), publishing videos and photos on social media, and establishing alliances with tour operators.

(d) Innovation

The experience included a combination of technological and non-technological innovations to facilitate the visitor's experience.

(i) Seal of quality and responsible tourism

The seal rates mandatory criteria, including productive linkages, service quality, strategic communication, preservation of the destination's essence, support to capacity building, social responsibility, safety, community collaboration with ACO members, use of eco-friendly products, waste management, potable water and use of clean energies. Thirty-five enterprises were certified in three categories based on the score: A - Tree (between 96% and 100%), B - Germination (between 86% and 95%) and C - Seed (between 75% and 85%).

(ii) Green Passport

This is a reward mechanism for tourists intended to encourage visits to businesses in the network that have the seal of quality and responsible tourism. The passport was marketed through a video titled "Timothée went to Osa", which shows its functionality and rewards (discounts or exchangeable prizes).

(iii) *Osa Experience*

This is a mobile application that works on Android and IOS operative systems and promotes the consumption of local tourism products. The tourist scans QR codes installed in a visible place in each establishment to obtain information about the enterprise. This tool has the same function as the Green Passport; therefore, visitors may exchange the seals collected for prizes at Caminos de Osa and create printable or digital posts to share in social media with photos and personalized comments.

(iv) *Interactive web map*

Accessible through the webpage. Map III.1 shows potential customers, travel agencies, tour operators, and wholesalers as well as basic information about each of the four trails of Caminos de Osa. Each map shows the path travelled, distances, times, difficulty, activities to do, lodging establishments to visit, services included, as well as descriptions and photos. In addition, there is a fifth map that classifies the enterprises according to the type of services they offer (lodging, food, transport and tour), shows descriptions, and images and provides the contact information of each enterprise. Besides, customers can create wish lists and Caminos de Osa will create customized routes.

Map III.1
Caminos de Osa (Costa Rica): enterprises certified with seal of quality, 2016



Source: Caminos de Osa, “Our trails unite the communities around the Corcovado National Park”, n/d [online] <http://caminosdeosa.com/trails>.

Note: The boundaries and names shown on this map do not imply official endorsement or acceptance by the United Nations.

(v) Electronic payments

One of the main obstacles for the sale and operation of Camino de Osa tourism packages was the lack of an electronic payment system for providers. As a result, the project created capacities for the use of digital banking platforms to speed up processes. Before, ACO issued cheques to the MSMEs for the sales of good or services done through the association and visited banks to make deposits. The ACO received support to use internet banking. Currently, three members of the Directive Board have access to the electronic system and have created manuals of the main functions of the online banking system to facilitate its use.

(vi) Electronic invoicing

In compliance with Costa Rican tax legislation, MSMEs were supported to adopt electronic invoicing, and a computing system was implemented to support management while ensuring 24/7 service for customers.

(vii) Cooking Labs

Beyond promoting the use of local ingredients in the gastronomic offer, this initiative set the foundation to position the zone as a differentiated touristic destination with sustainable and healthy food, cultural identity and organic production.

2. Pedernales (Dominican Republic)

The province of Pedernales is located to the south of the Dominican Republic. 70% of the province surface is a protected area and part of the only Biosphere Reserve in the country. It has biodiversity and ecosystems of great biological importance, including the Oviedo Lagoon, which has been declared by RAMSAR as an important place for birds. Beaches, lagoons, mountains, caves, sinkholes, dry, tropical and rain forests, adjacent islands and isles show its potential, which has been acknowledged by the Dominican State. In 2011, it was declared ecotourism province, and in 2015, a trust was created for the development of tourism infrastructure; however, it has not been implemented.

Despite its natural wealth, Pedernales is the second province with the highest poverty rate in the country, and its unemployment rate is above the national average. In addition, the closure of mining and cement exploitations has caused serious economic problems. Development of tourism in Pedernales is incipient, tourism cluster and a value chain represented by hotels, restaurants, some tour companies, tour guides and transport enterprises, and a varied number of complementary businesses. Being an emerging destination, it is composed of MSMEs that survive with scarce and occasional local and foreign tourism mostly on weekends with an average stay of one or two nights, and an annual occupancy estimated between 17% and 35%. Up to 2017, these MSMEs received customers through the traditional commercialization channels (travel agencies, inbound tour operators, word of mouth), and tourists that arrived attracted by the Bahía de las Águilas, a provincial icon.

(a) Development model

Pedernales is the only territory with tourism capacity that has been planned before launching it as tourist destination. Over the past two decades, four territorial management plans have been proposed with the following points in common:

- Design tourism development outside of the protected area.
- Design a zoning plan to organize coastal development.
- Promote high quality and low-density tourism.

- Promote nature tourism as an alternative to traditional sun and beach options.
- Consider the limitations of access to water in the province while developing the destination.

Pedernales has 26 hotels that offer 400 rooms. Recently, they have incorporated the *glamping* modality (camping + glamour). Hotels mainly offer lodging and very few include breakfast. Most businesses have not been formalized, but this situation is progressively changing. The gastronomic offer is limited to only five restaurants and some coffee shops. The offer is based on creole style fish and fresh seafood. Inbound tour operation is emerging with two young local enterprises. There is a local association of tour guides, whose members are organized and have a MITUR license.

After ECLAC recommendations to strengthen the tourism value chain, in 2018, the Ministry of Tourism, Commerce, and Micro, Small and Medium Enterprises (MICM for its acronym in Spanish) undertook the task to introduce the use of ICT in the province of Pedernales. The MSMEs Center in Santiago was inaugurated that year to offer technical assistance to entrepreneurs and businessowners and implement a plan to boost the use of ICT.

(b) Governance

The tourism value chain is articulated through the tourism cluster, which is undergoing a process of institutional strengthening. The value chain is very horizontal, but the structure remains partly open and focuses on few participants. Due to local pressure, the cluster is working on its openness and inclusion of new members. The group has developed a work plan to face the challenges of 2021 and is seeking support from other strategic allies.

(c) Digitalisation

Before the digitalisation plan, MSMEs were marketed through word of mouth, sporadic promotion campaigns and press information and received reservations on the phone. With this baseline, the process to promote the use of ICT in the province was divided into three phases:

- Phase I: My Digital Province. Digital skills workshops for 23 tourism MSMEs, training for 52 mothers in the use of Airbnb and provision of 39 computers. The participating enterprises received training in the following topics:
 - Creating e-mails
 - Creating profiles in online travel agencies
 - Geolocation on Google my Business
 - Coaching on social media management
 - Coaching on electronic commerce (use of computers, opening e-mails, web site design, use of OTA, review and design of social media, e-marketing, among others)
 - Creation or modernization of graphic line
- Phase II: Visiting Pedernales. A publicity campaign was designed to attract tourists to the province. At local level, this phase strengthened the management skills and the sustainability of the tourism cluster. The publicity campaign considers the following axes, but has not been implemented:
 - Strategy to promote the province through influential people in social media (*influencers*)

- Creating audio-visual content of the 35 routes identified
- Paid positioning on search engines
- Paid social media advertising
- Phase III: Personalization. Individualized technical assistance for each enterprise focusing on social media and management of OTA. Each technical assistance package resulted in intervention proposals tailored for each enterprise depending on the tourism activity (lodging, food, tours) and the enterprise management capacity. The assistance package includes:
 - Diagnosis of each enterprise
 - Signing a commitment with each entrepreneur
 - Description of procedures to be executed by the enterprise
 - Training for the person appointed to manage social media

3. Achievements

Although the initiatives vary in governance and approach, both are based on the articulated management of a tourist destination to improve its competitiveness. Quadruple innovation helix models were used, facilitating the convergence of communities, enterprises, academia, and the public sector in the territory. Despite the difficulty of multilevel and interinstitutional governance, both have helped create value in the territory and balance conservation and socioeconomic development.

The following section presents the main findings from interviews with businessowners and representatives of tourism associations. In Costa Rica, interviews were conducted with representatives of the 43 enterprises participating in Caminos de Osa and ACO. In the Dominican Republic, interviews were conducted with representatives of 10 out of the 26 accommodation MSMEs located in Pedernales, as well as with tourism specialists and public sector representatives. Participants were asked about the use of ICT and their usefulness in tourism management.

In general, businessowners recognize the importance of digital and technological tools to manage the relations with tourists and have an innovative spirit. However, they face difficulties maintaining a continuous and consistent digital presence. In addition, enterprises use basic digital tools such as social media, instant messaging and OTA. This type of use of ICT does not lead MSMEs to identify new business models, instead, is focused on keeping the current model working.

(a) Social perspective

In the tourism sector, digitalisation and innovation must be part of a strategy to create value in the community or tourist destination. Both cases show the need to create shared value in the region, both by developing productive linkages and promoting cultural values such as responsibility, entrepreneurship, teamwork and self-esteem.

Interviewees in Costa Rica indicated that defining a community identity and image increased the self-esteem of the population, which was evident in the improvement of the community-based rural tourism services offered to visitors. This subject reminds that digital transformation, especially in tourist destinations, has a strong organizational and cultural component that does not always imply a technological solution. In the tourism sector, digital and business skills are as important as soft or social skills.

Women empowerment was also evidenced. The interviewed women indicated that the process gave them self-confidence, provided tools to run their businesses, allowed them to expand their service offer, and prompted them to become actively involved in other local organizations as leaders. It is important to remember that achievements in community and women empowerment were objectives of both initiatives. In other words, for rural tourism to result in community development, it must be planned. Not all initiatives of rural tourism improve the living conditions of the community nor women's high participation in tourism employment means better working conditions. Therefore, it is important to plan these processes starting from the particular needs in the territory of the different population segments.

Both destinations recognize that associativity plays a fundamental role in the scalability of digital transformation initiatives. Although both the tourism cluster and the ACO face some of the common problems of most associations such as sustainability and relevance for their members, their importance is recognized by the communities, even the strengthening of the tourism cluster is part of the ICT strategy for Pedernales.

(b) Environmental perspective

Both destinations base their development model in the valorisation of their biodiversity. However, both are located in areas where economic activities were mainly related to extractive, forestry, or agricultural industries. This tension must be tackled both through awareness raising and capacity building for productive reconversion. For example, many of the owners of the enterprises located in Camino del Oro (Gold Trail in Costa Rica) were formerly engaged in hunting or illegal gold extraction. In this sense, it is advisable to identify appropriate models for environmental co-management where entities responsible for the management of protected areas and neighbouring communities converge for the development of tourist destinations and the provision of the required infrastructure.

Joint innovation is reflected in different products. In Costa Rica, the PROINNOVA research centre at the University of Costa Rica developed three traditional Osa products with export potential: rambutan jelly, Osa curry and Osa curry chips. The project also promoted the revaluation of plants, fruits, herbs, and mushrooms that are produced in the gardens of MSMEs to incorporate them into the development of 40 dishes, drinks, and condiments that rescued the culinary culture of the inhabitants of the Osa Peninsula and promoted new productive activities related to gastronomy. Finally, MSMEs in some communities participate in biological monitoring programs supported by camera traps and microphones. In Pedernales, a project is being implemented to promote clean energies in enterprises in the tourism sector. The program includes measurements, monitoring, training, and the installation of efficient and low-consumption equipment.

(c) Technological perspective

Training was a central axis in both cases, which is recognized by practically all the consulted enterprises. Training was provided for website and social media management, with an emphasis on marketing and commercialization. All the enterprises consulted have internet service for their clients and one or several devices to access the internet. Most rate the quality of service as good or fair. Similarly, all of them have presence in social media and use OTA and most have a website. This shows that enterprises recognize that digital tools are important and technological innovation brings benefits as it attracts tourists, keeps the company visible, and is the way they sell the most.

Despite recognizing the importance of technology, most enterprises have difficulty sustaining their efforts. On the one hand, it is costly to acquire new equipment, and many enterprises do not know the new technologies or how to apply them in their business. On the other hand, their digital

presence is inconsistent both in the frequency of its update and in the lack of a marketing strategy. In part, this is due to the difficulty of having staff dedicated to a digital or marketing strategy. In a sample of 10 MSMEs, the social media of 4 enterprises was managed by the son or daughter of the owner.

Based on interviews in Pedernales it is possible to classify the enterprises in three groups according to their capacity to manage social media and OTA:

- (i) Advanced. Optimal management of social media and OTA. The enterprise generates business and has some form of electronic payment enabled.
- (ii) Occasional. Capacity to manage social media and OTA, but done irregularly and without a strategic line, possibly due to the lack of time of the person in charge or limited support of technical advisers. The task is usually taken on by the youngest people in the family.
- (iii) Fearful. Mainly observed in enterprises owned by senior citizens who seem fearful of handling equipment and distrust their ability to learn. These hotels have chosen to hire external help with little results. Three main causes were found: (i) the scope of the contracted work is not clear, (ii) the businessowner does not have the capacity to supervise and monitor the work, either due to lack of time or knowledge; or (iii) the hired person provides discontinuous follow-up to the company.

4. Lessons learned

(a) Planning and articulation

Both cases underline the importance of translating development plans or tourism strategies into implementation programs in the territory. Sectoral and territorial focus facilitates inter-institutional articulation to accomplish specific objectives, with each participating organization clearly knowing its responsibilities and execution timelines. It is also important to follow-up and give continuity to projects. It was found that many tourism MSMEs require continuous support to adopt digital tools since they lack the staff or knowledge to evolve to more advanced levels of digital transformation. In Pedernales, interventions were designed in progressive phases, which allowed an adaptation of implementation times to the reality and capacities of each businessowner.

It is recommended that the interventions have implementation plans that include baseline and impact indicators, and that the work is documented and published. It is important to inform MSMEs about the expected duration of the project, the requirements to participate, and the expected results so that they determine their interest or availability to participate fully.

(b) Tourism culture and capacities

Despite the ubiquity of technology, the essence of the tourist destination continues to be its attractive, either cultural or natural. In both cases, digitalisation was one of the pillars of a strategy to manage the destination that also takes into consideration business skills and community empowerment. Many enterprises are owned by persons formerly dedicated to agricultural or extractive activities and are managed by the family. Therefore, it is important to keep businessowners updated about the functioning of the tourism system, the expectations and profile of their tourists, trends, innovation opportunities and practical uses of technology in their daily work.

While both destinations have showed progress in their capacity to innovate, the business models continue to be traditional with some digital presence. More specialization of businessowners in tourism related topics would allow them to identify and take advantage of

new business opportunities enabled by technology. It is recommended to design capacity building programs where tourism trends, use of technology in tourism, business management, and customer experience converge. Some elements to consider when focusing capacity building programs include:

- Size of the enterprise: micro, small, or medium
- Type of enterprise: subsistence or opportunity
- Activity: accommodation, food, tours, transport, others
- Type of tourism: sun and beach, cultural, ecotourism, rural, others
- Telecommunications infrastructure: fixed or mobile
- Implementation capacity of the enterprise

It is also important to facilitate the participation of women in capacity building activities, recognizing the higher load of unpaid care work they assume and the positions they hold in the enterprises.

(c) Alliances

Both initiatives are based on private-public coordination but seek to strengthen private relations and productive linkages. Pedernales followed a tourism value chain approach, while Osa consisted of routes of local businesses and alliances with national companies. Also, both associative structures were strengthened.

The sustainability of associations will depend on how clear the group objectives are, and how they organize to sustain the effort. Although interviewees recognize the importance of associativity and maintain active membership, they also consider that associations are fragile structures with limited leadership that not always represent them. Part of the difficulty lies on the fact that the people in charge of associations are also businessowners; therefore, they may not devote full time to the association's activities.

Finally, alliances must stem from a balance between the benefit expected by the member and its duties, either in terms of time, money, or information. Although the pandemic has demonstrated that ICT could facilitate the participation of the MSMEs in associations, they have also caused overload. The explosion of seminars, tourism virtual fairs, focus groups, surveys, and other online activities at the beginning of the pandemic have caused enterprises to be more selective in their participations.

Chapter IV

Electronic commerce in tourism MSMEs

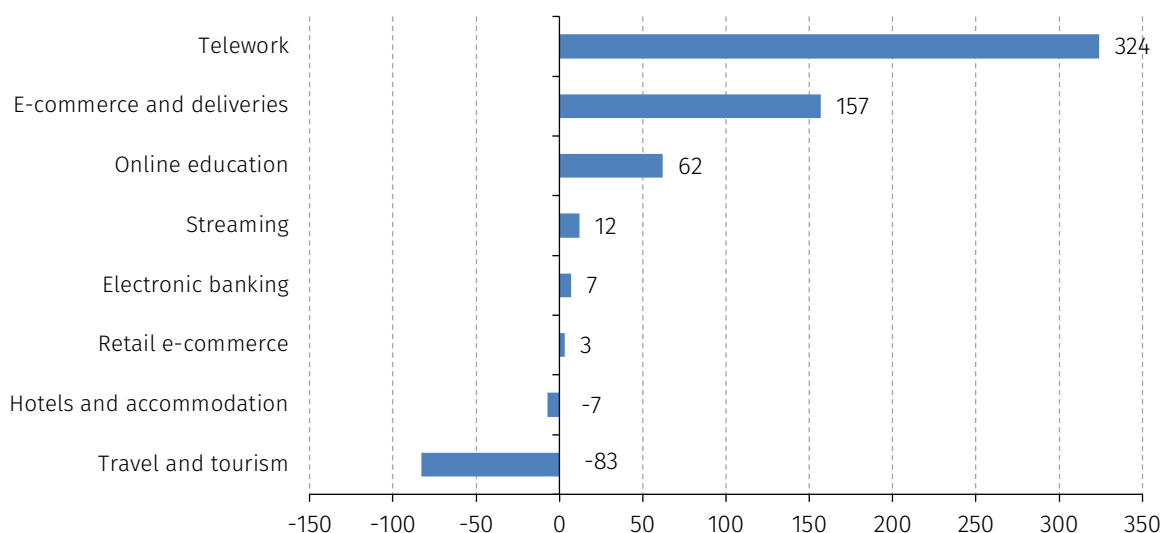
A. Introduction

Electronic commerce in Latin America grew by 157% between the first and the second quarter of 2020 (ECLAC, 2020a), highlighting the digitalisation jump brought by the COVID-19 pandemic. Although there is little information about e-commerce in the SICA region, the examples of Brazil, Chile, Colombia, and Mexico could shed some light on its importance and growth during the pandemic. Between April and March 2020, the number of websites increased by 800% in Colombia and Mexico, and by 360% in Brazil and Chile, while e-commerce websites increased by 450% in Brazil and Mexico. In addition, during the first semester of 2020, 20% of the changes made to websites consisted of transitions to transactional sites (ECLAC, 2020a) (see figure IV.1). It is expected that these purchase habits are intensified and continue after the pandemic.

However, the SICA region, and Latin America and the Caribbean in general, face a significant digital gap that limits the capacity of enterprises to use these tools in their productive processes, especially MSMEs. Although the demand for online products and services has spread and accelerated the use of ICT in enterprises, especially in their operations and promotion, many of these practices have not been the result of a planned process, which is why it is not clear if their use is responding to the needs of the market and to a digital transformation strategy.

The first part of this chapter describes e-commerce and outlines its trends. The second part provides a brief diagnosis of the general context of tourism MSMEs based on the information obtained during focus groups. Then, it analyses the enterprises level of maturity to use e-commerce as part of their digital transformation. Finally, a route map is proposed to increase the use of e-commerce in tourism MSMEs.

Figure IV.1
Changes in the traffic of websites and apps, first quarter compared to second quarter, 2020
 (Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), “Universalize the access to digital technologies to face the effects of COVID-19”, *Special Report Especial COVID-19*, N° 7, August, 2020a.

The information presented was collected as part of the technical assistance entitled “Electronic commerce for the competitiveness and recovery of tourism MSMEs”, conducted by the Economic Commission for Latin America and the Caribbean (ECLAC) and supported by the Secretariat for Central American Tourism Integration (SITCA for its acronym in Spanish). A focus group was conducted in each country of the SICA region, and information was collected through a regional survey.

Focus groups or co-creation workshops were attended by 75 people that provided information about the situation of tourism MSMEs and their practices in the use of e-commerce. The development of the workshops was based on the Agile, Scrum, Kanban and Lean methodologies. Workshops were held on the Teams and Zoom communication platforms and the collaborative work platform Miró was used. The workshops were organized and convoked in coordination with SITCA, national tourism authorities, tourism chambers and associations, and national specialists.

The survey was intended to measure the maturity level of enterprises in using e-commerce. The questionnaire was prepared in Spanish and English, and it was responded by 60 accommodation MSMEs in the eight countries in the SICA region. The survey was divided into two parts. The first one gives a view of the endogenous and exogenous capacities of the enterprise to adopt ICT, and the second one measures the maturity level in using e-commerce. These questions feed a maturity model developed during the study (see section IV.C). It is important to note that this study was conducted virtually; therefore, it is oriented towards those enterprises that already use digital tools. This limitation was compensated by inviting rural chambers and associations as well as community leaders that presented the perspective of non-connected enterprises.

B. E-commerce

E-commerce facilitates the creation of new business models seeking to add value. It can be defined from four viewpoints (Kalakota y Whinston, 1997):

- (i) Communication: publication of information about products, services, or payments through electronic means.
- (ii) Processes: application of technology towards the automation of transactions and workflows.
- (iii) Services: reduce service costs and increase quality and service delivery speed.
- (iv) Online: buy and sale products and information online.

These are transactional activities carried out remotely, not necessarily with the physical and simultaneous presence of the buyer and the seller.

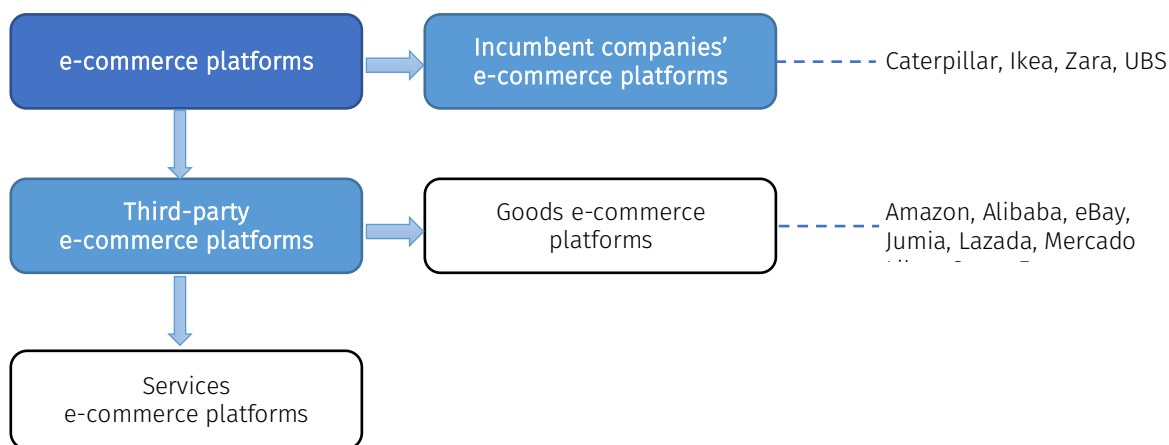
In this study, electronic commerce is defined as a strategy for buying and selling goods or services through shopping platforms, social media and websites. Its usefulness lies in opening new commercialization spaces and promoting brand recognition. The following characteristics summarize its convenience:

- Global reach. Consumers from any country may access the information of an enterprise through its social media, webpage, or online store.
- Ubiquity. Simultaneous presence in all places at any time.
- Interaction. Respond to questions and complaints through permanent contact between consumers and brand in real time.
- Simplification. Less time and personal resources are required to manage marketing and sales.
- Access to information. Collection of data about customers and visitors, consumption patterns and preferences to provide personalized services and assess the performance of the e-commerce strategy.

Transactions are carried out among any combination of consumers (C), businesses or enterprises (B) and the government (G), facilitated by network services. Most of these transactions occur among enterprises (B2B) and in 2017 these represented 87% of the 29 billion dollars generated by e-commerce. However, transactions between enterprises and consumers (B2C) have had sustained growth reaching 22% between 2016 and 2017 (UNCTAD, 2019).

Although B2C commerce allows to sell directly to the customer (D2C), it often works through intermediary platforms (see diagram IV.1). These platforms, such as the online travel agencies (OTA) in the tourism sector, are important means of commercialization for MSMEs that do not have brand recognition or visibility and have limited digital presence. Nevertheless, fees of about 25% reduce the profit margins, especially for microenterprises and subsistence enterprises. In addition, it implies that the MSMEs have access to financial mechanisms regularly offered by the banks such as bank accounts and payment terminals, which is not always the case and highlights the importance of access to banking and new financial applications. This model is challenged by the growth of independent websites that are presented directly to consumers (D2C) and that are supported by consumers who increasingly seek responsible, sustainable and local consumption habits.

Diagram IV.1
E-Commerce Platforms

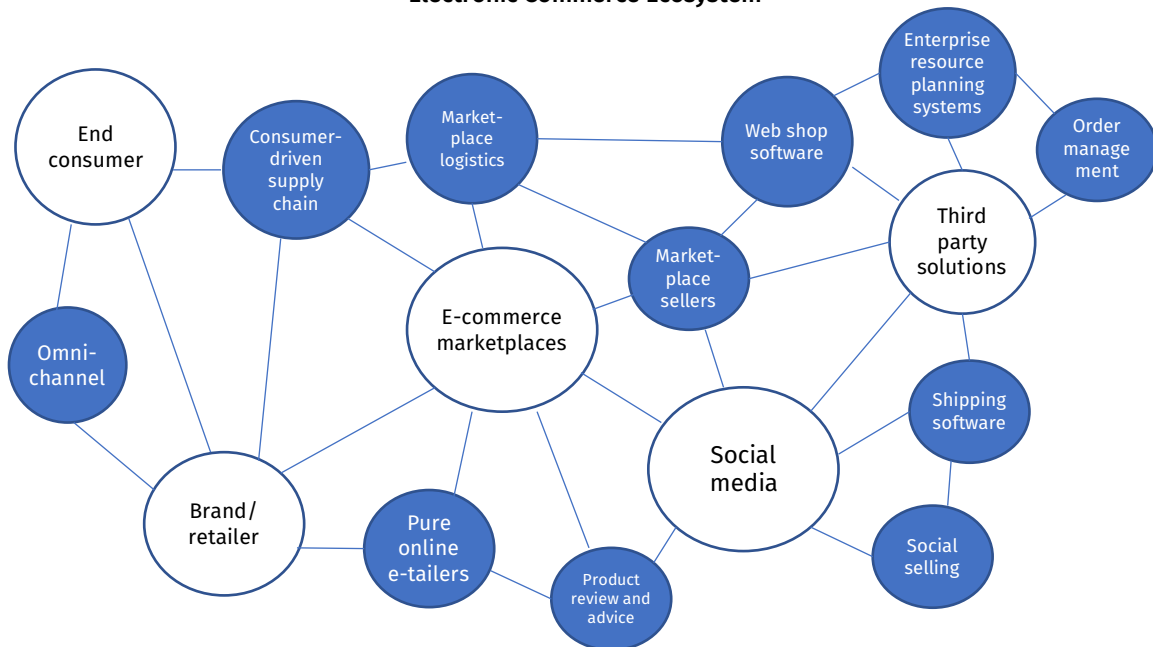


Transportation	- - - - -	99, Didi, Grab, Lyft, Safemotos, Uber
Delivery	- - - - -	Deliveroo, Glovo, iFood, Pedidos Ya, Rappi
Tourism	- - - - -	Agoda, Airbnb, Booking.com, Despegar, Hotels.ng
Financial services, lending	- - - - -	Afluenta, KiaKia, Lending Club, Prestadero, Prosper, RateSetter, Zopa
Entertainment	- - - - -	iTunes, iROKO, Netflix, Spotify
Media	- - - - -	AllAfrica.com, Bloomberg, Devex, Google News, Globo, Reuters
Advertising	- - - - -	Baidu, Facebook, Google, Gumtree, Kenshoo, OLX
Search	- - - - -	Baidu, Bing, DuckDuckGo, Google Search, Yahoo
Information / reviews	- - - - -	Tenderbazar.com, Tradekey, iCow, Yelp, Tripadvisor, Kudobuzz
Learning platforms	- - - - -	Coursera, edX, Lynda.com, Udacity, XuetangX
Health platforms	- - - - -	Doctor.com, MDLive, 1DocWay
Digital labor platforms	Gig work - - - - -	Airbnb, Fiverr, Grab, Helpling, TaskRabbit, Uber
	Cloud work - - - - -	Amazon Mturk, Samasource, Upwork
Applications markets	- - - - -	AppStore, GooglePlay
Cloud services	- - - - -	Alibaba Cloud, AWS, América Móvil, Microsoft Azure, Salesforce, Tencent

Source: United Nations Conference on Trade and Development (UNCTAD), *Report on Digital Economy. Value creation and capture: Implications for Developing Countries* (SBN 978-92-1-004228-4), 2019 [online] https://unctad.org/system/files/official-document/der2019_es.pdf.

The configuration of the e-commerce system is dynamic, where independent commerce platforms, digital markets, and social media coexist supported by logistics services (see diagram IV.2).

Diagram IV.2
Electronic Commerce Ecosystem



Source: Ministry of Industry and Commerce of Panama and DHL, "E-commerce in Latin America, and the role of Panama as an e-commerce hub for the Region", 2020.

1. Phases

The implementation of e-commerce requires some basic phases:

- Define the offer. It is necessary to be clear about the product or service to be offered and segment the target markets to establish adequate interaction methods (language, photographs, offers, prices). It is important to analyse the competition and know value proposals by companies dedicated to similar activities.
- Set up providers or logistic points. These activities may be done by the enterprise or subcontracted to third parties that carry out some or all distribution tasks. It is important to consider the inventory, the possibility of immediate access to products, times and delivery costs, and the owners of each part of the process. In tourism, this would imply activities like alliances with drivers and transportation companies to mobilize tourists; or agreements with the postal service and presence in digital marketplaces to ship local products.
- Create the online shop. Options include pre-designed platforms that allow an easy and fast set up, and personalized designs made by software specialists. It is essential that the platform supports all types of payment methods (credit and debit cards, payment platforms, virtual wallets, and increasingly cryptocurrencies) and has a responsive design, that is, adaptable to mobile devices, desk computers, tablets and e-books. It is recommended to have business websites; however, tourist preferences demand multi-channel presence of companies. Hence, it is important to complement the website with social media and digital marketplaces.
- Design an online strategy. Determine the means, platforms, and social media that will be used to attract users to the business, including the creation of and participation in virtual communities.

- Design a digital marketing strategy. This allows users to find the company through content marketing; it also seeks to obtain and retain customers. Normally, this phase is supported by e-mail, customer relationship management (CRM), and automated marketing systems.
 - Search Engine Optimization (SEO): better positioning of webpages, blogs, and publications in the most popular search engines.
 - Marketing and content development: catching the attention of potential customers and positioning the brand; supported by SEO.
 - E-mail marketing: maintain direct, personalized, and useful communication with customers.
 - Web Performance Optimization (WPO): reduce download times and create user friendly websites.
 - Webpage interaction: allow the user to have an active experience, indicating their tastes and needs, and acting through calculations or reservations.
 - Conversion Rate Optimization (CRO): improve the conversion rate, that is, turn traffic to transactions.

2. Electronic commerce trends

E-commerce has shown its usefulness during the pandemic; therefore, it is expected that the trend will remain and accelerate competition. The following is a summary of the main trends observed.

(a) Convenience and immediacy

There is tension between digital marketplaces such as Amazon, Mercado Libre, or Zalando and direct to consumer commerce (D2C). Although customers are interested in shopping from local providers and transitioning to responsible consumption habits, 50% of e-commerce sales occur in digital marketplaces (Shopify, 2020). Digital marketplaces offer a quick, efficient, and intuitive purchase process for consumers. Its attractiveness consists of the simple registration, quick check-out, immediate delivery, and return policy as well as the search and filter of hundreds of options in one place. This process is optimized and personalized through the access of these companies to big data analytics and artificial intelligence.

However, these marketplaces are challenged by the growing digital presence of individual businesses and consumers that seek to support local commerce. Local supply chains and responsible consumption motivate consumers to look for e-commerce sites of independent and local establishments. The main drivers are to support to local businesses (33%), find unique products (33%), and have a good customer service experience (31%) (Shopify, 2020).

However, many MSMEs have difficulty offering the purchase experience and logistic services that current consumers seek. For example, the average stay in e-commerce sites fell from 4 minutes to 12 seconds (Salesforce, 2019), which indicates that competition is high, and users look for immediacy. If these management and logistics challenges are overcome, independent sites have the potential to give the human touch consumers look for in their digital experience.

Finally, the convenience of buying must consider the diversity of payment options. Virtual wallets, payment platforms, and cryptocurrencies complement other traditional methods such as credit and debit cards, wire transfers and cash. These new fintech developments challenge traditional banking and provide opportunities for financial inclusion of traditionally excluded groups.

(b) Omnichannel

This tendency is in line with the search for convenience and immediacy: all devices, all platforms. 73% of consumers use multiple channels before making a purchase, both virtual and face to face (Sopadjieva, Dholakia y Benjamin, 2017). The business digital strategy, including e-commerce, must recognize the ubiquity of the platforms and devices from which users access the sites. The sites must be responsive. The strategy must also position the company in different social media and platforms to interact with their users. This implies creating transmedia content available in different platforms that contribute to building an integrated image of the company. Omnipresence is not only about being where users are, but also about creating a complete purchasing experience. In this sense, four areas are key: mobile, social media, videos and enhanced reality.

(i) Mobile

50% of e-purchases are done on mobile devices (Shopify, 2020) and before the pandemic, mobiles already represented 92% of the e-commerce growth (Salesforce, 2019). In addition, most voice search is done through mobiles. Intense competition and consumers' demands require responsive websites that offer an excellent user experience. For example, 72% of people would just buy at a mobile site that is easy to use. On the contrary, 53% of Latin Americans report abandoning a mobile site that takes more than three seconds to open (Spero, 2017).

(ii) Social media

The importance of social commerce lies in the fact that it occurs on the sites where users are, that is, on social media. Social media posts provide the potential buyer with a deep look at the product or service, and inspiration on how to use it. User comments work as reviews to know the product, the brand, and its relationship with customers. Similarly, chatbots could use social media as attention centres for immediate response to customer inquiries.

(iii) Video

Social media have contributed to the raise of shoppable ads. The excessive amount of information available on social media makes consumers look for short messages that catch their attention; for instance, the attention span of Gen Z to videos is eight seconds. In addition, networks such as Snap and TikTok have popularized videos and pushed other social media to incorporate them into their experience. Users seek short videos that quickly tell them about the company and the value of the product while calling for action. In the case of tourism, it was found that two thirds of video reproductions occur on mobile devices and three out of five travellers who watch online videos use them to narrow down their brand, destination, or activity options (Google, 2016).

(iv) Enhanced reality

One of the difficulties of online shopping is not being able to fully experiment the product or service. It is important to feel the texture of fabric or imagine what an appliance would look like at home. The growth of augmented reality in e-commerce is due to its 360° vision of products that is complemented with photos, videos, and reviews on social media and platforms.

Finally, brick-and-mortar establishments maintain their importance as another sales channel, but with technology on site. On one hand, they link in-store purchase data to the digital profile of the user and vice versa, which fine tunes recommendations and data projections. On the other hand, they offer digital service on site through virtual shopping guides, augmented reality, and delivery and payment options. Brick-and-mortar establishments must become part of the omnichannel strategy of the company and serve as service points for delivery and logistics.

These behaviours are important to the tourism sector. Although many actions are taken virtually or remotely, the tourist experience is consumed locally. This allows the sector to experiment combinations of virtual and in-person activities and relations. For example, after enjoying a yoga or cooking class in a destination, the person may sign up for virtual classes in their country of origin. This combination of face-to-face and virtual experiences represent an excellent example of the potential of e-commerce in business model innovation.

(c) Experience

Personalization and the search for experiences continue to be the preeminent trends, thus, they are also part of the purchase process. The first trend highlighted the importance of convenience and immediacy to complete the purchase process through an easy registration and quick check-out, even in one click. In addition, customers seek simple browsing experiences to find the right product or service. Artificial intelligence and data analytics remain important joined by voice searches.

Artificial intelligence allows an increasingly high level of personalization by segmenting customers according to their location, age, sex, and consumption habits. In this way, recommendations and guidance provided at the store are based on the history of purchases and searches. It has been found that artificial intelligence increases the value of the purchase by 26% (Salesforce, 2019). Furthermore, 63% of consumers claim that they expect brands to use their data to offer them personalized experiences (Spero, 2017).

Voice assistants, driven by artificial intelligence, are positioned as an important tool for e-commerce, and call for the inclusion of voice search on shopping sites. It is expected that voice commerce will reach 40,000 million dollars in 2022 (Shopify, 2020). Finally, a business' ability to personalize the experience and provide excellent customer service helps consolidate customer loyalty. For example, 91% of consumers would choose brands that remember them and provide them with specific recommendations and offers (Accenture, 2018). In this sense, loyalty programs and memberships grow to retain customers and adopt models of recurring sales.

(b) Data

All prior trends are based on the availability of users' data and in the capacity to analyse and use it in the business. However, users are starting to claim control over their data; although they want it to be used to personalize their experiences, they also want it to be used with transparency. 83% of consumers are open to share their data to have a personalized experience if the business is transparent about the uses it gives such data (Accenture, 2018).

Raising awareness of the importance of data empowers consumers, giving way to trends such as privacy by design, privacy as an option, and payment to consumers for the use of their data. Therefore, transparency and (re)construction of trust are fundamental pillars in the e-shopping experience. For example, it is more likely that 92% of consumers trust their data with a company if they can control what information is being collected. Trust also builds loyalty: 92% of consumers would buy additional services or products from a reliable business, and 93% would recommend a company they trust (Salesforce, 2019).

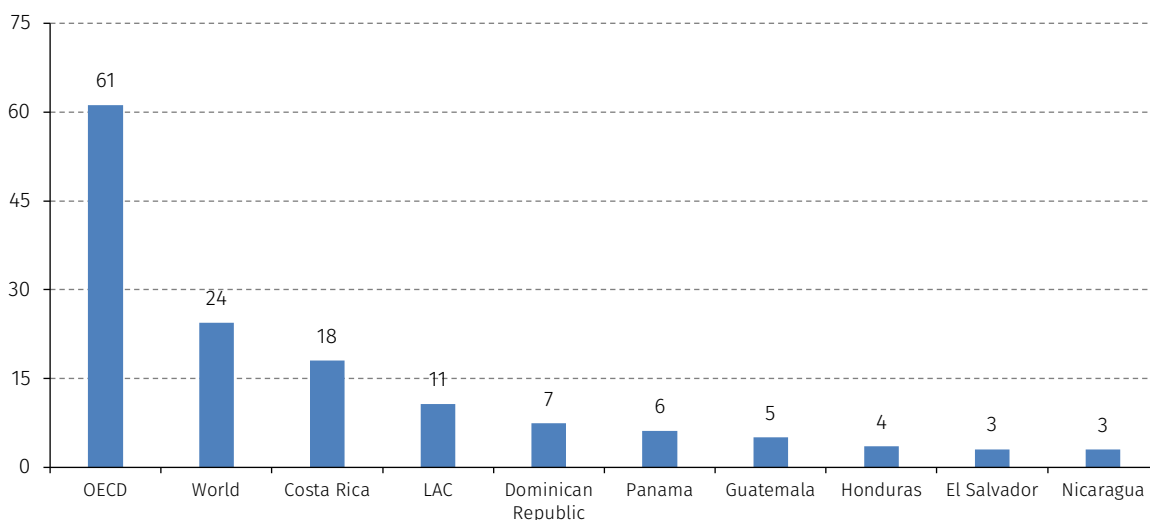
Besides a transparent use, data must ultimately offer personalized and efficient purchases. The organized use of data closes the shopping experience cycle through an omnipresence strategy that facilitates the user's process of inspiration and shopping. Nevertheless, the consolidation and analysis of data from several sources is complex, which results in the fact that 65% of buyers believe that businesses do not really know them (Salesforce, 2019), despite of the large amount of data available on social media and even in company platforms.

3. Electronic commerce in the region

Electronic commerce represents 5% of retail commerce in Latin America and the Caribbean (LAC) and 4% in the Mesoamerican region. Panama is the highest user in the SICA region, as it reaches 9%, in contrast with Costa Rica and Guatemala with about 2%. This gap is observed even in developed regions. The region of Asia and the Pacific uses e-commerce the most, as it reaches 12% of the total retail commerce. They are followed by Western Europe and North America with 8% (ECLAC, 2018). The capacity of companies to use digital platforms for commercialization is based on the availability of banking tools that allow online payments, including ownership of debit and credit cards. Otherwise, websites and social media serve only as virtual catalogues.

Figure IV.2 shows the gap of the SICA region in the use of online transactions. This is particularly worrying for tourism MSMEs. On the one hand, the profiles in online travel agencies (OTA) require electronic payment methods to receive reservations from tourists. These payment methods include credit and debit cards, online payment platforms, and cryptocurrencies. On the other hand, OECD countries and the United States, the main sources of origin of the tourists that visit the region, exhibit high levels of use of online transactions. This situation causes a disconnection between the tourist profile and their intense use of online transactions, and a host region that is not ready to respond to those demands.

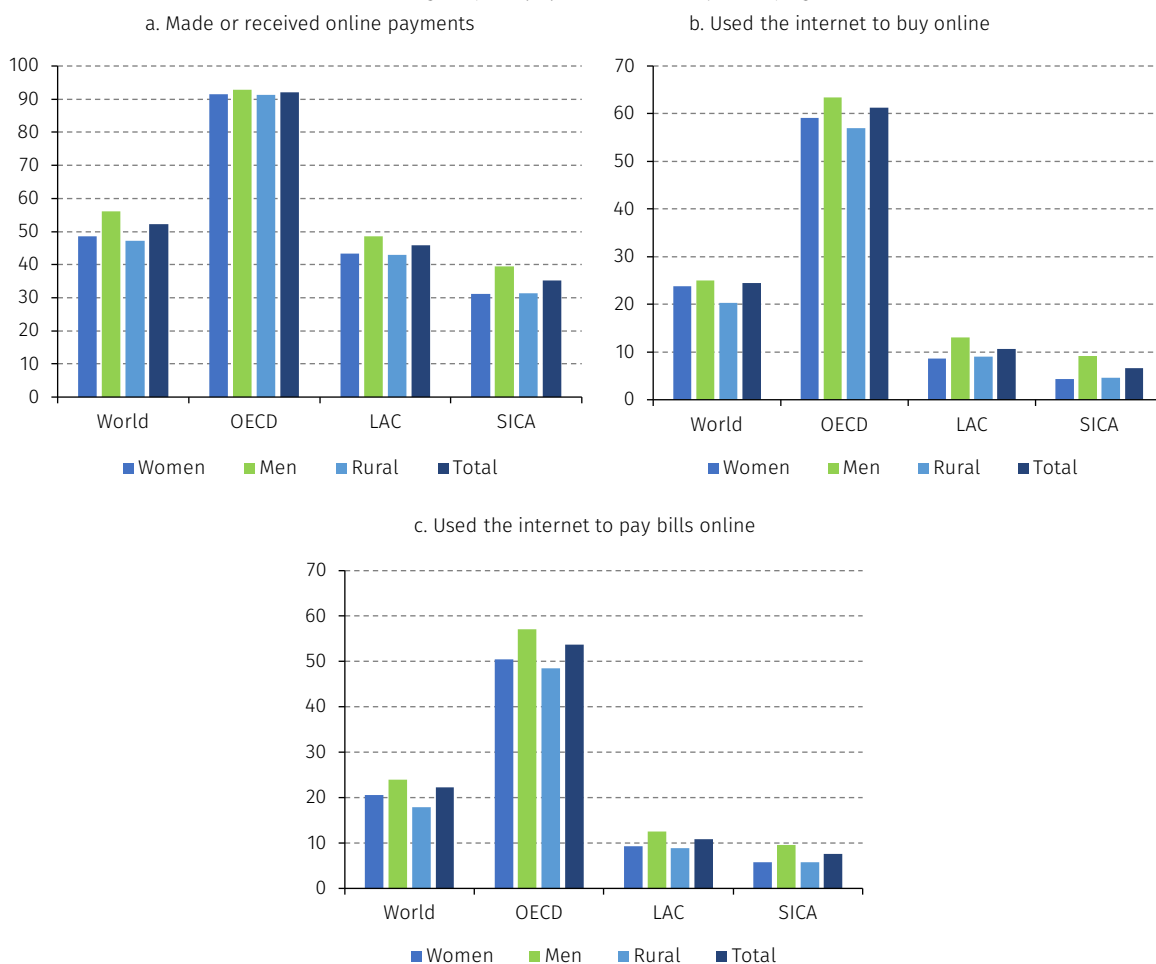
Figure IV.2
SICA region and selected regions: use of internet to buy something online, 2017
(Percentages of the population over 15 years of age)



Source: Elaborated by the author, on the basis of World Bank database on global financial inclusion [online database] <https://databank.bancomundial.org/Financial-Inclusion/id/7e9e6e6>.

In addition, women and rural areas face persistent exclusion (see figure IV.3). Again, this is important for tourism. Women account for most managers and owners of tourism MSMEs, and many of these establishments are in rural areas, where the main attractions of the region are located. Therefore, the gap between tourism service providers and their visitors in developed countries could widen.

Figure IV.3
SICA and selected regions: online transactions over the past year, 2017
(Percentages of the population over 15 years of age)



Source: Elaborated by the author, on the basis of World Bank database on global financial inclusion [online database] <https://databank.bancomundial.org/Financial-Inclusion/id/7e9e6e6>.
 Note: Graphics b and c exclude Belize.

The gap to fully take advantage of e-commerce is global. However, it is wider in developing countries, rural areas, and among low-income households, senior citizens and women. The B2C E-commerce Index elaborated by the United Nations Conference on Trade and Development (UNCTAD) sheds some light on the main tendencies and challenges faced by the region (see table IV.1). The index measures an economy's preparedness to support online shopping and comprises 152 economies. A maximum of 100 points is granted through the analysis in four areas: (i) account ownership at a financial institution or with a mobile-money-service provider; (ii) individuals using the internet; (iii) Postal Reliability Index; and (iv) number of secure internet servers per one million inhabitants.

The countries most prepared to adopt e-commerce and benefit from it are mainly located in Europe, occupying 8 of the first 10 posts in the index, accompanied by Singapore and Australia. The Netherlands lead the index. Although the penetration of credit cards in the country is low in comparison with other developed countries; all the population over 15 years has a bank account, which allowed 84% of internet users to shop online in 2018 (UNCTAD, 2019).

Table IV.1
Selected countries and regions: B2C E-Commerce Index, 2019

Rank	Country	Share of individuals using the internet ^a (percentages)	Share of individuals with an account ^b (percentages)	Secure internet servers ^c	UPU postal reliability score ^d	Value
	World	57	60	55	49	55
	Developed economies	86	93	87	82	86
	Latin America and the Caribbean	59	53	53	28	46
	SICA	52	46	53	32	46
1	The Netherlands	95	100	98	93	96.4
2	Switzerland	94	98	95	95	95.5
3	Singapore	88	98	97	97	95.1
60	Chile	84	74	78	32	67
61	Costa Rica	74	68	63	51	64.1
67	Dominican Republic	75	56	45	66	60.4
83	Panama	58	46	68	29	50.4
92	Belize	47	48	81	13	47.3
99	Honduras	32	45	41	52	42.4
108	Guatemala	65	44	41	0	37.5
110	El Salvador	34	30	42	42	37.2
132	Nicaragua	28	31	40	2	25.2

Source: United Nations Conference on Commerce and Development (UNCTAD), *Report on Digital Economy. Creation and capture of value: repercussion for developing countries* (eISBN 978-92-1-004228-4), 2019 [online] https://unctad.org/system/files/official-document/der2019_es.pdf.

^a 2018 or last year available.

^b 2017, population over 15 years of age.

^c Normalized.

^d Postal Reliability Index 2018 of the Universal Postal Union.

In contrast, the SICA region is ranked in the mid (Costa Rica and the Dominican Republic) and low positions. The region shows how the confluence of low levels of internet penetration and financial exclusion determine the level of adoption of digital services. In the case of e-commerce, other issues must also be considered, such as limited logistics and mobility in the region, which affect the region's performance in the Postal Reliability Index of the Universal Postal Union.

Specifically in Latin America, some challenges limit international e-commerce (see table IV.2). Both exporters or non-exporters face similar challenges in financing, procedures, and infrastructure. Nevertheless, it seems that costs are more important for non-exporters, who also face a gap in capacities to conduct e-commerce.

Table IV.2
Latin American and the Caribbean: challenges to cross-border electronic commerce, 2017
(Order of importance)

Small exporters		Small non-exporters	
1	Financing international trade	1	Cost of online cross-border payments
2	Customs procedures in international markets	2	The capacity of my team to conduct cross-border e-commerce
3	Customs procedures for e-commerce imports	3	Financing international trade
4	Infrastructure for cross-border transactions	4	Customs procedures for e-commerce imports
5	Total cost of delivery from my country to a foreign buyer	5	Customs procedures in international markets
6	Infrastructure for cross-border e-commerce	6	Total cost of delivery from my country to a foreign buyer
7	Postal service for cross-border e-commerce	7	Ease to pay/receive payments from partners abroad
8	Access to the main markets in my country	8	Access to the main markets in my country
9	Cost of online cross-border payments	9	Cross-border payments security
10	Inter-operation of digital regulations with the most important markets	10	Infrastructure for cross-border e-commerce

Source: K. Suominen, "El comercio digital en América Latina: ¿qué desafíos enfrentan las empresas y cómo superarlos?", *serie Comercio Internacional*, No. 145 (LC/TS.2019/76), Santiago, Economic Commission for Latin America and the Caribbean (ECLAC), 2019.

C. E-commerce in accommodation MSMEs

E-commerce provides tools to innovate business models, but its use must be linked to a digital transformation strategy. The adoption of technology is only part of a process that also implies organizational and cultural changes that lead to effectiveness and efficiency. This section outlines the findings obtained in focus groups and the regional survey. The information was used to design a roadmap to boost the use of e-commerce in tourism MSMEs.

1. Diagnosis

The diagnosis sought to know the environmental conditions of accommodation MSMEs that facilitate or hinder the adoption of e-commerce. The workshop discussions focused on five areas described as follows.

(a) People

This section analyses general sociodemographic characteristics of tourism workers and visitors. It focuses on key elements that affect the performance of tourism activities. During the conversations in the eight countries, three topics were emphasized: (i) division of work; (ii) capacities, and (iii) visitor profile.

(i) Division of work

Many participants stated that the MSMEs sector is comprised of family-owned enterprises, and even unipersonal enterprises. The size of the enterprises is important when considering the large number of activities that make up the tourism service in each establishment. Hence, several tasks are assigned to few persons and there is less time available to conduct additional activities such as learning and innovating. On the other hand, labour tends to be distributed according to sex and age. For example, women are responsible for customer service, and young family members are in charge of social media and technology.

Discussions also recognized and confirmed the predominance of women in the operation and management of accommodation MSMEs. In countries such as Belize, Costa Rica and

Panama participants indicated that women have an important participation as owners or administrators. Despite the economic empowerment of women, the study confirmed the distribution of work based on gender roles: the distribution of household chores is adopted in tourism. This means that women work on areas related to care and service: operational (cleaning rooms), administrative (human resources) and customer service, while men work on agriculture, farms, and landscape, as well as activities that generate additional income. In family-owned enterprises, men and young people manage digital tools. Managerial and strategic tasks are assumed by men; nonetheless, in some countries, respondents mentioned the growing leadership of women, including indigenous women that lead tourism projects.

In addition to the feminization of jobs, women must balance business activities with a higher proportion of unpaid work than men. These tasks include caring for children, the elderly, sick patients, and persons with disabilities; cleaning and supplying the household; pet care; maintenance of gardens, among others. Therefore, they have less time available to engage in business learning and innovation activities. Similarly, labour days are combined with family needs, which is why labour hours are flexible. For example, some businesswomen said that their day starts with business activities; in the afternoon, they cook and help their children with homework, and then at night they go back to their enterprise-related activities.

(ii) Capacities

Participants identified customer service and use of digital tools as the main areas for capacity building and professionalization, through life-long learning, university, or technical education. In addition to technical skills, participants also mentioned the need to build psycho-emotional skills to improve hospitality. There are gaps in access to training, especially among women, the elderly and in rural areas. Participants in rural areas indicated the difficulty to attend face-to-face training activities in distant urban centres. In addition, rural areas face a broadband coverage and penetration gap that affects the performance of telecommunications and limits online capacity building activities.

Women face two types of challenges. On one side, limited time availability makes it difficult for them to include learning activities in their daily routine. On the other, the capacity building offer tends to focus on ICT staff or management. As women tend to occupy operation and administration positions, they are rarely invited to these training opportunities.

(iii) Visitor profile

Before the pandemic, enterprises were clearer about the profile of their visitors. However, vertiginous technological changes and the paralysis of inbound tourism have modified these profiles. In general, participants observe an increase of young tourists and a decrease of elder adults. Even destinations normally visited by the elderly are now visited by youngsters. This has made some destinations adjust their offer towards products and activities requested and enjoyed by the youth. This has also led to changes in their digital presence to respond to this age profile by strengthening their presence on social media and e-commerce platforms. In some countries, respondents also mentioned the growth of family tourism in search of safe and isolated areas, especially, natural destinations. These changes, accelerated by the pandemic, confirm the trend towards creating multi-generational destinations.

(b) Society and culture

This section focuses on social behaviours and attitudes that affect tourism activities. The main topics mentioned are trust and associativity. The MSMEs sector seems to be dynamic and willing to adopt digital tools. However, it is recognized that there is fear and mistrust of some users. On the one hand, foreign tourists prefer to use digital marketplaces such as OTA that provide reliability and accept multiple methods of payment. On the other hand, local tourists

observe offers and advertising on social media and business websites but call by phone to confirm the offer or make the reservation. Different interaction preferences underscore the importance of omnichannel communication strategies.

Associativity is recognized as an opportunity to develop strategic actions in favour of the sector although it is difficult to establish it in a durable way. Participants are members of local or national associations, but they are sceptical about their benefits. In addition, they know or have participated in other initiatives, most of which tend to fail. Some of the reasons cited include:

- Few people carry the burden of the organization
- No funding
- Imperceptible achievements
- It is an expense for the enterprise in terms of time and money

Although virtuality favours the capacity of MSMEs to participate in associations, there is also an overload of activities, especially at the beginning of the pandemic. The lack of clear objectives and sustainability mechanisms tend to diminish the permanence and achievements of these groups.

Quality certifications and seals face a similar challenge. Although participants recognize their strength, the balance between cost and benefit is sometimes unclear. The creation of safety seals provides travellers with peace of mind but represents a significant additional cost for enterprises. Furthermore, the slow reactivation of tourism does not compensate the investments and operation costs of a sector in crisis.

(c) Regulation and promotion

Discussions were centred around knowledge and perception of promotion regulations and strategies. Three areas of discussion were identified: promotion laws, red tape, and e-commerce. Participants know about the existence of laws and programs to promote tourism. However, they face a complex relation with the public administration.

Despite knowing about some of these instruments, there is no evidence that MSMEs use them or that the business strategies are aligned with the country brand strategy. Participants expressed some concerns, especially regarding the implementation of national policies in the territory. Among them, they highlight that the benefits of these policies are not perceived in the management of the territory; there is little focus on the MSMEs sector; national strategies to attract investment are disconnected from the MSMEs sector, and promotion policies are discontinuous. Procedures in every country were described as difficult to comply with, cumbersome, excessive, and disconnected from the reality of MSMEs in terms of time, cost, and capacity to carry them out. This leads many companies to operate in formality or semi formality.

Most participants do not know about e-commerce regulations (see table IV.3) and some have practical difficulties adopting it. For instance, many enterprises use PayPal and other platforms to receive payments, but they do not have a national bank account that allows them to withdraw the funds. This issue is bypassed by transferring the money to a person who has a banking account or making online payments or purchases. The intermediary fees of e-commerce platforms also limit MSMEs participation; commissions of about 25% have an impact on the enterprises' profit, especially on microenterprises. Finally, the remote location of some enterprises leaves them out of logistics or distribution circuits, thus, it is difficult for them to participate in the purchase and sale of assets. These challenges exemplify the limited

public management of the digital economy, new digital financial exclusion, and the uncertainty faced by enterprises.

Table IV.3
Countries in the SICA region: legislation related to electronic commerce, 2020

Country	Act or law	Number	Year
Belize	Interception of Communications Act	25	2010
	Electronic Transactions Act		2003 (2011)
	Telecommunications Act	16	2002
Costa Rica	Law of Certificates, Digital Signatures and Electronic Documents	8454	2005
	Law on the Protection of People against the Processing of their Data	8968	2011
	Law Promoting Competition and Effective Protection of the Consumer	7472	1994
Dominican Republic	Law on Electronic Commerce, Documents and Digital Signatures	126-02	2002
El Salvador	Consumer Protection Law	666	1996
	Electronic Signature Law	133	2015
	Data Protection Law	534	2013
	Electronic Billing Bill Proposal		
Guatemala	Law for the Recognition of Electronic Communications and Signatures	47	2008
	Regulation for the Provision of Mobile Financial Services	Decree JM-120	2011
Honduras	Electronic Commerce Law	149	2014
	Law on Electronic Signatures	149	2013
	Regulation for the Authorization and Operation of Non-Banking Institutions That Provide Payment Services Using Electronic Money	Agreement No. 01/2016	2016
	Consumer Protection Law	24	2008
Nicaragua	Electronic Signature Law	729	2010
Panama	Electronic Commerce Law	43	2001

Source: Elaborated by the author.

(d) Financial instruments

This section discussed the availability of financial instruments, especially in light of the crisis caused by the pandemic. There was generalized consensus about the importance of government measures to support the sector. Although participants recognize the importance of sanitary measures to reopen their tourism establishments, and most of them have made the necessary adjustments, they have two concerns. First, the investments are high in a moment of crisis and reduce the little profit generated. Second, the reactivation of local tourism has been based on discounts and offers, so profits are reduced in comparison with foreign visitors.

Finally, the study confirms the scarcity of traditional banking products. Participants consider that interest rates are too high and bank guarantees do not represent the reality of MSMEs. For example, one participant stated that if he met all the guarantee requirements, he would not need to go to a bank. In some countries, participants added that at this moment, banks rank tourism MSMEs as high-risk businesses, further reducing their options to obtain formal funding.

(e) Technology

This section focused on two areas of discussion: digital gap and use of technological tools. Participants from all countries highlighted the existing gap in telecommunications infrastructure between urban and rural areas. The available bandwidth causes connectivity, access, and quality problems in the service. Thus, it becomes an affordability issue as the internet service cost is high in comparison with the bandwidth and the quality of service received. In addition, electrical power instability in rural areas affects the continuity of telecommunication services.

Regarding the use of websites, social media, and digital platforms, participants indicated that Facebook and Instagram are the most effective tools, along with WhatsApp, to facilitate business, sales, and reservations. These tools tend to be implemented by staff in the enterprise who have other duties—for example, managers—or the youngest members of the family; very few enterprises have specialized staff dedicated to this activity.

Enterprises show little or no use of search engine optimization tools, and very few mentioned the use of Google. Social media is used to communicate and offer promotions; however, there was no evidence of the use of the data generated in these networks to inform a marketing or digital strategy. In terms of e-commerce, most enterprises use payment terminals and accept electronic payments, which allows them to sell in OTA, social media, and instant messaging. Business websites are also used to sell but with much less frequency.

Finally, during the conduction of the workshops it was possible to confirm some of the gaps discussed by the participants. Three challenges arose in all countries. First, the gap in digital skills was evidenced, both in the private and public sectors. Some participants faced difficulties using the workshop platforms, from signing in to using tools such as the chat or the microphone. Therefore, each workshop started with a short training session in the use of the platforms. Still some participants had trouble participating, which caused frustration, nervousness, and embarrassment; some of them even left the session. Second, all workshops were attended by participants who had infrastructure problems, especially internet interruptions and some electricity outages. For example, following the passage of tropical depressions Eta and Iota, some participants cancelled their participation and others logged in but had to abandon the session due to persistent problems. Third, persons who participated from a mobile device had difficulty browsing the platforms. This may occur due to gaps in digital skills or to the responsiveness of each platform to mobile devices. This situation underscores the need to consider the region's high mobile penetration when designing capacity building and communication strategies, especially in rural areas.

2. Maturity in the use of electronic commerce

The findings obtained during the workshops informed the design of a maturity model to assess the level of use of electronic commerce (see table IV.4). Subsequently, the model was used to design a regional survey to measure the maturity of tourism MSMEs in the use of e-commerce.

Table IV.4
Levels of maturity in the use of electronic commerce and related capacities

Level	Definition	Capacities
Initiate	Online presence through static websites (brochure), e-mail campaign capabilities and web analytics in place.	User-centred design Traffic acquisition: SEO and market research Web analytics Marketing by e-mail
Radiate	Distribution of content through several channels, starting with the most used ones, including a mobile responsive site, and sharing content on social media.	Distribution of content Social connection
Align	Alignment of individual digital initiatives, such as presence in social media or publication of blogs, with strategic business goals.	Monitoring of interactions with customers E-commerce services
Optimize	Use of data analytics to optimize digital initiatives and personalize user experience	Campaign management Community management Personalization Profile of contents and visitors Testing
Nurture	The enterprise places the customer at the centre and builds a relationship through dialogue based on automated triggers and on the channels preferred by the user	Automation
Engage	Establish data infrastructure and connects online and offline customer repositories in a central data hub. Access customer profiles and use them for dialogue in real time and in the channels preferred by the user	Central data hub
Lifetime customers	Artificial intelligence and predictions optimize the customer experience in several channels, anticipating their needs and opportunely starting the dialogue.	Prediction Automated decisions

Source: ASES SOFTWARE adapted from Sitecore and information collected during the focus groups, 2020.

(a) Results of the survey

The survey was distributed in English and Spanish in the eight countries of the SICA region. Valid responses (complete) were received from 60 accommodation enterprises. The following is a summary of the main findings and characteristics of the enterprises.

(i) General characteristics of the establishment

All enterprises were dedicated to accommodation. The responses were provided by 60% men and 40% women. The 54.2% of the enterprises are located in urban areas, 35.6% in rural areas, and 10.2% in peri-urban areas. 21.7% reported to have 1 to 5 rooms, 43.3% has 6 to 20 rooms, 20% has 21 to 50 rooms, and 15% has more than 50 rooms.

A 93.3% of the respondent enterprises are MSMEs that employ less than 100 people; out of these, 66.7% employs less than 10 people; 21.7% employs 11–50 people; and 5% employs between 51 and 100 people. Over half of the workers are women (51.6%), and they are also a

majority in positions of procurement, sales, public relations, human resources, customer service, food, cleaning, maintenance, room service, event halls and restaurants. Men occupy the positions of presidency, general management, social media management, technologies and bar. The 77.2% of the enterprises have registration or taxpayer identification.

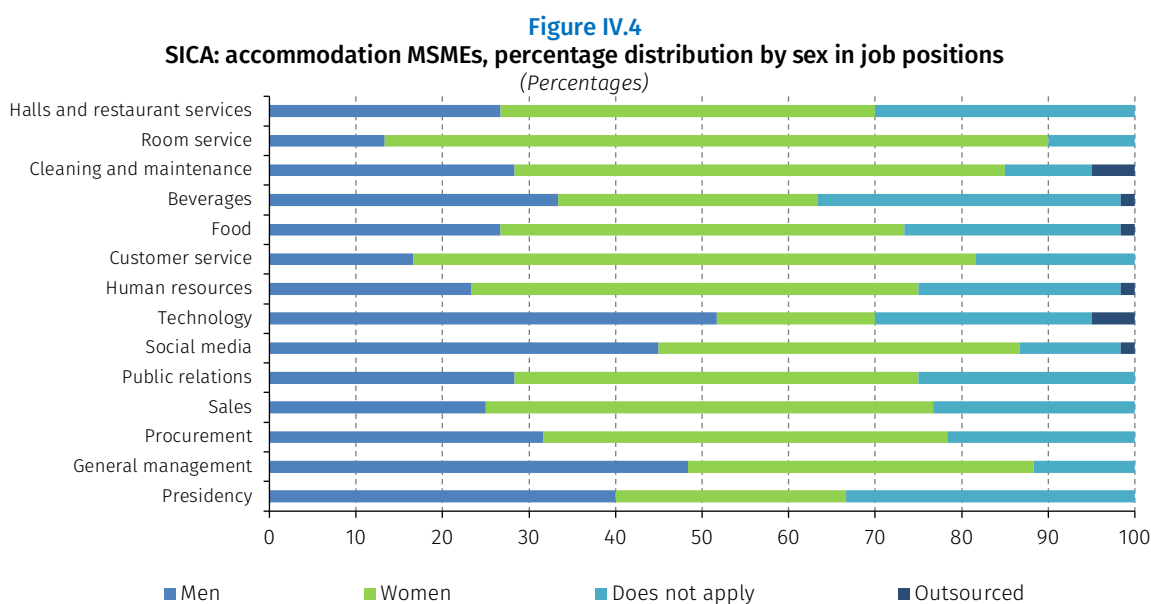
(ii) Business management

Annual sales do not exceed 150,000 dollars in 56.7% of the enterprises, pointing to a majority of microenterprises or family-owned enterprises. A 23.3% reported sales ranging from 150,001 to 500,000 dollars; 6.7% reported between 500,001 and 1 million dollars; and 13.3% reported sales over 1 million dollars. Accommodation and restaurant services are the two activities that produce the most income, 75% and 43.3% respectively. These figures confirm that the business model is mainly based on traditional tourism activities. Other sources of income are business events, 15%, 13.3% bar services, 11.7% social events, 6.7% tours, 3.3% spa services, and souvenirs sales, and 1.6% sale of miscellaneous items, water sport rental, car rental, and sale and use of facilities.

The 58.5% claimed to belong to an association or business chamber. It is noteworthy that some respondents considered the national tourism authorities and the OTA to be associations. This evidences the confusion around associativity given the different existing associative models.

(iii) Division of work

Women represent 51.6% of the workforce and men 48.4%. Women represent an overwhelming majority in operational and administrative positions; they take care of the enterprise and the customers. This presence is reversed in positions of presidency, management, and digital tools management (see figure IV.4). For example, women hold more than 50% of positions in sales, human resources, customer service, cleaning and maintenance, and room service. In contrast, women represent 26.7% in presidency positions and 40% in general management, while men hold 40% and 48.3%, respectively.



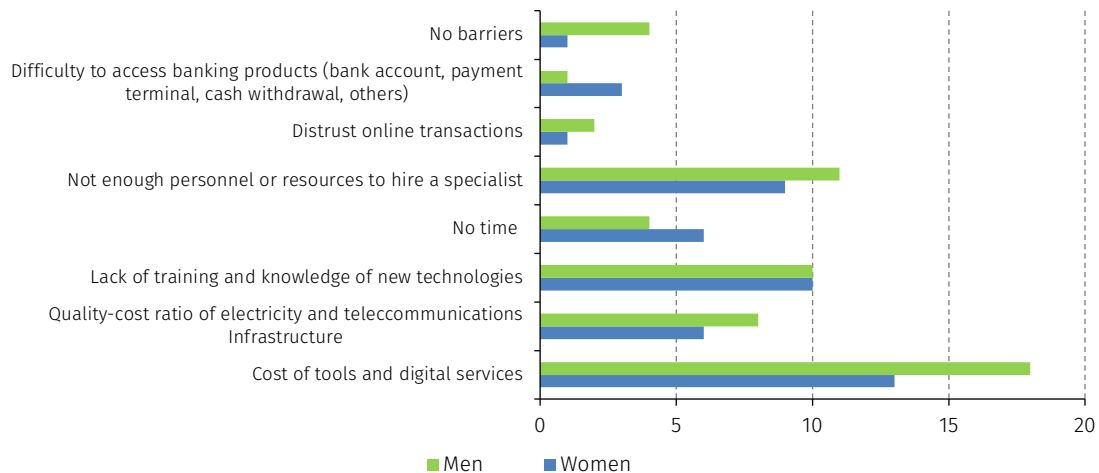
Source: Survey to Measure Maturity in the Use of Electronic Commerce, 2020.

Most respondents dedicate between 8 and 12 hours a day to managing the business. In addition, they dedicate between 2 and 5 hours to caring for third persons, activities to which women dedicate more time. Respondents dedicate between 2 and 4 hours a day to personal care, and 2 hours a day to household administration and business learning and innovation activities.

(iv) Access and use of digital tools

The 87.8% of enterprises recognize that ICT are very important for their operation. Furthermore, 55.1% are interested in and have started to implement some tools, and 18.4% have already incorporated them in their processes. Although interest is evident, not all the enterprises incorporate the available diversity of programs and technologies. The 60% indicated that there are barriers to using ICT. The main obstacles include the cost of tools and digital services, the lack of training and knowledge of new technologies, and the availability of staff or resources to hire specialists (see figure IV.5).

Figure IV.5
SICA: accommodation MSMEs, barriers to the use of information and communication technologies by sex
(Percentages)

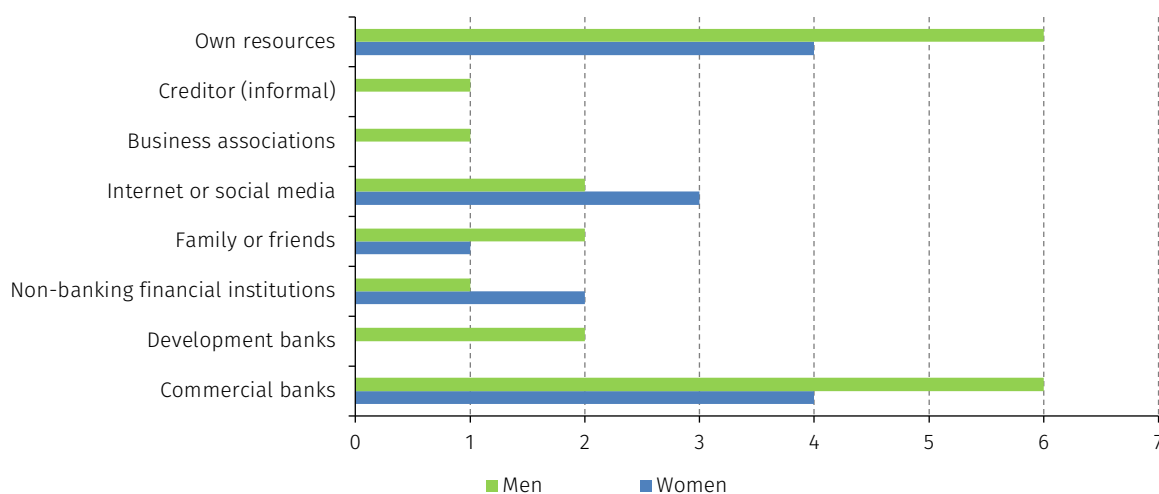


Source: Survey to Measure Maturity in the Use of Electronic Commerce, 2020.

Women face significant gaps compared to men in their access to banking products and time available to use ICT. Both sexes face lack of training and knowledge of new technologies; however, as already mentioned, women tend to hold positions that normally do not receive training in technological subjects. The gap in skills is also evident in the knowledge and the use that enterprises make of digital tools. Only 14.6% makes full use of the digital tools the enterprise has, while 29.1% has the tools, but makes basic use of them. In contrast, 22.9% of the respondents do not know about digital tools that might optimize their business, and 25% know them, but have not acquired them yet.

The 62.3% of enterprises did not seek financing to acquire ICT in the last year. The 37.7% that did, indicated that they obtained financing from commercial banks (50%), their own resources (50%) or the internet (social media) (25%). 60% of those who sought funding were men. This gender uses the most funding options, except for non-banking financial institutions, and the internet or social media options, which are mostly accessed by women (see figure IV.6).

Figure IV.6
SICA: accommodation MSMEs, funding for digital tools by sex
 (Percentages)



Source: Survey to Measure Maturity in the Use of Electronic Commerce, 2020.

(v) *Use of electronic commerce*

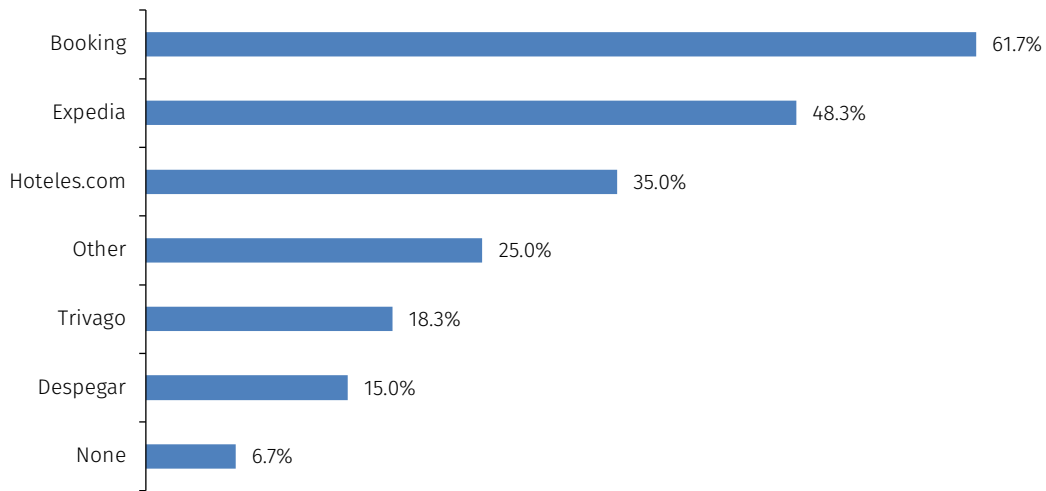
Enterprises use multiple marketing channels, for example, 30% sell their products and services in person and online, and 13.3% in person and instant messaging and telephone. Almost 50% of companies use e-commerce in their activities. Most are standalone platforms that do not communicate with other platforms, which fragments the information available to companies about their customers and the opportunity to adapt the offer to their demands.

The limited use of e-commerce is also evident in its main uses. The most frequent use is to publicize and position the brand. It is also used to launch new innovative products. Both uses focus on providing information, while less frequency is observed in the use of e-commerce for the purchase and sale of products and services. Along the same lines, B2C commerce is the most common among the enterprises surveyed. B2B or B2G commerce is practically not used. In the first case, it could be indicative of a low level of linkage between enterprises, both to provide an attractive tourist service, and to take advantage of the purchase and sale of goods and services that could optimize business management or reduce costs. In the case of B2G commerce, it could be due to public procurement schemes that do not consider MSMEs or tourism MSMEs, as well as the limited progress of digital government in the SICA region.

(vi) *Platforms and payment methods*

The survey and the focus groups indicate that Booking (61.7%) and Expedia (48.3%) are the most used platforms (see figure IV.7). Only 6.7% do not use booking platforms and 25% use other channels such as emails, local association sites, website, social media, instant messaging, and platforms such as Airbnb or TripAdvisor. Most use multiple platforms, denoting the importance of omnichannel presence.

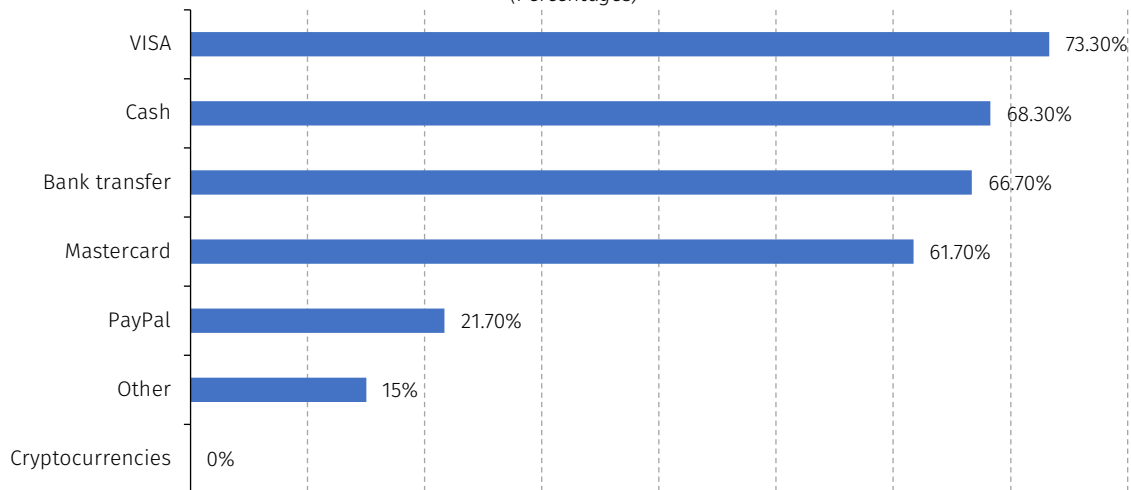
Figure IV.7
SICA: accommodation MSMEs, platforms or systems used to receive reservations
 (Percentages)



Source: Survey to Measure Maturity in the Use of Electronic Commerce, 2020.

Figure IV.8 shows that the main methods of payment used are debit and credit cards, and cash or bank transfer. Online payment platforms and cryptocurrencies show low adoption.

Figure IV.8
SICA: accommodation MSMEs, payment methods
 (Percentages)



Source: Survey to Measure Maturity in the Use of Electronic Commerce, 2020.

(b) Level of maturity

The level of maturity was measured through 46 questions that fed the maturity model developed. The analysis of the responses showed a basic level of dispersed use of e-commerce tools, without a strategic guide (see table IV.5). Only 8% of the companies classified themselves at the starter level, the rest does not meet the basic maturity criteria for the use of e-commerce.

Table IV.5
Main findings of the assessment of maturity

Theme	Findings
Website	Most enterprises have a website that tends to be responsive. The content is static and renewed occasionally. Websites allow basic actions; few allow real-time interaction and package design by users. The content is mainly in Spanish and English. Blogs, articles, and news are rarely or occasionally posted on business sites.
Marketing	Little use of email for marketing or advertising. However, other channels are leveraged to keep customers informed, notably social media, instant messaging, and phone calls. Although several channels are used, they are not integrated.
Social media	All enterprises use social media, with a clear predominance of Facebook, Instagram and WhatsApp. They are used for company advertising, promotions and answering user questions. These networks are practically not used for e-commerce.
Customer relations	Most do not have customer relationship management systems to track, manage and analyse interactions.
Data analytics	Most do not measure website traffic or conversion rate. Limited analytics of user behaviour on websites and social media. The available data is not used to profile customers and segment communication. Artificial intelligence, including machine learning, is practically not used for business intelligence and prediction.

Source: Elaborated by the author based on the Survey to Measure Maturity in the Use of Electronic Commerce, 2020.

Enterprises classified as initiated make basic use of the internet to have a web presence with information about the company and its services. These companies have email handling capabilities. Websites tend to be static. Businesses are more focused on the traffic that their website can attract; therefore, their focus is search engine optimization for customer acquisition. For this they send mass emails with advertising about the establishment, its products and services.

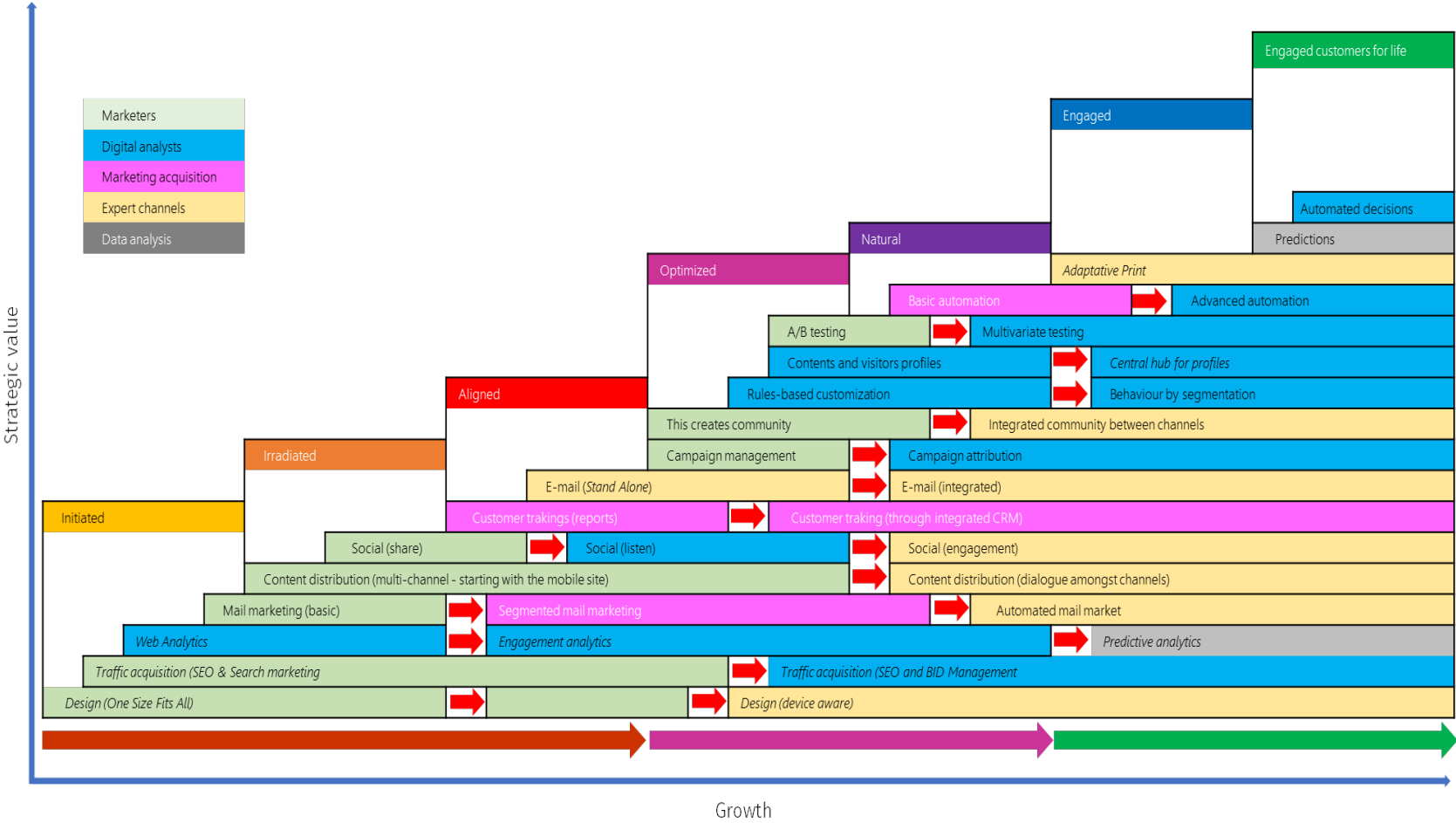
While enterprises use social media and digital marketplaces intensely, and leverage online marketing and advertising, they do not do it as part of a digital presence, digital transformation, or business innovation strategy. Therefore, although the intensity in the use of social media could place them at the radiated level, the little analysis of the data generated in these networks for interaction and personalization places them at the base level.

D. Towards a roadmap to adopt e-commerce

The information collected shows that tourism MSMEs in the accommodation sector recognize the importance of digital tools and make basic use of them. The high use of social media and the presence of business websites open opportunities to make better use of the data obtained in each interaction. Similarly, e-commerce is used for basic tasks that could be optimized with a digital strategy aligned with the business strategy. The basic use of the available tools does not allow enterprises to identify new business models and the time available limits the possibilities of innovating the services and products of the companies. These conditions limit the ability to undertake a digital transformation that results in productive and efficient face-to-face and virtual businesses.

The roadmap presents general guidelines for the promotion of e-commerce, aimed at advancing the maturity of MSMEs (see diagram IV.3). It is recommended that the strategies be adapted to each national and territorial context, to the different sectors that make up tourism and to the different types of tourism found in each country. The proposal is structured in five themes: innovation, digital transformation, financing, digital business environment, knowledge base and skills. Although national tourism authorities have limited participation on some issues, their promotion strategy must start from inter-institutional coordination to support the sector.

Diagram IV.3
Use of digital tools by levels of maturity in the use of electronic commerce



Source: ASES SOFTWARE adapted from Sitecore.

1. Innovation

This pillar focuses on the innovation capacity of tourism MSMEs and the industry in general. The information presented in this document suggests that the tourism sector recognizes the importance of continuous improvement. However, it requires linking with technology and research sectors to optimize its digital strategies, achieve a greater reach of its products, services and innovate its business models.

(a) Digital development

Enterprises and tourist destinations can improve their relationship with visitors and their stay in the place through technological solutions. It is advisable to organize programs or groups for the development of applications and programs that MSMEs require. These programming sessions, hackathons or collaborative construction must have the participation of tourism businessowners who describe their needs and the objective of the project, and with specialists in technology or research centres that develop the product or service.

(b) Research programs and development of new and emerging technologies

It is recommended to link the digital needs of the tourism industry with the rest of the triple helix to promote research and development programs. The countries have industrial chambers, professional associations, research centres and universities specialized in different technological areas that can respond to the needs of the industry. Some areas of great use in tourism are the internet of things, data analytics, artificial intelligence, and virtual and augmented realities, both in their application to improve the tourist experience, and to optimize business management, including its environmental sustainability. R&D for innovation in tourism must also take advantage of the vast amount of knowledge acquired by regional leaders such as Costa Rica and the Dominican Republic, which can provide inputs to develop disruptive tourism products and services.

2. Digital transformation

Tourism MSMEs have started digitalisation processes, that is, moving from paper to computer or mobile phone, and make intensive use of social media and digital platforms. However, these pieces are not part of a digital transformation strategy. It is necessary to organize the transformation process and ensure full use of available digital tools. It should also be done with a view to modifying the business model or adding new spaces for creating value.

(a) Digital transformation plans

It is recommended to analyse what digital transformation means for the different sectors that make up tourism, such as accommodation, food, travel agencies and guides, as well as in the different types of tourism found in the region, such as cultural and archaeological, adventure or sun and beach. Each MSMEs will have different requirements, priorities and opportunities that must be differentiated. Plans should include vision, objectives, actions and roadmap by sector. Targeted plans would facilitate to identify target audiences and types of tourism to develop and elaborate digital marketing programs adapted to the needs and interests of those audiences.

(b) Digitalisation of MSMEs

Sectoral and territorial digital transformation plans must be accompanied by digitalisation plans for MSMEs as a prerequisite for the digital transformation of the business model. It is proposed to address issues such as connectivity, web presence, electronic commerce, use of the cloud, digitalisation of processes, and access to purchasing systems, reservations and controls, among others. In this respect, it is recommended to focus and execute guided programs that allow companies to: (i) determine their current level of digital

maturity; (ii) design a digital transformation strategy; (iii) establish project objectives and timelines; (iv) design performance metrics to measure the progress and effectiveness of the strategy.

It is important to emphasize that any digitalisation or digital transformation program must have clear and measurable objectives, and its timeframe must be communicated to MSMEs from the beginning. These companies have little available time and personnel, and each training takes them away from their productive activities. Therefore, programs and trainings must offer direct benefits for business management.

3. Funding

This topic presents a two-way challenge. On the one hand, businessowners have limited management and financial capacities that make it difficult for them to develop feasible projects for banks. On the other hand, the banking sector has little adapted to the needs and realities of MSMEs. This results in little use of innovation opportunities.

(a) Promote a modern funding ecosystem

Investing in technology and R&D require financial, technical and human resources. It is advisable to strengthen the investment mechanisms (seed capital, angel investors) of each country and promote their regionalization, as well as facilitate the use of the growing variety of fintech products. Figure IV.6 already shows a high use of the internet and social media to finance digital tools (25%), even above development banking (10%).

(b) Tax incentives for digital innovation

It is recommended to assess the establishment of subsidies to promote digital transformation and innovation among enterprises. Identify complementary sources of financing. Analyse the possibility to give tax incentives that would encourage reinvestment in digital transformation. Although these issues are not competence of national tourism authorities, financial exclusion of MSMEs also excludes them from accessing digital markets and connecting with international visitors through digital tools. Women experience greater financial exclusion and, at the same time, have greater participation in the tourism sector. Therefore, digital financial inclusion strategies must be aimed at solving the particular conditions faced by women.

4. Digital business environment

This section considers elements for an enabling environment that encourages MSMEs to innovate, such as affordability and access. As in the recommendations for funding, the responsibility for these issues lays on several institutions, so it is advisable to strengthen inter-institutional actions in the design of sectorial digital strategies.

- Facilitate the opening and closing of businesses by reducing the time and costs of procedures through digital government as part of a strategy to increase the formalization of MSMEs.
- Improve penetration and quality of broadband services, including the continuity of telecommunications during a disaster or disruptions in the electricity service.
- Review the policies to promote tourism to focus implementation actions on MSMEs and the territory, including the adaptation or creation of incentives accessible to MSMEs.
- Strengthen or complete regulations on e-commerce to consider the diversity of aspects that compose it, such as treatment of electronic transactions, consumer protection, protection of personal data, cybercrimes and tax policies.

- Establish a national digital security policy. Promote the management of the risks of the digital environment to increase the confidence of businessowners and users in the use of ICT and especially e-commerce, ensuring the privacy of users and processes.
- Review the intellectual property framework. Encourage the creation of new content, the supply of goods and services, the promotion of competition, the free flow of information, ideas, rights and duties on the internet.
- Strengthen institutions. Build capacities in public officials in the use of digital tools, both for the development of their functions, and for the search for innovative solutions in their work sectors. Prepare sectorial digital agendas, aligned with digital transformation or knowledge and information society strategies. It is advisable to analyse the relevance of developments on open software and systems that allow inter-institutional interoperability.

5. Knowledge base and skills

This issue has several edges. It is necessary to have hospitality specialists who provide excellent tourist services. These same companies must learn to take advantage of ICT in their business management and customer relations. ICT specialists are also required to develop the solutions required by the tourism industry and provide services to companies.

In addition, the offer must respond to the different levels of professionalism that the company seeks and the time available. Thus, is necessary to consider different levels of education, from college students to businessowners looking to learn about a specific topic of the industry. Some actions include the modernization of tourism university programs and their connection with ICT; the design of technical and graduate courses; the design of short courses and practical toolboxes for enterprises; and a closer relation with the industry through dual education and R&D.

Linkages are important between tourism and ICT industries to jointly develop new services and products; between industries and academia to conduct research, development, and modernization of curricula; and among the academia to develop specialized content that responds to the particular digital needs of the tourism industry. Linkages and professionalization of the profiles contribute to upgrade the sector through better wages and working conditions. In addition, technology is used to free up staff time so they can spend time providing a unique experience for visitors.

(a) Promotion of links between enterprises and universities

Facilitate financing alternatives for innovation and the use of digital tools within the tourism MSMEs sector. Design upgrading courses and training workshops to enable electronic commerce in tourism MSMEs.

(b) Boosting ICT and tourism studies

Design programs to increase the number of information and communication technologies students, as well as tourism and digital marketing. Grant scholarships and credits to ensure access to education, launch vocational promotion campaigns, develop formal and non-formal training programs for technicians, certify skills, and certify tourism quality and digital maturity.

(c) Education to reduce digital skills gaps

Design online and face-to-face capacity building programs for tourism workers to teach them about the most efficient use of digital tools. These actions can be coordinated along

with specialized training centres, universities, and trade schools. It is proposed to create content through 10-minute videos including useful recommendations and tips and disseminate them through tourist associations and chambers of tourism. Table IV.6 summarizes the three levels proposed.

Table IV.6
Capacity building in the use of digital tools

Basic	Intermediate	Advanced
My first website	Adaptive Web vs mobile applications	Predictive analysis
Traffic acquisition, SEO and advertising on search engines	Traffic acquisition, SEO and offers	Marketing through automated e-mail
Web analytics	Conversion analysis	Social media, commitment
Marketing through e-mail (basic)	Marketing through segmented mail	Integrated customer relationship management
Distribution of multichannel content, starting on the website	Customers distribution (reports)	Integrated e-commerce
Social media, sharing	Standalone e-commerce	Campaigns
Content and visitor profiles	Campaign management	Create communities
Profiles hub	Basic automation	Integrated communities
	Advanced automation	Automated decision-making
		Predictions
		Adaptive impression
		Personalization based on rules
		Behaviour by segmentation
		Multi-variable testing

Source: ASESOFTWARE based on information collected during focus groups, 2020.

Capacity building programs for businesses should consider women's workloads, which include business management and unpaid care work. Therefore, it is recommended that online courses can be accessed at any time to ensure women participation when they have time available. Face-to-face courses must be adjusted to the schedules that are convenient for the businesswomen and it is advisable to allow them to bring their children to the training activities.

These actions require coordination between public institutions and alliances with the private sector and academia. Therefore, it is necessary to identify champions that lead these tasks. Three initiatives could boost the proposals presented:

- (i) Sectorial innovation strategy. Incorporate innovation and digital transformation of MSMEs in tourism promotion policies and create alliances with complementary sectors. Convoke these sectors for the joint implementation of promotion actions. Incorporate tourism in national innovation and ICT agendas through participation in government councils or agencies.
- (ii) Digital platform cooperatives. Establish one or several associative initiatives under the cooperative model to promote the development of e-commerce, digital transformation, and business activity. Under this model MSMEs can take advantage of scale economies to develop digital projects such as:
 - Call centre and booking.
 - Community manager for tourist activities and management of the various digital platforms.
 - Digital transformation strategies for member MSMEs.

- Administrative services for member MSMEs.
- Facilitate e-commerce.

The establishment and sustainability of associations are important challenges that must be considered when designing the initiative. The process must be transparent and inclusive, convening all stakeholders and giving them a voice. The objectives of the group should be established to have clarity about the scope of the initiative and the resources that will be requested from each enterprise (membership, time, information). It is also important to have staff to meet the objectives and financial support. Often, businessowners take on this role. However, their personal and business tasks affect the continuity of the association's activities, hence the need for dedicated staff.

- (iii) Capacity building and support centre for the digital transformation of tourism MSMEs. The objective is to develop non-formal education actions, provide gender inclusive access to training and eliminate gaps. The centre will ensure the implementation of non-formal, face-to-face, virtual, or bimodal technical and technological training plans and programs for tourism businessowners, their families and staff.

In addition to creating content, it can be a repository of information and courses. During the development of this research, many and diverse online training courses and tutorials were found, free, in Spanish and English, on ICT, tourism and digitalisation of tourism.

Chapter V

Final considerations

The information presented in this study provides a characterisation of tourism MSMEs, their capacities and the environmental conditions that affect their digital transformation process. In terms of enabling conditions, there is a significant gap in fixed and mobile broadband penetration, its quality and, therefore, its affordability. Tourism and MSMEs promotion policies struggle to reach the territory and be appropriated by MSMEs and tourist destinations. In addition, it is necessary to advance in the elaboration of policies and regulations that facilitate the use of digital tools, including e-commerce.

Despite these barriers, tourism MSMEs show great commitment to innovate and adopt technology. Furthermore, their commitment to overcome these barriers is noticeable. For example, many rural lodgings have more than one internet provider due to frequent service interruptions, and platforms such as PayPal are used even by users who do not have a bank account that allows them to make withdrawals. These final considerations highlight four important elements to consider in the design of sectoral strategies to facilitate digital transformation as a mechanism to increase the productivity and competitiveness of tourism MSMEs: destination management, institutional strengthening, business management and digital skills.

A. Management of tourist communities

Before the pandemic, tourists were already looking for destinations that offered a complete experience, and the importance of destinations that offered multigenerational experiences was growing. In addition, local culture and experiences were revalued by many tourists seeking to leave a positive impact during their trip. The pandemic has exposed the dependence of local communities on tourism and the low resilience of MSMEs to such a long crisis. These conditions call for putting communities at the centre of tourist destination management strategies.

Community empowerment and a sense of ownership of tourist attractions must underlie the creation of the destination. Destination management must include infrastructure, production chains and territorial governance.

Infrastructure should allow enterprises in the community to develop a quality offer, which includes electricity, telecommunications, water and sanitation, and means of access, as well as health facilities. A strategic management of the tourist destination would even allow to overcome infrastructure problems. For example, there are tourists willing to make longer journeys or use unconventional means of transport and some are looking to disconnect and live a simple life without electricity or telecommunications. These niches can be explored but they must be aligned with a destination strategy, where the way to get to the destination is part of the experience and not a hassle.

It is important to promote intra- and inter-sector linkages, especially given the little use of B2B commerce observed in various assessments. Enterprises promote themselves and maintain a basic digital presence, but it should be part of a national or local strategy. For example, an enterprise with an important digital presence can attract visitors to an area, but the spillover of tourism benefits will happen if there are other providers in the destination that complement the offer.

Governance among local, regional and national levels of government should be clear to understand how to apply national policies in the territory and how local governments adapt the national strategy to their locality. Although the countries of the region have national strategies to attract visitors as well as country brands, there is often no clarity in the communities or MSMEs about what it means for them and how to benefit from these strategies. In this line, it is recommended to address the region's lag in the implementation of digital governments, especially considering the difficulties that MSMEs face in their relationship with the public administration. The digitalisation of the government implies the revision and optimization of procedures, and this could translate into higher levels of formalization and use of existing incentives. Digital government is fundamental in the management of the destination and could contribute to having a registry of the enterprises operating in each tourist destination.

B. Institutional strengthening for focalized policies

The promotion of innovation must be a long-term, flexible and focalized effort. On the one hand, general and horizontal policies do not produce the same outcomes as focalized and vertical policies. On the other hand, data continues to show its usefulness to focus strategies and manage activities. Its uses in electoral politics and in the sales strategies of large enterprises underscore its potential to micro-segment geographic areas and user profiles, which should be part of the management of destinations. This would allow national tourism authorities to focus their national strategy on territories, types of tourism or tourist profiles they seek to attract. Therefore, it is essential to build digital skills in the public sector and encourage the use of data in the design and evaluation of public policies and interventions.

It should be emphasized that the use of data is a means to achieve focalized public policies. It has proven difficult to foster MSMEs due to their great diversity. Thus, although there are policies to promote MSMEs, they show little segmentation of enterprises, either by size, industry, or geographical location. Tourism management in the territory could help overcome this barrier through specific local plans that integrate the different types of MSMEs.

In this same sense, tourism promotion policies must have an explicit inclusiveness strategy. The majority participation of women in the tourism industry demands that their main challenges be addressed. Although tourism promotes economic empowerment, women continue to hold

operational and administrative positions linked to traditional gender roles. Women also face difficulties in accessing training. On the one hand, little training is offered for the positions they hold. ICT training does not reach these positions, but instead remains in managerial positions or technology departments, both normally held by men. On the other hand, they have less time availability due to the higher proportion of unpaid care work they undertake than men.

Finally, the strategy must recognize job automation. Although digital transformation will destroy jobs, its effect on tourism is mixed. Hospitality is a priority, so most enterprises would first adopt tools such as data intelligence (85%), the internet of things (75%) and cloud computing (73%), before stationary robots (37%) or humanoid robots (23%) (WTO, 2019a). Therefore, it is recommended to plan for the digitalisation of operational and administrative positions held by women and, in general, accelerate the training of the entire sector through digital and interpersonal skills.

C. Business management

In general, MSMEs actively use social media and instant messaging. These media, as well as their business sites and digital marketplaces, such as OTA, are used to advertise and offer discounts. They also use some digital marketing tools, such as promotional messages through instant messaging and email. Although these actions are part of the evolution of digital growth, they do not seem to respond to a marketing or digital transformation strategy. Social media and websites are updated inconsistently, digital tasks tend to be delegated on people who hold other positions within the enterprises, and use seems to be more focused on digitizing processes than on transforming the business model.

It will be important to accompany MSMEs to identify the organizational, cultural, and technological changes needed in their digital transformation. This entails recognizing the different uses of digital tools in the operation of the business. Some persistent challenges faced by MSMEs could be solved through the use of digital tools:

- Capacity building and professionalization: wide variety of online learning academies, free and by subscription, in English and Spanish.
- Business management: management tools for accounting, human talent, customer relations, and business performance, as well for the optimization in the use of resources such as energy and water.
- Access to financing and new financial instruments: Fintech offers financing alternatives for traditionally excluded segments. It also provides opportunities for collaborative creation. It is estimated that, by 2025, the reduction of the profits and revenue of retail banks will be significant in five areas of irruption of fintech: consumer finance, mortgages, SME lending, retail payments and wealth management (McKinsey Global Institute, 2015).
- Innovation: the analysis of customer data exposes areas for improvement and facilitates the creation of new services. Equipment also provides comfort and convenience to the users.

It is important to remember that digital transformation seeks to bring business models to virtuality. Although tourism is consumed locally, there is a diversity of products and services that MSMEs could add to their catalogue for virtual consumption. Some additional offers may include virtual reality tours, cooking, language or yoga classes, online sales of local products such as handicrafts, typical foods and souvenirs, and virtual participation in ceremonial and cultural activities.

D. Capacities

If communities are at the heart of the tourism management strategy, tourists must be at the centre of the MSMEs strategy. Therefore, technical, and interpersonal skills are required in addition to digital skills. The challenge for MSMEs is to use the data they gather to manage their business and to get to know their users. The more platforms and technologies, such as IoT, are incorporated, the more data will be shared and analysed. It is necessary to have the ability to analyse this data and turn it into personalized information for customers and useful insights to improve the enterprise.

Although the digitalisation process requires time and money, it should free up staff time to be dedicated to hospitality activities and creating a unique experience for each visitor. It also promotes the professionalization of the sector, thus, improving salaries and attracting talent in hospitality.

Digital transformation strategies must acknowledge different levels of specialization. Staff responsible for managing digital tools should focus full time and it is desirable that they are field specialists. However, given the difficulty of some MSMEs to pay salaries to specialized personnel, it is possible that some basic tasks are undertaken by the enterprise staff. Therefore, training should vary according to the profile of the students and their expectations in the implementation of the tools. For example, a person could be interested in learning how to develop websites or analyse metrics, or they may seek basic knowledge to help them oversee the outsourcing of such service. Specific training must also be designed to meet the particular digital needs of operational, administrative, and managerial positions, acknowledging how digitalisation transforms each job.

Although it is ideal that each MSMEs has specialized personnel focused on the design of the marketing strategy and the implementation of digital tools, the difficulties of time, personnel or resources could be overcome through associativity. For example, chambers and other associations could offer their members access to e-commerce microsites and training in different technological fields applied to the tourism industry. Government support could also help scale up digital strategies. The digitalisation plan of the Ministry of Economy, Industry and Commerce of Costa Rica is noticeable, it offers MSMEs the opportunity to create and manage their website; includes search engine optimization and directly positions enterprises in the first results; and allows online sales. The project stems from a public-private partnership between the Organization of American States (OAS), Google, Kolau and governments of the region.

Finally, the management of destinations and the implementation of capacity building strategies must recognize the importance of mobile phones, not only as a consumer trend, but due to its high penetration in the region. While it is necessary to improve the quality and affordability of mobile broadband, its advances overshadow the achievements in fixed broadband. Therefore, a strategy for the universalization of fixed broadband penetration must acknowledge the ubiquity of mobile phones, and adapt content production and communication to this format, especially as a mechanism for the inclusion of persons and enterprises in rural areas.

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This study analyses the state of digital transformation of tourism micro, small, and medium-sized enterprises (MSMEs) of the member countries of the Central American Integration System (SICA), both their endogenous capacities and the environmental conditions that affect their capacity to undertake innovation processes. A cross-sectional gender analysis is included and the rural tourism companies' capacity to innovate is analysed. The main gaps to digital transformation revolve around three themes: use, access and time.



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