CHAPTER III Digital platforms, e-commerce and value creation and capture

With improvements to digital infrastructure across the Pacific (as outlined in chapter I), it is likely that the region will see a significant increase in the use of digital technologies by both consumers and businesses. Although this will bring significant development benefits, prioritizing access to digital technologies will not, on its own, ensure that the gains reaped from the digital economy are equitably shared.

This chapter covers key issues related to value creation and capture in the Pacific, with a focus on digital platforms and e-commerce. It first provides a conceptual framework and then turns to the role of digital platforms in the Pacific, followed by emerging e-commerce trends and business models. The last section explores the future potential of global and local platforms in the Pacific, including implications for value creation and capture, along with broad policy recommendations aimed at preparing the region for further digitalization of its economies.

Limited data and statistics were available to carry out detailed analysis of the issues explored in this chapter. The analysis presented is based on desk research and interviews with platforms owners and operators, as well as on evidence from ongoing projects under the PDEP.

Value creation and capture in a data-driven economy in Pacific SIDS



A. THE DIGITAL ECONOMY AND DEVELOPMENT

This section introduces the main components of the digital economy and presents a framework for value creation and capture in the data-driven economy. It also explores the associated development implications and challenges related to measuring value in the digital economy.

1. The digital economy

Although broad understanding of the digital economy has evolved over time, particularly as the pace of technological change accelerates, the *Digital Economy Report 2019* (UNCTAD, 2019b) provides a useful model for understanding the main elements. The report proposes three main components of the digital economy: core aspects; digital and information technology sectors; and a wider set of digitalizing sectors. Core aspects of the digital economy (the ICT sector) comprise semiconductors, computers, telecommunication devices and digital infrastructure such as the Internet and fibre-optic cables. Digital and information technology sectors – which produce key products or services that rely on core digital technologies – include digital platforms, mobile applications and payment services. A wider set of digitalizing sectors are where digital products and services are increasingly being used, such as in finance, media, tourism and transportation.

All countries engage in some way with the three components of the digital economy, although there are significant differences in the breadth and depth of this engagement. Some regions have advanced, widespread core digital infrastructure and established digital sectors that contribute to digitalization across nearly every aspect of the economy. Other regions remain in the early stages of digitalization. In some developing countries, digitalization of the economy is mostly linked to the increasing use of the Internet and related applications by consumers and for day-to-day business processes.

In developing countries, digital payments are often the most visible sign of digitalization, with mobile banking and mobile money increasingly taking the place of cash-based transactions. B2C e-commerce – particularly for ride-hailing and food delivery – has also emerged as a key trend associated with the digital economy in several developing countries. By some measures, the growth of e-commerce in developing economies outpaces that seen in developed economies.

The COVID-19 pandemic has accelerated this trend (see figure III.1). Research conducted by UNCTAD reveals that the average share of Internet users who made purchases online increased from 53 per cent before the pandemic (2019) to 60 per cent following the onset of the pandemic (2020/2021) across 66 countries where data was available.⁷⁴ The greatest increases were seen in developing countries. In the United Arab Emirates, the share of Internet users who shopped online more than doubled from 27 per cent in 2019 to 63 per cent in 2020. In Thailand, which already had relatively high uptake prior to the pandemic, a 16-percentage-point increase meant that for the first time more than half of Internet users (56 per cent) shopped online in 2020. No corresponding data are available for Pacific SIDS.

2. Value creation in the digital economy

Much of the discussion surrounding the digital economy has focused on the extent to which businesses and consumers in different countries have affordable access to various technologies – including the Internet – and how broadly these technologies are used. However, observations in other regions around issues related to the digital economy, such as monopolistic behaviour by global digital platforms and the impact on labour markets, demonstrate that a framework focused on access alone is insufficient. This section provides a broad framework for creating and capturing value in the digital economy, which was first presented in the *Digital Economy Report 2019* (UNCTAD, 2019b).

a. Drivers of value creation

Although economic value has traditionally been associated with the production of goods and services, new business models in the digital economy are challenging this paradigm. Digitalization makes entirely new ways of value creation possible. Indeed, "[in] the new business models of the digital economy, two emerging and related forces are increasingly driving value creation: platformization and the monetization of the rapidly expanding volume of digital data" (UNCTAD, 2019a:25). These two drivers of value creation are summarized below as a basis for understanding how value could be created and captured in Pacific digital economies.





Source: UNCTAD (2022b).

b. Digital platforms

The core concept of a platform is to enable value-creating interactions between producers and consumers, and this means providing a participatory infrastructure for these interactions. Digital platforms offer such mechanisms online and can provide the necessary infrastructure and intermediaries to connect people. Facebook, for example, is a social media platform that connects users, advertisers, governments, companies and groups. Airbnb is a digital platform that connects property owners with guests, and ride-hailing platforms like Uber connect riders with drivers. Facilitating such exchanges or transactions has fostered innovation and provided a structure that utilizes digital technologies to generate efficient connections between global users.

This efficiency also extends to trade, with lower search costs as well as low reproduction and verification costs. Platforms have also indirectly accelerated innovation by enabling third parties to develop and build upon complementary products and services. Platform-centred businesses have an advantage in the digital economy because they can record and extract all data related to interactions that occur between the various users on a platform. Social media platforms, for example, can gather vast volumes of data related to user behaviour, and e-commerce platforms can closely track consumer spending. Digital platforms can be involved in different economic activities and sectors and the collection of digital data is an integral part of their business models.

While platforms may operate across different sectors and facilitate a range of diverse activities, they share economic and governance characteristics around value capture. Larger multinational platforms generate economies of scale and scope; network effects; pricing strategies such as cross-subsidization across platform sides; and data capture and use. The increasing dominance and market power of such platforms is evolving in tandem with a rapidly changing regulatory landscape and highlights the need for nimble regulatory responses.

c. Data and digital intelligence

Firms have always collected, processed and analysed information on how their regular business operates and have used this information for a wide range of improvements, including enhanced productivity, improved customer experience, and tailored marketing and communication strategies. As the digital economy has evolved, it has become evident that the enormous amounts of data being generated could be used to provide commercially useful insights into the behaviour of consumers, at either the individual or group level. An "entirely new value chain has evolved around firms that support the production of insights from data, including data acquisition (to provide new sources of data), data storage and warehousing, data modelling and data visualization" (UNCTAD, 2019b:29).

There is often little distinction in the debate about different types of data and their uses. The data pyramid in figure III.2 therefore provides a useful framework for understanding real-world applications of data, information, knowledge and wisdom (UNCTAD, 2021b).



Source: UNCTAD (2021b).

As highlighted by UNCTAD (2019b), data have become an increasingly valuable economic and strategic resource. Even when digital platforms provide different products and services at no cost to merchants and consumers, transactions still generate value for platform owners. Just by using the platforms – even visiting a platform but not making a purchase – consumers provide platform owners with different aspects of their personal data such as location, preferences, relationships and personal behaviour. Although this information has little value on its own, representing nothing more than a series of isolated data points, value can be created when it is compiled in large volumes and processed to provide insights to enable data-driven decisions. This data intelligence can be used to better inform firms in their decision-making processes or to streamline and optimize production processes or supply chain logistics. Harnessing data in this way and using it to optimize processes saves time, money, energy and various other resources. It also gives those firms who successfully make use of data intelligence a significant competitive advantage.

d. Development implications of the data-driven economy

The growth of the digital economy can lead not only to many new economic and social opportunities but also to uneven impacts and negative spillovers (UNCTAD, 2019b). The digital economy can increase trade, foster innovation, create jobs and increase productive capacity. For example, e-commerce benefits businesses through greater participation in international value chains, increased market access and reach, and lower start-up and operating costs. Through the use of data generated from e-commerce, firms could also better meet the needs of consumers by offering customized products. For consumers, online shopping enables comparisons of prices, and features a wider range of products as well as more convenient options for the delivery of goods and services. Using the framework presented in the *Digital Economy Report 2019* (UNCTAD, 2019b), the potential positive impacts of the digital economy can be grouped under three broad dimensions.

Economic outcomes: Higher productivity and GDP; higher value added; increased employment; higher incomes; and greater domestic, regional and international trade.

Firm-level benefits: Lower transactions costs; more opportunities for skilled workers; greater opportunities for MSMEs; access to new domestic, regional and international markets; lower barriers to entrepreneurship; and access to new sources of financing for digital start-ups.

Consumer-level benefits: More variety and choice of goods and services at lower costs; convenience and customized or personalized products and services; and receiving goods and services more quickly due to fewer intermediaries.

Despite the potential of the digital economy to reduce inequalities between and within countries through development gains, there are several risks to consider. The dominance of global digital platforms, their control of data and their capacity to create and capture resulting value increases the concentration and consolidation of (market) power. The dominance of major platforms and data providers can distort the equal distribution of digital wealth and hinder both local value creation and capture as well as structural transformation. Digitalization can result in job losses, for example, or alternatively the accrual of value to those with higher levels of education and income. This may lead to increased inequality.

Large digital platforms may exercise their market dominance to extract monopoly or quasi-monopoly rents. In turn, this presents an imbalance of relative power between such platforms and local providers. It also risks reducing the choices for suppliers and consumers, and further eroding innovation and entrepreneurship in local economies. Dominant global platforms may leverage their monopolistic positions to reinforce their market dominance by entering new markets and integrating additional services, thus reducing competition.

Overall, the emergence of global online platforms has brought considerable benefits but it has also resulted in profound societal and economic impacts. The net impact on the economy is hard to predict but for particular groups, sectors and industries, it is likely to be uneven. The key goal then is to manage these economic forces and seize the technological opportunities through inclusive and fair practices across the whole digital ecosystem, while also minimizing the associated negative impacts.

e. Measuring value in the digital economy

Measurement of the digital economy and its impacts continues to grow in importance. This includes determining which activities can add the most value and how best to measure that value. Ideally, a country should be able to assess implications in terms of different economic variables, such as value added, employment, wages, incomes, prices and trade for the digital sector as well as for the broader sectors and industries affected by digitalization. Comparable statistical data are available mainly for the core digital sector but there are significant gaps in data for developing countries, including Pacific SIDS.

The *Digital Economy Report 2019* (UNCTAD, 2019b) noted that the transnational nature of major digital platforms also poses measurement challenges. For example, online platforms based in one country can facilitate transactions between buyers and sellers located in others. This makes it difficult for governments to obtain statistical information about the activities of digital platforms that are active in

countries where they lack a physical presence. Data on economic activity such as transactions on online marketplaces, for example, are seldom available.

Key measures of value addition in the ICT sector are well defined, with international classifications and indicators related to trade in ICT goods and services. However, there are very few internationally comparable statistics on the broad impacts of the digital economy. Although efforts have been made to measure the value added by e-commerce, or to determine digital spillover effects, these are usually one-time estimates developed by research institutions or private firms for a specific and often narrowly formulated objective.

3. Channels for value creation in developing countries

This section outlines how the digital economy can affect developing countries, focusing on the three value creation channels outlined below: platformization, e-commerce and value chain digitalization (UNCTAD, 2019b). It also covers the potential for value creation through trade in ICT goods and services, and through digitally delivered services.

a. Platformization

The growing use of digital platforms has upended the traditional model of producing goods and services through a set of linear activities that each add value. Instead, interactions on platforms have created an economic model that works in a circular manner where data and the interactions of different actors are the main resources and source of value.

Platformization does not necessarily exclude the existence of a supply chain but it does imply a shift in value creation towards the platforms themselves. This has important implications because the power of platform business models is partly related to their ability to enable firms to achieve economies of scale more rapidly. For example, it is possible for merchants on e-commerce platforms to grow their sales by harnessing the large numbers of network users but with limited requirements for building or investing in their own platforms.

Platformization will have important implications for developing countries. While both platform owners and users can create value, the distribution of value among different stakeholders tends to be highly uneven. Major platform owners are generally in a position to impose additional costs or fees on the firms using their platforms, and it is unclear if smaller firms in developing countries can reach wider markets through platforms.

b. E-commerce

E-commerce platforms are particularly relevant to value creation because they bring together a broad range of buyers and sellers, and provide opportunities for offering a greater variety of goods and services. Although a few global e-commerce platforms have benefited from economies of scale and network effects to capture significant market share, national and regional e-commerce platforms have also emerged. In developing countries, these local platforms may benefit from being able to provide more convenience for consumers through shorter shipping times, tailored payment options, products more suited to local markets and interfaces that provide greater affinity with linguistic and cultural nuances.

In some developing countries, the number of firms able to take advantage of these new platforms has expanded, with some firms shifting from generic production to building specific branded products for target customer segments. Despite the potential of e-commerce platforms to enable MSME access to new markets and consumers, more research is needed to understand how value is created and captured by various actors, particularly in those countries where global firms have a significant presence. Small firms in developing countries may be able to join platforms because of relatively low barriers to entry. At the same time, it is important to consider both the risk of platform lock-in and governance driven by the platforms themselves.

c. Digitalization of value chains

Increased digitalization is also affecting how value chains are governed, as data is now embedded in many value chain processes. For firms in most developing countries, modularized and servitized value chains are potentially less costly to administer and control (UNCTAD, 2019b). In addition, digitalization can reduce transaction costs in production. However, as goods and services become standardized and datafied, evidence suggests that the control of production shifts from smaller firms to leading supply chain organizers and retailers, as well as to major platform companies. The majority of countries operating in the global data value chain are unfavourably positioned as data suppliers. Many countries do not possess the capabilities nor the necessary digital infrastructure to monetize data. This imbalance could perpetuate the dependency on and centralization of value and data in only a few global platforms.

d. Value addition in the ICT sector, trade in ICT goods and services, and digitally delivered services

In some economies, value addition through manufacturing of ICT products or provision of telecommunication and computer services is significant. Employment in the ICT sector itself, as well as in occupations linked to the broader digitalized economy, also contributes to value addition. Some economies have leveraged trade in ICT goods and services for value creation. In the Pacific, available data indicates more of a reliance on ICT imports than on ICT exports (see figure III.3).



Source: UNCTADstat (2022), available at https://unctadstat.unctad.org.

Notes: Country groups are of the source. 2021 concerns world and all the groups, Fiji and Samoa. 2020 data concern French Polynesia and Kiribati.



Source: UNCTAD calculations, based on UNCTADstat (2022), available at https://unctadstat.unctad.org. *Note:* World and country groups are of the source, except Pacific SIDS.

The digital economy also provides opportunities for more services to be ordered and delivered digitally. These digitally-deliverable services include insurance and pension services, financial services, computer and information services, and audiovisual services.⁷⁵ From 2005 to 2019, exports of digitally-deliverable services grew at a global average nominal rate of 12 per cent per year and at a rate of as much as 21 per cent in Asia (UNCTAD, 2022d). Although these services form a larger percentage of total services exports in developed countries compared with developing countries, all countries experienced significant growth in 2020, driven by the COVID-19 pandemic (see figure III.4). For Pacific SIDS, the proportion of digitally-deliverable services as a percentage of total services remains lower than in other country groupings, including LDCs and SIDS. This implies relatively low levels of digitalization across the region. This view is supported by the region's higher reliance on digitally-deliverable imports than on digitally-deliverable exports (see figure III.5).

B. DIGITAL PLATFORMS IN THE PACIFIC

This section covers the growing prominence of the platform economy and examines the types of digital platforms present in the Pacific. Limited data and research material on digital platforms in the Pacific means the picture is inevitably incomplete. The information in this section serves as a starting point for understanding the role digital platforms currently play and will continue to play in the region.

1. The platform economy

A major feature of the digital economy is the rise of digital platforms that focus heavily on data and digital intelligence. Although platforms provide several benefits to consumers and businesses,⁷⁶ the rise and market dominance of a few global digital platforms have significant implications for developing countries in the early stages of digitalization. These platforms wield enormous influence and employ various strategies to strengthen and consolidate their market positions, including acquisition of existing or potential competitors and vertical integration into other sectors.





Source: UNCTAD calculations, based on UNCTADstat (2022), available at https://unctadstat.unctad.org.

Notes: 2021 data concern Fiji, Nauru, Papua New Guinea, Samoa, Solomon Islands, Timor-Leste, Tonga, Tuvalu and Vanuatu. 2020 data concern Pacific SIDS as a group, French Polynesia, Kiribati and New Caledonia. Pacific SIDS are the weighted average of the listed countries in the figure.

Globally, the biggest online platforms tend to benefit the most from the digital economy. The top consumer-focused e-commerce businesses, for example, significantly increased their revenues during the COVID-19 pandemic.⁷⁷ In 2019, these companies made sales worth \$2.4 trillion (see figure III.6). Following the onset of the COVID-19 pandemic in 2020, this rose sharply to \$2.9 trillion (not shown), and a further one-third increase followed in 2021, taking total sales to \$3.9 trillion (in current prices). The shift towards online shopping has further entrenched the already strong market concentration of online retail and marketplace businesses.

2. Digital platforms in the Pacific

Increasing levels of economic activity in the Pacific region occur on digital platforms. This involves digital payment platforms, social media platforms, messaging platforms, goods e-commerce platforms and e-commerce platforms oriented to services focusing on the tourism, entertainment and advertising industries. Remittances carried out on digital payment platforms play a particularly important role in some economies.



Source: UNCTAD (2022b).



Source: UNCTAD.

The major types of digital platforms currently being used in the Pacific region are summarized in figure III.7. Given the lack of statistics and data on the use of these platforms, it was challenging to assess their role and impact in the region. The findings presented are based on desk research, interviews with platforms owners and operators, and discussions with development professionals in the region.

Digital payment platforms

Digital payment platforms in the region offer services related to payment by credit cards, debit cards, mobile banking and mobile money wallets. Very few people in the region have credit cards and most bank account holders still have cash cards that can only be used with point-of-sale devices and automated teller machines. In more developed countries in the region, these are slowly being supplanted by chip and pin debit cards that can be used online. Although mobile banking is offered by most major banks

in the region, uptake by customers remains low, with customers generally preferring to visit physical branches to carry out transactions or to withdraw cash. Mobile money wallets are emerging in several markets. Digital payment platforms are covered in more detail in section III.B.3.

Social media platforms

The dominant social media platform used in the region is Facebook – and to a lesser extent Instagram – both of which are part of parent company Meta. In most countries, Facebook has evolved to become the primary online source for news, information and online marketing, and is used as an outreach tool for individuals, businesses and organizations. For example, the number of Facebook active user accounts represents approximately 60 per cent of the population in Samoa (users may have more than one account) with other countries in the region also exhibiting similarly high usage rates.⁷⁸

Messaging platforms

Messaging platforms have been widely adopted in the Pacific region. In addition to day-to-day communication with friends, family and work colleagues, these platforms have evolved into informal commercial tools that bring together buyers and sellers. Informal and formal sellers use one or more messaging apps to communicate product information to buyers and to arrange collection and payment. Viber has established itself as the dominant messaging app in the region, while other instant messaging applications such as WhatsApp and Telegram have had minimal penetration. Facebook Messenger is also widely used for communication in the region.⁷⁹

Goods e-commerce platforms

In most Pacific SIDS there are no goods e-commerce platforms. This is true for both B2C and business-to-business (B2B) platforms. In the more developed economies of Fiji, Samoa and Papua New Guinea, there are a few goods e-commerce platforms that host merchants. Merchant numbers on these platforms are relatively low, ranging from approximately 5 to 100 merchants.⁸⁰

The most promising goods e-commerce platforms in the Pacific region appear to be those where individual merchants can sell their products directly to consumers, such as VitiKart (Fiji) and Maua (Samoa); and food delivery platforms that allow restaurants and food retailers to benefit from a third-party delivery provider. The large goods e-commerce platforms primarily sell food, household items, electronics and other consumer products, while smaller niche platforms sell artisanal products such as soap and jewellery. More analysis of the goods e-commerce platforms will be covered in Section III.C.

Services e-commerce platforms

The number and scale of services e-commerce platforms in the Pacific remains relatively low, with activities concentrated in a few large domestic markets. Service-based platforms are characterized by low entry costs and resource requirements, but uptake has not been widespread in the Pacific region. Most global service platforms, such as Uber, Didi Chuxing and Upwork, are not active in the region. Notable exceptions are found in tourism, entertainment and advertising.

Tourism platforms

The presence of global tourism e-commerce platforms in the region reflects the importance of the sector for some Pacific economies. Fiji and, to a lesser extent, Vanuatu, Samoa and Tonga have established themselves as significant tourism destinations. Most major hotels in these countries feature prominently on a range of platforms including Booking.com, Expedia, Agoda and more.

Airbnb also has a presence in almost every Pacific country, with most properties listed in the countries that receive the most tourists. A generic search in September 2022 brought up 685 Airbnb properties in Fiji but only 40 properties in Solomon Islands. This dynamic is also evident with platforms focusing on formal hospitality businesses, such as Booking.com (see table III.1).

Tourism is a major source of income for several economies in the region and many tourists who visit the Pacific are from areas of relatively higher e-commerce usage. For these reasons, tourism-based e-commerce platforms are seen as an entry point for digitalization. In 2021, the Government of Vanuatu launched a national booking platform with support from the Government of Australia. The platform brings together merchants from different parts of the tourism industry value chain (accommodation providers, tour operators and restaurant owners) to advertise and manage their business listings through one e-commerce tourism hub. A by-product of the large numbers of tourists visiting certain destinations in the region is that information and review platforms such as Tripadvisor also cover many of the most popular hospitality venues in the region.

Entertainment platforms

Improvements in broadband connectivity and lower related costs in some countries in the region - such as Fiji - are creating new opportunities for entertainment platforms. These platforms typically do not depend on large user bases in any particular market and companies such as Netflix, Disney +, Spotify and a number of other streaming services have started making inroads in the region. Telecom Fiji, for example, markets its broadband packages as being ideal for watching Netflix.⁸¹ However, it is likely that widespread uptake of these data-intensive entertainment platforms will be limited to the few countries in the region that have affordable broadband and average incomes in line with the subscription costs. It should also be noted that the launch of these streaming services is often dependent on local partners able to host the service on their network.

selected Pacific SIDS, September 2022CountryNumber of hotels on
Booking.comFiji117Vanuatu54Papua New Guinea36

Number of hotels on Booking.com for

18

8

Table III.1.

Samoa

Tonga

Solomon Islands6Tuvalu0Kiribati0

Source: UNCTAD, based on Booking.com platform, search conducted in September 2022.

Note: There may have been results that did not show up due to being fully booked or unavailable for other reasons. The search was meant to provide a general idea of how many hospitality businesses in the Pacific use global digital platforms.

Online advertising and search platforms

Online advertising and search functions are also dominated by a small number of global players. Facebook's dominant position in the region means that it plays a central role in advertising for both formal and informal actors. Large commercial players invest significantly in targeted advertising on the platform, while informal businesses also seek to attract customers by advertising their goods and services across a wide variety of Facebook groups. Google Ads is another major player in regional advertising, in part because of the dominant position of the Android App store, which caters better to lower-cost phone models that are popular in the region.

3. Digital payments platforms

Although digital payments solutions in the Pacific region are still emerging, the past few years have seen significant acceleration. The COVID-19 pandemic in particular increased awareness of the benefits of digital payments and mobile money, which have the potential to serve as a platform for enhancing digital literacy and further digitalization of economies. Currently, only Fiji and Papua New Guinea have one or more online payment gateways due to the requirement by most banks in the region to have a minimum number of transactions per year.⁸² The odds of reaching these thresholds are low in relatively small markets because not many customers have the cards required to purchase goods and services online.

This gap in the market is partly being filled by mobile money wallets, primarily operated by Vodafone and Digicel – the two main mobile network operators (MNOs) in the region. These tools were initially developed as a means of transferring money using phone credit and have now been launched in most countries in the region.⁸³ They have the advantage of being able to leverage the large customer bases and extensive agent networks of parent companies. Some mobile money products, such as M-PAiSA in Fiji and Cellmoni in Papua New Guinea, have gone a step further and developed features that allow full integration with e-commerce platforms using a two-step verification system that mimics how credit

cards operate. However, these remain concentrated in a few larger markets and many of the smaller countries do not currently have payment tools that are compatible with e-commerce.

Mobile money products are capturing a greater market share in their existing markets and MNOs are developing new mobile money services even in countries with existing products. For example, in Solomon Islands, the leading MNO – Our Telekom – plans to roll out a mobile money wallet in 2023 even though two mobile money wallets currently exist (EziPei and iumiCash). Early mobile money wallets in the region faced several challenges. This resulted in very gradual uptake but also allowed MNOs to refine their strategies and develop a pool of people with the required skill sets. The two main MNOs in the region drew on the experience and rolled out improved products with more features and at a lower cost than the original versions.

Some governments in the Pacific, notably Fiji, also embraced mobile money wallets as a platform to cost-effectively collect fees and disburse welfare payments during the COVID-19 pandemic. While this is a step in the right direction, there is room to do more. M-PAiSA found that the vast majority of customers who received assistance chose to withdraw the full amount in cash from a Vodafone outlet, resulting in large queues at the peak of the pandemic.⁸⁴ Measures to encourage recipients to spend or transfer money digitally would help build digital literacy and introduce people to the benefits of digital financial services.

Remittances

Remittances are a large source of income in Pacific SIDS, averaging 4.5 per cent of total GDP in 2020.⁸⁵ This trend is largely explained by the region's high emigration rates and seasonal employment. Remittances are an important source of finance and foreign exchange, with countries such as Tonga and Samoa receiving 39 per cent and 25 percent of their GDP, respectively, in remittances in 2020 (see annex table 2). Digital transformation has reshaped overseas money transfers and there is strong interest in how digital platforms can continue to make these payments affordable, agile, reliable and accessible to all.

The cost of sending remittances in the Pacific remains high. For Pacific SIDS with available data (Fiji, Samoa, Tonga and Vanuatu), the average cost of sending remittances (expressed as a proportion of \$200 worth of remittances) was 7.97 per cent in Q2 2022 – higher than the global average cost of 6.01 per cent in the same period.⁸⁶ The least expensive way to send and receive is through mobile money services (World Bank, 2022).⁸⁷ For Pacific SIDS, the cost of sending remittances by type of service provider was cheaper via money transfer operators (6.90 per cent) as opposed to banks (10.13 per cent).⁸⁸ No statistics are available on mobile money transfer costs in the Pacific.

The general view in the Pacific is that the cost of remittances remains high due to the low value of transactions in addition to obligations related to anti-money-laundering and combatting the financing of terrorism measures for both the sending and correspondent bank. Nevertheless, the rise of digital platforms and increasing use of mobile-based payment channels are likely to reduce remittance costs and potentially increase the role of remittances in some Pacific economies. A shift towards online transactions and digital remittance channels is emerging, with policymakers seeking to provide an enabling environment that fosters digitalization of remittances but also reduces potential risks.

Demand for digital remittances will continue to increase with the convenience, reduced costs and growing popularity of payments through digital platforms. Remittances have the potential to advance inclusive societies by contributing to improved food security, health, education, housing and sanitation, in addition to financial inclusion outcomes. By expanding the source of revenue to migrants' families, the digitalization of remittances could help bring about a host of economic and social benefits. This would provide impetus towards achieving several of the SDGs, including on quality education, decent work and economic growth, and reduced inequalities. Low-income populations living in rural areas and those in vulnerable situations – such as women and girls, youth, persons with disabilities, indigenous communities and other marginalized groups – could use digital platform payments to improve economic and social outcomes.

C. E-COMMERCE IN THE PACIFIC

E-commerce is emerging as a key aspect of the digital economy in the Pacific region. This section summarizes emerging e-commerce trends and business models in the region and proposes a model for understanding where businesses in the region are on their e-commerce development paths.

While the trends explored below provide a picture of the e-commerce landscape in the region, more robust data and statistics on the level and depth of e-commerce activity in the region would be required to inform effective policymaking. This research could be carried out by governments, academic institutions (including research universities), development partners and other organizations. The e-commerce platforms themselves can also play a key role by providing researchers with access to relevant data and information, as is the case with some global platforms.

1. Regional trends

E-commerce – the sale or purchase of goods and services over the Internet – has the potential to be a powerful driver of inclusive growth, trade and innovation. Although official statistics and data on the level of activity are not available, research carried out by UNCTAD for this report revealed relatively low levels of e-commerce activity across the Pacific region. The online commercial activity that does take place tends to occur on social media or through communication platforms, with cash on delivery as the primary payment model. Select regional trends are highlighted below.

a. Global business-to-consumer e-commerce platforms have yet to penetrate Pacific markets

Global B2C e-commerce platforms include some of the most familiar company names in the world but the Pacific is one of the few remaining regions where they have yet to build a significant customer base. Transaction data are difficult to obtain but most products on popular platforms such as Amazon and JD.com do not offer delivery to the Pacific and, where they do, delivery costs often exceed the cost of the item. Larger remote markets, such as Australia, have local versions of Amazon and eBay to reduce logistical hurdles but there is no such equivalent in the Pacific.

The lack of market penetration in the Pacific region could be because third-party e-commerce platforms depend on high sales volumes and optimized payments and logistics solutions to deliver value to their marketplace merchants and to provide cost savings and convenience to consumers. Implementing a high-volume e-commerce model in the Pacific would be difficult for any company but particularly for those from outside the region. Long distances between customers in the Pacific region and producers or warehouses in North America or Asia, and low numbers of flights to and from the region, mean that airfreight prices are high. Sending small packages by sea – even from neighbouring regions – takes over a month and features high transaction costs.

b. Most business-to-consumer and consumer-to-consumer online commercial activity takes place on social media

Significant commercial activity in the region occurs on Facebook, where various groups bring together buyers and sellers in informal online marketplaces (see also box III.1). Every country in the Pacific has at least one Facebook buy and sell group with subscriber numbers that exceed 10 per cent of the national population.⁸⁹ These can be either product- and sector-specific, region- or city-specific, or general groups where any goods or services can be advertised. For example, a general buy and sell group in Honiara, Solomon Islands, had 87,000 members in October 2022 and hundreds of posts per day.⁹⁰ Similarly, the group Cars for Sale in Fiji had 124,000 members and nearly 5,000 posts in September 2022.⁹¹ While these are among the larger Facebook groups in each country, they are not outliers. Across the region, Facebook hosts a multitude of dynamic buy and sell groups with extremely large followings. Fiji alone has over a dozen groups, each with more than 50,000 members.

Facebook has a strong presence throughout the region as a convener of news, information and commercial activity. In 13 Pacific SIDS, the number of Facebook user accounts exceeds 40 per cent of the total population (see figure III.8).⁹² This widespread presence, coupled with the lack of dedicated international or regional e-commerce platforms, means that Facebook has also become a key platform for businesses. Businesses throughout the region tend to prioritize their Facebook

page and presence above their dedicated business web pages and use Facebook primarily as a way of keeping customers updated about new products and services. Some entrepreneurs and small businesses also use communication platforms like Viber and WhatsApp to advertise their products and to meet and negotiate with customers.

Box III.1. Social media provides an avenue for online business for microenterprises in Solomon Islands

Salita Bako is an avid gardener in Auki, the second largest city in Solomon Islands. She specializes in growing tropical anthurium plants and this year decided to try and use her skills to supplement her income. Earlier in the year she had propagated anthurium plants that had now rooted, matured and were ready to sell.

Salita had never sold goods online but as a long-time member of a number of buy and sell groups on Facebook, she knew exactly what to do. Despite living in Auki, she knows that the Buy and Sell in Honiara group is among the largest in the country and would include plenty of people in Auki. She took a number of photos of the flowering anthurium plants and posted them on the group with the title Anthurium Flowers. As a description, she added simple instructions in Pidgin: "inbox if you interested".

That same day, Salita was contacted by 10 people asking her for the prices of the anthuriums, how many she had available, where they could be collected and more. She replied to some questions in the comments section of the post but sent prices by private message to each prospective customer.

Facebook group forums show the identity of the interested parties and many of them knew each other. Two even started a short parallel conversation in the comments of the Anthurium page. "Payim den sharem", said one contributor to another, receiving a highly amused response. Within two days Salita was contacted by 24 buyers and had to regretfully inform the last potential buyers that she had sold out.

The sheer number of users on these buy and sell groups means that they are a highly effective way for informal merchants to sell their goods with almost no transaction costs. The fact that Solomon Islands has few delivery options outside of Honiara and no digital payment tools means that there are few incentives to shift to dedicated e-commerce platforms, which are likely to have fewer users and higher transaction costs. As e-commerce develops, however, Facebook forums can be especially effective in supporting the growth of future Pacific e-commerce businesses, allowing aspiring entrepreneurs to develop commercial, digital and financial skills. Additional support, including through training in digital skills, financial literacy and entrepreneurship, would add a significant boost to MSME growth though e-commerce.

Source: UNCTAD, based on interview with Salita Bako.



Source: UNCTAD calculations, based on Datareportal reports (global and per country), available at https://datareportal. com/library (accessed 16 February 2022).

Note: The user numbers reported by social media platforms are typically based on active user accounts and may not represent unique individuals. For example, one person may maintain more than one active presence on the same social media platform (i.e. "duplicate" accounts).

c. Global business-to-business e-commerce platforms are emerging in selected industries

Platforms selling directly to customers have made few inroads in the Pacific and have not developed into a competitive alternative to brick-and-mortar retail stores. However, wholesale e-commerce platforms have emerged in some regional markets. Some retailers in Fiji, for example, source cheaper alternatives to branded products from Alibaba, primarily in the electronics and hardware sectors. The B2B e-commerce platform connects overseas manufacturers with domestic suppliers and offers a service guarantee that gives Pacific merchants the confidence to pay directly via bank transfers. The platform is then able to arrange shipping through logistics companies with agents based in Fiji. By focusing on larger transactions, B2B platforms such as Alibaba are able to overcome some of the cost constraints inherent in operating in the small markets of the Pacific.

One notable example of a B2B platform that is active in the Pacific region is the Japanese Used Motor Vehicles Exporters Associations auction platform.⁹⁴ Approximately 85 per cent of vehicles in the Pacific are imported secondhand, mostly by local car dealers, with the vast majority coming from Japan.⁹⁵

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This volume of trade is made possible by such digital platforms that allow customers to place bids through agent sites and participate in every vehicle auction in Japan. Through the platform, customers can access specifications, photos and independent inspection reports as well as historical data for the particular make and model of the vehicle. Other online platforms such as Trade Car View, Be Forward and SBT Japan also provide opportunities for consumers to search for and purchase used cars from Japan for delivery in the Pacific. These investments in digital platforms have generated substantial trade flows, with two dedicated car carrying vessels stopping in most islands in the region.⁹⁶ Vehicle import data for Fiji is available through the Fiji Revenue and Customs Service and these figures illustrate the scale of the trade.⁹⁷ In the third quarter of 2021, Fiji imported 1,200 vehicles and over half were secondhand.

2. Emerging business models

The types and models of e-commerce emerging in the Pacific look quite different from traditional models present in other regions at similar levels of development. The notable absence of global e-commerce platforms in the Pacific has left a vacuum that local merchants and digital platforms have filled in different ways. Five broad trends have emerged: informal businesses seeking to build on the use of social-media-based trade; retail leaders developing stand-alone web shops; online marketplaces that seek to replicate and localize the services of global platforms; online marketplaces for domestic markets; and niche platforms focused on exports.

a. Informal businesses leveraging social media to transition to formal business

There are early signs that some of the most successful sellers on social media are beginning to transition to the formal economy. One example is Cheap Games Fiji, whose founders started selling used video games on Facebook that relatives had brought back to Fiji. As demand grew, the founders established their own Facebook page and started deploying social-media-based advertising and search engine optimization strategies. This helped increase sales and they realized that the Facebook platform was insufficient to run a fully fledged business. Cheap Games Fiji then developed a dedicated web shop and began integrating global wholesalers into their supply chain.

Social media platforms will continue to be valued for fostering online inclusion and serving as an entry point for many online sellers (see also box III.2). They offer a low-risk way of identifying demand and testing strategies to meet it. They are increasingly a key driver of enhancing online entrepreneurship opportunities and digital skills development.

Enterprises' and individuals' transition from informal social media platforms to e-commerce platforms will take time. There are still only a few examples of Pacific businesses that have achieved the scale required to succeed as a formal online business. Typically, informal businesses that transition to dedicated online platforms have an established customer base and product line along with the digital literacy required to launch the platform. In countries with well-established digital financial services, businesses can reduce their costs and improve their service by using dedicated e-commerce back-office services like Magento, Shopify or WordPress. Even with dedicated web shops, however, social media platforms continue to be of value in terms of marketing and customer base potential.

b. Retail leaders developing stand-alone web shops

Throughout the Pacific region, dedicated online stores that complement a brick-and-mortar business have been among the first formal e-commerce businesses to emerge. Retailers with an online presence are typically industry leaders and have the global exposure and resources required to develop their own online platforms as well as the expertise needed to integrate enterprise resource planning and stock management systems into e-commerce platforms.⁹⁸

Several sophisticated online stores have been established in the region despite the overall e-commerce ecosystem being relatively underdeveloped. Examples include Bulk Shop⁹⁹ in Solomon Islands, Dynamic Supplies¹⁰⁰ in Vanuatu and Vinod Patel¹⁰¹ in Fiji. These online stores feature thousands of products in countries without widespread use of digital payment tools or efficient nationwide delivery logistics solutions, and are part of a broad trend of incumbent retailers who have developed impressive online presences well in advance of broad market demand.

Box III.2. Makeki Online leverages social media in Samoa to grow customer base for standalone web shop

Makeki Online was established in 2014 with the goal of offering Samoans services similar to those offered by global e-commerce platforms like Alibaba and Amazon. However, it has had to adapt its business model to the realities on the ground in Samoa, and its journey illustrates a number of the challenges faced by digital entrepreneurs across the region.

One of the primary challenges for independent platforms is the huge influence that Facebook wields in the region. Makeki Online's founder Nitrous Mose laments the fact that most people in Samoa equate the Internet with Facebook only, which makes it difficult for independent platforms to gain traction. Rather than fight this, Nitrous and his team have tried to build up a customer base on their Facebook page and will seek to harness the loyalty of customers on a dedicated platform or app when the time is right.

The business currently has over 12,000 followers and its website is under construction. While Nitrous is excited at the prospect of establishing a dedicated e-commerce platform, he is also aware of the difficulty of getting people to shift browsing habits. Even when Makeki's platform is operational, the plan is to ensure that its Facebook group remains active to gradually ease customers to the new format and to attract new customers who might not know about the website.

A second challenge it is facing is the lack of online payment solutions in Samoa. The lack of a credit card payment gateway and low uptake of mobile money solutions make (lack and low uptake) it very difficult to settle transactions on the platform itself. This makes it challenging to put in place the commission-based business models that have allowed global platforms to grow so rapidly.

The Makeki Online team currently generates most of its revenue through advertising and working with merchants on a commission basis to promote new products and deals. It will try to use locally available mobile money wallets but even Nitrous is not convinced that people will use them because it is just not as simple as taking out your card, entering the details and pressing 'pay'. As a result, the avenues available to Makeki Online to grow the business remain limited.

Source: UNCTAD, based on interview with Nitrous Mose, founder of Makeki Online.

Anecdotal accounts suggest that the turnover on these single-merchant web shops has been relatively low.¹⁰² These early moves into the e-commerce area may seem premature in countries with modest digital financial services and limited smartphone penetration. However, the potential benefits of entering the digital space early need to be weighed against the costs of developing these platforms. Unlike with online marketplaces, single-merchant web shops do not need external buy-in from merchants to create a fully functional web offering. Once the investment in enterprise resource planning software has been made, uploading product information onto the web shop and reconciling stock is relatively simple.

For businesses that have embarked on this path, online sales may be the only obvious avenue for growth in the small markets and limited urban centres of the Pacific. Adding complementary services to their core business appears to be one way that businesses have identified to grow their market share. Early investment in web shops also positions these businesses to capitalize on future growth opportunities in the digital economy.

c. Replicating and localizing the services of global e-commerce platforms

Some local e-commerce platforms have tried to meet the needs of informal businesses that predominantly use social media platforms by developing alternative local e-commerce platforms that offer a similar environment but are tailored to the unique needs of informal merchants. The most prominent of these is the Maua app in Samoa, which was developed with much of the same functionality and feel as Facebook to ensure that target customers and merchants would be comfortable using it. While the app can accommodate most products and services, it was initially designed to give small local vendors in the agricultural and food sectors a digital presence and platform to sell their products. The app allows

merchants to pre-sell their products, and they then harvest or produce based on customer orders. This results in less waste and reduced time spent at markets or independent stalls.

Hello Vanuatu – a recently developed digital platform based in Port Vila – has gone one step further. In addition to e-commerce features developed with local producers in mind, it offers many features inspired by global media platforms and allows users to chat, and share photos and experiences. It is in some ways a basic version of the app-for-everything trend seen in other regions (WeChat in China and LINE in Southeast Asia). It even offers access to local lenders to fund purchases. Unlike many global platforms, Hello Vanuatu's target audience is exclusively local – the app is in Bislama (Vanuatu Pidgin English) and requires a Vanuatu telephone number to register.

d. Online marketplaces for domestic markets

While some platforms have looked to build on local trends (see also box III.3), others have instead sought to replicate successful e-commerce business models from other regions. The absence of global online marketplaces (such as Amazon or Alibaba) has left clear niches that local businesses in more mature markets have sought to occupy, particularly for goods- and food-based platforms. These have primarily emerged in Papua New Guinea and Fiji, which are both larger markets with more developed digital financial services.

Box III.3. International remittances drive new e-commerce business models in the Pacific

While most web shops in the Pacific follow a familiar model that offers products to domestic online customers, some have looked to capitalize on financial trends that are unique to the region. International remittances account for a significant proportion of GDP across the region, with the highest being Tonga at 39 per cent of GDP and Samoa at 25 per cent of GDP in 2020.¹⁰⁵ Because of the underdeveloped nature of many Pacific financial systems, sending money home to relatives can be very costly for diaspora communities, with commissions averaging 10 per cent of the transaction amount. This has led to the emergence of web shops and platforms that allow customers abroad (typically in Australia, New Zealand and the United States) to use foreign credit or debit cards to purchase goods from retailers located near their families in the Pacific. The family can then physically collect the goods from the local retailer.

This model of purchasing from outside the region and picking up inside the region is a unique form of e-commerce. In Fiji and Tonga, for example, PacifiKart is widely used in this manner, while Samoa has several online shops that allow diaspora members to buy products for their families. The most common items purchased by the diaspora for their families in Samoa and Tonga are food, white goods and hardware. The focus on food suggests that people abroad use these services as a way of providing regular support to their families rather than one-off payments or gifts. The remitter can avoid the transaction costs typically associated with sending money home, while also having a say in what the funds are spent on.

Source: UNCTAD.

Online marketplaces, such as Jungle and BzzMart in Papua New Guinea and VitiKart in Fiji, have each onboarded over 20 merchants – mostly well-established local retailers – and offer multiple payment options (credit and debit card, mobile money or cash on delivery) as well as the option for either delivery or collection. Most online marketplaces in the region are well-financed corporate initiatives. In some cases, they also receive government support in the form of subsidies¹⁰³ and tax breaks, and advertise extensively across multiple channels including television and on the Internet. VitiKart, for example, was established in 2020 by Vodafone and sells physical goods across a range of food and non-food categories, and delivers items throughout Fiji. It primarily encourages payments through M-PAiSA – the mobile wallet operated by their shared parent company Vodafone – as well as credit and debit cards issued by Visa and Mastercard.

Both Papua New Guinea and Fiji also have food delivery platforms featuring most of the best-known venues in the cities where they operate. Fiji Eats – a food delivery business where orders can be placed online – has an app offering most of the features of globally recognized brands. It has also

incorporated a sophisticated delivery mechanism, with the online application alerting nearby affiliated taxis and providing them with precise collection and delivery instructions.

While it is difficult to gauge the commercial viability of these platforms, one indicator that can be used to assess the evolving appetite for online marketplaces is the number of merchants onboarded. Since mid-2021, the more established platforms in the region have roughly doubled the number of merchants that sell goods on their platforms.¹⁰⁴ This suggests that merchants are increasingly aware of the potential of e-commerce to grow their business and that second-tier merchants are starting to make their initial forays online. Some of the growth could be attributed to changing consumer and business behaviour in some countries due to movement restrictions during the COVID-19 pandemic.

e. Niche e-commerce platforms focused on exports

Export-focused e-commerce businesses have also started to emerge in the Pacific, providing local producers ways to access regional and international markets. Whereas platforms focused on domestic markets like Maua (Samoa) and Hello Vanuatu have a strong agricultural and food focus, export-focused platforms focus on higher-priced durable goods, particularly handicrafts and boutique products like soap, earrings and artwork. These niche e-commerce businesses often place an emphasis on sustainability and the unique Pacific aspect of their products. At the same time, they recognize that it may not be feasible to compete on price with larger producers in other regions. Rise Beyond the Reef – a social enterprise that provides jobs to rural women artisans in Fiji – provides shipping options to most countries in North America, South America, Europe and the Middle East. Green Banana Paper in the Federated States of Micronesia uses locally sourced banana trunks and converts them into durable and eco-friendly vegan wallets, and ships globally using the United States Postal Service.¹⁰⁶ These platforms have primarily emerged in tourism destinations.

In some instances, these niche e-commerce businesses are based on groups of producers in a particular region, with the online platform developed to give producers an online presence both for their existing customers and to attract new customers. Examples include the Fiji Community Market e-commerce platform, which emerged from a monthly flea market in Suva selling handicrafts from local artisans; the MultiDrua e-commerce platform whose founders started on Facebook and then developed their platform to market locally made Fijian products primarily to international markets; and Shop Vanuatu which is a platform for local artists and artisans targeting primarily foreign customers. A selling point for these export-focused e-commerce platforms is that they allow smaller merchants to overcome the significant payment and logistics hurdles that exist in the region.

3. E-commerce development ladder

From multinational firms selling thousands of products a day to a small firm advertising and taking orders via social media, the diversity of e-commerce business models is very broad. Nextrade Group (2021) has mapped out five stages of growth for any firm engaging in e-commerce, which provides a useful framework for understanding where firms stand in the Pacific region (see figure III.9).

The first thing to note is that most MSMEs in the Pacific would not appear on the global model for e-commerce development because they do not have a digital presence. Although statistics on the percentage of MSMEs that use the Internet in the Pacific are not available, the region has generally low digitalization of MSMEs.

For MSMEs that do have a digital presence, they most likely operate at either Level 1 (digitized but offline sellers) or Level 2 (social sellers). In the Pacific, few MSMEs have websites and there is more of a focus on establishing a presence on social media. More firms in the region may therefore operate as social sellers rather than as digitized but offline sellers. These Level 2 sellers include MSMEs that have a web presence via social media platforms such as Facebook or Instagram or use digital communications tools such as Viber or WhatsApp to engage with customers. In the Pacific context, these social sellers would also include the many individuals and informal businesses selling goods and services via social media and communication tools.



Source: Nextrade Group (2021).

Relatively few MSMEs in the region have dedicated online stores and offer digital payment capabilities to qualify as Level 3 firms. Examples include Bulk Shop (Solomon Islands) and Dynamic Supplies (Vanuatu). It is important to note that even Level 3 sellers in the Pacific with the ability to accept online payments are more likely to conclude many of their e-commerce transactions with payments in cash. This is one indication that technology may not be the biggest barrier to the uptake of e-commerce in the region. Limited use of digital payments combined with low levels of trust in online transactions often result in a preference to meet sellers in person or to pay cash on delivery. Limited consumer and data protection legislation in the region reinforces this lack of trust. Of the 13 Pacific SIDS included in the UNCTAD Global Cyberlaw Tracker, just five have legislation on electronic transactions, six have cybercrime legislation in place and only one country has information on an existing consumer protection law.¹⁰⁷

Vendors on e-commerce platforms such as VitiKart (Fiji) or Jungle (Papua New Guinea) are also likely to offer cash on delivery as an option. The e-commerce development ladder depicted in figure III.9 is linear in nature and implies that Level 4 sellers use digital payment solutions for all online transactions (as is common in some developing markets). Firms that sell on local e-commerce platforms but conclude a significant proportion of orders via cash on delivery would therefore fall between Level 3 and Level 4 on the global model for e-commerce development. Very few firms in the region sell on global marketplaces such as Amazon to qualify as Level 5 global marketplace sellers.

Adapting the five stages of the global model for the Pacific would mean moving Level 4 (local marketplace sellers) immediately after Level 2 (social sellers). This is because, in the Pacific, it is more



Source: UNCTAD, adapted from Nextrade Group (2021).

likely that firms will seek a presence on existing third-party online marketplaces before developing their own standalone webstores – this is particularly the case for MSMEs. Some of these third-party marketplaces specifically pitch this value proposition of not needing to develop a standalone webstore if they join the marketplace to prospective merchants. Level 3 in the adapted Pacific model (local marketplace seller) would also have two distinct categories: (i) one for firms that sell on local e-commerce platforms but do not have their own stores; and (ii) firms that sell on local e-commerce platforms but do not embrace digital payments as part of their overall business model. This adapted model is shown in figure III.10. In the Pacific region, it may also be the case that social sellers would represent the first stage of e-commerce development for MSMEs and that some firms selling online may never develop their own websites.

D. VALUE CREATION AND CAPTURE IN THE PACIFIC

Section C explored the emerging context of online stores and e-commerce platforms in the Pacific and how social media is used to advertise and sell goods and services, particularly in countries that do not have formal online marketplaces. With the emergence of these platforms, it remains to be seen how value is distributed among platform owners and merchants. The same applies to broader impacts on jobs, inclusion, competition and trade flows. This section examines the general implications of global platforms and those related to the Pacific region. Although social media and messaging platforms are widely used in the region, the focus in this section is on e-commerce platforms.

1. The role of global platforms

Global digital platforms, including e-commerce platforms, can play an important role in e-commerce in developing countries. With their scale, reliability and proven business models, these platforms may be able to provide firms in developing countries with greater opportunities to connect with customers in different domestic, regional and international markets. This can lead to improved efficiency and increased market access for firms of all sizes. Global e-commerce platforms can also reduce start-up and operating costs for MSMEs and digital entrepreneurs. They can provide brand awareness, operational reliability and storage and logistics infrastructure that would otherwise be difficult for many small businesses to develop on their own.

By reducing transaction and search costs, as well as other sources of friction, digital platforms enable those offering goods or services to connect more easily with potential customers (UNCTAD, 2019b). This may allow MSMEs in developing countries to offer deeper specialization and develop a decent customer base. For consumers, global e-commerce platforms enable comparisons of the price and features of a wider range of products and services, and offer more convenient delivery of goods and services. Although difficult to measure, this likely has positive economic and social impacts.

The balance between domestic trade, imports and exports facilitated by global e-commerce platforms is an important consideration. From a development perspective, global e-commerce platforms should be leveraged not only for buying and importing foreign products but also for supporting domestic production and exports (UNCTAD, 2019b). Although statistical data are not available in most markets, there are indications that global e-commerce platforms have been more effective in facilitating imports of foreign products than in enabling domestic products to be exported (UNCTAD, 2015a). This is particularly instructive for the Pacific region, where many global e-commerce platforms have yet to take hold and the local e-commerce platforms are generally used for domestic trade.

As noted earlier in this chapter, there is a notable absence of global e-commerce platforms in the Pacific. However, the distinction between different types of platforms is becoming increasingly blurred, with Facebook being used throughout the region as a platform for connecting informal and formal businesses with potential customers. Given the evolving nature of the e-commerce landscape in the region, it is important to be aware of the implications of global platforms operating in this unique environment.

For the Pacific region to fully leverage global e-commerce platforms, entrepreneurs and businesses would need access to the full suite of services offered by these firms, including cross-border payments and any storage, warehousing, logistics and delivery services. For example, global e-commerce platforms may provide integrated payments solutions but many companies in the Pacific do not have a foreign bank account so are unable to use these services.

The Pacific region could benefit from global digital platforms serving as infrastructure on which innovation and digital enterprises could be developed. This trend is already happening with social media platforms, notably Facebook. Facebook is a familiar platform with relatively high user literacy among Pacific populations, and has thus emerged as an important platform for buyers and sellers to interact. Facebook as an e-commerce intermediary is particularly important for rural populations and groups with relatively low levels of digital literacy, and mobile phones with basic functionality.

For many businesses and consumers in the Pacific, Facebook is a way to introduce the potential benefits of e-commerce. By experiencing the benefits of a global digital platform, businesses and entrepreneurs could be encouraged to further innovate in the digital space. This can be a building block for local digital entrepreneurship and for transitioning to digital payments and dedicated e-commerce platforms. The use of global e-commerce platforms could also create employment opportunities in the Pacific. In addition to jobs in fulfilment and delivery, there would be a need for digital marketers, product content writers, photographers and customer service agents. This would provide immediate employment opportunities and have positive knock-on effects for the economy. For example, the success of small businesses on global e-commerce platforms could encourage local entrepreneurs to develop related business services such as website development and business development consultancies.

Although global digital platforms offer many potential benefits, it is important to be aware of the risks identified in Section A. These include potential market dominance; control of data and digital intelligence; and strengthening their market position through acquisitions, vertical integration or entry into other sectors. This is particularly relevant to the global digital platforms that are already present in the region, such as Facebook and Airbnb. Weighing the development implications of these global digital platforms will increase in importance as the Pacific region continues along its digital development path. The role of local e-commerce platforms is an important part of this discussion. In countries with local e-commerce platforms, such as Fiji and Papua New Guinea, policymakers may consider the trade-offs of encouraging the entry of global e-commerce platforms vis-à-vis supporting

the continued growth of local platforms. For countries where global and local e-commerce platforms are not present, policymakers may consider policy actions that maximize the development benefits of digital platforms – whether global or local – and also mitigate the risks.

2. Local e-commerce platforms

As discussed above in this chapter, some global social media and messaging platforms are used for commercial activity in the Pacific. In addition, a few businesses in the region have established online stores. This section focuses on the growth potential of local e-commerce platforms such as VitiKart and MultiDrua (Fiji), Shop Vanuatu, Jungle and BzzMart (Papua New Guinea), and Maua and Samoa Market (Samoa).

a. Features of local e-commerce platforms

Most local e-commerce platforms in the region are either corporate diversification initiatives or side hustles for people with full-time jobs. Notably, several of the existing platforms appear to have been developed with a strong desire to support small businesses, farmers or artisans, rather than a strict business opportunity to maximize profit. Unlike in other regions, local platforms do not seem to pursue a business strategy of rapid growth and increased valuations with the goal of being acquired by a larger company. The payments for some platforms terminate outside the region but this appears to be a workaround due to the lack of access to payment gateways rather than a desire to move profits outside the region.

Several local e-commerce platforms could also be characterized as being in the experimentation phase, with generally low user numbers and testing of different models. Some platforms are supported by international development partners. Anecdotal evidence suggests that e-commerce platforms in the Pacific currently struggle to attract the critical mass of customers necessary to generate a profit. The business case for e-commerce in other regions – higher sales volume from new online customers outweighing the associated operations costs – is difficult to achieve in the Pacific region given the extremely small size of consumer markets.

The challenge of small consumer markets is exacerbated by high delivery logistics costs, particularly for last-mile delivery. Reaching potential customers is extremely challenging for countries such as Solomon Islands, where the population of approximately 721,000¹⁰⁸ is spread across more than 300 populated islands. These challenges in the Pacific mean that the customer base for existing local e-commerce platforms is generally concentrated in a limited number of urban areas. Even in the larger economies of Papua New Guinea, Fiji, Solomon Islands and Samoa, most online commercial activity takes place in the capital cities.¹⁰⁹

Most, if not all, e-commerce platforms in the Pacific offer cash on delivery as a payment option. Many consumers have no way of making online payments because they do not have access to bank accounts, debit and credit cards or online payment methods such as mobile money or e-wallets (UNCDF, 2021c). In addition, lack of access to online payment gateways restricts the number of businesses that can conduct online sales (UNCDF, 2021b). Solutions are being rolled out but uptake has been slow, although some improvements were seen during the COVID-19 pandemic when contactless payments became more of a necessity.¹¹⁰

On the merchant side, challenges accessing international payment gateways in the region and the reticence of local and regional banks to support online payment mechanisms continue to be barriers to the growth of e-commerce platforms (UNCDF, 2021b). It is likely that cash on delivery (or on pickup) will remain the preferred payment mechanism for e-commerce in the Pacific at least in the near future.

Local e-commerce platforms are also characterized by extremely low online conversion rates (the number of sales generated per visit). Informal discussions with platform managers in the Pacific suggest that conversion rates are 1 per cent or lower.¹¹¹ This suggests that customers are using online stores and e-commerce platforms to learn more about products and confirm availability, but that they prefer to conclude the transactions in person, by either visiting a physical location or paying cash on delivery.

One online store in Fiji noted that actual sales were 10 times the amount indicated by its online statistics. This means that 9 out of 10 customers that made a purchase did so by paying offline, reflecting a

general reluctance by customers to complete the checkout process online. When customers reached the checkout stage, they tended to switch to messaging apps to reconfirm the price, terms and warranty before agreeing on a time to collect the goods and pay with cash or card.¹¹²

Although some local e-commerce platforms in the Pacific have attempted to implement a commissionbased structure for platform merchants, this has yet to take hold as the de facto business model. While businesses in mature e-commerce markets tend to see online sales as a way to attract new customers, platform merchants in the Pacific tend to view online sales as an added service for existing customers. This makes the business case for a commission-based structure more challenging, as platform merchants do not believe that overall sales revenue will increase significantly through their presence on e-commerce platforms. As a result, local e-commerce platforms struggle to attract merchants with a commission-based structure. One food delivery platform in Fiji attempted to incorporate a commission-based structure into the price of the food it was delivering but only four of the 24 restaurants on the platform accepted this structure.

In general, organization of deliveries remains the responsibility of platform merchants, with goods typically packaged at their own retail premises. The existing e-commerce platforms in the region provide very limited storage and delivery logistics services to merchants. This is inefficient for both the platform owner and the merchants. The platform often loses sales (and potential commissions) to merchants when customers choose to pay on delivery (or collection), and the merchant must dedicate staff to locate, package and send small volumes of goods.

Furthermore, MSME capacities to manage a presence on e-commerce platforms efficiently remains limited. Many small businesses in the region use basic enterprise resource planning systems that are not compatible with e-commerce platforms and some businesses continue to use paper documents or Excel sheets to track stock and sales. Product descriptions and photos must be manually uploaded onto the e-commerce platform and stock levels regularly adjusted to reflect sales at the physical premises. One e-commerce platform often sends its own employees to merchants to help with the job of uploading all their products onto the platform, along with the relevant images.

Evidence of platforms leveraging digital intelligence to drive decision-making and strategy at the firm level remains limited. Leading firms, particularly telecom operators, may use data analysis tools to inform business strategy and create value, but MSMEs are generally not taking advantage of these options. One fledgling area of business digitalization in the region is business process outsourcing. Companies like Mindpearl and Centrecom have business process outsourcing centres in Fiji that service customers around the globe, primarily with customer service solutions.

b. Growth potential of local platforms in the Pacific

Unlike in other regions, local e-commerce platforms in the Pacific generally do not face competitive pressure from global platforms. Some countries in the region have no B2C e-commerce platforms, providing a unique opportunity for local digital entrepreneurs. In markets with local e-commerce platforms, barriers to entry remain low and markets are relatively unsaturated. In general, significant opportunities exist for local e-commerce platforms to enter new markets, offer new services to consumers and test new business models.

In Solomon Islands, a digital entrepreneur is testing a new e-commerce business model whereby deliveries would primarily take place between two cities located on different islands. Orders would be aggregated, with bulk shipment occurring at regular intervals (instead of each individual order being shipped). These types of unique business models, necessitated by the distinct geography and operating environment, offer opportunities for entrepreneurs and firms to apply their local know-how. This knowledge of local markets, lifestyles and consumer preferences is likely a significant competitive advantage for local platforms vis-à-vis global platforms. E-commerce solutions developed in the region will likely be heavily adapted and customized to the local environment, including hyperlocal solutions at the province or city level.

Local e-commerce platforms could also be leveraged as a tool for integrating urban and domestic markets in the Pacific region. Archipelago states face pervasive challenges in developing the private sector because of vast distances between markets and high barriers to buyer-seller discovery and trade. With many people living in rural areas, businesses are forced to limit operations to their

immediate surrounds. In this environment, digital marketplaces and merchant e-shops could facilitate buyer–seller discovery and trade. Although challenging to measure, increased domestic trade and integration of domestic markets would likely create significant value for multiple actors.

The presence of Facebook as a platform for news, information, social connections and commercial activity has implications for the development of local e-commerce platforms. Given its widespread use, Facebook may constrain the growth of some e-commerce platforms and online stores. Switching costs means it is difficult for consumers and businesses to move to a new platform to market their products and services. One opportunity that e-commerce platforms may be able to provide to merchants that is less readily accessible from Facebook is digital intelligence on customer behaviour and preferences. This will require more sophisticated local e-commerce platforms, as well as increased capacity to develop digital intelligence from raw data generated by customers. Most local e-commerce platforms currently have limited capacity to turn platform data into useful information for merchants.

One way for local e-commerce platforms to grow is through vertical integration. Offering additional services such as packaging, storage and delivery could help attract more merchants. With a shared warehouse model, for example, local e-commerce platforms could provide an incentive to attract smaller retailers that might not have adequate storage facilities. Some small specialist retailers may even rely on e-commerce as their primary avenue for generating sales and not need any storefront or storage capacity. Centralized warehouse depots could also be advantageous for customers who may prefer to pick up their items from convenient collection points or a central depot. This would be particularly relevant in rural markets, where last-mile delivery is often infeasible. Leveraging hyperlocal transportation, including small boats and existing ferry services, may provide opportunities for platform owners to develop more sustainable business models.

This vertical integration approach could also be applied to e-commerce exports. E-commerce platforms that prioritize sales to foreign markets could offer clients a drop shipping option that involves shipping goods in bulk to the destination market or a regional hub and then arranging a pick-and-pack service with a local warehouse. Some global freight companies have begun offering limited pick-and-pack and distribution services in the Pacific but they are primarily focused on larger businesses. Opportunities for MSMEs engaged in e-commerce to utilize a third party to pick, pack and dispatch parcels remains limited. A challenge for local e-commerce platforms is that there are few global examples to follow that are relevant for the Pacific region. Business models that have proven successful in other regions cannot always be implemented in the Pacific because of the unique challenges and small markets. As platform owners in the region continue to innovate and experiment, successful business models that emerge could be strengthened and replicated.

The growth potential of local e-commerce platforms is not currently constrained by global platforms. However, the potential benefits that global platforms could bring to the region should be considered. This would be particularly relevant for countries with extremely small markets and limited resources to establish fully fledged e-commerce platforms. For example, the presence of global e-commerce platforms in Tuvalu (population 11,300) or Palau (population 18,000)¹¹³ could provide an opportunity for small businesses to export their goods to international markets. The resources and infrastructure provided by global e-commerce platforms would remove some of the major barriers experienced by local e-commerce platforms, including how to achieve long-term stability without external funding support.

One instructive example is that of Rwandan coffee sales in China. By leveraging Tmall Global – an Alibaba Group cross-border import platform – sales from Rwandan coffee brands in China increased by 400 per cent in 2020.¹¹⁴ The global e-commerce platform in this instance provided market access to Rwandan businesses that might otherwise not have had such an opportunity. Global e-commerce platforms could potentially provide similar opportunities to Pacific producers of products such as kava and coconut oil. Pacific Trade Invest – the leading trade and investment promotion agency in the region – has been exploring ways to meet Chinese market demand for Pacific products via digital platforms.¹¹⁵

For some countries in the Pacific, global platforms may be the best way to reach large consumer markets in other regions. The characteristics that make it challenging for local e-commerce platforms to thrive in the region – small geographically dispersed markets that make scaling a challenge – could work in favour of Pacific SIDS when it comes to participating on global platforms. Global platforms

could enable domestic products to be exported to large markets where there may be strong demand for unique Pacific products At the same time, small markets in the region could help deter the influx of imported foreign products experienced in other regions.

3. Policy areas for value creation and capture

Given that the digital economy is only beginning to emerge in the Pacific, there is limited evidence of its effects on value creation and distribution. As e-commerce ecosystems and business models evolve in the region, it is possible that the distribution of benefits becomes substantially altered, as has been the case for advanced economies. Many industrialized countries are grappling with how to achieve a more equitable distribution of the value created by the digital economy. Although this rebalancing is still some way off in the Pacific region, it is an issue that policymakers, digital platform owners and users will have to address in the future.

This section covers some policy areas to consider as governments in the Pacific seek to create and capture value from the digital economy. The experiences from other regions that are further along the path of digitalization point to potential risks such as job losses and reduced competition in some sectors or industries. Addressing these future implications will require the adaptation and adoption of policies, laws and regulations in several areas.

a. Digital entrepreneurship

Entrepreneurs in the Pacific seeking to enter the digital space face various challenges related to underdeveloped digital infrastructure, scarce investment capital and limited access to workers with the relevant skills. While policy tends to focus on technical and ICT skills taught at universities, there is less focus on enhancing entrepreneurial knowledge related to starting, running and scaling a digital enterprise. There are few mentors or experienced digital entrepreneurs – especially women entrepreneurs – to pass on their knowledge. There is a similar dearth of software developers, designers and data scientists in the region. There is no meaningful base of innovation hubs, business accelerators or incubators in the Pacific. Such challenges are exacerbated by small consumer markets and the limited demand-side economies of scale for digital enterprises.

In this context, policymakers should target their actions and measures to the specific dynamics of the entrepreneurship landscape because the needs of digital entrepreneurs are likely to be very different from MSMEs in general. In some Pacific SIDS, for example, the most effective support could be teaching vendors how to post items for sale on social media. For others, it may be supporting platform merchants with basic technology tools to track their stock. In the future, Pacific policymakers could consider supporting the creation of regional platforms or the entry of global platforms to support export-oriented small and medium-sized enterprises (SMEs).

b. Data policies

Countries with limited capacity to transform digital data into digital intelligence are constrained in their potential to capture economic value from data. Evidence to date suggests few firms in the Pacific are leveraging data-derived intelligence to drive decision-making and strategy at the firm level. User numbers on digital platforms remain relatively low and much of the focus of platform owners is on how to attract more customers rather than how to increase engagement of existing customers. This is an important distinction. In more developed markets – in both developed and developing countries – companies leverage data intelligence to increase engagement from a critical mass of users. With most platforms in the Pacific yet to attract such a critical mass, the value of digital intelligence is lower than in regions with higher numbers of users.

Much legislative and regulatory work remains to be done. Policymakers in the region can lay the groundwork for fair data policies by putting in place policies that clarify ownership and control of data (including personal data) and strengthen data protection and privacy. Key questions for governments include how to build consumer trust and protect data privacy; how to regulate cross-border data flows; and how to build appropriate capabilities to harness digital data for development. Given the Pacific region's level of digital development, policies should also focus on equipping workers with the skills to convert data, including data emerging from digital platforms, into information and knowledge.¹¹⁶

c. Competition

Competition policy can play a major role in the creation and capture of value in the digital economy. For the Pacific region, it is important for policymakers to consider the potential market impact if existing retailers and businesses also become the dominant players in the digital space. This is a very real possibility, given the market power and resources at their disposal and the relatively weak innovation ecosystem that would produce viable competitors. This trend is already evident to some extent in the mobile money space, where leading telecommunication providers in some countries have cornered the market at the expense of smaller start-ups. Updating competition policy for the digital economy is therefore an imperative, particularly given network effects and the tendency towards market concentration. In general, promoting competition that ensures MSMEs have open access to digital platforms under fair terms and conditions should be pursued.

With e-commerce platforms in the region still in the market establishment and exploration phase, it appears that no particular retailer or business has secured an unfair market advantage. Overall, the fledgling digital platforms space in the region is characterized by experimentation with different business models. However, given trends in other regions, the question arises whether current retailers in the Pacific will leverage e-commerce to further cement their status and crowd out competitors.

The wide use of several global social media and communication platforms in the Pacific should be taken into account in the formulation and enforcement of competition policies within regional or global frameworks. How authorities deal with global platforms in other parts of the world will also affect how they operate in the Pacific. International collaboration in this space is also necessary because Pacific SIDS generally lack the legal and economic power to address the behaviour of global digital companies.

d. Taxation

Although there is emerging consensus that the existing international corporate tax system is not keeping pace with developments in the digital economy, there is less consensus on what to do to address this gap. Even the concept of value creation for taxation purposes in the digital economy is neither clearly defined nor broadly understood. A related challenge is determining how the profits of digital platforms should be allocated between different countries in which the platform's activities take place. Although these issues are being discussed in several international forums, Pacific SIDS are often not involved in the discussion. Wider and more inclusive participation of Pacific SIDS in these processes would help the region prepare for the complex taxation of the digital economy that is likely to emerge in the future, including the potential entry of global e-commerce platforms.

e. Labour markets

The impact of digitalization on economies has been broadly disruptive. Developed economies have seen a number of impacts on the labour market, ranging from job losses in some industries or sectors to job creation and the emergence of entirely new industries. For example, while online shopping may reduce the number of customer service staff needed in retail outlets, more workers may be needed for sorting, packaging and shipping. In addition, more jobs are being created in relation to the operation of digital platforms, such as search engine optimization and software development.

When considering the business models of existing e-commerce platforms in the Pacific, the impact on the labour market in the near term will likely be positive. Although user numbers on the platforms remain relatively low, the platforms provide an avenue for MSMEs to sell their goods and services. For exports in particular, e-commerce may offer the only avenue for MSMEs to reach new markets.

As the pace of digital transformation increases in the Pacific, policymakers will need to react quickly to changes in labour markets. The skills requirements for the population are likely to evolve and, as with any large-scale economic transformation, there will be disruptions. This will have implications not only for social protection policies but also skills development. Individuals will need to learn new skills over the course of their working lives and governments will need to establish appropriate learning programmes that meet the needs of the labour market.

f. Trade agreements

E-commerce provides an important avenue for Pacific businesses to participate in regional and international trade. A common challenge facing Pacific SIDS, however, is the absence of e-commerce references in the legal text of their free trade agreements. Regional free trade agreements tend to be very broad and have a low degree of clarity around implementation and enforceability mechanisms. This has limited the uptake of cooperative solutions such as having common rules on cross-border e-commerce. International developments such as the Joint Statement Initiative on E-commerce seek to find common ground and produce mutually beneficial outcomes, and will continue to be of interest to Pacific SIDS.

It is important for Pacific SIDS to carefully consider the rapidly evolving nature of digital ecosystems, business models and regulatory requirements, and the highly complex nature of international negotiations and resulting agreements. To harness the potential benefits of e-commerce for sustainable development, a number of sensitive public policy areas will need to be addressed. These include privacy, personal data protection, competition, consumer protection and cybersecurity, as well as industrialization. It will be important to strike the right balance in reconciling different regulatory practices and priorities across countries.

Digital transformation, by its very nature, is broadly disruptive, with a number of development implications. So far, most Pacific SIDS have focused on bringing basic digital connectivity and related services to their people. However, the region has reached a point where policymakers are increasingly aware of the potential development trade-offs of increased digitalization. This is therefore an opportune time to begin considering these implications and to chart a path that leads to inclusive and sustainable outcomes in the context of the digital economy.

Effective regional cooperation and international support will be key to exploring common policy solutions. Some Pacific SIDS lack the capabilities to develop, implement and enforce new policies and regulations related to e-commerce and the digital economy. Capacity-building will be key, including more support from donors to strengthen the enabling business, policy and regulatory environment for the digital economy. In some policy areas, regional leaders and policymakers could work together on approaches that align with international best practices.

Regional and international initiatives in these areas are covered in chapter IV. However, two key priority areas should be highlighted in the context of the issues that have been highlighted in this chapter. Research capacity on digital economy issues in the region urgently needs to be scaled up. Access to reliable research and statistics would support evidence-based and results-oriented policymaking, and there is a need to document the benefits and costs accruing to Pacific SIDS from digitalization. In addition, donor support for digital development in the Pacific should be prioritized, particularly given the increasing recognition that digitalization creates both opportunities and risks. Stronger alignment of donor support in this area would also improve synergies and maximize impact.

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