



Pacific E-commerce Initiative

National E-commerce Assessment

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Niue



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Foreword by the Honourable Premier Dalton Tagelagi

The economic opportunities brought by E-commerce are great, thus I have alerted Niue to start planning and committing towards developing relevant policies and supporting their implementation. The global focus on the E-commerce is driven by major improvements in the ICT sector. From this point of view, Niue's investment in the Manatua Cable is a testament to the country's commitment to boost digital trade.

Increasing mobile and internet penetration create the conditions to leverage the potential of global platforms such as Shopify, Stripe, Uber, and AirBnB. Niue businesses and consumers must be supported to access these platforms, so as to boost sales and revenues, and to reduce domestic prices. The social media have flourished in Niue, and are connecting its citizen with the Niue diaspora across the world, in a way that can promote new business linkages.

Increased connectivity has also permitted the adoption of innovative digital technologies. Niue must accelerate adoption of technologies such as payments gateways, while at the same time ensuring the security of digital transactions. Whereas the cost factor can be a barrier to the adoption of some technologies, the increased competitiveness that these bring about creates a compelling case for support.

I wish to highly commend this E-commerce Assessment, and express my sincere gratitude to the Pacific Islands Forum Secretariat for supporting its development, and to the OACPS-EU TradeCom II program for providing financial assistance towards implementation.


My government is looking forward to working with our national stakeholders, regional and international development agencies, and donor partners to fully implement this E-commerce Assessment, which will enable our business and consumers to thrive through digital trade.



Honourable Dalton Tagelagi

Premier of Niue

Minister for State-Owned Enterprises



Foreword by Dame Meg Taylor, Secretary General, Pacific Islands Forum Secretariat

E-Commerce features as a key regional priority in the Pacific Aid-for-Trade Strategy 2020-2025. As part of this mandate, the Pacific Islands Forum Secretariat has taken the lead in supporting Forum Islands Countries in their efforts to take an active part in the global digital revolution.

Indeed, E-Commerce presents an unprecedented opportunity to increase trade of the FICs, narrow distances and reduce trade costs among Forum Members, and between the Blue Pacific and the rest of the world. If conditions are right, E-Commerce can provide the impetus for Members to explore new ways of doing business and trading and to increase the diversification of their economies towards emerging sectors. Importantly, strengthening E-commerce readiness has become essential particularly as the world continues to grapple with what a post-COVID economy work look like and operate as.

Major investments in fiber-optic submarine cables across the region has made the internet faster, more reliable and affordable, but the extra capacity has not yet been fully utilised.

From its beginning in 2017, the Pacific E-commerce Initiative promoted by the Secretariat has progressively strengthened, thanks to the steadfast commitment of our Members and the support of like-minded technical agencies and donor partners. The direction provided by our Members, for all Forum Island Countries to benefit from national assessments as the first step towards developing a Regional E-Commerce Strategy, has been progressed significantly.

Following UNCTAD's methodology, the report focuses on seven key areas of critical importance for cross-border and domestic E-Commerce development:

- E-Commerce policies and strategies;
- Legal and regulatory frameworks;
- ICT infrastructure and E-Commerce support services ecosystem;
- Trade facilitation and logistics ecosystem;
- Payment solutions for E-Commerce;
- Access to financing initiatives in E-Commerce; and
- E-Commerce skills development.

We trust that the report will guide the uptake of E-Commerce in Niue in the coming years. PIFS is bound to support its Members in prioritising the digitalisation of government and businesses in their national development and seek the needed resources to fully benefit from their participation in the internet revolution.

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Meg Taylor, DBE

Secretary General of the Pacific Islands Forum



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Abbreviations

ADB	Asian Development Bank
AEO	Authorised Economic Operator
AML/CFT	Anti-Money Laundering/Countering Financing of Terrorism
ASYCUDA	Automated System for Customs Data
ATM	Automated Teller Machines
AW	ASYCUDA World
B2C	Business-to-Consumer
BDF	Business Development Fund
BRI	Belt and Road Initiative
C2C	Consumer-to-Consumer
CDD	Customer Due Diligence
DFAT	Department of Foreign Affairs and Trade (Australian)
DFS	Digital Financial Services
EFTPOS	Electronic Funds Transfer at Point of Sale
EMIs	E-Money Issuers
EPA	Economic Partnership Agreement
EPDS	Economics Planning Development & Statistics
EU	European Union
FCP	Financial Consumer Protection
FEMM	Forum Economic Ministers Meeting
G2B	Government-to-Business
G2C	Government-to-Citizen
G2E	Government-to-Employee
G2G	Government-to-Government
GoN	Government of Niue
ICB4PAC	Capacity Building and ICT Policy, Regulatory and Legislative Frameworks Support for Pacific Island Countries
ICT	Information and Communications Technology
IPM	Integrated Pest Management
NITC	Niue's Information and Telecommunication Technologies Policy
ITC	International Trade Centre
ITU	International Telecommunication Union
IUSN	Internet Users Society – Niue
LAN	Local Area Network
LDCs	Least Developed Countries
M&E	Monitoring and Evaluation
Mbps	Megabits per second
MFAT	Ministry of Foreign Affairs and Trade (New Zealand)
MNO	Mobile Network Operators
MSANs	Multi-Service Access Nodes
MSG	Melanesian Spearhead Group
MSMEs	Micro, Small & Medium-sized Enterprises
NBFIs	Non-Banking Financial Institutions
NCEL	Niue Commercial Enterprises Limited

NCOC	Niue Chamber of Commerce
NDB	Niue Development Bank
NiDC	Niue Island Information, Technology & Communication and Development Council
NNSP	Niue National Strategic Plan
NNTS	Niue National Transport Strategy
NPSO	National Private Sector Organisation
NSP	National Strategic Plan
NSW	National Single Window
NTC	National Trade Committee
NTP	National Trade Portal
NZ\$	New Zealand Dollar
OCO	Oceania Customs Organisation
OECD	Organisation for Economic Co-operation and Development
OFC	Offshore Financial Centre
OPLC	One Lap Top Per Child
PACER+	Pacific Agreement on Closer Economic Relations Plus
PFIP	Pacific Financial Inclusion Programme
PICTA	Pacific Island Countries Trade Agreement
PIFS	Pacific Islands Forum Secretariat
PIRI	Pacific Islands Regional Initiative
PLG	Polynesian Leaders Group
PSD	Private Sector Development
RKC	Revised Kyoto Convention
SIS	Small Islands States
SNO	Statistics Niue Office
SNZ	Statistics New Zealand
SPC	Secretariat of the Pacific Community
SPS	Sanitary and Phytosanitary Standards
STTA	Short-Term Training Assistance
TBT	Technical Barriers to Trade
TFA	Trade Facilitation Agreement
TPF	Niue Trade Policy Framework
TPF	ADB Trade Finance Programme
TVET	Technical and Vocational Education and Training
UNCDF	United Nations Capital Development Fund
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
UPU	Universal Postal Union
VoLTE	Voice over Long-Term Evolution
WAN	Wide Area Network
WB	World Bank
WCO	World Customs Organisation
WEF	World Economic Forum
WTO	World Trade Organisation
YEP	Young Entrepreneurs Programme
YES	Youth Employment Scheme

Summary of Main Findings and Recommendations

Main Findings	Main Recommendations
E-commerce policies and strategies	
Currently, Niue has neither a formal ICT Strategy nor an E-commerce Strategy in place to guide the development of e-commerce. The Niue National Strategic Plan 2016–2026 and the Trade Policy Framework 2016 underscore the important role of ICT in achieving the country's development goals, as well as the need to mainstream ICT in the national strategy and sectoral policies. On the institutional arrangement, there seems to be a lack of consensus among national stakeholders on the championing role for e-commerce development initiatives. Assessing the performance of e-commerce, and ICT services in general, is difficult due to limited statistics and available information.	Finalise the National ICT Policy; develop an E-commerce Strategy, and a detailed implementation plan to guide the course of e-commerce development. Establish or appoint a national coordinating sub-committee dedicated for e-commerce to lead and monitor the strategy implementation progress. Such institution will have a clear structure, championing role, and a dialogue mechanism (PPD) to promote engagement and buy-in from national stakeholders. Improve statistics and data collection on ICT-related services and activity to serve the progress measuring and evidence-based policymaking process.
ICT Infrastructure and E-commerce support services ecosystem	
The state of digitalisation in Niue has seen a positive signal, with the new submarine fibre cable network and Kacific1 Satellite. Despite several challenges to the development of ICT infrastructure, the country enjoys a relatively high level of use of internet and mobile phone data. The cost of internet is relatively affordable compared to the GDP per capita. Telecom Niue is the sole ICT service provider. There are a number of government-led service portals covering tourism, business registration, and trade facilitation. These sites, however, serve as information portals rather than providing online services. From the private sector, most e-commerce related activities are mainly under C2C and B2C models, and the most active and widely used channel is social media platforms. Overall, the ecosystem for e-commerce development is still under development and rooms for improvement exist.	Upgrading ICT infrastructure to ensure the network coverage, reliability, and affordability, for all the villages across the island. Take stock of existing ICT-enabled services in private sector to serve all customers including the government. technical support and assistance where needed (see further recommendations in other chapters). Secure long-term support and cooperation from development partners and identify possible PPP opportunities to upgrade ICT infrastructure, connectivity, increase ICT-related capacity
Trade facilitation and logistics ecosystem	
Niue faces a series of inherent connectivity challenges due to its geographical characteristics. The logistics and transport systems in Niue are limited subject to its size and needs, with few flights and even fewer container vessel trips. In terms of trade facilitation, Niue lacks basic SPS equipment at the entry points. Customs procedures in Niue are operational but further improvements are needed. The country has made efforts to improve the trading environment by joining donors' initiatives to review its customs-related regulations, construct a National Trade Portal (NTP), and develop the ASYCUDA World (AW) system, all with the aim of improving trade facilitation.	Expedite the development and implementation of the NTP and ASYCUDA World system; Provide necessary training to public officials and businesses on the new systems and how to benefit from them. Continue to upgrade the transportation network and logistics services to enhance connectivity and lower shipping costs, with specific a focus on cost effective small parcel logistics for e-commerce. Consider introducing a short- to middle-term trade facilitation roadmap with innovative schemes such as Authorised Economic Operator (AEO), self-declaration scheme for customs duties, electronic payments of border taxes and duties, de-minimis thresholds, expedited procedure for small parcels through Postal Services for commercial and consumption purposes, etc.

Payment solutions for E-commerce

Niue has an at-scale banking and finance sector, with one commercial bank, one development bank, and one money transfer agent. Cash still plays a very important role in Niue's economy and is the main form of currency, while bank cards are generally accepted. There is a need for these services to be cost-efficient and affordable. More recent solutions such as mobile-money exist but seem to be limited in their scopes of use. Regulations on banking and finance allow only a limited scope of functions for the sole commercial bank on the island. Though envisioned by law, a role similar to that of a central bank to help provide a cost-efficient and affordable system, supported by relevant regulatory monetary policies.

Strengthening the institutional framework by the official inauguration of a central bank role to help the country navigate the digital finance movements. Implement payment system reforms, including necessary legislation enabling digital financial services. Promote the use of affordable digital financial services, such as mobile money to increase access to financial services to the unbanked. Study good practices from regional initiatives, such as the Pacific Islands Regional Initiative (PIRI), for regulation and capacity building on financial services.

Legal and Regulatory Frameworks

Niue lacks the key legal framework necessary to enable and regulate online transactions. There is currently no regulation covering critical areas such as e-transactions, cybercrime, consumer protection, and data protection law. Other possibly related laws that are still in force have been enacted a long time ago and thus need upgrading to remain relevant to E-commerce.

Carry out a comprehensive regulatory gap analysis on E-commerce. Draft and adopt the missing laws necessary to create a stable and conducive E-commerce environment. Leverage regional technical assistance to support the development of a regulatory framework adhering to international best practices to enable online transactions, provide certainty and protection for consumers and businesses, and thus develop an e-commerce conducive ecosystem.

E-commerce Skills Development

Niue has a relatively developed teaching curriculum based on New Zealand's system, and the country once benefitted from the One Laptop Per Child (OLPC) programme which aimed to improve children's computer literacy and access to education opportunities. In addition, the Niue Computer Society offered free online computer courses to help upskill public servants in the past. At the moment, the Indian government funded Centre for Excellence in IT is also offering computer related training. ICT is included in the country's education curriculum, however there is no programmes with specific focus on ICT at tertiary level. Additional opportunities and further education, either for vocational or academic qualifications, needs to be obtained abroad. The Technical and Vocational Education and Training (TVET) sector lacks standardisation and is excessively focused on existing businesses. Like other Pacific island countries, Niue also faces the challenges of inadequate ICT adoption, skill gaps, and migration of talent. Training on ICT and e-commerce skills for both the public and private sectors is insufficient.

Conduct a skill gap analysis to serve as a basis for improving training curricula. Upgrade the existing education and training curricula to include relevant ICT skills training in line with sectoral focus and industry's needs. Develop more capacity building programmes on ICT skills, e-commerce skills, business skills, trade skills, etc. for the public and private sectors. Establish business incubation schemes to serve as a forum for networking, creation of linkages between local MSMEs and foreign corporations, and encouraging the transfer of knowledge. Evaluate the performance of past programmes in leveraging the diaspora, and develop a strategy to tap into the large network of Niueans abroad for talent, investment, and technology transfer.

Access to financing initiatives for E-commerce

There are limited options for financial access in Niue. Commercial and personal loan facilities are provided by the public bank instead of a commercial. A number of grant schemes are open to businesses from all sectors, administered by the Niue Chamber of Commerce (NCOCC) and supported by the Government of Niue and the Government of New Zealand. However, initiatives to support start-ups and young ventures are absent. There seems to be no donor support with regard to E-commerce, e-government initiatives, or financial inclusion. Survey responses revealed perceived weakness across all areas, including awareness of available sources and types of financing, and the availability of financial instruments. Stakeholders also showed an inclination to reach out to business associations, instead of the public sector, for support to start e-commerce solutions.

Business support schemes be established to address financial access and other capacity building needs for start-ups, young ventures, and MSMEs in general. Provide training to MSMEs to build business proposals and access potential credit sources. Review existing lending schemes to assess their effectiveness and introduce reforms to make them more effective if necessary. Provide incentives for the commercial bank to expand credit in response to businesses' needs. Study the feasibility of an e-commerce incubator loan fund at the bank ring fenced for e-commerce ventures development. Enhance dialogue with the private sector to make sure that the government becomes the trusted advisor of businesses, and that support reaches the targeted beneficiaries. Seek to join some of the regional trade and finance programmes for technical assistance and other financial supports.

Methodology

A five-phased approach was used for the national E-commerce assessment of Niue. The methodology has been based in part on the eTrade for all methodology developed and owned by UNCTAD, as well as valuable resources and approaches from other agencies engaged in E-commerce assessments, such as the methodology of ITC, UNCDF, UNESCAP, the World Bank, and others. Nevertheless, while this assessment draws on the methodologies of other agencies, these agencies have not been involved in conducting this report. The duration of the assessment and each phase has been affected by the interruptions caused by COVID-19.

The phases were as follows:

✓	Phase 1 Stakeholder engagement and literature review, January – February 2020.
	This included official communications between TCII-ACP, PIFS, MSG, Niue's Premier's Department, Economic Planning Development Statistics (EPDS), and the Permanent Mission of the Pacific Islands Forum to the WTO in Geneva. A literature review and data analysis were undertaken based on existing information available online.
✓	Phase 2 Online survey customisation and dissemination and preparation of baseline indicators, February – May 2020.
	Two (2) customised questionnaires for the most relevant public and private sector stakeholders were distributed by EPDS to stakeholders in Niue. A total of 37 completed online questionnaires (20 from public sector and 17 from private sector) were collected and used in this report.
✓	Phase 3 Report writing of the draft national E-commerce assessment and stakeholder review, May – June 2020.
	This phase was performed remotely. Due to the lockdown, the responses from stakeholders were limited. A draft assessment was provided to the EPDS at the end of May for circulation to stakeholders.
✓	Phase 4 Virtual consultations and completion of the assessment, June–July 2020.
	This phase was conducted remotely. The national stakeholders, the PIFS and the MSG provided comments on different areas of the assessment via emails. Further consultations were conducted, either via emails or phone calls to fill in the outstanding data gaps for report finalisation.
✓	Phase 5 Finalisation of the assessment, September–October 2020..
	During this phase, the Consultant delivered a final draft of the complete national e-commerce assessment. The assessment was validated at 'ICT4 Niue', a national event taking place in October 2020.

Seven policy areas used in the UNCTAD's eTrade for all initiative were adopted as entry points for this assessment. The seven policy areas covered in this assessment are:

- E-Commerce policies and strategies
- Legal and regulatory frameworks
- ICT infrastructure and E-commerce support services ecosystem
- Trade facilitation and logistics ecosystem
- Payment solutions for E-commerce
- Access to financing initiatives in E-commerce
- E-commerce skills development

Note that the report is based in US dollars, unless otherwise indicated. Niue's national currency is the New Zealand dollar (NZ\$ or NZ\$). For the purpose of this report: US\$1 = NZ\$1.49 and NZ\$1 = US\$0.67 (according to exchange rates issued by the Reserve Bank of New Zealand in January 2020).

1

E-COMMERCE POLICIES AND STRATEGIES



Currently, Niue has neither a formal ICT Strategy nor an E-commerce Strategy to guide the development of e-commerce. The Niue National Strategic Plan 2016–2026 and the Trade Policy Framework 2016 underscore the important role of ICT in achieving the country's development goals, as well as the need to mainstream ICT in the national strategy and sectoral policies. On the institutional arrangement, there seems to be a lack of consensus among national stakeholders on the championing role for e-commerce development initiatives. Assessing the performance of e-commerce, and ICT services in general, is difficult due to limited statistics and available information. Weaknesses are perceived across all areas including infrastructure, finance, logistics, institutional coordination, services, etc. In this context, a well-tailored National E-commerce Strategy and a dedicated coordinating agency will drive the growth of this sector. There will need to be a clearly defined structure and appointed champion to lead the efforts among the involving agencies. An embedded public-private dialogue mechanism under such institution will be crucial to enhance engagement and ownership among the stakeholders. Statistics and data collection will also need to be upgraded to serve as a basis for measuring development progress and evidence-based policymaking process.

1.1 National policies related to ICT, E-government, and E-commerce

A National ICT Strategy was first planned for in the **Niue National Strategic Plan (NNSP) 2009–2013**.¹ More specifically, the NNSP aimed to provide efficient postal, telecommunication, meteorological, and broadcasting services and explore and encourage ICT development via the realisation of the following goals:

- Develop and implement a national policy on ICT focusing on an ICT enabling environment to provide cost-effective ICT
- Facilitate the development of digital communications and reach universal ICT connectivity
- Encourage the development of ICT based economic activities and implement training programmes to achieve a 50% increase in ICT skills by 2012
- Adopt e-government initiatives for increased public sector efficiency and improve access to government information and encourage a paperless e-government digital strategy

The Niue draft **National ICT Policy** briefly addresses a number of key elements critical for the development of ICT in the country. Key directions include:

- The government will introduce legislation to recognise the full potential of convergence on ICT and provide for appropriate governance of the sector for the future
- The government will introduce new legislation by the process of corporatisation to create an efficient and responsive Telecom Niue
- The government will make every effort to enable ICT use, in commerce and by individuals, to increase efficiency, lower costs and improve performance
- All ministries and departments will strive to use ICT to improve the delivery of services and efficiency of operations

¹ Government of Niue (2009a). Niue National Strategic Plan 2009–2013. Available at <https://policy.asiapacificenergy.org/sites/default/files/NNSP%202009%202013.pdf>

- Services are available that will greatly enhance the educational experience and health outcomes for all citizens, and these sectors will be accorded priority

The policy was adopted but was not reviewed and updated upon its completion so far. Limited resources, especially the lack of skills human resources, was identified by the government of Niue as a key challenge in the development of national policy.²

The more recent development plan, the **Niue National Strategic Plan (NNSP) 2016–2026**,³ sets a more practical goal that all residents will have access to and enjoy good quality, telecommunications and internet services. The Strategy further emphasises the importance of ICT development connecting consumers, businesses, and potential investors in Niue to the world.

Niue's Trade Policy Framework (TPF) 2016⁴ (see section 1.2 below), also recognises the country's inadequate capacity to undertake its regulatory functions for key services such as power and telecommunications, while at the same time appreciates that an ICT Policy would be important to identify and prioritise the country's objectives, and to mainstream ICT in the government's development strategy and sectoral policies.

In this context, it is recommended that Niue keep the National ICT Policy updated, with due consideration for the contextual changes over the years. Additionally, a National E-Commerce Strategy, along with detailed implementation roadmap, will be needed as a guiding document for the course of digital economy development. This e-commerce strategy can be developed independently or as a sub-component of the National ICT Policy. A concise and well-tailored National E-commerce Strategy will serve as a driver for improving the country's connectivity to the world, promoting Niue's cultural uniqueness, contributing to economic growth, improving visibility to potential customers of both manufacturing and service sectors, while still fulfilling the vision of a "prosperous Niue" as set out in the country's National Strategic Plan 2016–2026. Nevertheless, the conditions for success require the adoption of a series of fundamental reforms related to ICT infrastructure, services, and skills that will be further considered and assessed in the following chapters.

1.2 National policies related to trade

Niue is a small, import-reliant, and service-dependent economy. Due to scarce natural resources for inputs into the production of goods and/or services, a geographic remoteness from major markets, and exposure to natural disasters, Niue is very dependable on trade for the provision of goods and/or services.

With an export share of about 90 percent, tourism and hospitality services represent by far the main source of export revenue. The development of the tourism industry has had a knock-on effect on transport services, making it the second major source of export revenue. Merchandise exports have evolved over recent years, with the main exports including noni juice, taro, honey, coconut, stamps and coins, and vanilla. Noni juice was the main export item in 2018,⁵ contributing to 70.1 percent of total exports, followed by honey and honey products which account for 13.8 percent, and Art and Craft commodities with 12.7 percent. Niue relies on imports to meet most of the domestic needs, from foodstuffs to industrial products.

In terms of external trade, Niue has adopted a liberal external tariff policy since 2009. According to Niue's tariff regulations, tariff reduction and/or elimination for imports, are implemented with preference given to signatories of the Pacific Island Countries Trade Agreement (PICTA), as well as Small Islands States (SIS) and Least Developed Countries (LDCs). Most of the tariff lines are duty free (80%) except for products subject to sin tax, while goods exported from Niue are subjected to zero duties.^{6,7} Niue is a party to a number of regional and sub-regional arrangements whose membership has the potential to promote e-commerce. The most recent, Pacific Agreement on Closer Economic Relations (PACER) Plus has been ratified in early July 2020 and is expected to take effect with the ratification of one more signatory.⁸

2 International Telecommunication Union (2013). National ICT Policy: Knowledge-based Report. ICB4PAC - Capacity Building and ICT Policy, Regulatory and Legislative Frameworks for Pacific Island Countries. Available at https://www.itu.int/en/ITU-D/Projects/ITU-EC-ACP/ICB4PAC/Documents/FINAL%20DOCUMENTS/national ICT_policy.pdf

3 Government of Niue (2016a). Niue National Strategic Plan 2016-2026. <http://extwprlegs1.fao.org/docs/pdf/niu184000.pdf>

4 Government of Niue (2016b). Niue Trade Policy Framework 2016. Treasury Department, Economic Planning Division. June 2016

5 Excluding re-exports. According to Statistics Niue (2019). International Merchandise and Trade 2018. Available at https://niue.prism.spc.int/category/economic/international-merchandise-and-trade_

6 Government of Niue (2007). Customs Tariff (Reductions and Elimination of Tariffs) Regulations 2007. Available at [http://www.gov.nu/wb/media/Reg%202007-04%20Customs%20Tariff%20\(Reduction%20and%20Elimination%20of%20Tariffs\)%20Regulations%202009.pdf](http://www.gov.nu/wb/media/Reg%202007-04%20Customs%20Tariff%20(Reduction%20and%20Elimination%20of%20Tariffs)%20Regulations%202009.pdf)

7 Government of Niue (2009b). Customs Tariff Regulations 2009. Available at <http://www.gov.nu/wb/media/Reg%202009-03%20Customs%20Tariff%20Regulations%202009.pdf>

8 Radio New Zealand (2020). Niue ratifies regional PACER Plus trade agreement. Published on 3 July 2020. Available at <https://www.rnz.co.nz/international/pacific-news/420438/niue-ratifies-regional-pac-plus-trade-agreement>

The **NNSP 2016–2026** (see section 1.1) targets the promotion of a strategic economic agenda focused on priority areas where Niue holds comparative and competitive advantages, such as tourism, fisheries, and agriculture. The detailed direction set forth for the three focus sectors is:

- **Tourism:** Sustainable growth in tourism with a visitor experience of cultural richness and community
- **Agriculture:** Economically viable and sustainable industry development
- **Fisheries and Marine Resources:** Sustainable and responsible investment in marine and fisheries resources

The **TPF 2016** is the main government policy to drive delivery of the NNSP goal on economic development to “*maximise benefits from Niue’s resources in a sustainable manner by focusing on private sector development, targeting tourism, agriculture, and fisheries, and supported by a safe, reliable, affordable and healthy infrastructure,*” with a vision to achieve a self-reliant and sustainable economy.⁹ To achieve this vision, the TPF provides a set of recommendations encompassing all the areas that affect the country’s trade performance, including macroeconomic management, sectoral policies (for tourism, noni, vanilla, honey, fisheries, and creative industry), as well as cross-cutting issues such as external trade, backbone services and related infrastructure, trade facilitation and related infrastructure, business regulatory environment, education and skills, and sustainable development. The National Trade Policy includes an action matrix and a Monitoring and Evaluation (M&E) framework for its implementation.¹⁰

Given the limited size of Niue’s domestic market vis-à-vis the goal of sustained economic development, Niue should continue looking into exploiting the international markets. The Niue diaspora in New Zealand can also provide a ready market for Niue products. E-commerce could naturally help overcome some of the country’s barriers to expand trade globally. It is expected that the PACER Plus, once coming into force, will ease the sanitary and phytosanitary requirements and improve the flow of goods going to the New Zealand market and beyond.

1.3 National coordination

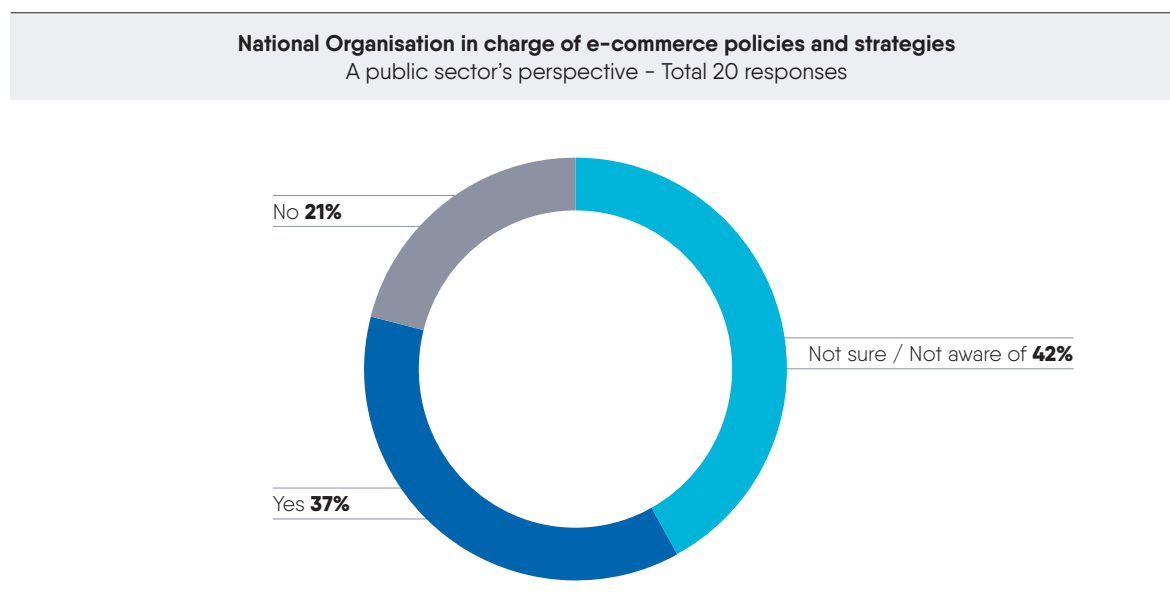
There seem to be contrasting views about which government agency is leading the e-commerce reform in Niue, as shown by the survey results taken from the public sector stakeholders. Among the respondents, 42 percent were either not sure or not aware of the national organisation in charge of developing policies and strategies for e-commerce. One-fifth of respondents believed no agency is leading this work. For those who confirmed the existence of an institution, accounting for 37 percent of respondents, some considered it to be the ICT Committee, the National Trade Facilitation Committee (NTFC), the Department of Economic & Planning, or the Niue Chamber of Commerce (NCOC). This result reflects the lack of an established institution to champion and coordinate e-commerce development initiatives.

While all of the named institutions will be able to contribute significantly to the e-commerce development, it is recommended that Niue have one dedicated coordinating agency (National E-Commerce Committee, for example) for handling e-commerce related issues. This agency can be hosted under the existing government institutions, be it the ICT Committee or the National Trade Committee, or a combination thereof. The Department of Finance & Planning has shown strong commitment to take the lead for this role, but the involvement of the ICT Committee will also be critical to improve the functioning of the committee. There will need to be a clearly defined structure and appointed champion to take responsibilities among the involving governmental agencies. A public-private dialogue mechanism embedded under the envisioned institution will also be crucial to promote effective communication, engagement, and ownership among the stakeholders. The survey result also signifies the low level of awareness of e-commerce amongst stakeholders, suggesting the need for a comprehensive communication plan integrated into the prospective national e-commerce strategy.

9 Government of Niue (2016b), *ibid.*, p. xii.

10 International Economics Consulting and Cardno (2018). Targeted Support to PIFS to Build Capacity for Mainstreaming Trade Policy Frameworks (TPFs) and Overall Trade Agenda in The Pacific Region, and to Niue for the Implementation of its TPF. Trade Com II Programme Final Report. 25 January.

Figure 1: National E-Commerce Coordination Mechanism



Source: IEC based on online survey of national stakeholders

Increasing the use of ICT in delivering public services, aiming toward the realisation of **e-government** is one main component of the Niue draft National ICT Policy. Currently, the central agency responsible for the coordination of e-government in Niue is the Ministry of Infrastructure. An ICT Committee responsible for developing policies for ICT development was established in 1988, when Niue also started to use personal computers and adopt major applications, such as general ledger at Treasury (CPA) and census data processing at the Statistics Office. However, the secretariat role of the committee is weak, hence leading to the lack of coordination of ICT policies implementation and review. In 2009, Niue established the Niue Island Information, Technology & Communication and Development Council (NiDC). NiDC is a multi-stakeholder group chaired by the Minister of Post and Telecommunications and the main policy actor in Niue's ICT landscape.¹¹ For the past three years, NiDC has not been active. Efforts are currently in place to revive this agency; however, it will be a challenge to ensure the effective functioning and operation of the NiDC, as consulted by the national stakeholders. In light of the potential updated ICT strategy and/or the e-commerce strategy, the NiDC reform should be placed under scrutiny to ensure streamlined and well-cooperated functions of various committees to avoid overburdening the country's limited resources.

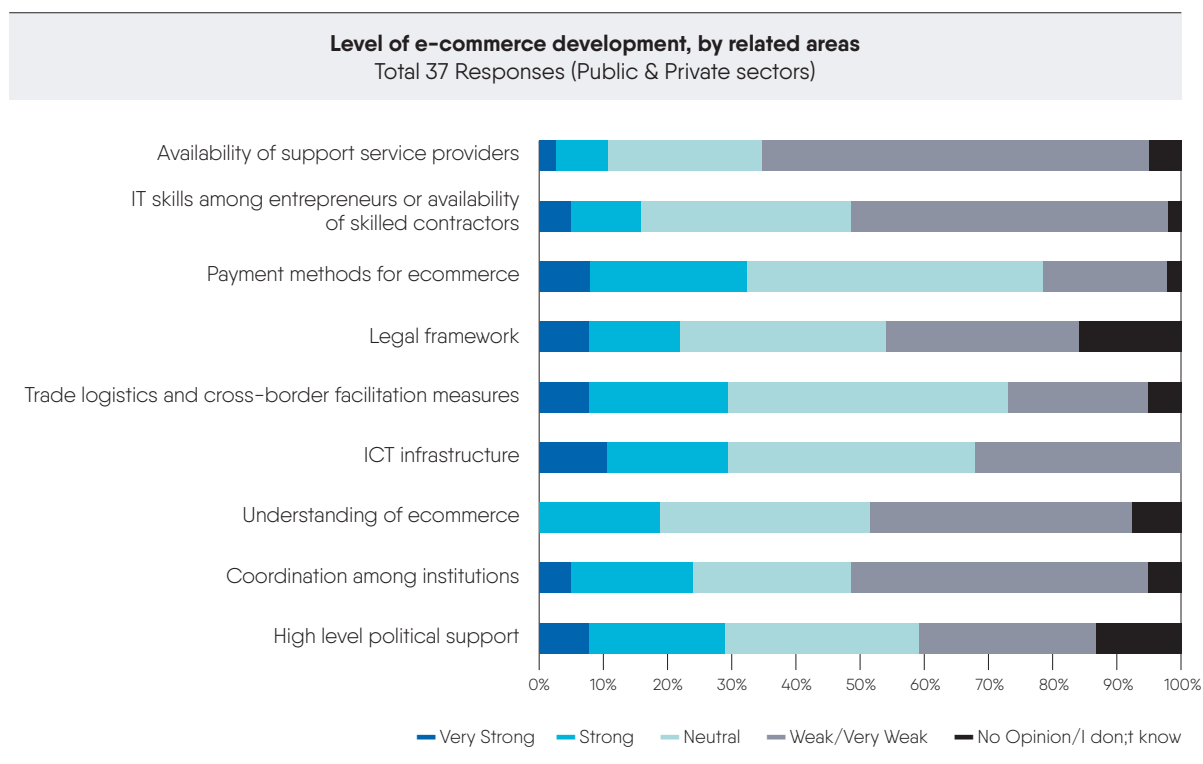
1.4 Current status of e-commerce enablers in Niue

The survey revealed multiple aspects inhibiting the potential investment and development in e-commerce in Niue. One of the concerns raised by stakeholders is that although a business may receive interest in their products and receive orders from overseas clients via the Facebook platform, it is usually extremely difficult to get the goods to the customer, due to transportation and delivery obstacles (see chapter 4). Though this response does not represent the status quo of most businesses that are engaging in digital trade at all levels, it raises valid concerns regarding the necessary condition for thriving e-commerce under the specific circumstance of Niue.

On being asked about the level of development of different E-commerce related areas in Niue, both private-sector and public-sector respondents considered the overall situation to be Weak/Very weak. Amongst the nine evaluated areas, availability of support service providers and IT skills among entrepreneurs were rated as the most under-developed areas by 59 percent and 49 percent of all respondents, respectively, followed by coordination amongst institutions (46 percent) and understanding of e-commerce (41 percent).

11 International Telecommunication Union (2013). National ICT Policy: Knowledge-based Report. ICB4PAC - Capacity Building and ICT Policy, Regulatory and Legislative Frameworks for Pacific Island Countries. Available at https://www.itu.int/en/ITU-D/Projects/ITU-EC-ACP/ICB4PAC/Documents/FINAL%20DOCUMENTS/national ICT_policy.pdf

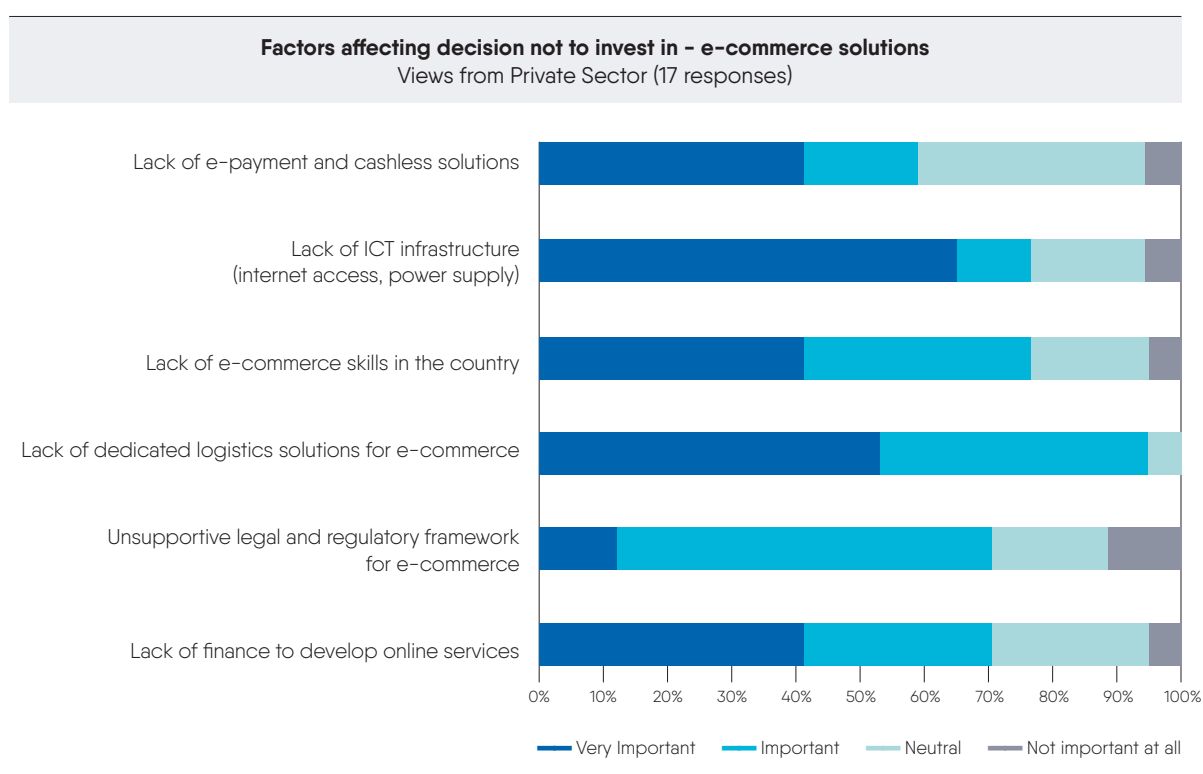
Figure 2: Level of e-commerce development in Niue



Source: IEC based on online survey of national stakeholders

On factors constraining the development of e-commerce, whilst the importance of all factors is highly recognised, private sector respondents pointed to the lack of a dedicated logistics and distribution solution, and the lack of ICT infrastructure, as the biggest issues facing Niue (see Figure 3). These factors have interactive impacts, for example, the inadequate ICT infrastructure will inhibit the availability of supporting services and skill advancement. Therefore, the prospective National E-Commerce Strategy, once developed, will need to take into consideration all of the above-mentioned factors to ensure the comprehensive and effective addressing of all obstacles.

Figure 3: Constraining factors to invest in e-commerce solutions



Source: IEC based on online survey of national stakeholders

1.5 Access to relevant statistics

The availability of data in Niue in international organisation's database is very limited. Niue has not yet been ranked on many, if any, ICT-related development indexes, including the ITU ICT Development Index (176 economies), the United Nations Conference on Trade and Development (UNCTAD) B2C E-Commerce Index (152 economies), the World Economic Forum (WEF) Networked Readiness Index (139 economies), the Universal Postal Union (UPU) Integrated Index for Postal Development (172 economies), or the World Bank (WB) Doing Business Index (190 economies). Data on Niue's ICT-related development has not been updated since 2010.¹² At the national level, the Niue Statistics Office (NSO) has done census and other surveys to collect socio-economic data, and has updated annual data related to trade in goods. However, the NSO has limited capacity due to lack of human resources, and therefore, has to depend on the support from other government departments and corporations, as well as from international and regional technical assistance.

Reliable and updated data is critical to inform the process of policymaking in general and e-commerce specifically. Robust data will support the planning, monitoring, and evaluation of various ICT and e-commerce initiatives. Reliable data on the number of mobile and fixed-broadband Internet subscribers, and the number of overall internet users will be particularly important for benchmarking and measurement of progress. To achieve this, it is recommended that Niue expand the capabilities for the National Statistics Office (NSO) in storage, processing, and sharing of statistics among national and international stakeholders. To measure the country's e-commerce development, focus should be put on efforts to compile and measure ICT-related and other relevant indicators (such as company surveys and consumer surveys on e-commerce activities, on-line transactions, trade in goods and services via e-commerce channels, transaction values by B2B, B2C, G2B models, etc). Technical assistance from development organisations such as UNCTAD on compiling data for ICT and e-commerce activities can also be sought.

12 See International Telecommunication Union (2013) and Network Strategies (2010)

2

ICT INFRASTRUCTURE AND E-COMMERCE SUPPORT SERVICES ECOSYSTEM

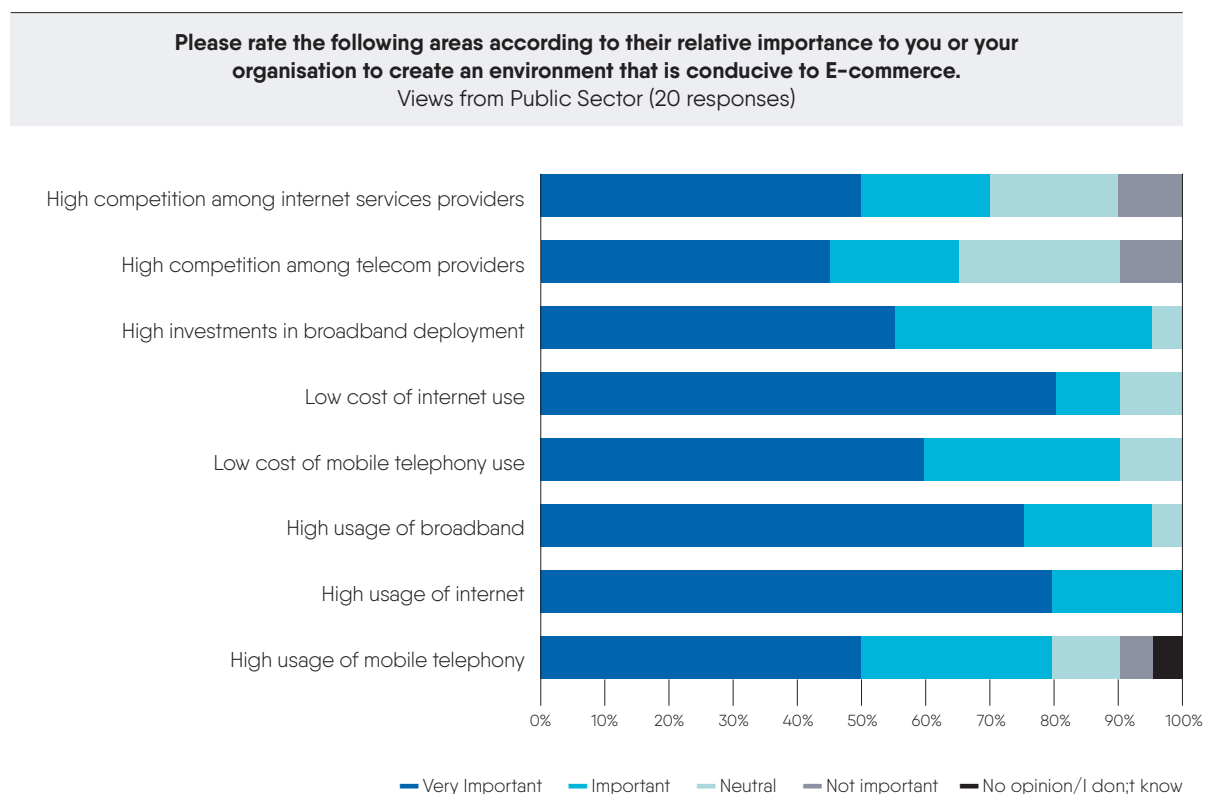


The state of digitalisation in Niue has seen a positive signal, with Niue being connected for the first time to a submarine fibre cable network under the scope of the Manatua Cable Consortium and the launch of the ADB-financed Kacific1 Satellite. There are several challenges to the development of ICT infrastructure in Niue. The country, however, enjoys a relatively high level of use of internet and mobile phone data. The cost of internet (fixed broadband and mobile data), though still high compared to some other countries in the region, is relatively affordable vis-à-vis the average income. With regard to ICT and ITC-enabled services, Telecom Niue is the sole ICT service provider, and there are a number of government-led service portals covering tourism, business registration, and trade facilitation. These sites, however, are now serving as information portals rather than providing online services. From the private sector, most e-commerce related activities are mainly under C2C and B2C models, and the most active and widely used channel is social media platforms. Overall, the ecosystem for e-commerce development is still under development and room for improvement exists. It is important that Niue continues to upgrade its ICT infrastructure to ensure better coverage, quality, reliability, and affordability. This can be done either through support from development partners or exploring PPP opportunities among the resident and diaspora pool. The government-led supporting services will need further improvement by allowing a higher level of interaction.

2.1 Broadband, mobile, and smartphone penetration

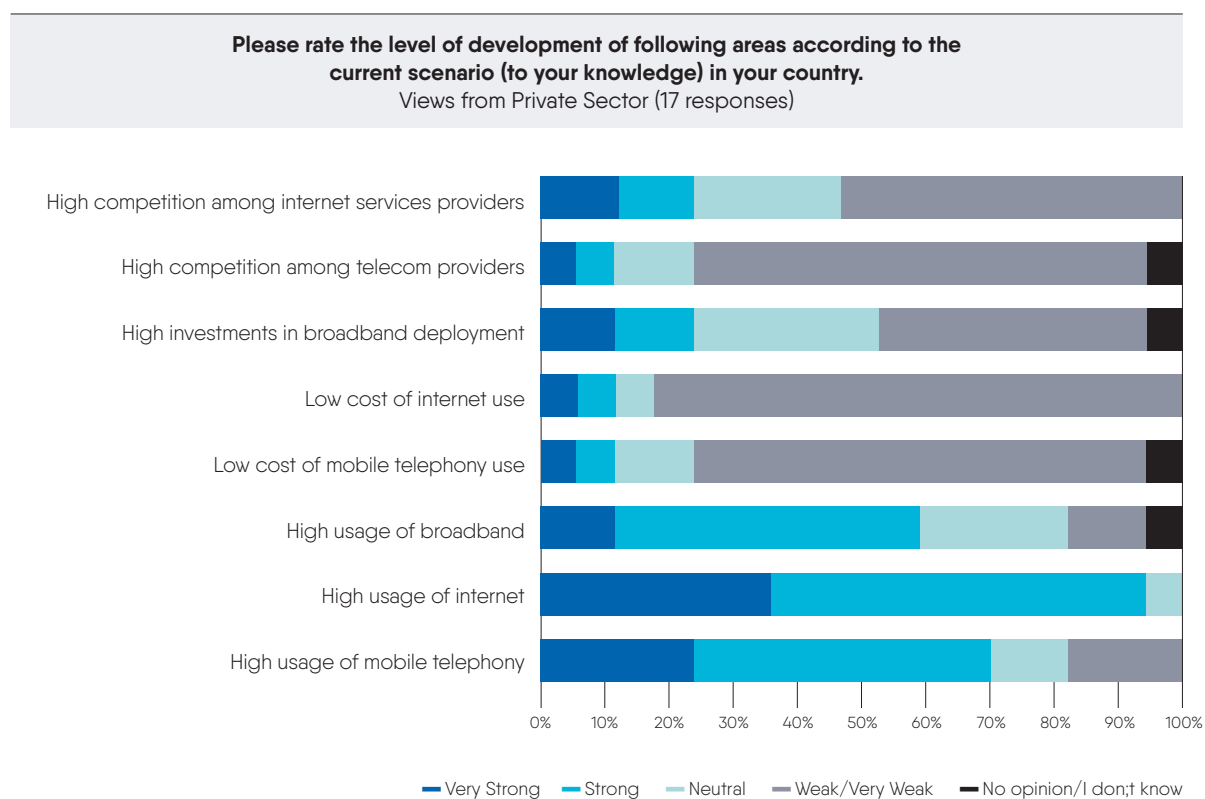
According to the survey conducted during March–May 2020, most stakeholders in Niue recognised the importance of creating an e-commerce conducive environment. However, they also expressed concerns about the level of development of the e-commerce ecosystem regarding the competition and the cost of internet/telephony use.

Figure 4: Key elements for a conducive E-commerce environment in ICT



Source: IEC based on online survey of national stakeholders

Figure 5: Current state of development of Niue ICT infrastructure - Views from Private Sector



Source: IEC based on online survey of national stakeholders

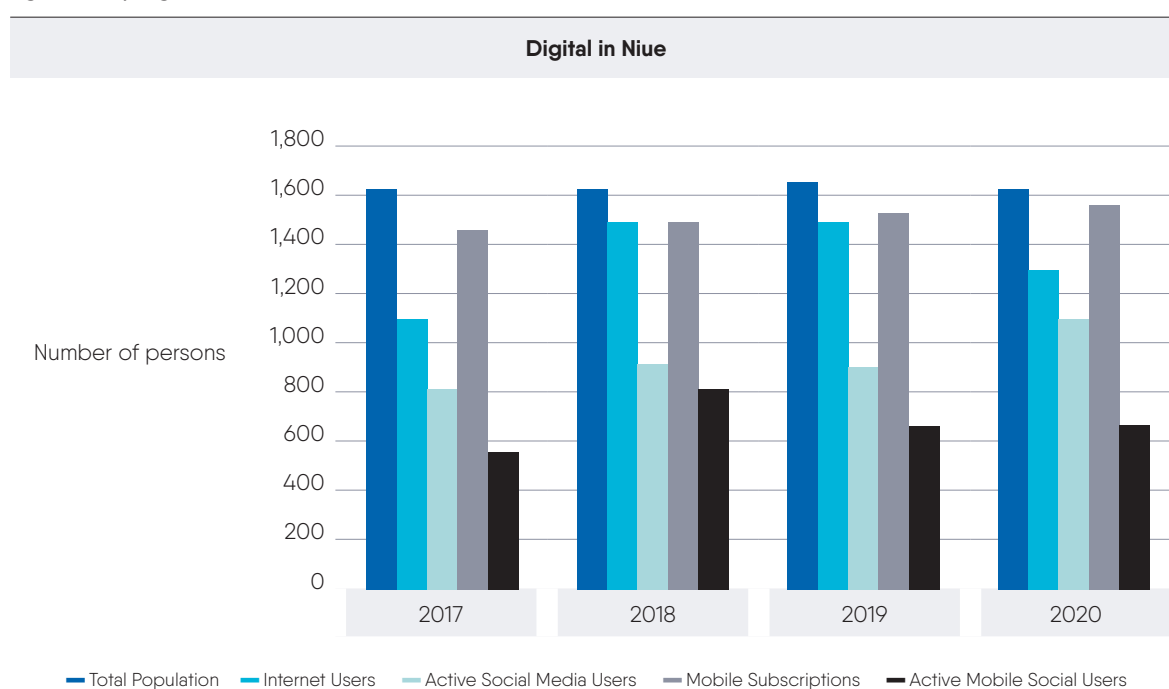
Telecommunication services in the country are relatively accessible, with most households connected to a fixed-line. Services are provided by Telecom Niue, the country's sole provider of fixed phone, mobile phone, and Internet services. The Internet Users Society – Niue (IUSN), run by RockET Systems Limited, used to provide free internet access to the population in exchange for the use of the top-level domain '.nu'. However, its operation was closed in 2016 following the disputed move of the firm to increase its charges for Wi-Fi access.¹³ Despite this issue, internet services has been delivered for Government, private sector and home use since 2000.

According to ITU & Telecom Niue (2017),¹⁴ there were 700 fixed phone lines in 2017 in Niue, translating into a fixed phone penetration rate of 41 percent. This indicates a high rate of fixed telephone subscriptions compared to other small Pacific Island states.¹⁵

Niue launched the first 4G network project in 2017.¹⁶ The 4G offers were announced in August 2018 as part of the government's plan to transform telecommunication. Telecom Niue is rolling out coverage to the whole island in a phase-based approach.¹⁷ Residents and tourists now have access to 4G for data services, while voice and SMS are still on 2G.¹⁸ Mobile phone global roaming does not work in Niue.¹⁹

Telecom Niue offers leased fibre internet lines to businesses in the capacity of 1-5Mbps, with price dependant on the contract term. For individual, data obtained from Hootsuite/We are social²⁰ indicates a widespread and slow but steady expansion regarding the use of internet and mobile phone services in Niue. The number of internet users in 2020 is 1,286, indicating a penetration rate of 79 percent of the population and an increase of 17 percent during the 2017-2020 period. There are currently 1,550 mobile phone users in Niue, representing a penetration rate of 94 percent, an increase of 7.94 percent over the same period. Data also showed that while most people (81 percent of the population) access the internet via mobile, most traffic (69 percent of traffic) is generated by those using computers.²¹

Figure 6: Key Digital Statistical Indicators in Niue, 2017-2020



Source: Hootsuite/We are social (2017-2020). The number of Active Mobile Social Users for 2020 is missing, and 2019 data is re-used

13 Radio New Zealand (2016). Largest Niue Internet Provider to Go Offline. Published on 18 April 2016. Accessed on 3 December 2020. Available at <https://www.rnz.co.nz/international/pacific-news/301747/largest-niue-internet-provider-to-go-offline>

14 International Telecommunication Union and Telecom Niue (2017). Niue Island Overview. Available at <https://www.itu.int/en/ITU-D/Regional-Presence/AsiaPacific/SiteAssets/Pages/Events/2017/Submarine%20Cable/submarine-cables-for-Pacific-Islands-Countries/Telecom%20Niue%20Ltd%20-%20Niue%20Island%20Updated.pdf>

15 The WDI data indicates that the Fixed telephone subscriptions per 100 people of Pacific Island Small States (Fiji, Kiribati, Marshall Islands, Micronesia, Fed. States, Nauru, Palau, Samoa, Solomon Islands, Tonga, Tuvalu) is approximately 5. However, this low rate might be a result of the data gap and not necessarily reflect the real subscription rates in these countries.

16 Comms Update (2017). Telecom Niue to Deploy 4G LTE network. 22 Mar 2017. Accessed on 4 December 2020. Available at <https://www.commsupdate.com/articles/2017/03/22/telecom-niue-to-deploy-4g-lte-network/>

17 According to information provided on Telecom Niue's website at <http://telecomniue.com/fags/>

18 Alepo (2019).

19 According to <https://www.niueisland.com/why-niue>

20 We are social/Hootsuite (2017). (2018). (2019). (2020).

21 As data for 2020 and 2019 is not available, data for 2018 is used instead for analysis.

According to ITU & Telecom Niue (2017), there are several challenges to the development of telecommunication networks in Niue:

- **Reliable power:** Niue's electricity is mainly generated from diesel fuel with a small percentage of solar. Power is stable but contingency must be built into local systems, i.e. generators, batteries, spares, diesel, etc.
- **Harsh climate:** Niue is prone to lightning strikes and other natural disasters. For example, Niue's mobile network was effectively destroyed by the Heta cyclone in 2004.
- **Aging hardware:** Telecom Niue has a mixture of old network equipment in its network distribution system, which makes it hard to manage, as well as costly to replace.
- **Low Return on Investment:** Investment for upgrading ICT infrastructure is costly as the client base in Niue is too small (10,000 short-term packages for tourists, less than 1,600 individual subscriptions and a dozen business packages, including the public sector).

Currently, Niue is only connected to the internet via satellite, but it will soon join the undersea cable system, i.e. the Manatua Fibre Cable (MFC), thus expanding its connection capacity. The launch of the MFC is a good news but also brings about challenges for Niue. Due to small user base, there is a challenge of creating a profitable cost formula of providing internet connectivity under the MFC. There has been discussion about a trust entity to manage and market the Manatua Fibre Cable that aims to diversify this investment and realise the full potential benefits created by the surplus connection capacity. Under the suggested arrangement, the MFC managing entity will allow Internet Service Providers (ISPs) like Telecom and other potential private sector players to buy the capacity as needed under the same terms and resell to the consumers. This proposal, should it be adopted, is a good signal for the ICT infrastructure landscape in Niue as introducing competition will benefit the government in terms of revenue and consumers in terms of internet price and services quality.

2.2 Reliability, affordability, latency, speed, and coverage

Affordability

According to worldwide mobile data pricing by Cable, Niue ranks 151 of 228 countries in the studies in terms of mobile data affordability. Niue's average price for 1GB of mobile data is USD 4.50, compared to the world's cheapest price of USD 0.09 per GB in India and the world's most expensive at USD 52.50 in Saint Helena (Table 2). Within the Pacific region of countries with more similar geographical conditions and remoteness, Niue comes in at 9th place out of 20 countries in terms of mobile data affordability. Niue's relatively high mobile data price can be attributed to the small consumption levels compared to the total costs of infrastructure and maintenance. However, Niue's internet access price can be considered quite cheap when compared to the population's income (see the average price of 1GB/GDP per capita per month in below). This is a good signal for the e-commerce development prospect: whilst internet access cost is expensive compared to the world, people can afford to use it.

Table 1: Cost of 1GB of mobile data in Pacific countries in 2020

No.	Country	Plans measured	Average price of 1GB (USD)	Cheapest 1GB for 30 days (USD)	Most expensive 1GB (USD)	Average price of 1GB/GDP per capita/month
1.	Fiji	21	0.59	0.32	\$4.41	0.1130%
2.	Australia	46	0.68	0.28	\$6.46	0.0142%
3.	Palau	8	2.50	1.00	\$2.50	0.1892%
4.	Tonga	12	3.41	1.20	\$8.21	0.9377%
5.	Vanuatu	19	4.25	0.75	\$9.91	1.6326%
6.	Niue	11	4.50	0.68	\$24.87	0.3446%
7.	New Caledonia	9	4.81	1.95	\$34.48	0.4588%
8.	Papua New Guinea	18	5.40	1.44	\$13.30	2.3734%
9.	New Zealand	41	6.06	0.99	\$30.31	0.1734%

10.	Micronesia (Federated States of)	7	7.20	0.90	\$54.25	2.4213%
11	Solomon Islands	20	8.53	6.00	\$30.00	4.7883%
12	Kiribati	23	10.50	3.91	\$19.38	7.7525%
13	Samoa	26	10.86	1.25	\$25.65	3.1152%
14	French Polynesia	11	15.42	3.38	\$143.35	1.2918%
15	Nauru	6	30.47	11.12	\$34.88	3.6975%

Source: Author's calculation; Broadband data from Cable.co.uk 2020; GDP per capita for calculation of Price of 1GB/GDP per capita from WDI database; Niue's data is from Telecom Niue and Statistics Niue

In terms of fixed-line broadband cost, Niue's fixed-line cost comes at 6th among the cheapest packages compared to other surveyed countries in the Oceania region. The cheapest fixed-line broadband package cost is low compared to the average GDP per capita per month in Niue. This reflects the affordability of access to fixed-line broadband in Niue. The top high-end plan is more expensive, coming at NZ\$ 160 for 25GB.

Table 2: Fixed-line broadband data price in Pacific countries

No	Country	Packages measured	Average cost of a fixed-line broadband package (Per month in USD)	Cheapest broadband package measured (USD)	Cheapest broadband package/ GDP per capita per month
1.	New Caledonia	15	\$39.02	\$9.76	0.93%
2.	Australia	31	\$48.35	\$20.71	0.48%
3.	Papua New Guinea	10	\$51.06	\$7.89	2.18%
4.	New Zealand	36	\$54.00	\$13.22	0.37%
5.	Fiji	9	\$55.42	\$22.25	2.45%
6.	French Polynesia	6	\$80.14	\$37.63	3.15%
7.	Micronesia (Federated States of)	5	\$81.00	\$26.00	8.74%
8.	Palau	2	\$89.98	\$60.00	3.89%
9.	Cook Islands	5	\$92.12	\$32.48	2.33%
10.	Vanuatu	10	\$95.25	\$54.92	20.46%
11	Niue	n/a	n/a	\$21.21	1.62%

Source: Cable.co.uk 2020²²

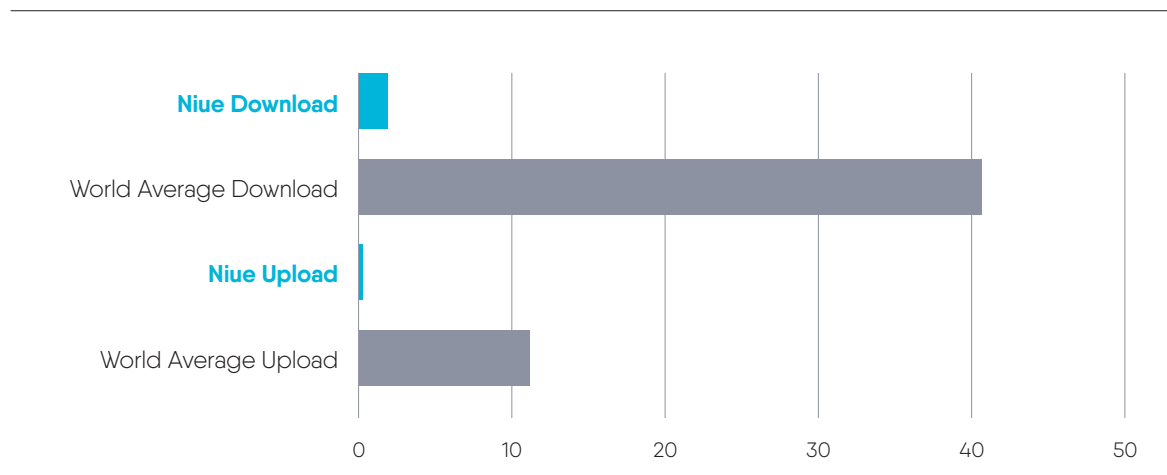
Speed

A rapid assessment on internet speed for Niue vs. the World Average revealed that both download and upload speed of Niue is very low, 4 Mbps and 0.3 Mbps respectively, standing at just about a tenth of the world's average speed. Low broadband speed is also a common situation for many PICs, according to survey data.²³ This could be the result of the geographical dispersion, as well as the obstacles and high costs to upgrade the ICT infrastructure in PICs on par with the fast pace of development in other countries. According to consultation with stakeholder, the low quality of the old copper wires that connect most offices in the Alofi area is the reason for the low-quality connection. The outer villages connections are better, as the copper wires are new, and connection is via the Niue fibre ring that connect all the villages in Niue.

²² 22 Cable.co.uk (2020a). The cost of fixed-line broadband in 206 countries. Accessed on 4 December 2020. Available at <https://www.cable.co.uk/broadband/pricing/worldwide-comparison/>

²³ Cable.co.uk (2020b). Worldwide broadband speed league 2020. Accessed on 4 December 2020. Available at <https://www.cable.co.uk/broadband/speed/worldwide-speed-league/>

Figure 7: Internet speed competition, Niue vs. World Average



Source: <https://testmy.net/country/nu>, accessed on 14 May 2020

2.3 Major infrastructure projects

Telecom Niue's system upgrade

According to Telecom Niue (2017),²⁴ proposed plans to enhance access, bandwidth, and speed of connectivity in the country include:

- Upgrade the network capacity from 1Gb to 10Gb in preparation for the submarine fibre system;
- Invest in fibre network, replace copper network, and increase internet speed from 4Mbps to 100Mbps for homes and businesses;
- Roll-out a new 4G VoLTE Mobile network to increase access speed to 150Mbps to mobile devices;
- Increase utilisation of end-user applications (such as web browsers or computer apps) and provide local content to enhance the user experience.

During consultation with national stakeholders, it is suggested that Telecom Niue's upgrade plans should be frequently reviewed and updated, taking into account the lack of skilled personnel to effectively implement and thus fully realise the expected benefits of such plans. Service level should also be improved via better customer services, such as timely informing users when services is not available and when they are coming back online.

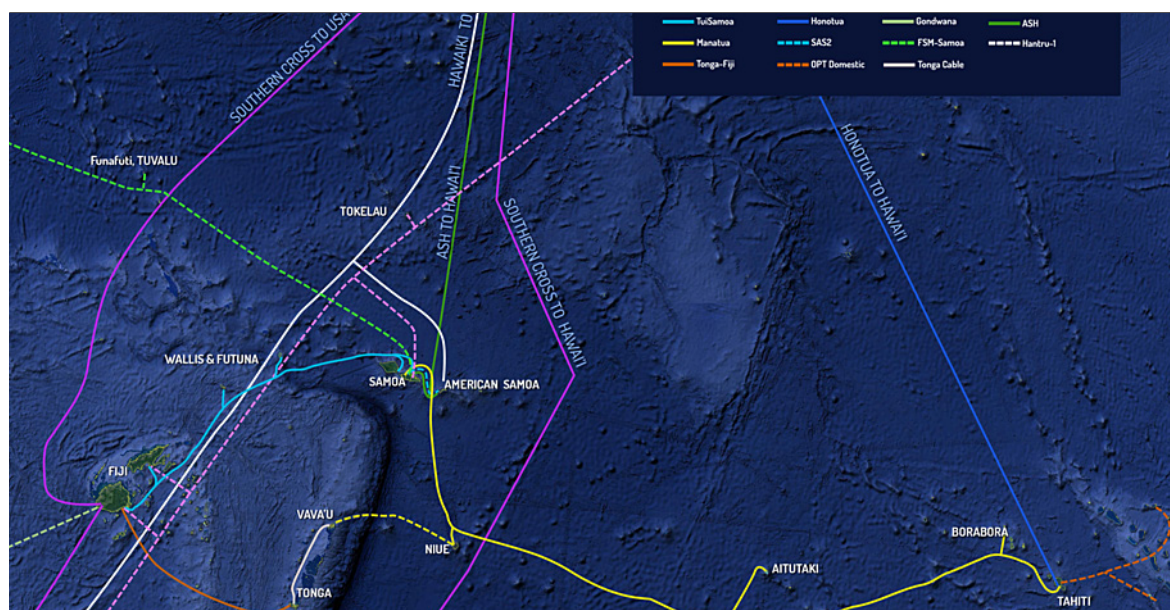
Manatua Cable Consortium

Before 2019, Niue only had access to satellite services for its internet connection. In 2019, Niue became a member of the Manatua Cable Consortium. The 3,700 kilometer Manatua Cable connects fibre optic cabling to Niue and then to the Cook Islands (Rarotonga and Aitutaki) for the first time, as well as Tahiti and Bora Bora in French Polynesia.²⁵ The lay operations were completed in January 2020, and the cable system is on target to be live by June 2020, with a planned service time of at least 25 years. This soon-to-be operating submarine fibre system will provide Niue with upgraded ICT infrastructure to incorporate into economic development and prospective E-commerce activities.

²⁴ International Telecommunication Union and Telecom Niue (2017). Ibid.

²⁵ Samoa Observer (2019). New Cable Caters for Online Samoa. Posted on Samoa Observer on 12/11/2019. Accessed on 3 December 2020. Available at <https://www.samoaoobserver.ws/category/article/53118>.

Figure 8: Pacific submarine cables, including the upcoming Manatua Cable



Source: Samoa Observer 2019

Asia-Pacific Remote Broadband Internet Satellite

In 2019, the Asian Development Bank (ADB), along with Kacific Broadband Satellites International Limited, launched the Asia-Pacific Remote Broadband Internet Satellite (the Kacific1 Satellite). This satellite will orbit in the same location above Asia and the Pacific region, covering 25 beneficiary countries (including Niue), during its estimated 15-year service life. This project aims to provide low cost, high-speed, easily accessible broadband internet in Asia and the Pacific, especially in remote areas where no or very limited internet coverage is currently available. It is expected to enable better education and health services, improve access to information, and drive more trade and connectivity among countries.²⁶ Due to the natural disaster-prone characteristics of a Pacific island, the parallel existence of both the satellite and submarine cable will ensure the uninterrupted connection for Niue and thus bring about immense benefits for the development of the country.

2.4 ICT and ICT-enabled Services

ICT Services

The telecommunication sector in Niue is characterised by strong government involvement in the operation of telecom services.²⁷ There is a government monopoly in the telecommunication sector. The Communications Act of 1989 (amended in 2000) granted Cabinet the power to issue public communications service licenses. The power is delegated to the Department of Post and Telecommunications. Telecommunications is under the day-to-day control of the director of the Telecommunications Department and a substantial role is played by the cabinet in respect of licensing, policy direction, and the making of administrative regulations.

Telecom Niue Limited is the only telecom company incorporated in Niue, which was formed out of the business and operations of the Department of Post and Telecommunications and is 100 percent owned by the Government of Niue. As part of the Government's corporatisation of utilities in early 2016, Telecom Niue was registered as a private company with the Government as the sole shareholder. Telecom Niue is the sole provider of mobile and fixed telephone services in Niue and the main provider of internet services. The other service providers include the Internet Users Society – Niue (IUSN) and the University of the South Pacific. IUSN was recognised as the pioneer of providing internet to Niue for over 15 years. It was, however, reported that the IUSN closed its operation in 2016 following a disputed situation over free access to wireless provided by the firm in exchange for the use of the top-level domain .nu. This situation demonstrates the need for a conducive business environment to foster participation of the private sector in the ICT industry.

²⁶ Asian Development Bank (2019). Kacific1 Satellite Launch to Bring Affordable Internet to Remote Parts of Asia and Pacific. Available at <https://www.adb.org/news/kacific1-satellite-launch-bring-affordable-internet-remote-parts-asia-and-pacific>.

²⁷ Due to a small population, market forces would not sustain more than one operator, such that competition is not feasible. This, combining with geographical factors, indicates a low return on investment (ROI) for the telecommunication sector. All these factors point to the government as the most suitable service provider.

E-Government

Government portal

E-government services can be classified into four types: government-to-government (G2G), government-to-employee (G2E), government-to-business (G2B), and government-to-citizen (G2C). In order to provide such services, a government will need to possess advanced technologies such as the requisite infrastructure, hardware, applications, skills, and expertise to maintain such a facility.²⁸

E-government has been initiated, though still at a nascent stage in Niue. Despite the lack of a formal National ICT policy, there were ongoing ICT development happening on ground. In particular, post Cyclone Heta (2004), the Government Wide Area Network (GWAN), including Local Area Network (LAN) for computer communications inside government departments and a Wide Area Network (WAN) for connecting all departments,²⁹ was set up and became operational. This was a major progress toward e-Government initiative for Niue. The operation of the e-government functions, however, is not without difficulties. According to stakeholder consultations, the government servers (mail/web/files) are located at the Telecom Centre in Kaimiti for convenience of having direct connection to their telephone/fibre lines networks. However, due to the lack of ongoing evaluation and reporting of the major ICT policy implementation over time, Telecom Niue were struggling to keep up with an acceptable service standard. Stakeholders cited cases where personal computer repairs were paid but the service was not delivered; or the servers security were not renewed/updated on time causing exposure to security risk and blocking mail logins especially when public servants were from overseas, etc. In this context, improved quality of IT services, annual review of performance, and upgrade of technology and standards will be crucial to ensure smooth delivery of e-government services. E-Government initiatives, should there be any, should be integrated into the larger National ICT strategy.

The government is currently maintaining one government portal at www.gov.nu that hosts all government agencies. Additionally, three client-focused government portals, i.e. Niue Tourism, Niue Statistics, and Companies Office of Niue are operational to provide information and services. A quick browse at the government website indicates that the website contains all the names and contact details (i.e. address, phone, fax number, email address) of the main central agencies, including the Premier Office, the Parliament, ministries, and central agencies. There is also a government webmail service that allows all government employees to access their email. Most of the legislations are available on the government website, besides the archive available on USP Law School portal³⁰ and Pacific Islands Legal Information Institute.³¹ However, aside from legislation, the site has limited content. Many of Niue's development strategies, though publicly accessible, cannot be retrieved from the government website and must be obtained from other sources. In this aspect, the government should ensure that the government website is up-to-date, and regulations (both drafts and in-effect documents) and development strategies are uploaded onto the government website to allow for access by the larger public.

Tourism portal

Niue's tourism website has been operating since 2007, with an online booking system and participation from both Niue's Tourist Bureau and tourism operators. The website (<https://www.niueisland.com/>) has 90 percent of Niue nationally accredited accommodation listed. It also serves as an information portal and is linked to the main booking sites or contact details of the service providers (for example, accommodation and tours) for reservation.

Online Business Register

The Companies Office of Niue is hosted at www.companies.gov.nu/ and is currently functioning as an informational site. It provides detailed information for setting up a business in Niue, from company search to registration and closing, with all standard forms included. However, it does not accommodate the online registration filing, and businesses need to submit the application form and appropriate fees to the physical address of the Registrar of Companies by hand during normal business hours or through the post.

28 Network Strategies (2010). Review of Pacific Regional Digital Strategy. Part A: Technological Capacity. Network Strategies Report Number 29029. 11 June 2010. Available at <http://docplayer.net/20113547-Review-of-pacific-regional-digital-strategy.html>

29 Boase, R. (2009). Evaluation of the Information and Communication Technology for Development (ICT4D) Project of the UNDP MCO based in Samoa. Available at <https://erc.undp.org/evaluation/documents/download/2515>

30 Available at <https://www.usp.ac.fj/index.php?id=12252>

31 Available at <http://www.pacii.org/countries/niue.html>

Online Trade Portal

The Niue Trade Portal, hosted at <https://niue.tradeportal.org/>, is a trade facilitation platform implemented by the Government of Niue, in the context of the PACER Plus agreement, with technical assistance from UNCTAD and funding from Australia and New Zealand. The portal, planned to be finished by June 2020, aims to specify step-by-step import and export procedures. The site has published the guidance for Niue's main imports and exports (for example, honey and vanilla), which will then be replicated for other goods. The site is now providing information on the import and export procedures, including permit requirements, tariffs, as well as the procedure for starting a business in Niue.

ICT and ICT-related services in the private sector

From a private sector perspective, informational websites and social media (mainly Facebook) are the two main channels for promoting business. Except for the hospitality and travel sectors, the websites of businesses are quite simple and mainly used to serve advertisement and/or promotion of goods and services. The capability to use social media platforms to reach international audiences and businesses also seems to be limited, based on observation of the number of followers and level of interaction with audiences by pages.

E-commerce in its broadest sense has been used by businesses and individuals in Niue. 76 percent of respondents in the survey confirmed that they have participated in selling goods and/or providing services online, with the most prominent reason being the potential to attract more international customers. Of those who provide goods/services online, 69 percent have been trading internationally with partners in the Pacific regions (i.e. Australia, New Zealand) and further to Asia, the Middle East, and North America.

Figure 9: Private Sector's participation in e-commerce



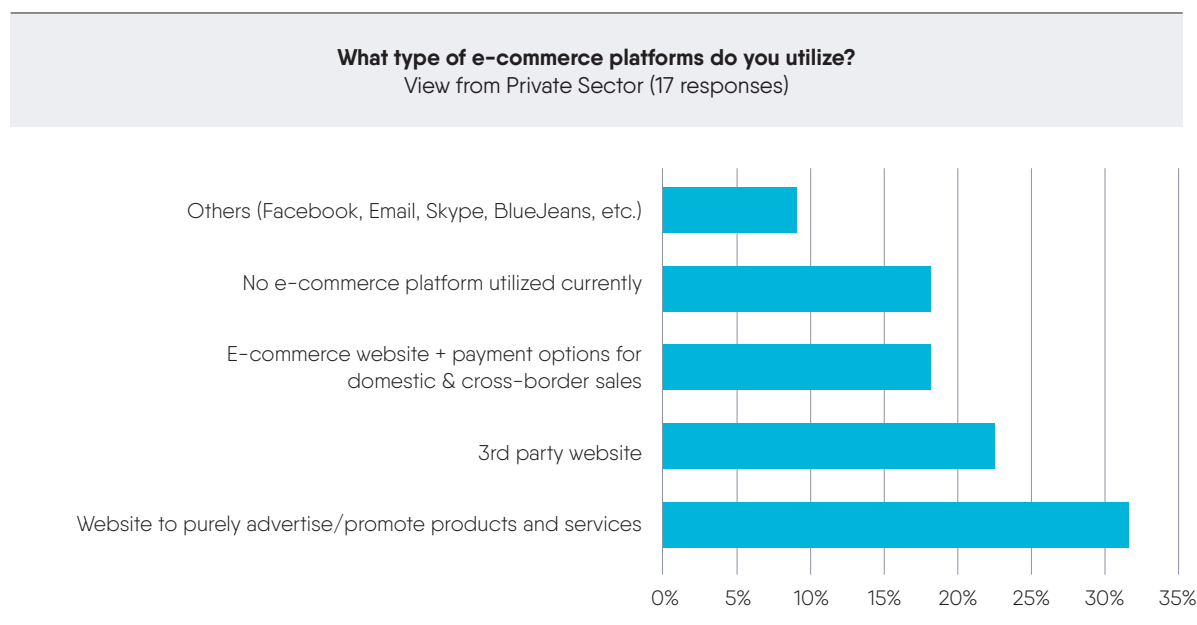
Source: IEC based on online survey of national stakeholders

Niue's E-commerce is, however, still at a nascent stage, and activities are limited. Social media channels (and platforms) play an important role in trading online. Facebook, in particular, is mainly used for Business-to-Consumer (B2C) transactions or peer selling, or Consumer-to-Consumer (C2C) sales. An observation made via browsing a number of Niue's businesses listed in the NCOC website reveal that while many are active on Facebook, only a few among them have an operational website (for either information or online transactions). Where such websites are active, limited content or activity has been undertaken via this platform.

A number of registered businesses own and/or operate their websites (see a list of websites in Annex II). These websites function mostly for marketing and visibility rather than transactions, due to a lack of online ordering and payment options (see Chapter 5). Some websites, mostly in the hospitality sector, provide booking and payment functions, as do those operated by affiliated companies in other countries, such as from New Zealand.

Responses by national stakeholders reveal that tourism and tourism-related services (for example, accommodation, tours, car rentals, etc.) are perceived to benefit the most from e-commerce (by 25 percent and 15 percent of respondents, respectively). This result correlates with the high level of support that tourism received as one of the priority areas of Niue's development strategy, as well as the fact that this sector is more active on online platforms (i.e. website, social media) than other sectors.

Figure 10: Types of E-Commerce Platforms used in Niue



Source: IEC based on online survey of national stakeholders

The launch of Manatua submarine cable and the ADB-financed Kacific1 Satellite are positive signals for Niue's strengthened connectivity, higher quality, and more affordable internet access. This good progress, in its turns, will have knock-on effects on e-commerce. However, Niue will need to ensure that better internet connectivity will be translated into better socio-economic advancement. To reap the benefits provided by better connectivity, businesses will need to embrace technology in their business models and explore new markets. At its nascent stage of e-commerce transformation, Niue will need to have a comprehensive understanding of all ICT-related activities in order to provide businesses with timely technical support and assistance where needed (see more in the next chapters for recommendations on trade logistics and facilitation, payment solutions, access to finance and skill development). As an important next step to reach out to the global market, other enabling factors such as better logistics capacity and human resources will be critical. The government will need to ensure the better use of technology to take the current ICT-enabled public services to the next level, by allowing a higher level of interaction on the existing online portals. Where public resources are limited to roll-out these efforts, the government can consider exploring public-private partnerships (PPP). There are numerous good practices of PPP projects in ICT that Niue can consider applying.³² While the current population is small, Niue has a huge diaspora of more than 21,000 living abroad and can be a potential source for investments and human resources. Niue should also continue to secure support from development partners to increase the country's capacity related to ICT, connectivity, and trade facilitation (as will be discussed in the next chapters).

³² See Institute for Public-Private Partnerships (2009). *Public-Private Partnerships in E-Government: Knowledge Map*, Washington, DC. Available at <https://openknowledge.worldbank.org/bitstream/handle/10986/19016/882330WP0Box380map0InfoDev0June2009.pdf?sequence=1&isAllowed=y>; and Asian Development Bank (2015). *Public-Private Partnerships in Information and Communication Technology for Education*.

3

TRADE LOGISTICS AND TRADE FACILITATION ECOSYSTEM



Being a remote island in the middle of the Pacific Ocean, Niue connects to the rest of the world via air and sea routes. Its transportation network is generally underexploited with two flights every week and one cargo ship every four-week. The current port has been upgraded with equipment for container lifting, however, berthing is still not possible. Niue has recently launched the postal code system, proceeding a good step towards improving last-mile delivery. However, upgrading of the international transport routes and services is still needed to ensure efficient delivery and tracking of shipments, especially for cross-border transactions. In terms of trade facilitation, although the customs procedures are operational, Niue lacks SPS equipment at the entry points. A modern legal framework for customs procedure is still absent, with the draft Niue Customs Bill pending finalisation since 2017. Efforts have been made with development partners' support to improve logistics and the trade facilitation landscape, with a National Trade Portal and the ASYCUDA World System under construction. To support the development of e-commerce, it is recommended that Niue continue to upgrade its transport infrastructure and delivery services to enhance connectivity and lower shipping costs. The customs legislation reforms should also be accelerated to facilitate international trade, with special consideration to regime accommodating the parcel flows in cross-border e-commerce (for example de minimis and expedited procedure for small parcels). Training to public officials and business community on the new systems will ensure benefits from the new systems.

Niue faces a series of inherent physical connectivity challenges due to its remoteness. The country has made efforts to improve the trading environment. Niue has reviewed its customs-related legislation and regulations with an aim to improve trade facilitation.³³ It is now undertaking the development of a Trade Portal, in which all import and export procedures and regulations are published. Niue has also benefitted from support from international development partners, such as UNCTAD, the Oceania Customs Organisation (OCO) Secretariat, the Australian Department of Foreign Affairs and Trade (DFAT) and the New Zealand Ministry of Foreign Affairs and Trade (MFAT), in the deployment of the ASYCUDA World for its Customs Administration under PACER Plus.

3.1 Mode of delivery, last-mile delivery, traffic and regulations

Transport infrastructure and logistics are two important factors for maximising the value of E-commerce. A good delivery infrastructure is needed for the door-to-door flows of goods from sellers to buyers and vice versa (i.e. for return goods) when physical products are traded. An underdeveloped logistics system is a major roadblock for developing e-commerce.³⁴

The transport system in Niue is underdeveloped in terms of quality and frequency (for air and sea routes). There is one airport, one wharf, and a single main road network. These modes of transport provide the gateway from the world to Niue, and at the same time enable Niueans to access opportunities beyond their borders. The development of an efficient and effective transport system is therefore crucial to the economic, social, and environmental wellbeing of Niue.

³³ International Economics Consulting and Cardno (2017). Report on Activities Related to Customs Legislation and Trade Facilitation in Niue. Trade Com II Report. 10 August.

³⁴ United Nations Economic and Social Commission for Asia and the Pacific (2018b). Embracing the E-commerce Revolution in Asia and the Pacific. Available at <https://www.unescap.org/sites/default/files/embracing-e-commerce-revolution.pdf>

Niue has one international airport with 2,335 metres of runway. Niue International Airport, or Hanan International Airport, is the only passenger gateway into Niue and crucial to the island's economy. The airport is currently only used by Air New Zealand, with two scheduled flights per week to and from Auckland.

In terms of the merchant marine, Niue is served by a single container vessel that visits on a four-weekly cycle from Auckland under contract to the Government of Niue (GoN). This is the country's only link for bulk cargo. Sir Robert's Wharf in Niue's capital, Alofi, is the only freight-handling facility. All trading activities of the country rely upon the wharf. Prone to bad weather, the wharf is often damaged, requiring repair and further limiting operations. In 2011, the government carried out a feasibility study to extend the wharf so that it is strengthened and able to operate efficiently. Another feasibility study was commissioned by the ADB in 2019. An action plan to extend the wharf was expected to be implemented in 2018–2019; however, the plan has yet been implemented. In 2019, a new 55-ton crane was installed at the wharf, allowing the lifting of 40-foot containers.³⁵ This equipment is deemed to be the most vital of equipment for launching workboat or lifting containers when cargo ships are in port.³⁶ However, berthing is still not possible and goods are transported ashore via small barges with the capacity of two 20ft containers. In addition to Sir Robert's Wharf, there are slipways at the villages of Avatele and Namukulu that are suitable for launching and landing small fishing vessels.

Niue also benefits from a network of sea tracks, as part of the coastal ring road, connecting many of the tourist attractions and cultural sites around the island. These tracks are usually maintained by the adjacent local community, with public sector support for materials and expertise. With a blend of coastal and cross-island routes, Niue's road network is the backbone of the island's transport system that provides access to its villages. In addition to a coastal ring road, various cross-island roads provide direct links to Alofi, the capital. The total length of the main road network is 117 km, of which 91 percent is sealed. There are a number of unsealed roads that provide access to inland agricultural areas. Some of these are sign-posted as bicycle tracks to serve tourism activities. The Government of Niue has placed strong emphasis on improving the country's transport system via the Niue National Transport Strategy (NNTS) 2017–2026, with a key focus on effectiveness, efficiency, and resilience. Work has been underway to repair the damaged road under the national budget. There has been discussion about Chinese financial aid to build a 64 km expressway around the country and upgrade the wharf and ports, however none has been implemented.³⁷ For road transportation, there are an estimated 1,000 vehicles, mostly privately-owned cars. Niue relies heavily on a small fleet of government-owned equipment and vehicles to provide transportation of goods on the island.

Overall, the transport system in Niue can be considered adequate to serve the domestic population, given the size of the country. In order to further expand trade and leverage the benefit of e-commerce, it is the quality and frequency of services that matter. However, there exists a vicious circle: low trade volume and low load factor affect the shipping schedule; the scattering schedule of flights and cargo ships prolong the shipping time and increasing cost, thus imposing a discouraging effect on the cross border e-commerce. In this context, e-commerce would benefit from the upgraded transport infrastructure to better connect Niue with the rest of the world. A robust and reliable transport network will enable e-commerce operators to satisfy the needs of their clients more efficiently. Increasing trade via e-commerce in its turns will help to increase the efficiency and lowering average trade cost. The upgrading of the wharf capacity to allow for berthing, once implemented, will thus have positive impact to further reduce shipping costs.

Regarding the postal service, Niue had its own postcode 9974 officially launched on 1st October 2017.³⁸ This new postcode system is significant in improving last-mile delivery services for the island. According to the results from the online survey with private sector stakeholders, postal services, along with third-party logistics providers,³⁹ remain the most frequently used mode of transport for shipping products. Currently, most roads in Niue have no name, which pose difficulties to the delivery of goods. For a thriving e-commerce system, Niue will need to ensure a strong physical addressing system in combination with adopting technology for tracking, such as GPS and IoT.⁴⁰ The technology adoption will help to increase the safety and efficient delivery of parcels, allowing customers to order and track shipments online and to arrange for pick-up and delivery.

35 TV Niue (2019). New Crane to Boost Wharf Operations. <https://tvniue.com/2019/05/new-crane-to-boost-wharf-operations/>

36 Government of Niue (2017). Niue National Transport Strategy and Short-Term Action Plan 2017–2026. Available at <https://www.thepnif.org/sites/default/files/documents/Niue%20Report%20WEB.pdf>

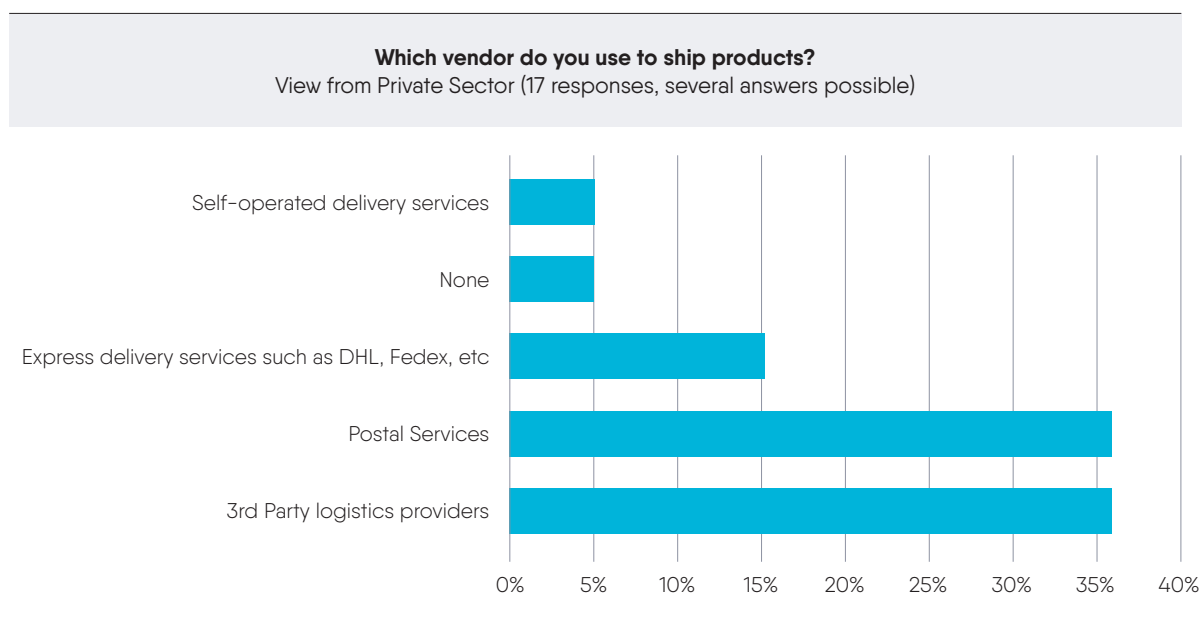
37 Silk Road Briefing (2019). China's Belt & Road Initiative In The Pacific Islands. Accessed on 3 December 2020. Available at <https://www.silkroadbriefing.com/news/2019/05/23/chinas-belt-road-initiative-pacific-islands/>

38 According to <https://corporate.southpacificislands.travel/spring-arrived-niue/>

39 For example, shipping agent like Frank & Partners, or airfreight agent like Pelenis Travel Agency, according to Niue Trade Portal

40 GPS, i.e. Global Positioning System, is a satellite-based radio-navigation system to provide location, velocity and time data of an object. Internet of Things (IoT) is a sensor-based technology consisting of interrelated smart devices that connect and transfer real-time data that can be used for analytic and decision-making purposes (Based on Wired.com and Oracle)

Figure 11: Existing Mode of delivery



Source: IEC based on online survey of national stakeholders

3.2 Trade Facilitation

According to the Niue National Trade Policy 2016, customs procedures in Niue are suitable to facilitate trade.⁴¹ There's ongoing review and improvement of procedures in Customs, SPS, etc with technical assistance provided by the Oceania Customs Organization, WCO, Australia and New Zealand. Furthermore, Niue lacks basic Sanitary and Phytosanitary (SPS) equipment at the wharf (X-ray machine and fumigation facility) and the airport (incinerator). As such, upgrading the biosecurity scanning capacity and expediting procedures at the entry points will be critical to facilitate trade as well as the parcel flows that are the essence of e-commerce.

Niue's legislation reform has been an ongoing effort over recent years. The draft Niue Customs Bill was reviewed in 2017 with the aim of modernising its customs legislative and procedural framework. The draft bill was based on the New Zealand Customs and Excise Act 1996, which itself was then undergoing a complete transformation. It is thus recommended that Niue's draft bill be updated in alignment with the New Zealand's new Customs and Excise Act.⁴²

Though Niue is not a Member of the WTO, implementing areas of the Trade Facilitation Agreement (TFA) is in its interests. Niue has already adopted or is committed to adopting many provisions contained in the WTO TFA under the scope of PACER Plus and Revised Kyoto Convention (RKC). Niue is also in the process of adopting various instruments of the World Customs Organisation (WCO), such as the WCO SAFE Framework on Standards to Secure and Facilitate Trade. The country benefits from support by development partners, such as UNCTAD for the improvement of customs legislation for trade facilitation, or OCO, WCO, and WTO on capacity building for personnel.

In order to streamline international trade flows, an established customs and trade facilitation system is important. In the context of the PACER Plus Readiness Package, Niue, along with 6 other signatories, will be deploying ASYCUDA World (AW) with support from UNCTAD. The new customs automation software, promoted by the Customs and Revenue Division, will replace the existing system, and improve ownership and facilitate the collection and release of trade statistics.

A National Trade Portal (NTP) has been built and further development is underway.⁴³ The site's initial goal is to establish the procedures for Niue's main imports and exports and subsequently duplicate common steps for other potential trade/goods. The site is now providing information on the import and export procedures, including permit requirements, tariffs, as well as the procedure for starting a business in Niue. As part of the PACER Plus project, Niue's NTP will be linked to the regional Trade Portal for the Pacific Islands. Once fully functioning, the NTP is expected to play a huge role in promoting and facilitating the country's trade to the region and beyond.

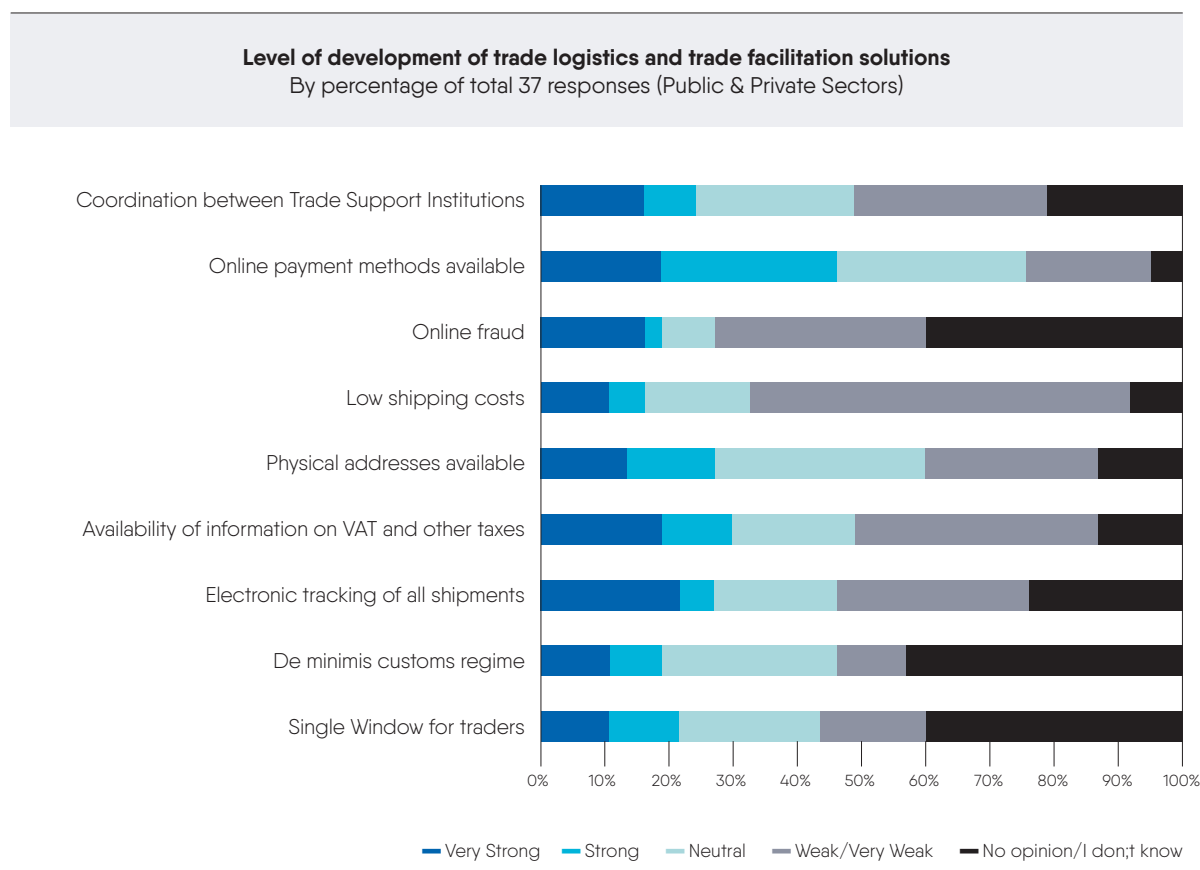
⁴¹ Government of Niue (2016b), *Ibid*, p. xiii

⁴² International Economics Consulting and Cardno (2017). Report on Activities Related to Customs Legislation and Trade Facilitation in Niue. Trade Com II Report. 10 August

⁴³ As of the day of writing this report, the NTP has published procedures and documents for imports of meat, plant, and vehicles; exports of vanilla and honey; as well as the procedures for company registration. See more at <https://niue.tradeportal.org/?l=en>

Responses from the online survey revealed that the shipping cost is the most concerning issue for both public and private sector stakeholders, as indicated by 59 percent of respondents. Another notable issue is the low level of awareness amongst the stakeholders about the Single Window System⁴⁴ and the *de minimis* customs regime (due to the lack thereof), as stated by respectively, 41 percent and 43 percent of all respondents. In this context, activities to raise awareness and improve understanding of such areas will be beneficial for all national stakeholders, including the public officials and Micro, Small & Medium Enterprises (MSMEs).

Figure 12: Trade Logistics and Trade Facilitation Solutions



Source: IEC based on online survey of national stakeholders

It is expected that the development of the AW and NTP will help enhance cross-border e-commerce in Niue and will result in better risk management applied to small value parcels ordered online. Furthermore, the introduction of the NTP and AW will help boost the confidence of merchants, as long as sufficient support, mentoring, and coaching are provided to the business community. To strengthen exports of principal products,⁴⁵ Niue can consider integrating innovative schemes such as Authorised Economic Operator (AEO), self-declaration scheme for customs duties, electronic payments of border taxes and duties in its trade facilitation plan. Regimes such as *de-minimis* thresholds, expedited procedure for small parcels through Postal Services for consumption and commercial purposes could also be introduced to further promote cross-border e-commerce.

⁴⁴ Currently there is no National Single Window (NSW) operating in Niue. The country is focusing on the implementation of ASYCUDA, and consideration has been discussed on moving into a NSW
⁴⁵ See Chapter 1.2 of this report

4

PAYMENT SOLUTIONS FOR E-COMMERCE

Niue has an at-scale banking and finance sector, with one commercial bank, one development bank, and one money transfer agent. There are no insurance companies, with all insurance services provided from New Zealand. Cash still plays a very important role in Niue's economy and is the main form of currency. Bank cards are generally accepted, the use of which can be attributed to the tourism sector. Payment gateway is embedded in only a small number of business websites, probably due to the high development cost. More recent cashless payment solutions such as mobile-money exist but seem to be limited in their use. Regulations on banking and finance allow only a limited scope of functions for the sole commercial bank on the island. Though envisioned by law, a central bank to play the role of regulating monetary policies is still absent. In this context, Niue should consider strengthening the institutional framework by the official inauguration of a central bank role to help the country navigate the digital finance movements. Regulatory framework will also need to be updated to effectively regulate digital financial services. These reforms will help the country keep up with the changing situations, allowing for the development of new payment solutions and the entrance of new financial service providers, while at the same time educating, protecting, and building trust among consumers.

4.1 Banking penetration

Due to a small market and thus insufficient banking activities to sustain, Niue's banking sector has undergone a long and winding road. The first bank operating in Niue after World War II was the Post Office Savings Bank (POSB) which was introduced by the New Zealand administration. Since then, Bank of New Zealand, Westpac Banking Corporation, Papua New Guinea-based Bank of South Pacific attempted to enter the Niue market but eventually were all forced to withdraw for economic reasons. The Niue Development Bank had been operating for some time, however with little or no commercial banking managerial experience. The country then looked for a locally based company to open a banking agency, and New Zealand's Kiwibank stood out as the only candidate. In May 2013, a new banking service for the island officially commenced operation with a seamless transfer of all accounts from the Bank of South Pacific to KiwiBank.

Currently, there is one development bank, one commercial bank, and one money transfer agent operating in Niue.⁴⁶

- The Niue Development Bank (NDB) was established in 1993 to provide lending/finance options for residents of Niue governed by the Niue Development Bank Act of 1993. The NDB focuses on three areas: Personal finance to enable residents to improve their standard of living; Housing loans to finance renovations or new builds; and Commercial lending to support the development of the private sector.⁴⁷
- Niue Commercial Enterprises Limited (NCEL) was established in 2013 as the local service provider for Kiwibank under Niue Bank (Kiwibank Limited and Niue Commercial Enterprises Limited) Regulations 2013, providing banking services to Niue residents. It is, however, noted that the NCEL offers accounts only and not a full commercial banking operation, while other transactions, such as loans, are handled by the NDB.⁴⁸
- Western Union operates as a money remitter within the NCEL.⁴⁹

46 Asia Pacific Group on Money Laundering (2012). Mutual Evaluation Report, Niue. Available at <http://www.apgml.org/includes/handlers/get-document.ashx?d=808cb1f6-d950-4181-bb79-a53b89022e0b>.

47 According to <https://www.niuedevbank.com/>

48 Talaniue (2018). Kiwibank 5th Anniversary in Niue. Published on Talaniue. Accessed on 3 December 2020. Available at <https://www.talaniue.com/kiwibank-5th-anniversary-in-niue/>

49 According to Asia Pacific Group on Money Laundering (2012), in 2012 Niue has two remitters operating within the NCEL and a travel agency. However, a current check at Western Union location in Niue now only reveals only one location at the NCEL.

Cash still plays a very important role in Niue's small economy and is the main form of currency in the country. Payments are usually made by cash or cheque. Niue account holders also have bank cards that can be used on Electronic Funds Transfer at Point of Sale (EFTPOS) machine or as debit cards for online shopping. Bank cards are accepted by a few retailers (the bank, travel agency, and hotels) who offer credit card services for tourists (including NZ debit cards, Mastercard, and Visa).^{50,51} Thanks to the system arrangement between Kiwibank and NCEL, bank transfers and payment can be easily made between Niue and New Zealand accounts via an internet banking facility, and Kiwibank account holders can access their money in Alofi or anywhere in New Zealand. There is currently no available data on the number of people holding a bank account, credit/debit cards, mobile banking, or other digital payment instruments. Stakeholder confirms that access to payment methods like PayPal, credit card and online payment are available, though at times there can be some delays in the withdrawal or receipt of money via these instruments.

Some businesses offer online purchasing or bookings through their websites with online payment options, mostly in the travel and accommodation sector (see section 1 of this report). On the other end, the option of selling through global e-commerce platforms such as Amazon is not available to Niue's sellers, unless their business is registered in New Zealand.⁵² The reason behind the limited prevalence of payment gateways embedded in local websites could be the high investment in an e-commerce-enabling website. One full-fledged payment gateway would cost around US\$ 10,000,⁵³ and due to limited technical human resources in the PICs, most of the projects will need to be outsourced to other countries like India, Thailand, Vietnam, and in some cases, Argentina.⁵⁴ There are online payment processing solutions available online such as Stripe that businesses could consider registering. Training and awareness raising activities to help promote the use of payment gateways is therefore needed.

There are no Automated Teller Machines (ATMs) and no foreign exchange services currently available on the island. Cash-out requests can be done at Kiwibank. Some businesses have EFTPOS machines, such as Niue Rentals, Swanson Supermarket, Double M, or the Bond Store, to accept card payment and some will provide cash-out services with possible applicable charges.

With regards to Non-Banking Financial Institutions (NBFIs), as of 1 August 2015, Niue has no insurance companies, and instead all insurance services are provided from New Zealand. There are also no real estate agents, no exchange platforms for trading securities or assets, and no investment advisors.

4.2 Financial regulations

At the policy level, Niue's National Strategic Plan 2016–2026 set out the general goal of “*Sufficient financial resources are secured, and responsible fiscal management is prudent, sustainable and in support of development strategies*” for finance and economic development. As Niue is looking to expand its export markets for both goods and services, the island will need a strong and capable banking and finance sector to deal with increasingly complex cross-border transactions.

At the regulation level, the main laws regulating the banking and finance sector in Niue are:

- Niue Bank Act 1994/177
- Niue Bank Amendment Act 2013/322
- Niue Development Bank Act 1993/189
- Financial Transactions Reporting Act 2006/278
- Niue Bank (Kiwi Bank Ltd & NCEL) Regulations 2013

Niue Commercial Enterprises Limited (NCEL) was established under Niue Bank (Kiwi Bank Ltd & NCEL) Regulations 2013 (Regulation No. 2013–01) as an approved agent of New Zealand-based Kiwibank. According to Niue Bank Regulations 2013, NCEL can provide certain banking services in Niue, which include:

50 According to <https://www.niueisland.com/facts>.

51 Organisation for Economic Cooperation and Development (2016). Global Forum on Transparency and Exchange of Information for Tax Purposes. Peer Review Report, Phase 2, Implementation of the Standard in Practice, Niue. Available at https://read.oecd-ilibrary.org/taxation/global-forum-on-transparency-and-exchange-of-information-for-tax-purposes-peer-reviews-niue-2016_9789264250871-en#page1.

52 See the list of countries accepted for seller registration https://sellercentral.amazon.com.au/gp/help/external/200405020?language=en_AU&ref=efph_200405020_cont_861

53 Excluding the costs for hosting and registration, which could range from US\$ 5 to US\$ 100.

54 According to consultation with representatives from the Pacific Islands Chapter of the Internet Society (PICISOC).

- Enable customers in Niue to **open and close** New Zealand **bank accounts**
- Accept cash in Niue to be credited to a New Zealand account (**deposit**)
- Pay cash out of funds held on a New Zealand bank account to an account-holder in Niue (**withdrawal**)
- Provide other services related to accounts, products, or services as approved by Cabinet's regulations
- On behalf of the designated bank (Kiwibank), provide acquiring and issuing services (which mean services enabling transactions made through payment devices such as credit card, debit card or EFTPOS card).

In reality, it is noted that only VISA credit card is acceptable at the local Kiwibank. The normal bank cards from most recognizable banks can be used to withdraw cash at the Kiwibank, while EFTPOS and online payments can be done with any bank's credit cards and debit cards.

Other banking services are put under the authority of NDB according to the Niue Bank Act 1994. The NDB, acting as a policy bank, provides essential financial services for the economic and social development of Niue, with a focus on priority areas as identified in the NSP 2016–2026. More specifically, it will be the lender for business loans, microloans, home loans, as well as loans for the identified primary sectors (i.e. agriculture, fishing, industry, tourism, export).

Currently, Niue still does not have an institution to play the role of a central bank as per the provisions of the Niue Bank Act 1994/177. While Niue has adopted the New Zealand dollar, a financial supervisory authority is needed to help the country navigate the digital finance movements that are on the rise. Such financial regulatory institution will play a key role in providing policy directions for initiatives to improve the performance of the financial sectors, diversify the financial products (see next section 5.3) and thus increasing financial inclusion to the population. These developments, in their turn, will also have knock-on effects to boost cross-border trade and e-commerce.

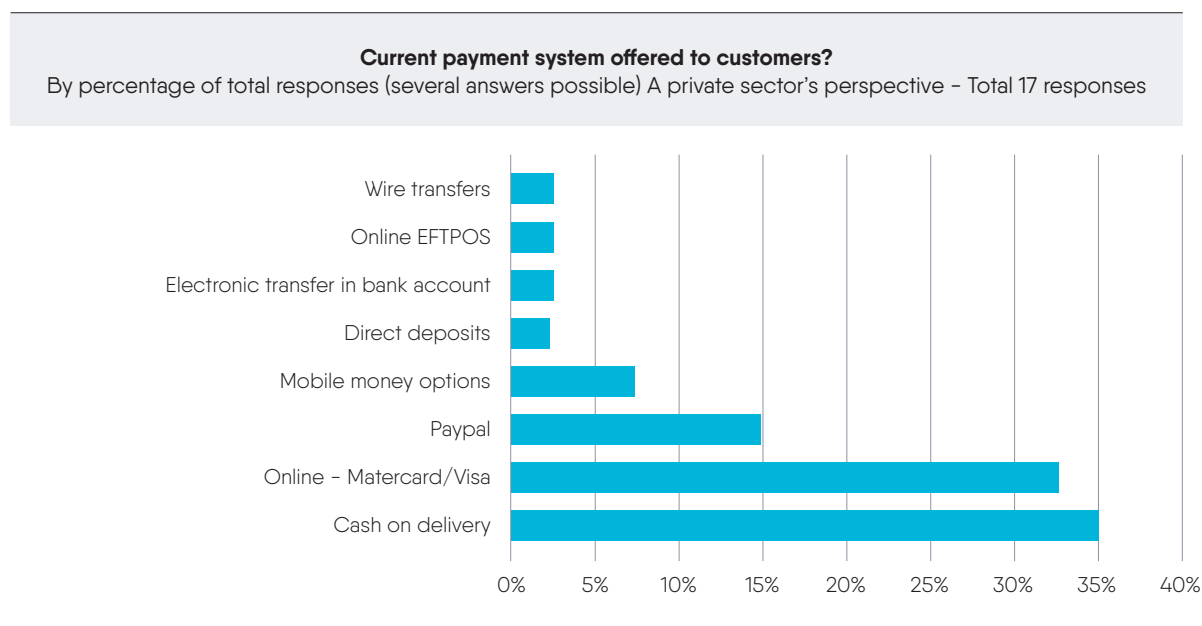
Niue can also study good practices from, and engage in regional initiatives to enhance regulatory capacity on financial services to facilitate international payments. One of such potential initiatives is the Pacific Islands Regional Initiative (PIRI) Regional Regulatory Sandbox. This effort, funded by UKAid and joint by the central banks of Fiji, Papua New Guinea, Samoa, Solomon Islands, Tonga, and Vanuatu, encourages innovative financial technology (FinTech) solutions and provide interesting start-ups with access to a larger and more diverse market, as well as greater potential within a well-defined, regional regulatory structure.⁵⁵

4.3 Main mobile, cashless payment solutions available

With the presence of just one commercial bank agency and some EFTPOS, it can be said that the use of cashless payment solutions is still limited in Niue. While long-serving cashless payment methods such as debit or credit card payment have been in place, more recent solutions such as mobile-money or e-wallets seem to be limited in their use. This is confirmed by the survey results obtained from the private sector stakeholders. Cash on delivery is still the most popular mode of payment in Niue, as used by 35 percent of the respondents. Mastercard/Visa tops the list of cashless payments offered by Niuean businesses to clients (33 percent of respondents), followed by PayPal (15 percent) and Mobile money (8 percent). Respondents considered that Niue is underperforming with regards to the creation of an environment facilitating e-payments. Among the identified challenges, regulations that protect consumers online and educational initiatives on security and trust-building are considered Weak/Very weak by 59 percent and 53 percent of all private-sector respondents, respectively. These identified challenges signal the urgent requirement for updating the regulatory framework as well as for education and raising awareness on the issues related to new payment solutions.

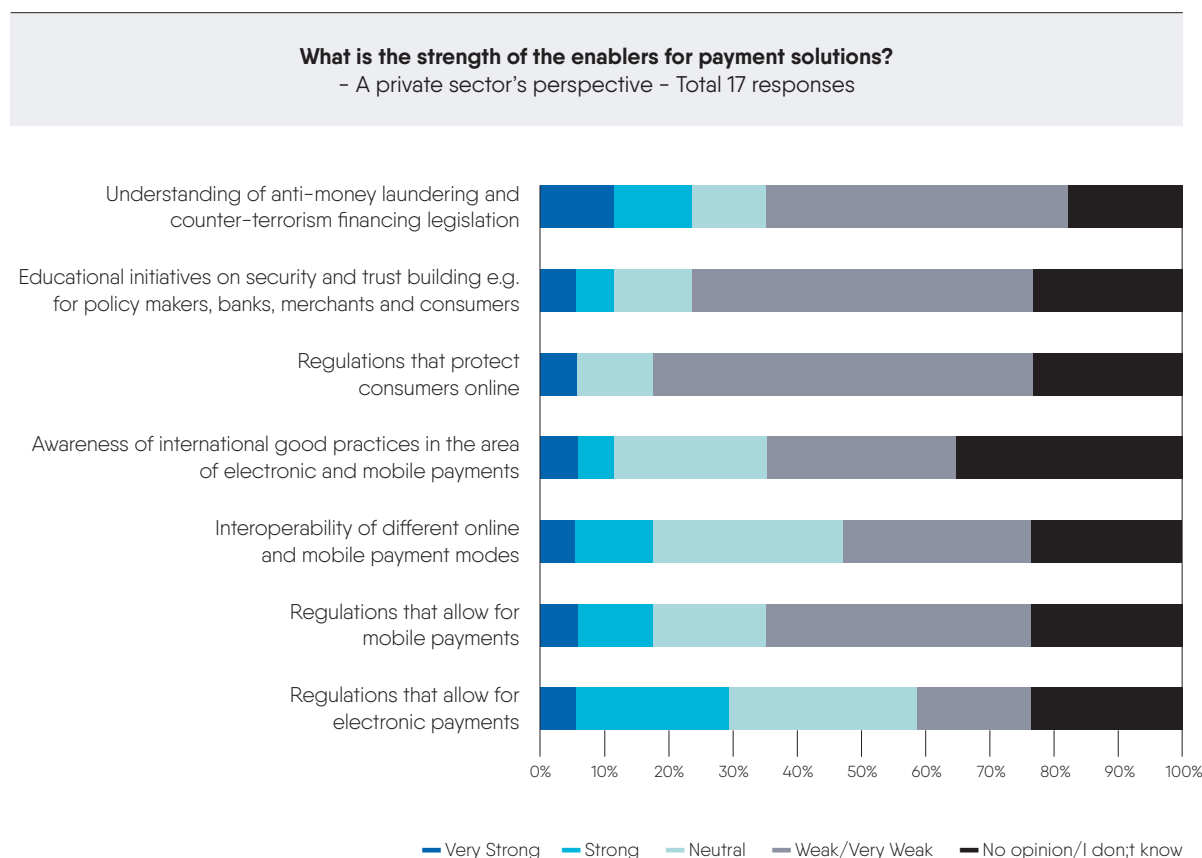
55 Alliance for Financial Inclusion (2020). PIRI publishes Pacific Regional Regulatory Sandbox Guidelines. Accessed on 4 December 2020. Available at <https://www.afi-global.org/news/2020/03/piri-publishes-pacific-regional-regulatory-sandbox-guidelines>.

Figure 13: Current payment systems offered to customers



Source: IEC based on online survey of national stakeholders

Figure 14: Assessment of Niue's conditions for payment solutions - A private sector's perspective



Source: IEC based on online survey of national stakeholders

E-money can serve as a more flexible payment mechanism for consumers thanks to its easy accessibility and affordability.⁵⁶ It was estimated that sending remittances using fintech is about 3 percentage points cheaper than using the traditional mechanisms, with the cheapest mechanism being mobile money.⁵⁷ Mobile money allows users to send and receive funds without any registration or bank account.⁵⁸ In this way, e-money will be the substitute for bank accounts for the unbanked, providing them with more payment options and thus allowing them to participate in a wider range of e-commerce transactions.

Being the only telecom company on the island and considering the coverage of its subscriptions, Telecom Niue is well-placed in the mobile money evolution. It can be argued that Telecom Niue has taken the very first step into the payment domain by providing digital self-care and online bill payment features, along with its launch of the 4G network in 2018. Recently, a mobile money solution provider, Soramitsu Co., Ltd., has also reached out to Niue to offer the development of a mobile payment system. However, the current legislative framework of Niue might not be sufficient to regulate this novel area. For any institutions, being Non-Bank E-Money Issuers (EMIs), to enter the domain of mobile money and cashless payment solutions, Niue will need a comprehensive regulatory environment enabling service providers and creating trust among users. Again, law-making, especially in the financial sector, can be time-consuming and complicated due to high technicality. However, there are many good practices developed by regional institutions that Niue can refer to or request to participate, such as the Pacific Islands Regional Initiative (PIRI).

In addition to the development of cashless payment solutions, it is also important to enhance trust and raise awareness from the customers to ensure high uptake. Capacity building and awareness programmes should also take into consideration the enabling factors (as listed in Figure 14) to create a conducive environment for the adoption of digital payment solution while at the same time ensure fair understanding of the requirements for stricter rules and zero failure security.

Box 1: Digital Financial Services as the driver of Financial Inclusion

Digital Financial Services (DFS) shall be the driver of inclusion for the unbanked around the world. The Consultative Group to Assist the Poor (CGAP) has identified four basic enablers for financial inclusion:

- **Non-bank E-Money Issuers (EMIs):** EMIs collect funds from customers based on a promise to repay but cannot extend credit or engage in risky banking operations, thus having a much lower risk profile than banks and requiring less oversight. Enabling EMIs will open the DFS market to new providers such as Mobile Network Operators (MNOs) and specialised payment services providers (PSPs), which are often more successful in reaching the mass market.
- **Financial Service Agents:** Third-party agents, such as retail shops, shall provide customers easy access to Providers' DFS close to where they live, thus expanding the DFS outreach at low cost.
- **Risk-Based Customer Due Diligence (CDD):** Proportionate Anti-Money Laundering and Countering Financing of Terrorism (AML/CFT) frameworks using a risk-based (or risk-tiers) approach with simplified CDD for lower-risk accounts and transactions, easing providers' costs of customer acquisition and ongoing transaction monitoring while bringing more people into the formal financial sector.
- **Financial Consumer Protection (FCP):** To drive financial inclusion, DFS must cultivate trust and reliability, and this in turn depends on effective financial consumer protection (FCP). Absent of such protection, services may expand, but achieving a sustainable, inclusive market over the long term would be difficult.

Source: Consultative Group to Assist the Poor. "Regulation for inclusive digital finance."⁵⁹

56 It was noted from stakeholder consultation that EFTPOS payment machines can be costly to maintain, at around NZ \$260 per month rent including connectivity costs. This has spurred the need for a cheaper payment method.

57 United Nations Economic and Social Commission for Asia and the Pacific (2018a). Fintech Adoption in Remittance Services. The Path to Financial Inclusion and Sustainable Development. The United Nations Economic and Social Commission for Asia and the Pacific. Accessed on 3 December 2020. Available at https://www.unescap.org/sites/default/files/Session%205.1_Tientip%20Subhanij_ESCAP.pdf

58 United Nations Conference on Trade and Development (2019). Lesotho Rapid eTrade Readiness Assessment. UNCTAD. p.22. Available at https://unctad.org/en/PublicationsLibrary/ditst-ict2019d8_en.pdf

59 Consultative Group to Assist the Poor (2018). Regulation for Inclusive Digital Finance. An Enabling Regulatory Framework is Critical for Financial Inclusion. Available at <https://www.cgap.org/topics/collections/regulation-inclusive-digital-finance>

5

LEGAL AND REGULATOR FRAMEWORK



Niue lacks the key legal framework necessary to enable and regulate online transactions. The country has a long-standing judiciary framework dating back to the late 1800s and is still applicable to various areas in daily economic and social activities. However, to address the novel issues arising from the digitalised economy of the 21st century, Niue will need to thoroughly review and update its legal and regulatory framework. Critical laws are e-transactions, cybercrime, consumer protection, and competition. Other possibly relevant areas might include intellectual property, anti-money laundering, banking, and taxation. Law-making can be a burden, but there are several good practices in the region that Niue can touch upon in the course of developing its own viable yet simple, practical e-commerce regulations.

The national E-commerce legal framework plays an important role in enabling and facilitating e-commerce transactions within the country and across its borders. Such legislation creates the much-needed sense of certainty that is needed for the shift from traditional business transactions to a virtual environment. The enactment of essential legislation will enable digital transactions, eliminating risk, creating trust and certainty to support businesses entering the marketplace and creating value through e-commerce. Table 3 lists a suggestive set of laws and regulations that will support the development of an enabling legal environment for e-commerce. Amongst those, the four core areas are a Law on Electronic Transactions/Electronic Commerce, Consumer Protection Law, Privacy and Data Protection Law, and Cybercrime Law.

Table 3: Regulations supporting/enabling E-Commerce

Business Sector	✓	Competition Act
	✓	(Online) Consumer Protection Act
	✓	Electronic Transaction Act
	✓	Companies Act
	✓	Personal Property and Securities Act
	✓	IP/Copyright Act
	✓	Money Laundering Prevention Act
	✓	Banking/Foreign Exchange Transactions Control Act
	✓	Taxation Act
ICT Sector	✓	Telecommunication Act
	✓	Data Protection and Privacy Act
	✓	Cybercrime Act
Judicial Sector	✓	Crimes/Penal Act
	✓	Reciprocal Enforcement of Judgements Act

Source: Compiled by Author

Box 2: Core E-Commerce Legislation

Digital Financial Services (DFS) shall be the driver of inclusion for the unbanked around the world.
The Consultative Group to Assist the Poor (CGAP) has identified four basic enablers for financial inclusion:

UNCTAD considers four (4) different cyber laws needed for E-commerce to develop harmoniously:

- **E-transactions:** E-transaction laws that recognise the legal equivalence between paper-based and electronic forms of exchange is considered a prerequisite for conducting commercial transactions online. Such laws have been adopted by 158 countries (81 percent), of which 68 are developing or transition economies and 30 are Least Developing Countries (LDCs).
- **Data Protection and Privacy:** Data protection and privacy laws regulate the collection, use, and sharing of personal information to third parties without notice or consent of such individuals (Data Subjects). 132 out of 194 countries (68 percent) have put in place legislation to secure the protection of data and privacy.
- **Cybercrime:** This area of law aims to address all forms of illegal acts, violations, and infringements committed online or through the internet. 154 countries (79 percent) have enacted cybercrime legislation, with the highest adoption rate in Europe (93 percent) and the lowest in Asia and the Pacific (55 percent).
- **Online Consumer Protection:** This area of law protects and safeguards the economic interests of online consumers and empowers them with free and informed choice, while also bestowing rights should any problems arise. Out of 134 countries for which data are available, 110 have adopted legislation on consumer protection related to E-commerce. It is not possible to obtain data in 55 countries, suggesting that online consumer protection is not being fully addressed.

Besides the above four main regulatory areas, UNCTAD eCommerce and Law Reform Programme also helped policymakers and lawmakers at national and regional levels build capacity on underlying issues underpinning E-commerce, including Intellectual Property, Competition, and Taxation. As E-commerce expands to cover almost every aspect of trade and business, these areas of law will have increasing importance for countries to regulate cross-border transactions.

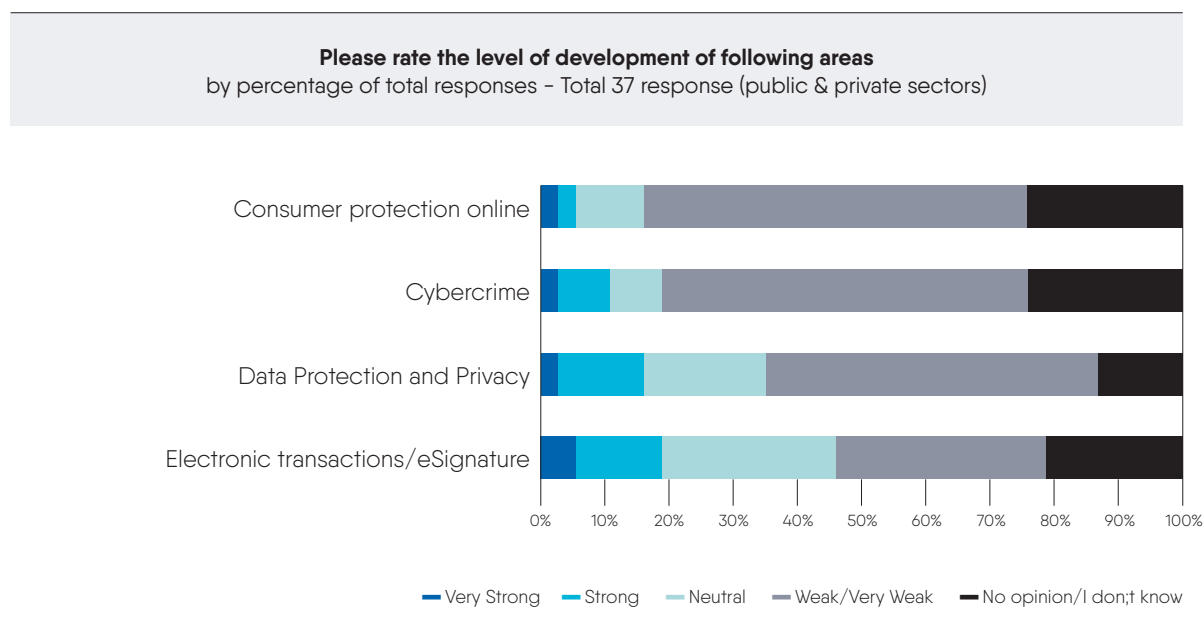
Source: UNCTAD Cyberlaw Tracker⁶⁰

Niue lacks the key legal framework necessary to enable and regulate online transactions. There is currently no regulation covering critical areas such as e-transactions, cybercrime, consumer protection, and data protection law. Other possibly related laws that are still in force in Niue have been enacted a long time ago, for example, the Financial Transactions Reporting Act 2006, the Mercantile Law Act 1908, the Niue Bank Act 1994, the Communications Act 1989, Crime Act 1998, etc. and thus are not relevant for a novel area as E-commerce. However, this situation is common for many small Pacific Island Countries (PICs).

The level of development of e-commerce legislation is reflected in the survey with national stakeholders. Regarding the four core regulations in the e-commerce related areas (i.e. Consumer online protection, Cybercrime, Data Protection and Privacy, and E-transaction/E-signature), most respondents consider the domestic legal framework to be Weak/Very weak.

60 https://unctad.org/en/Pages/DTL/STI_and ICTs/ICT4D-Legislation/eCom-Global-Legislation.aspx

Figure 15: The stage of development of Niue's e-commerce regulations



Source: IEC based on online survey of national stakeholders

Also according to stakeholder consultation, at the moment online transactions conducted from Niue (for example airline ticket purchase from Air New Zealand, online purchase from trademe.co.nz, online banking through Kiwibank, etc.) are regulated by New Zealand laws adhering to industry standards and best practice. In this sense, New Zealand's e-commerce regulations are *de facto* extended to Niue consumers without additional bilateral arrangement. Why this is the case, it is still recommended that Niue put e-commerce into its regulatory reform agenda. Law-making can be a burden, the existence and enforcement of which, however, will be helpful in guiding all actor joining e-commerce, educating them about how to ensure the cybersecurity and online safety. This will in turn create the necessary scope of protection and trust for both Niuean businesses and consumers to participate more deeply into digital economic activities.

At the initial stage for e-commerce legal framework establishment, Niue can adapt good practices from regional peers, such as New Zealand, or other international organisation, such as the United Nations Commission on International Trade Law (UNCITRAL).⁶¹ Awareness raising through training for businesses and consumers alike will also be critical to ensure the proper level of understanding, recognition, and enforcement of such regulations.

61 Some relevant UNCITRAL model laws are UNCITRAL Model Law on Electronic Commerce (1996), UNCITRAL Model Law on Electronic Signatures (2001), United Nations Convention on the Use of Electronic Communications in International Contracts (New York, 2005). For more information, see <https://uncitral.un.org/en/texts/e-commerce>

6

E-COMMERCE SKILLS DEVELOPMENT

Niue has a relatively developed teaching curriculum based on New Zealand's educational system, and the country once benefitted from the One Laptop Per Child (OLPC) programme which aimed to improve children's computer literacy and access to education opportunities. ICT, however, is not embedded as a focus area in the country's tertiary education. Further education, either for vocational or academic qualifications, is mostly obtained abroad. The Technical and Vocational Education and Training (TVET) sector still lacks standardisation and is excessively focused on existing businesses. There are some training programmes, but overall ICT and e-commerce skill training for both the public and private sectors is insufficient, as observed by the survey respondents. In order to address these issues, it is recommended that Niue conduct a skill gap analysis to serve as a basis for improving training curricula. Education and training strategy should also be closely linked with the sectoral focus and industry's needs in order to guarantee job opportunities for the trained personnel, thus retaining the skilled labour and talents. Improving e-commerce awareness and skills should be seen as complementary to the general business skill set to help businesses expand the market beyond the border.

6.1 Skills gap identification

The lack of understanding and awareness of e-commerce, its challenges as well as potential benefits, and necessary skills might pose a hindrance. There is a large cohort of skills required for the digital economy, which are illustrated in Box 3. OECD (2017) pointed out that the attention of policymakers and analysts has mainly focused on the first two sets of ICT skills – specialist and generic skills – while ICT complementary skills have received much less attention.⁶²

Figure 16 gives a snapshot of the state of skill development for e-commerce related areas in Niue, according to the responses by national stakeholders in both the public and private sectors during the online survey. The overall sentiment shows that Niue's current situation across six areas of e-commerce skill development is Weak/Very weak, as confirmed by more than 50 percent of respondents in most categories. ICT skills, especially specialist skillset, are intrinsically of high technicality, and with the current pace of ICT development, it can be a challenge for countries to keeping up in terms of both skills or regulations. Addressing the skill gaps in the labour force will be essential for Niue to benefit from e-commerce development. In this context, a detailed skill gap assessment, with a focus on e-commerce and ICT skills, should be conducted to precisely evaluate the current skill level and the industry's needs. This skill gap assessment will then serve as a basis for tailoring a suitable strategy for ICT skill development. Besides, the overall e-commerce skills can be improved via capacity building for officials, businesses, and consumers, as well as via the integration of e-commerce in trade promotion activities.

62 OECD (2017). Digital Economy Outlook 2017. Available at https://www.oecd-ilibrary.org/science-and-technology/oecd-digital-economy-outlook-2017_9789264276284-en

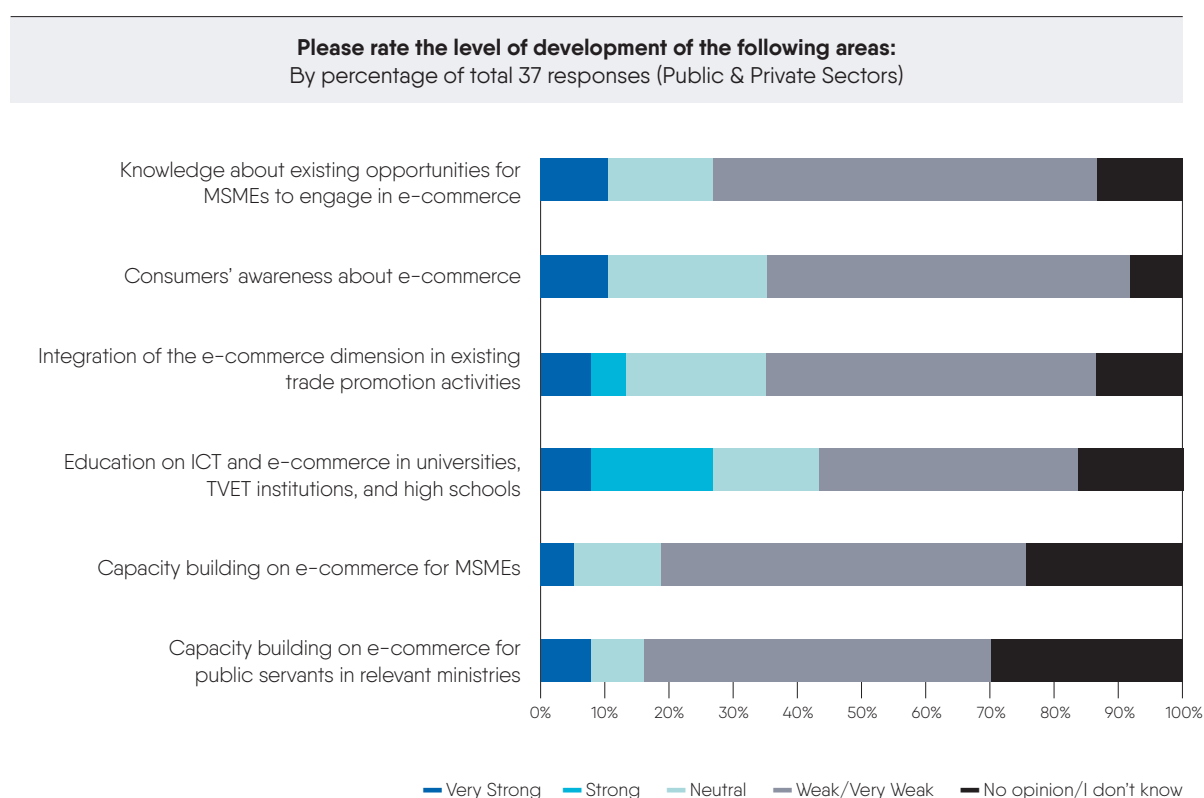
Box 3: ICT skills for Digital Economy

Individuals are required to make use of skills along three lines. The attention of policymakers and analysts has mainly focused on the first two sets of ICT skills – specialist and generic skills – while ICT complementary skills have received much less attention.

- **ICT specialist skills:** The production of ICT products and services – software, web pages, E-commerce, cloud, big data, etc. – requires ICT specialist skills to programme and develop applications and manage networks.
- **Generic skills:** Workers across an increasing range of occupations need to acquire generic ICT skills to be able to use such technologies in their daily work – to access information online, use of software, etc.
- **Complementary skills:** The use of ICT is changing the way work is carried out and raising the demand for ICT complementary skills, e.g. the capability to communicate on social networks, to brand products on E-commerce platforms, etc.

Source: OECD Digital Economy Outlook 2017

Figure 16: Level of development of E-Commerce and ICT Skills in Niue

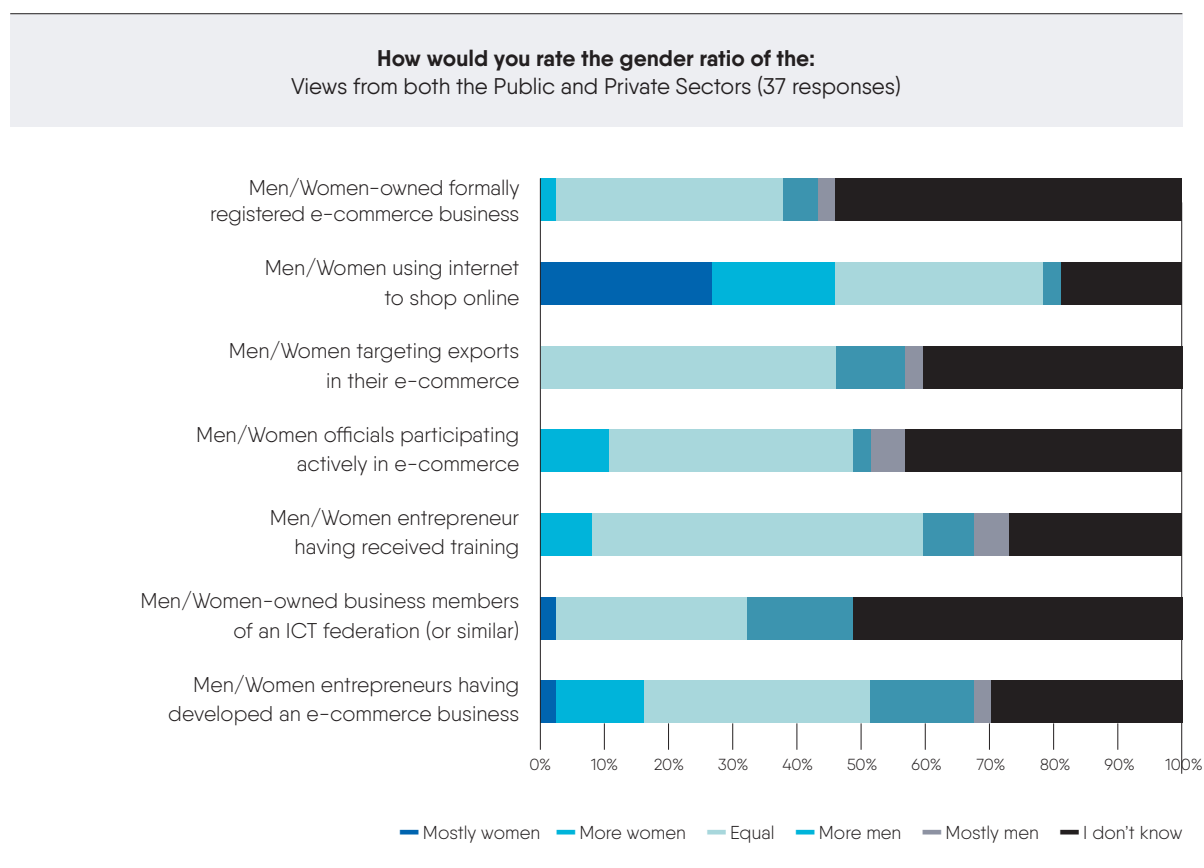


Source: IEC based on online survey of national stakeholders

Amongst the suggestions provided by survey respondents from both the public and private sectors to drive the development of E-commerce in Niue, improving e-commerce training and awareness was the most recommended action (38 percent of respondents). More specifically, the respondents suggested developing ICT related curricula in line with the e-commerce industry's need, capacity improvement for local IT technicians, and ITC and e-commerce skill development via training, workshops, etc.

On gender equality related to e-commerce, responses to the online survey (as shown in Figure 17) confirm substantial gender balance in all business-related areas, including access to training.

Figure 17: Gender distribution in e-commerce and business ownership



Source: IEC based on online survey of national stakeholders

6.2 Availability of tertiary education, professional training

Tertiary education

Niue has been using the teaching curriculum of New Zealand, one of the most effective education systems in the world, since 1995. However, it would be difficult for Niue to achieve the same results as New Zealand due to the lack of facilities and the challenges of delivering a bilingual curriculum.⁶³ Tertiary education is provided by the University of the South Pacific – Niue branch and St. Clements University Higher Education School via distance learning. The two universities offer a very limited range of diplomas, bachelor's, and master's degree programmes, including heritage and arts, climate change, education, commerce, and business administration. ICT is not offered as a separate course. The admission and enrolment rates are low and continue declining. Most students go to New Zealand or other regional institutions for Post-School Education and Training (PSET), be it vocational or academic qualifications.⁶⁴

Technical and Vocational Education and Training (TVET)

According to the TPF 2016, although a formal education is of high quality in Niue compared to its Pacific neighbours, room for improvement exists. The TVET sector still lacks standardisation and is excessively focused on existing businesses.⁶⁵ In this context, a TVET policy can play an important role, not only in catering to the existing need of business but also in getting the next generations prepared for the fast-changing labour market caused by information and technology. Structured TVET programmes to seize the most profitable employment opportunities and to nurture the skills necessary for the establishment of new businesses in areas of comparative advantage should be supported.

63 Adam Smith International (2015). Ibid.

64 According to <https://www.usp.ac.fj/index.php?id=3650> and <http://www.stclements.edu/>

65 Government of Niue (2016b). Niue Trade Policy Framework 2016. Treasury Department, Economic Planning Division. June 2016. p.xiii.

The low enrolment rate in the domestic tertiary educational establishment and the high remittance outflow from Niue⁶⁶ signify a more major issue of migration of talents. In order to address this persistent issue, it is recommended that a strategic education and training master plan be developed, based on the skill gap analysis. Such a master plan will aim to improve the education and training curricula and ensure the compatibility with the future labour market's needs.

This education and training strategy should also be closely linked with the larger strategic development plan in all sectors (i.e. trade, finance, industry, etc.) in order to guarantee job opportunities for the trained personnel, thus retaining the skilled labour and appealing for repatriation. Niue can also evaluate the performance of past programmes in leveraging the diaspora, and develop a strategy to tap into the large network of Niueans abroad for talent, investment, and technology transfer

Other professional skill training

Niue benefited from the One Laptop Per Child (OLPC) programme in the 2008 – 2012 period. OLPC is a programme that aims to provide computers to school children between the ages of six and twelve years, with an aim to increase access to basic education. Niue joined this programme in 2008 and soon became the first country in the world to achieve 100 percent saturation. The programme is no longer in place, but it was reportedly contribute to children's improving computer literacy.^{67,68}

In addition, the Niue Computer Society offered free online computer courses to help upskill public servants in the past. At the moment, the Indian government-funded Centre for Excellence in IT is also offering computer related training. The Centre has been set up at the University of South Pacific, Alofi. Installation of hardware and software has been completed. The Centre, with the deployment of two personnel from Centre for Development of Advanced Computing India, has been officially launched on 24th August. The duration per course will range from two to three months. These courses have been selected from the choices indicated by 30 public servants who completed an online survey earlier 2020, and the course for the first group of public servants will soon start.^{69,70}

E-commerce development is not all about ICT but also entrepreneurship and business skills. In terms of skill training, the NCOC has been championing in the skill training efforts. It has held different programmes to promote entrepreneurship among Niue youth and the wider community. In 2019, the NCOC held a series of Information Technology Workshops covering Cyber Security, Web Development, E-Commerce, and Business IT.⁷¹ The topics were introduced by Niueans who study and work in New Zealand on Computer Science. Albeit short in time, the workshops were able to provide a background understanding of the basic components of a digital economy.

Targeting youth development, the Youth Employment Scheme (YES) is a programme funded by the Government of Niue and supported by New Zealand. The YES programme allows high school students who did not receive college study awards to take up work with the private sector, funded by the Government, where they will learn the skills of the trade they wish to take up. After up to two years of a work attachment, they will pursue studies in technical training institutions abroad.⁷²

There are also the Junior Entrepreneurs Programme (JEP) and the Young Entrepreneurs Programme (YEP). YEP provides Year 5 and 6 students with weekly lessons about being an entrepreneur and what is involved in setting up a business. Students learn to develop business plans, production, and pricing. They then have chances to practice those skills by **making their products sell them at the National Show Day.**⁷³ In this sense, the YEP serves as a mentoring programme to nurture and encourage youth to explore, use, and enhance their entrepreneurial instinct and capabilities.

At the regional level, Niue is a member of the Pacific Trade Invest (PTI) Digital Tourism and Digital Trade programmes, which work to build access to platforms that allow Pacific businesses to participate in e-commerce. Since its establishment in 2012, the PTI Digital Tourism Program has supported over 300 tourism operators in the Pacific, evolving to the changing needs of both technology and the sector. Partnerships with platforms such Booking.com, TripAdvisor and

66 According to remittance outflow data by Niue Statistics Office.

67 Radio New Zealand (2011). Running Costs Prompt Phase-Out One Laptop per Child in Niue. Published on 17 November 2011. Accessed on 3 December 2020. Available at <https://www.mz.co.nz/international/pacific-news/200932/running-costs-prompt-phase-out-one-laptop-per-child-in-niue>

68 Radio New Zealand (2012). Niue Rejoins One Laptop per Child Scheme. Published on 2 May 2012. Accessed on 3 December 2020. Available at <https://www.mz.co.nz/international/pacific-news/204275/niue-rejoins-one-laptop-per-child-scheme>

69 TV Niue (2020). India-Niue Centre of Excellence for Information Technology to Begin Classes Next Week. Published on 17 August 2020. Accessed on 3 December 2020. Available at <https://tvniue.com/2020/08/india-niue-centre-of-excellence-for-information-technology-to-begin-classes-next-week/>

70 High Commission of India to New Zealand (2020). India - Niue: Bilateral Brief. Published in February 2020. Accessed on 4 December 2020. Available at <https://www.hciwellington.gov.in/page/india-niue-bilateral-brief#:~:text=Setting%20up%20of%20Centre%20for,Alofi%2C%20the%20capital%20of%20Niue>

71 See <https://www.niuechamber.com/trainings/>

72 According to <https://www.forumsec.org/committed-govt-important-for-implementation-of-peer-review/>

73 See <https://www.niuechamber.com/junior-entrepreneurs-program/>

Airbnb have added further value in the programme and commercial outcomes for participants. In 2019, the PTI Digital Tourism Programme alone helped Pacific tourism operators facilitate over AU\$13 million in online bookings. Despite this success, it is acknowledged that there is more to do to empower Pacific businesses to leverage the full e-commerce capabilities of digital channels and support their participation in the digital economy.

The PTI Pacific Islands Export Survey findings demonstrate a significant digital literacy gap that is limiting the ability of Pacific SMEs to effectively generate sales through digital channels.⁷⁴ A myriad of trainings are available on line and accessible to businesses in the Pacific. Nevertheless, PTI highlights that there is currently no accessible, practical, tailored course for businesses, entrepreneurs and professionals in the Pacific to learn how to use social media and digital channels as business tools to drive their e-commerce sales. Working with one of only seven Facebook trainers in Australasia, the PTI has designed a bespoke 6-week professional development tailored to the needs of the Pacific. It will be delivered through online sessions as well as self-paced material where businesses can work directly on their business. The course is limited to ten people per cohort and the PTI will be working with local partners to promote and identify suitable businesses for the program. By closing the critical digital literacy and skills gap for SMEs in the Pacific, PTI Australia's Social Media Business Accelerator Program will support the growth of local economies through increased inter-regional and international export sales of Pacific goods and services.

Overall, skill training programmes exist for the business community and students at all levels. These programmes help provide students and businesses with practical skills for engaging in the labour market and business activities. However, due to scarce resources, professional training would bring more benefit if the country could identify and focus resources on a few strategic sectors, for example hospitality and creative industries. Training programmes should also be held and updated periodically. E-commerce should be seen as an additional skill set to help businesses expand to markets beyond the island.

Upon the skill gap assessment (as mentioned in section 7.1), the government and private sector should make joint efforts to address the identified capacity gaps via tailored skill training programmes that aim to provide trainees with practical knowledge to apply to their work. From the private sector perspective, the NCOC has been providing training on e-commerce and related skills and should be encouraged to continue. As also suggested by national stakeholders, more initiatives should be held to raise awareness and demand amongst businesses and stimulate the development of the e-commerce environment and its related regulations. Business incubation schemes (as mentioned in Chapter 6) can be a good channel for delivering training according to demand, as well as a forum for networking, creation of linkages between local MSMEs and foreign corporations, and encouraging the transfer of knowledge. More than 21,000 of Niueans living abroad is a huge potential resource for talent acquisition, investment, and technology transfer. However, Niue will need a well-devised plan to provide strong repatriation incentives to touch upon this pool.

Niue can also seek assistance from the existing donor support on e-commerce to the wider Pacific region, for example the UNDP's Accelerator Lab for the Pacific. This initiative represents UNDP's new strategy and thinking in relation to development and advocating bolder innovation. There are 60 labs worldwide covering 78 countries that work with national partners on providing intelligence and potential solutions to development challenges, such as the drivers of expatriation, resource scarcity, energy, pollution, etc.⁷⁵ Niue can seek technical support as well as leverage on the network of this initiative to devise the country's e-commerce related development programmes.

74 Pacific Trade Invest Australia (2020). Pacific Islands Export Survey 2020. Export Dynamics in The Pacific Islands. Available at <https://pacifictradeinvest.com/media/1573/2020-pti-australia-full-pacific-islands-export-survey-report.pdf>

75 United Nations Development Programme (2019). UNDP Launches Accelerator Lab for the Pacific. <https://www.pacific.undp.org/content/pacific/en/home/presscenter/pressreleases/2019/undp-launches-accelerator-lab-for-the-pacific.html>

7 ACCESS TO FINANCING INITIATIVES FOR E-COMMERCE



There are limited options for financial access in Niue. Commercial and personal loan facilities are provided by the public bank instead of a commercial bank. A number of grant schemes and training assistance, administered by the Niue Chamber of Commerce (NCOC) and supported by the Governments of Niue or New Zealand, are available. However, initiatives to support start-ups and young ventures are absent. There seems to be no donor support with regard to e-commerce, e-government initiatives, financial inclusion, etc. Survey responses revealed perceived weakness across all areas, including awareness of available sources and types of financing, and the availability of financial instruments. Stakeholders also showed an inclination to reach out to business associations, instead of the public sector, for support to start e-commerce solutions. In this context, it is recommended that business support schemes be established to address financial access and other capacity building needs for start-ups, young ventures, and MSMEs in general. Access to credit should be expanded, either by diversifying the existing lending schemes or allowing new players joining credit market. The government should also enhance dialogue with the private sector to make sure that the government becomes the trusted advisor of businesses, and that support reaches the targeted beneficiaries. Recently becoming an ADB member, Niue can seek to join some of the regional trade and finance programmes for technical assistance and other financial supports.

7.1 Financing by banks and microfinance institutions

Options to access finance are limited in Niue. The only commercial bank in Niue does not provide loans, which is under the domain of the public bank, i.e. the NDB. According to the NDB, commercial and personal loan facilities are available under various packages, value ranging from NZ\$ 2,000 to NZ\$ 15,000 with the lending period up to five years. Below are loan facilities that business can apply to for potential e-commerce development projects:⁷⁶

Table 4: Existing loan facilities provided by the NDB

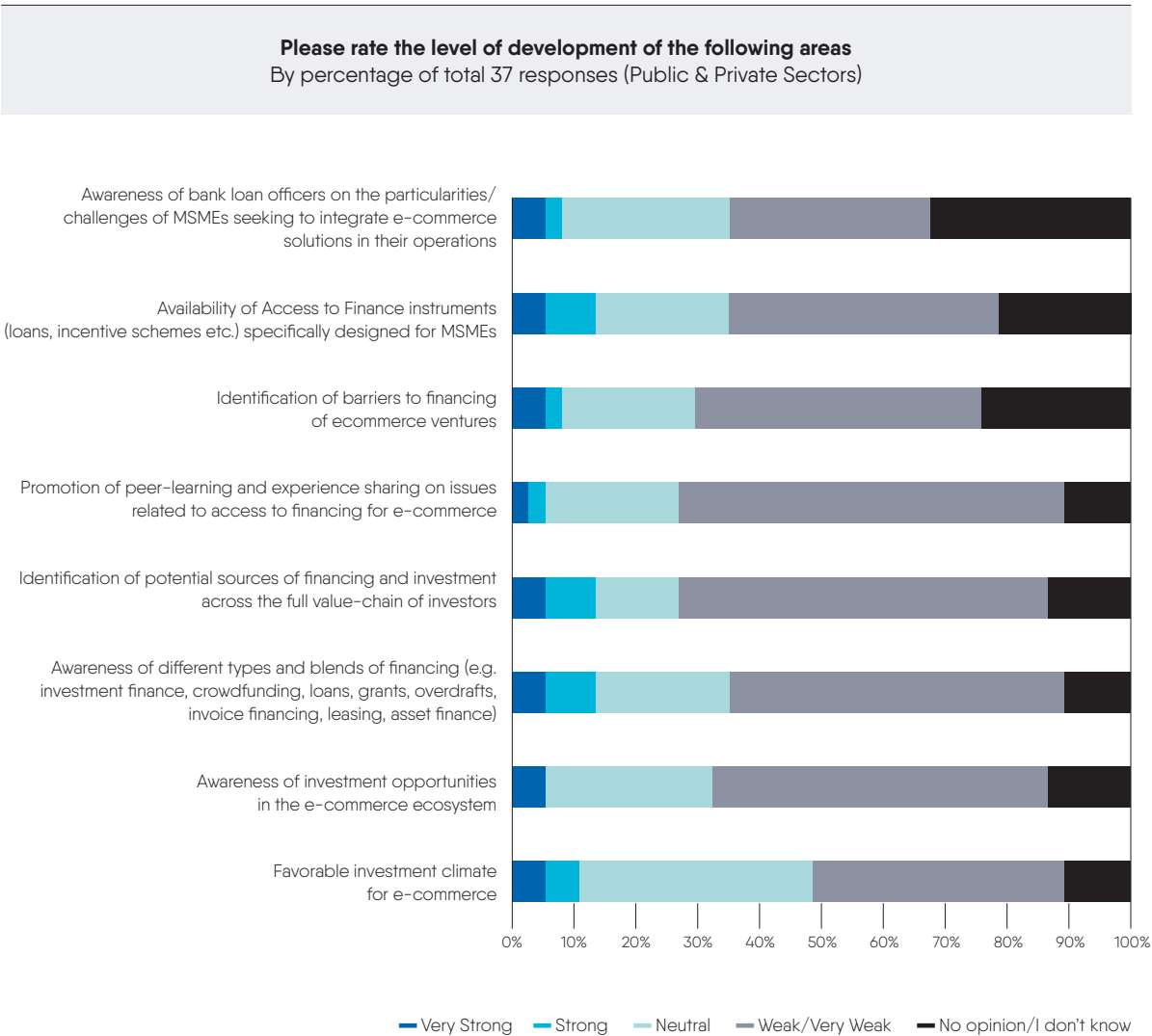
Facilities	Purpose	Credit limit	Credit term
Business Revolving Credit Facility	To cover gaps with supplies and payments, or to purchase goods in advance. Credit remains active, to be used when needed. No fixed repayments. Only pay interest on what is used.	NZ\$ 2,000 – 5,000	Data Not available
Micro Loan	For personal and business purposes requiring low funding.	NZ\$100–5,000	up to 2 years
Personal Loan	For personal purposes, 1 personal loan per client at any one time.	NZ\$5,000–15,000	up to 5 years

Source: Niue Development Bank (<https://www.niuedevelopmentbank.com/borrow/>)

⁷⁶ According to Niue Development Bank at <https://www.niuedevelopmentbank.com/borrow/>. Loan facilities such as housing loan, Loan Carbon Fund, and vehicle loan are excluded for being irrelevant for this purpose.

Responses to the survey revealed the overall perceived weakness of financial access for businesses across eight policy areas. Overall, there appear few positive views on accessing finance in Niue, with only around 10 percent of the respondents viewing it favourably. There are also concerns about unawareness of financing sources and mechanisms, especially for MSMEs, the lack of experience in applying for funds, and lack of opportunities for e-commerce investments. In order to address the credit needs of businesses, Niue can consider reviewing existing lending schemes to assess their effectiveness, introducing reforms to make them more effective if necessary. Niue can also consider incentivise commercial banks to expand lending services to respond to businesses' needs. Another option is to act via schemes such as business incubation and acceleration as discussed in the next section.

Figure 18: Level of financial accessibility



Source: IEC based on online survey of national stakeholders

7.2 Business incubators, business accelerators, and venture capitalists

Box 4: Definitions of Business Incubators, Business Accelerators, and Venture Capitalists

Business Incubators are facilities established to nurture young (start-up) firms during their beginning periods and can last up to 5 years. They usually provide shelter to vulnerable nascent businesses, allowing them to become stronger before becoming independent. In general, incubators receive rent and fees from tenant firms in exchange for office space and administrative support services. Several incubators also provide introductions to financiers, and connections to legal, technology transfer, and accounting consultants.

Business Accelerators, or start-up accelerators, are cohort-based programmes that help ventures define and build their initial products, identify promising customer segments, and secure resources, including capital and employees. Accelerator programs are normally limited in duration—lasting about three months—that help cohorts of start-ups with the new venture process. They usually provide a small amount of seed capital, working space, networking opportunities with both peer ventures and mentors. Most programs end with a grand event, a “demo day” where ventures pitch to a large audience of qualified investors.

Venture capitalists are private equity investors that provide capital to companies exhibiting high growth potential in exchange for an equity stake. The targeting companies could be start-ups or small companies that wish to expand but do not have access to equities markets.

Source: Cohen, S. (2013), Investopedia⁷⁷

Business incubators, business accelerators, and venture capitalists seem to be absent in Niue. However, there exist a number of initiatives supported by the government and business association to help businesses obtain necessary funding as well as short-term training for expanding growth and capability. Among those, the **Business Development Fund (BDF)** is an annual grant scheme funded by the New Zealand Government through the Ministry of Foreign Affairs' Annual Funding to the Niue Chamber of Commerce (NCOC). It has been designed to help businesses expand employment and skills development, improve the viability and profitability, increase business investment and innovation, etc. Grants are available under four categories:

- **Subsistence Grant** – up to NZ\$ 1,000 – for registered or non-registered business/trader/farmer/market stallholder who has been trading for at least 12 months and has submitted a valid quote/grant-use schedule.
- **Business Assistance Grant** – up to NZ\$ 4,000 – for registered businesses who have been trading for at least 2 years and have submitted a valid business plan on how this grant will improve their business.
- **Business Start-Up Grant** – up to NZ\$ 4,000 – for registered businesses who have been trading for less than 2 years and have submitted a valid business plan of how the grant will improve their business capability. Grant can be a maximum of 10 percent of the start-up capital/set up costs of the business.
- **Business Growth Grant** – up to NZ\$ 10,000 – for registered businesses who have submitted a valid business plan, including at least three years of business financial analysis as to how the grant will significantly contribute to the growth of their business.⁷⁸

Besides the skills development component under the BDF, NCOC also provides its members with funding under the Short-Term Training Assistance (STTA) scheme. Grants of up to NZ\$ 3,000 are available for assistance to attend short-term training overseas or short courses/workshops, or funding can be utilised to bring a specialist to Niue.⁷⁹

From the granting criteria, the above-mentioned schemes are only applicable for existing businesses and not start-ups. It is recommended that the Government of Niue, either via the NCOC or another institution such as the prospective national e-commerce coordinating agency, expand the current schemes or provide additional grants targeting start-ups, with a focus on those working in ICT or e-commerce areas. Building on the current network and training programmes by the NCOC, it is recommended that an incubation scheme be established for new and small businesses to obtain business skills, meet with mentors and potential investors, and pitch for new venture projects.

77 Cohen, S. (2013). What Do Accelerators Do? Insights from Incubators and Angels. *Innovations: Technology, Governance, Globalization*. Volume 8, Issue No. 3-4. Summer-Fall 2013, p.19-25. Available at https://doi.org/10.1162/INOV_a_00184

78 According to <https://www.niuechamber.com/business-development-grants-funding-bdf/>

79 According to <https://www.niuechamber.com/short-term-training-assistance-stta/>

7.3 Financing by development partners

New Zealand is the principal development partner providing the necessary economic and administrative assistance to Niue. Funding for entrepreneurship programmes, for example, the above-mentioned BDF, mostly comes from the Government of New Zealand. There seems to be no donor support with regard to e-commerce, e-government initiatives, financial inclusion, etc.

With Niue becoming a member of the Asian Development Bank (ADB) in March 2019, it can be expected that the country will be able to obtain more resources via technical assistance and other financial support to strengthen the overall business environment in the future. It is reported that initial discussions had highlighted the need to strengthen public finance, state-owned enterprises, and improving connectivity such as in transport and telecommunications.⁸⁰

There are a series of regional financing programmes in the Pacific which Niue is not a participant and could seek to join. Those include:

The **Pacific Financial Inclusion Programme** (PFIP), whose successor program is currently under discussion: Currently operating in Fiji, Papua New Guinea, Samoa, Solomon Islands, Timor-Leste, Tonga and Vanuatu (representing 80 percent of all Pacific Islanders), the programme aims to increase the number of low-income Pacific Islanders adopting formal financial services via products and services innovation, enabling environment, financial education, market studies, etc. Since New Zealand co-funds the PFIP, Niue may put forward a request to make sure that the PFIP successor also extends assistance to Niue.

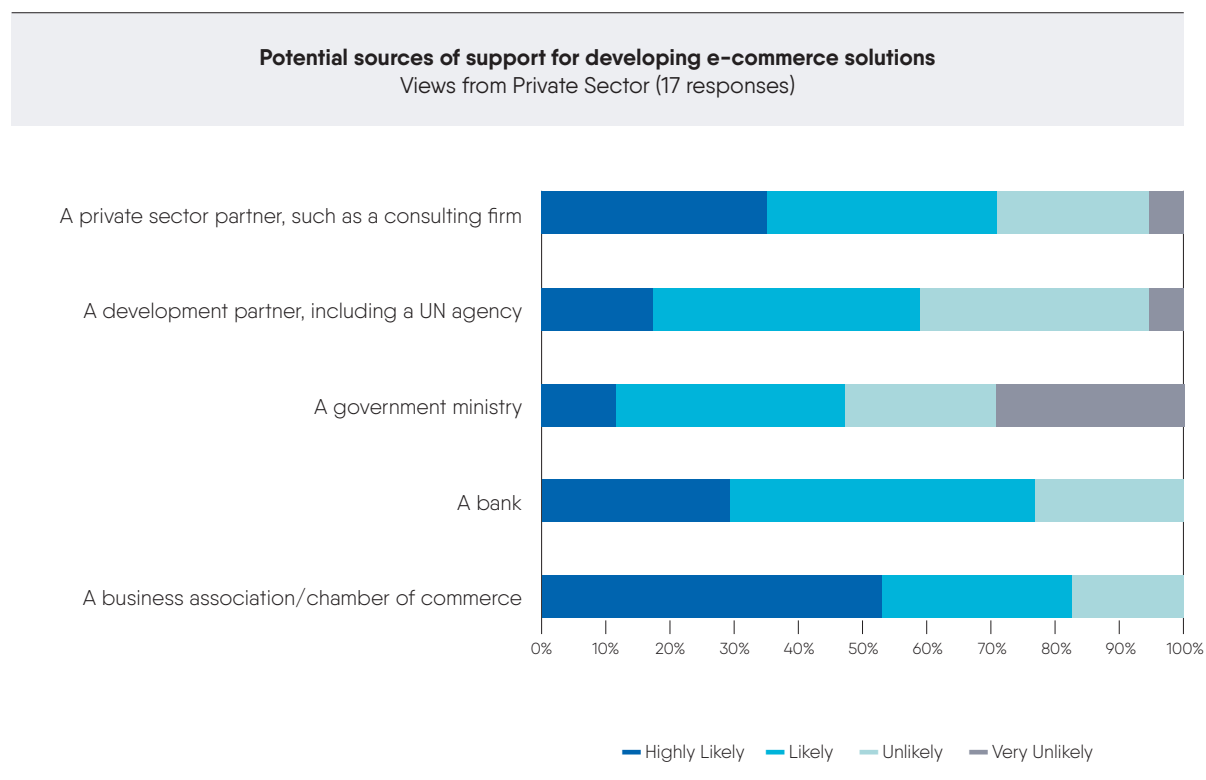
The ADB's **Trade Finance Programme** (TFP): The programme aims to fill the market gaps for trade finance by providing guarantees and loans to banks to support trade. It works with over 240 partner banks in 21 countries to provide companies with the necessary financial support to engage in import and export activities in Asia's most challenging markets. Having recently become a member of ADB, Niue can also put forward request to extend the programme support to the country.

Regarding supporting institutions, responses to the survey conducted for the national assessment revealed that most businesses would turn to a business association and/or chamber of commerce when encountering issues or needing technical support with regard to e-commerce, as stated by 82 percent of all respondents. Banks and consulting firms would be the next choice for business, with respectively 76 percent and 71 percent of all respondents likely to turn to in times of need. On the other hand, 53 percent of respondents would feel reluctant to seek support from government ministries.

This outcome underscores the important role of business association and/or chamber of commerce, suggesting that these institutions should be more involved in the course of e-commerce development in Niue. On the government side, it is recommended that the government, through the prospective national e-commerce coordinating agency or via the NCOC, establishes a better dialogue mechanism (public-private dialogue, or PPD) with the private sector. This PPD mechanism will make sure that the government becomes the trusted advisor of businesses, and that support reaches those who need it the most among the targeted beneficiaries.

80 Ravelo, J. L. (2019). Niue, a Tiny Island Nation in The Pacific, is ADB's Newest Member. Published on 21 March 2019 on Devex.com. Accessed on 4 December 2020. Available at <https://www.devex.com/news/niue-a-tiny-island-nation-in-the-pacific-is-adb-s-newest-member-94521>

Figure 19: Potential sources of support for e-commerce development



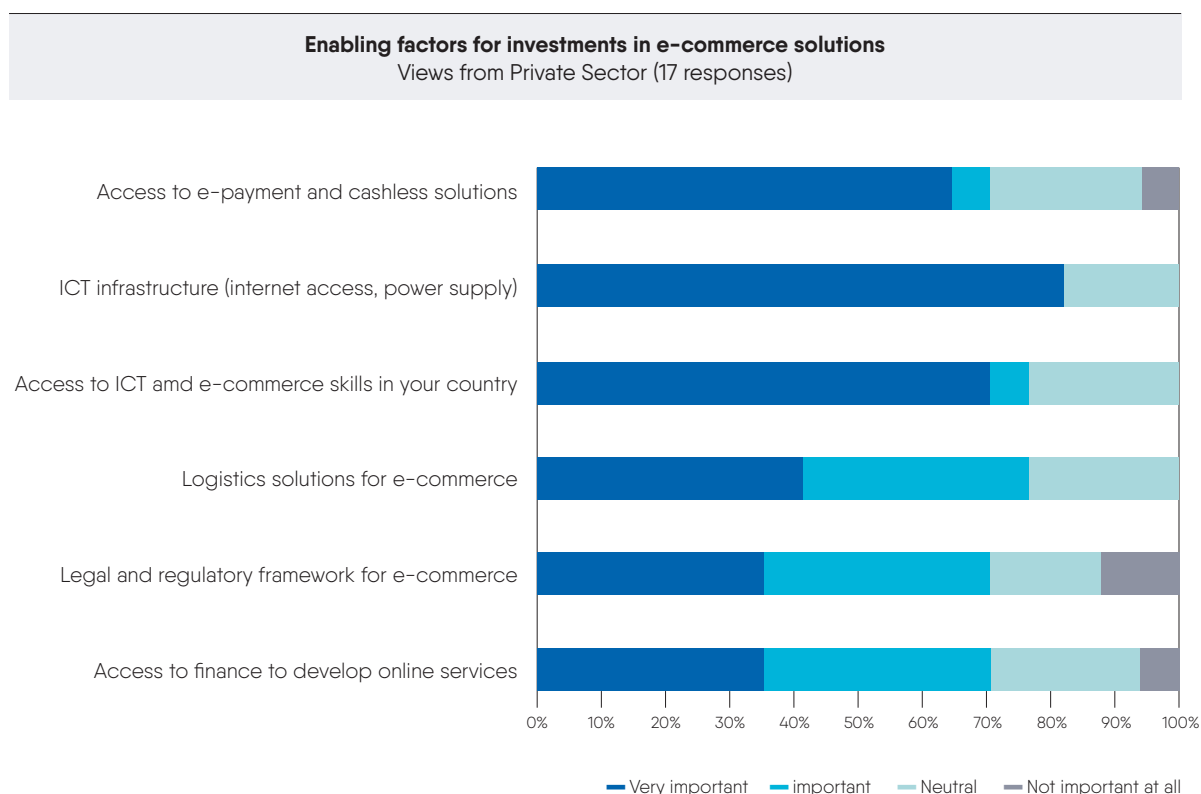
Source: IEC based on online survey of national stakeholders

Conclusions

The Government of Niue requested an E-commerce assessment of the country, with a view of taking stock of the E-commerce environment and opportunities for growth in Niue, establish a roadmap for reforms, investments, and initiatives in this sector.

Niue is still at a nascent stage of the digital economy and e-commerce. Its geographical isolation, small market size, and limited resources, including skilled human resources, pose the main constraints to Niue's e-commerce development. ICT infrastructure is insufficient but upgrades are underway. Adequate ICT infrastructure, as highlighted by 82 percent of the respondents in the survey conducted for this assessment, is believed to encourage businesses to invest in e-commerce solutions (see Figure 20). The legislative framework to regulate online transactions, create trust, and build a conducive e-commerce ecosystem is still missing. Small market size and distance to the rest of the world has caused challenges and raised costs to transport and logistics. On top of that, the low level of technology adoption to business models, skill gaps, and migration of talent, if not adequately addressed, will keep impeding the pace of development.

Figure 20: Enabling factors to invest in e-commerce solutions



Source: IEC based on online survey of national stakeholders

Positive signals, however, have been seen with the roll-out of 4G services in 2018 and Niue being connected for the first time to a submarine fibre cable network under the scope of the Manatua Cable Consortium. Niue has not yet established a national ICT or E-commerce development strategy, however, the fact that the Government of Niue enthusiastically participated in this e-commerce readiness assessment initiative demonstrates the country's openness to change and improvement.

Nevertheless, the conditions for success require the adoption of a series of fundamental reforms, such as having advanced, reliable and affordable infrastructure, the necessary regulatory framework in place for investment and transactions, the appropriate solutions with regard to access to finance, the e-commerce related skills, and the capacity to respond to the needs and ever-changing context of the digital economy.

The above-mentioned objectives will require a long-term strategic plan, strong political will, and support from the community. To build the foundation for the digital economy, it is recommended that Niue finalise the draft National ICT Policy to ensure adequate infrastructure for the next steps of digitalization. Upgraded ICT infrastructure and improved supporting services will ensure affordable and high-quality internet access, as well as an enabling environment for the robust development of all e-commerce business models.

Additionally, a National E-Commerce Strategy will be needed as a guiding document for the course of digital economy development. On the institutional aspect, it is essential that the prospective National E-Commerce Strategy envisions the establishment of a dedicated national e-commerce coordinating institution, composed of relevant governmental agencies on ICT and trade, as well as representative from the private sector. This institution will have a clearly defined structure and an appointed champion leading the efforts. It will be responsible for the implementation and monitoring of the developments and report on progress. A public-private dialogue mechanism will be crucial to enhance engagement and ownership among the stakeholders. Statistics and data collection will also need to be upgraded to serve as a basis for the evidence-based policy development and decision-making process.

Niue has been working closely with development partners in recent years to bring to life modern trade and custom automation portals. These efforts are expected to bear fruits in the near future and will lift the country's international trade. For digital trade to take flight, further reforms on regulations, trade facilitation, access to finance, as well as skills developments will also be required. Efforts on private sector development will also be needed via larger business support and incubation schemes. These elements, either embedded in the prospect National E-Commerce Strategy or the sectoral action plans, will create long-term impacts on the socio-economic growth and citizen's welfare.

The Way Forward: Action Matrix

E-commerce readiness assessments and strategy formulation

Indicative action	Expected outputs	Priority Level	Potential support by
Update the National ICT Policy and an implementation plan thereof. The e-government development could be a component of such strategy.	The government takes the lead in the promoting and implementing ICT strategy to enable ICT use in commerce and by individuals, and to improve the quality and efficiency in delivering public services	High	National ICT Committee, Ministry of Infrastructure, PIFS
Develop an E-commerce Strategy, based on this assessment, and a detailed implementation roadmap to guide the course of e-commerce development	E-commerce is recognized as a driver for economic growth. A national policy is drafted and adopted, and a plan for the development of e-commerce, reflecting the needs and opportunities of each sector, is adopted	High	Department of Economic & Planning, National Trade Committee, National ICT Committee, PIFS
Establish or appoint a national e-commerce coordinating institution (e.g. National E-Commerce Sub-Committee under the National Trade Committee, in cooperation with ICT committee), with a clearly defined structure and appointed championing role, that will lead and monitor the e-commerce strategy implementation progress	E-commerce-related needs are adequately addressed, and the e-commerce policy is rolled out throughout government actions	High	National Trade Committee, National ICT Committee, Niue Chamber of Commerce
Establish a dialogue mechanism (PPD) to promote engagement and buy-in from national stakeholders	The PPD mechanism is established and embedded into the day-to-day operation of the national e-commerce coordinating institution to promote effective communication, engagement, and ownership among the stakeholders	High	National ICT Committee, National Trade Committee, Niue Chamber of Commerce
Expand the capacity (human and technical) of the NSO to compile and measure data, with a focus on ICT-related and other relevant indicators (on-line transactions, trade in goods and services via e-commerce channels, sales values by model, etc).	Improved capacity of the NSO, better reporting on all aspects of the economy, especially for ICT-related sectors. The improved statistics will effectively inform policymakers about the opportunities and challenges faced by e-commerce operators, thus improving the government responses and decision-making process	High	National Statistics Office, National ICT Committee, National Trade Committee, Niue Chamber of Commerce, UNCTAD

ICT Infrastructure and E-commerce Support Services Ecosystem

Indicative action	Expected outputs	Priority Level	Potential support by
Continue upgrading ICT infrastructure, with the support from development partners and identify possible PPP, to ensure the network coverage, reliability, and affordability, especially for remote areas across country	Improved network coverage, reliability, and affordability across the country	High	Ministry of Infrastructure, Telecom Niue, ADB, MFAT
Ensure good use of the new infrastructure, for example by devising a suitable pricing structure for the cable services or supporting the adoption of value-added services such as cloud services, data centers, etc	More sophisticated ICT infrastructure and ICT-enabled services are available to enable users' access to high quality services and better connected network	High	Ministry of Infrastructure, Telecom Niue, ADB, MFAT
Ensure that e-government portals related to public services, trade, business registration, etc. are well maintained and functioned to provide quality online services instead of just being information portals	Improved government services and overall business environment	High	ICT Committee, Ministry of Infrastructure, UNCTAD, MFAT, PIFS
Enhance ICT-enabled services by private sectors through the support of both the government (via tourism portal) and private sector's initiatives	Improved the private sector's capacity to efficiently deliver services, leading to more accessible and better quality ICT-related services.	High	National ICT Committee, National Trade Committee, Niue Chamber of Commerce, MFAT
Take stock of existing ICT-enabled services in the private sector to ensure better management, raising awareness and timely provision of technical support when needed	E-commerce businesses are duly registered, and activities recognised for better regulation, raising awareness of business and consumers, and timely provision of technical support	Medium	National Statistics Office, National ICT Committee, National Trade Committee,

Trade Logistics and Trade Facilitation

Indicative action	Expected outputs	Priority Level	Potential support by
Expedite the development and implementation of the NTP and ASYCUDA; Provide necessary training to public officials and businesses on the new systems and how to benefit from them	Fully functioning NTP and ASYCUDA World systems contribute to more efficient customs procedures, lowering trade costs and thus increasing trade flows	High	Treasury – Customs, UNCTAD, DFAT, MFAT
Continue upgrading the transportation infrastructure to enhance connectivity and lower shipping costs	Reduced shipping time and costs leading to more frequent and larger trade flows of cross-border transactions via e-commerce channels	High	Ministry of Infrastructure,

Ensure a physical addressing system combined with technology adoption for tracking, such as GPS and IoT, to improve safety and efficiency of delivery	Safe and efficient delivery of parcels, allowing customers to order and track shipments (inbound, outbound) online and to arrange for pick-up and delivery	High	Postal Services, UPU
Introducing into a short- to middle-term trade facilitation roadmap with innovative schemes such as self-declaration scheme for customs duties, electronic payments of border taxes and duties, de-minimis thresholds, expedited procedure to facilitate small parcels through postal services for commercial and consumption purposes, etc.	Businesses and consumers across the country can access export and import markets using e-commerce in a more timely fashion	High	Treasury – Customs, Postal Services, UPU

Payment Solutions

Indicative action	Expected outputs	Priority Level	Potential support by
Strengthening the institutional framework by the official inauguration of a financial supervisory authority to help the country navigate the digital finance movements	An established financial supervisory authority with sufficient capacity to provide policy directions to improve the performance of the financial sectors, diversify the financial products and thus increasing financial access to the population	High	Office of the Premier, Parliament, Finance & Planning Dept, NDB
Implement payment system reforms, including necessary legislation that enables digital financial services	A comprehensive legal framework to enable the entrance of new financial service providers, effectively manage financial service operation, and create trust among users	High	Finance & Planning Dept, NDB, Kiwibank, NCEL,
Conduct feasibility study for the adoption of cost-efficient and affordable digital financial services (such as mobile money, regulatory sandbox) and the regulation thereof; Promote interoperability among services providers	Mobile money and other digital finance services are available across Niue and used for a wide range of transactions; Interoperability of electronic payment platforms in enabled to reduce transaction costs for users	High	Finance & Planning Dept, NDB, Kiwibank, NCEL,
Study good practices from, and speed up decision to engage in regional initiatives, such as the Pacific Islands Regional Initiative (PIRI) Regulatory Sandbox, for adaptation in regulation, capacity building on financial services, and development solutions to facilitate international payments for online buyers and sellers	Enhance capacity for lawmakers and officials in managing the financial service sector. Enhance ability of buyers and sellers do e-commerce internationally	Medium	Finance & Planning Dept., NDB, Pacific Financial Inclusion Programme (PFIP)

Legal and Regulatory Framework

Indicative action	Expected outputs	Priority Level	Potential support by
Carry out a comprehensive regulatory gap analysis on E-commerce	Enhanced understanding of the regulatory gap to provide as inputs for the update and/or upgrade of e-commerce related regulations	High	Office of the Premier, Parliament, National ICT Committee, National Trade Committee, PIFS, UNCTAD
Draft and adopt the missing laws necessary to create a stable and conducive E-commerce environment	Improved e-commerce business environment and enhanced trust in e-commerce	High	Office of the Premier, Parliament, National ICT Committee, National Trade Committee, PIFS, UNCTAD
Conduct awareness raising programmes to enhance businesses' and consumers' understanding about their rights and responsibilities regarding online transactions; thus creating confidence and trust in e-commerce	Enhance knowledge and trust in cyberenvironment lead to higher uptake of digital transactions for both businesses and consumers	High	Office of the Premier, Parliament, National ICT Committee, National Trade Committee, PIFS, UNCTAD
Leverage regional technical assistance to support the development of a regulatory framework adhering to international best practices	Strengthened e-commerce regulatory framework adhering to international good practices, enabling online transactions, providing certainty and protection for consumers and businesses, and thus leading to an e-commerce conducive ecosystem	High	National ICT Committee, National Trade Committee, PIFS, UNCTAD

E-commerce Skills Development

Indicative action	Expected outputs	Priority Level	Potential support by
Conduct a skill gap analysis to serve as a basis for improving ICT training curricula to be in line with the development trend in this sector	Improved understanding of the ICT skill gap to provide as inputs for the update and/or upgrade of ICT training curricula	High	Private sector representatives, universities, NCOC, Education Dept. (Ministry of Social Services)
Upgrade the existing education and training curricula to include relevant ICT skills training in line with sectoral focus and industry's needs	Enhance overall ICT literacy; Enhance the capacity of the labour force to meet the industry's needs	High	Private sector representatives, universities, NCOC, Education Dept. (Ministry of Social Services)
Develop more capacity building and awareness raising programmes on skills and understanding on ICT, e-commerce, business, trade, etc. for the public and private sectors	Enhanced capacity of enterprises to create business opportunities increased; Jobs created	High	Private sector representatives, universities, NCOC, Education Dept. (Ministry of Social Services)
Establish business incubation schemes to serve as a forum for networking, creation of linkages between local MSMEs and foreign corporations, and encouraging the transfer of knowledge	Increased businesses' capabilities to provide further value-added products/services due to the acquired know-how and expanded linkages to external contacts and markets	Medium	Private sector representatives, NCOC, Economics Planning Dept.

Evaluate the performance of past programmes in leveraging the diaspora, and develop a strategy to tap into the large network of Niueans abroad for talent, investment, and technology transfer	Increased businesses' capabilities to provide further value-added products/services due to the acquired know-how and expanded linkages to external contacts and markets	Medium	Private sector representatives, NCOC, Economics Planning Dept.
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Access to Financing Initiatives

Indicative action	Expected outputs	Priority Level	Potential support by
Establish business support schemes to address financial access and other capacity-building needs for start-ups, young ventures, and MSMEs in general	Improved understanding of credit sources and increased access to finance, allowing businesses to invest in innovative areas to increase added-value and create jobs	Medium	Private sector representatives, NCOC, Economics Planning Dept.
Provide training to businesses on how to build business proposals and access potential credit sources	Improved understanding of credit sources and increased access to finance, allowing businesses to invest in innovative areas to increase added-value and create jobs	Medium	Private sector representatives, NCOC, Economics Planning Dept.
Review existing lending schemes to assess their effectiveness and introduce reforms to make them more effective if necessary	Improved understanding of credit sources and increased access to finance, allowing businesses to invest in innovative areas to increase added-value and create jobs	High	Office of the Premier, Parliament, NDB, Economics Planning Dept., Kiwibank, NCEL
Provide incentives for financial institution(s) to expand credits in response to businesses' needs	Increase businesses' access to finance via diversified sources	High	Office of the Premier, Parliament, NDB, Economics Planning Dept., Kiwibank, NCEL
Study the feasibility of an e-commerce incubator loan fund at the bank ring fenced for e-commerce ventures development	Increase businesses' access to finance and other supports via diversified sources	High	Office of the Premier, Parliament, NDB, Economics Planning Dept., Kiwibank, NCEL
Seek to join some of the regional trade and finance programmes for technical assistance and other financial supports	Enhanced formal financial services and trade finance	Medium	NDB, Economics Planning Dept., ADB, Pacific Financial Inclusion Programme (PFIP)

Annex I: Person Consulted and Survey Respondents

Survey Respondents				
Private Sector				
1	Richard Tafatu Hipa	A+ (A Plus) Apparel	Manager	Richard.hipa@outlook.com
2	Anna Mendiola	FSM Development Banki	President/Chief Executive Officer	annam@fsmdb.fm
3	Mark Cross	Tahiono Art Gallery	Owner, Manager	markcross@niue.nu
4	Coral Pasisi	Sustainable Pacific Consultancy	Director and Owner	coral.pasisi@icloud.com
5	Hana Nokupega	Telecom Niue Ltd	Sales & Marketing	marketing@telecomniue.com
6	Graham Marsh	Wahoo Enterprises Ltd	Managing Director	Wahoo.niue@gmail.com
7	Mathew Brettell	Scenic Matavai Resort	GENERAL MANAGER	mathewb@scenichotels.co.nz
8	Mark Cross	Tahiono Art Gallery	Production Manager	markcross@niue.nu
9	Keith Vial	Niue Orientation Tours	Business owner	niueorientationtour@yahoo.com
10	Maryanne Talagi	Turtle Lodge Niue	Owner/Manager	maryanne.talagi@gmail.com; talagi_ma@usp.ac.fj
11	Tanya Tagelagi	Seventy Three A & Petite Hatava	Owner/Manager	tanyatagelagi@gmail.com
12	Lini Scott	Niue Chamber of Commerce	Projects Coordinator	lini@niuechamber.com
13	Rami Oved	Magical Niue	Owner	oakelon@gmail.com
14	Kenneth Green	Rock Island Enterprises	Owner/Operator	kenneth.green17@yahoo.com
15	Seone S. Lolesio	The University of the South Pacific, Niue Campus	Campus Director	lolesio_s@usp.ac.fj
16	Julie Saunders	Alofi Rentlas Ltd	Director	alofirentlas6834017@gmail.com
17	Keith Vial	Niue Tours	Co-owner and developer for Niue Orientation Tours	niueorientationtour@yahoo.com
Public Sector				
18	Tagaloa Morrissey	Government of Niue	Senior External Affairs Officer	tagaloa.morrissey@mail.gov.nu
19	Acestacey Kalauni	Treasury – Customs	Customs Officer	Acestacey.Kalauni@mail.gov.nu
20	Frank Sioneholo	Economics, Planning & Dev + Trade Unit	Head – EPD + TU	frank.sioneholo@mail.gov.nu

21	Trevor Tiakia	Broadcasting Corporation of Niue	General Manager	trevor.tiakia@mail.gov.nu
22	Emi Hipa	Government of Niue	Head of External Affairs	emi.hipa@mail.gov.nu
23	Morgan Mougavalu	Niue Government	Customs Officer	Morgan.Mougavalu@mail.gov.nu
24	Chamberlin PITA	Treasury	Customs Officer	Chamberlin.Plta@mail.gov.nu
25	Margaret Siosikefu	Niuegov	Snr. Immigration Officer	Margaret.siosikefu@mail.gov.nu
26	Aytron Tatui	Niue Public Service	Intern	Aytron.Tatui@mail.gov.nu
27	Manogi Poihega	Secretariat of the Niue Public Service Commission	Contract employee	
28	Numa	Niue National Statistics Office	Statistics Officer	numa.niue@gmail.com
29	J Tamate	Government	Senior Management	
30	Haden Talagi	Department of Environment	HOD-Director	haden.talagi@mail.gov.nu
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32	Hagen Siosikefu	Public Service Commission	Public Service Inspector	hagen.siosikefu@mail.gov.nu
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34	Taveli Pavihi	PMCU	Returning graduate– Rotational Programme	taveli.pavihi@mail.gov.nu
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36	Christabel Kaukasi (Bella)	Treasury Finance Dept.	Assistant Accountant	christabel.kaukasi@mail.gov.nu
37	Nita Pihigia	Government	Tax officer	nita.pihigia@mail.gov.nu

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Institutional websites

- Government of Niue: <http://www.gov.nu/>
- Statistics Niue: <https://niue.prism.spc.int/>
- Office of the Premier of Niue: <https://niuepremierofficial.com/>
- Niue Chamber of Commerce: www.niuechamber.com
- TeleGeography Submarine Cable Map: <https://www.submarinecablemap.com/>
- Companies Office of Niue: <https://www.companies.gov.nu/>
- Niue Tourism: <https://www.niueisland.com/> Niue Trade Portal: <https://niue.tradeportal.org/>
- Pacific Islands Legal Information Institute: <http://www.pacilii.org/countries/nu.html>
- Niue Development Bank: <https://www.niuedevelopmentbank.com/>

Niue business websites

Accommodation

- Niue Holiday Homes: <https://www.niueholidayhomes.co.nz/>
- Anaki Motel: <http://www.anaikimotel.com/>
- Lalopine Rockhouse/ Niue Rental: <http://www.niuerentals.nu/>
- Scenic Matavai (owned & run by Scenic Hotel Group of New Zealand): <https://www.scenichotelgroup.co.nz/locations/south-pacific/niue/scenic-matavai-resort-niue>
- Peleni's Guesthouse: <https://www.pelenisguesthouseniue.com/>
- Namukulu Cottages: <https://www.namukulu-cottages.nu/>

Travel & Tourism

- Magical Niue Sea Adventures: <https://www.magicalniue.com/>
- Dive Niue: <http://www.dive.nu/>

Agriculture

- Niue Vanilla International (shop and pay online): <https://www.niuevanilla.co.nz/>

Fishing Charters

- Fish Niue Charters: <https://www.facebook.com/fishniuecharters/>
- Niue Wahoo Fishing Charters: <http://www.niuewahoofishingcharters.com/>

Freight & Importers

- Toke's Tastok Enterprise Ltd: <http://tastok.co.nz/>

Grocery/Convenience Store

- Double M: <https://www.facebook.com/doublem.niue/>

Art & Handicraft

- Ebony's Rainforest Tours: <https://www.facebook.com/ebonysforesttour/>
- Tahiono Art Gallery: <https://www.markcross.nu/tahiono-art-gallery/>

Hospitality

- FalalaFa Café and Bar: <https://www.facebook.com/FalalaFaCafeandBarNiue/?fref=ts>
- Hio Café: <https://www.facebook.com/niuecafe>
- Kaiika Restaurant Niue: <http://kaiika.com/>

