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Introduction to the Volume 41, Issue 2, 2021 (Special Edition on COVID-19)

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Stephen Pratt[1]

The consequences of the COVID-19 pandemic have been profound, with a lasting impact expected for years to come. The term "living in unprecedented times" resonated widely as the world grappled with the challenges brought about by the pandemic. Despite having relatively low case numbers due to their remote locations and early preventive measures, Pacific Island Countries (PICs) were disproportionately affected.

To curb the spread of the virus, many PICs implemented strict border control and quarantine measures. However, these measures had economic repercussions, particularly in the tourism sector. Tourism is a primary economic driver for many PICs, and the suspension of international travel resulted in job losses that affected a significant portion of the workforce. Additionally, disruptions in global supply chains due to border restrictions affected countries heavily reliant on food imports, raising concerns about food security.

In response to these challenges, many Pacific Island citizens working overseas and their family members provided remittances to help mitigate job losses and reduced incomes in PICs. The closure of borders was also driven by the recognition that the public healthcare systems in these countries would struggle to cope with a widespread outbreak. Limited medical facilities and resources underscored concerns about the ability of Pacific Island countries to manage potential outbreaks. To address this, some countries received assistance from international organisations to strengthen their healthcare systems.

Despite the logistical challenges posed by the remote locations and limited infrastructure of outer islands, PIC governments strongly promoted vaccination campaigns as a crucial tool to combat the virus. The pandemic highlighted these island nations' vulnerabilities and resilience, prompting a re-evaluation of their preparedness for future crises and the importance of international collaboration and support.

This special issue contains four papers, each coming from different disciplines, which is a reflection of the ubiquitous effect that COVID-19 has on communities. These disciplines include food and public health, human rights, economics, and education. The range of research topics includes COVID-19's impact on urban Fijian indigenous families' food purchasing and consumption (Buksh, Hay, & de Wit, 2021); the impact on human rights as a result of Pacific Governments' response to COVID-19 (Vaha, 2021), the economic impact

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of COVID-19 on tourism and economic growth (Makun & Jayaraman, 2021), and university students' remote learning experiences (Gibson et al., 2021).

COVID-19 lockdowns resulted in food insecurity in low-income countries. Buksh and her colleagues (2021) explore the impact of lockdowns and COVID-19 safety measures on the dietary habits, eating patterns, and food-buying practices of iTaukei (native Fijian) families residing in the Greater Suva Urban Area, which has high population density. The second wave of COVID-19 in Fiji posed significant challenges in this area. Interviews with 13 iTaukei (indigenous Fijian) mothers from various socio-economic backgrounds reveal that income losses led to food insecurity, affecting their access to nutritious meals and dietary variety. Yet, there were positive impacts too. These positive changes included reduced red and processed meat consumption, increased fruit and vegetable intake, decreased dining out, greater reliance on homemade meals, less food wastage, increased home gardening, and heightened health awareness. However, there was also a shift towards energy-dense foods, more unhealthy cooking and baking, increased snacking, and replacing dinner with tea, snacks, and sugary items. These findings raise concerns about the lasting effects of COVID-19 safety measures on health and well-being, which could exacerbate non-communicable disease-related issues. The authors recognize the need to highlight opportunities to promote healthier eating habits, resource management, and food security.

Vaha's work (2021) highlights the conundrum of trying to balance public safety (in the interest of safeguarding the right to life) with human rights when it comes to governments imposing restrictions on freedom of movement and freedom of assembly. Pacific nations, along with many other countries, implemented measures that restrict certain human rights during the COVID-19. From the outset of the global pandemic, several PICs imposed various restrictions on human rights, even in cases where their communities were not directly exposed to the coronavirus at the time. Vaha examines these restrictions in Fiji, Samoa, Solomon Islands, and Tonga, by drawing upon the literature on limitations and derogations within international human rights law. While PICs deserve commendation for their swift responses that have saved lives during the COVID-19 crisis, Vaha contends that their governments must also undergo critical scrutiny regarding the broader human rights implications of their adopted measures.

Makun and Jayaraman (2021) empirically investigate the link between tourism and economic growth in five PICs (Fiji, Samoa, Solomon Islands, Tonga and Vanuatu). Utilizing a panel nonlinear autoregression distributed lag approach, they recognise that changes in per capita GDP may vary differently to positive and negative tourism shocks. Indeed, Makun and Jayaraman find a significant asymmetric relationship between tourism and per capita GDP. Specifically, a reduction in tourism earnings has a more substantial negative impact on economic growth compared to the positive effect of an equivalent increase in tourism earnings. These findings hold across various tourism indicators and sub-sample periods. Additionally, controlling for information and communication technology (ICT) and financial market factors, the authors observe a significant positive influence on economic growth. The

authors recommend decreasing tourism-related taxes ,investing in liberalising the financial sector and deepening ICT-related infrastructure.

As many readers will know from first-hand experience from teaching during COVID-19, the experience of learning and teaching has forever changed due to the pandemic. Gibson et al. (2021) provide insights into students' experiences and perceptions of the shift from physical classrooms to virtual platforms. Using an online survey and conducting online focus groups and face-to-face interviews using Zoom, the research team delved into the online learning experiences of students in the Discipline of Tourism and Hospitality Management at the University of the South Pacific, following the COVID-19 pandemic. The primary objective was to comprehend how various aspects of the online learning environment affected students' experiences and perceptions. Additionally, the study investigated the coping strategies students employed to navigate self-isolation, maintain relationships, and adapt to the sudden shift from in-person to online classes prompted by COVID-19. The findings revealed that while students encountered challenges with online learning, they generally held a positive attitude towards this mode of study. They appreciated the increased opportunity for interaction with their families and friends, fostering innovative learning methods. They also adapted by finding new ways to leverage technology for their education. However, students expressed missing the social aspects of in-person classes and faced mental health issues such as anxiety, stress, and depression.

This special issue collates research undertaken in the Pacific on the impacts of COVID-19. Taken together, this research provides a clearer picture of some of the ways in which COVID-19 affected our daily lives and the pandemic's effects will be felt for many years to come—Vinaka vakalevu to the authors for making these important contributions. Our hope is that readers will be informed and stimulated through this work.

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Investigating Asymmetry in Tourism and Growth Relationship in the Pacific Island Countries: Any Lessons for Policy Makers?

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Keshmeer Makun[2] and T. K. Jayaraman[3]

Abstract

The global economy has been devastated by the Covid-19 pandemic, which began in the first quarter of 2020. The unprecedented damages in terms of loss of lives, livelihoods, and interruptions in international travel have caused deep contractions in small islands and developing countries, which are known for their dependency on tourism. This paper empirically examines the relationship between tourism and economic growth in the selected Pacific Island Countries (PICs). Adopting a panel nonlinear autoregression distributed lagged (NARDL) approach, we account for potential nonlinearities in the relationship and empirically determine the asymmetric response of per capita GDP to positive and negative tourism shocks. Our analysis depicts that tourism and per capita GDP have a significant asymmetric relationship. The estimates show that a decrease in tourism earnings has a larger negative impact on economic growth when compared to the positive outcome of the same size rise in tourism earnings. The negative impact of tourism is also found to be more pronounced in the long run. The results are robust to different tourism indicators and sub-sample periods. ICT and the financial market as control variables have a significant positive effect on economic growth. The study findings have some policy implications for PICs.

Keywords: Asymmetry; Covid-19; Economic Growth; Pacific Island Countries; Tourism

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Introduction

International tourism, which as a key economic sector, in fact in many cases as a single engine of growth, has been contributing to the economic growth of small island nations in the Caribbean, the South Pacific, and Indian Ocean regions. This sector has been hit hard by the current Covid-19 pandemic, since early 2020. The pre-pandemic international tourism arrivals were at record levels in 2019 with 1.4 billion, having risen from 25 million in the period before the introduction of jet airlines in the 1950s. This is also attributed presently more due to the spread and increased use of information communication and technology (ICT)[1] since the early 2000s. The latter has been hailed as the fourth industrial revolution for speeding up and making booking of travel and accommodation by "a click of the mouse". The world tourism receipts from travel expenditure and stay in hotels and resorts rose from US$901 billion in 2009 to US$1,462 billion in 2018 at an annual average growth of 4.6% (UNWTO, 2019). As a result, tourism activity has raised job opportunities and improved livelihoods, notably in the informal sector. The small and medium enterprises, more or less part-time are now meeting various interests of travellers, such as domestic tours to places of historical sites, production of handicrafts and ethnic meals, and other products of unique cultural interest. These tourism activities are now also more in the hands of part-time women entrepreneurs, which is noted as a welcome phenomenon (UNWTO, 2019).

However, the ongoing, seemingly uncontrolled spread of the Covid-19 pandemic aided by the emergence of new variants of the virus in the first quarter of 2021 and in the face of shortages of vaccines, has now totally engulfed the globe. The pandemic has severely disrupted economic activities and trade in goods and services, including tourism. The year-end review by Behsudi (2020) noted that in the first half of 2020, tourist arrivals decreased by more than 65 percent, compared to 8 percent during the global financial crisis in the first decade of the New Millennium and 17 percent during the SARS epidemic of 2003. A more recent review by World Tourism Organization (UNWTO) shows that international tourist arrival has declined by 67 percent in 2020 due to the Covid-19 pandemic (UNWTO, 2020). Although the International Monetary Fund (IMF) World Economic Outlook (2021) shows a global economic growth estimate of 6 percent for 2021, the composition has changed. There is a growing gap among advanced, emerging, and developing countries, with a projection of 4.9 percent for 2022. The Covid-19 pandemic has also reduced the per

[1]The ICT has revolutionized tourism industry rendering travel, accommodation, and arrangement of tours much easier, more accessible, and less expensive than ever before.

capita income by 6.3 percent in emerging and developing countries compared to 2.8 percent in advanced economies. It was also feared that the tourism-dependent economies would fare much worse. The Caribbean countries were expected to experience a decline in growth by 12 percent while other Pacific Island countries would experience a much deeper fall in their GDP[2]. The Asian Development Outlook Supplement of July 2021 (Asian Development Bank, 2021) updating all previous forecasts, projected that PICs were to grow by a modest 0.3% in 2021. It was expected that Fiji would face another year of contraction as it faced a recent increase in COVID-19 cases[3].

The UNCTAD has cautioned that when other domestic sectors might recover, Covid-19 would have a long-lasting effect on international tourism. This is attributed to the fears of a continuous outbreak of the Covid-19 pandemic in developed countries, resulting in the loss of travellers' confidence and the likelihood of restrictions for an extended period on international travel (UNCTAD, 2020). Aware of these difficulties, an earlier estimate by UNWTO (2020) was that earnings from tourism alone would fall to US$910 billion in 2020 from US$1.2 trillion recorded in 2019 and the recovery to levels of the pre-Covid-19 years is unlikely by 2023.

In the Pacific, tourism is the key pillar of livelihood and economic development. In 2019, the travel and tourism industry accounts for 12.8% of total employment in the Pacific, which is about 2.45 million jobs. In terms of its contribution to overall economic output, the industry adds about 11.6%, which is US$194.1 billion (WTTC World Travel and Tourism Council, 2021). Against these global and Pacific backgrounds, this paper focuses on the five selected PICs, to examine the tourism and economic growth relationship. Having a deeper understanding of important economic sectors like tourism, with respect to their effect on economic growth will provide useful information for policy decisions. The main objective of this study is to disentangle the nature of the relationship between tourism and economic growth by accounting for possible asymmetry. The asymmetric analysis produces a more comprehensive picture. In the economic literature, empirical studies have been dominated so far by linear models, which assumed the absence of any asymmetry. Disregarding such intrinsic nonlinearities in macroeconomic variables may misguide inference. To achieve this objective, we extend the previous study on PICs by Jayaraman and Makun (2020) by examining the tourism-growth nexus employing the recently designed nonlinear ARDL procedure by Shin et al. (2014). In addition,

[2] The Pacifc as a region contracted by 5.8% in 2020 due to Covid-19 pandemic.
[3] It is estimated that the GDP will decline by 4.1% in 2021. The economic growth was negative 15.7% in 2020.

we look at the tourism-growth asymmetric relationship in conjunction with financial sector development and ICT, as a contingent factor in the travel and tourism industry (World Bank, 2018).

The paper is organised along the following lines. The next section looks at the tourism sector, ICT, and macroeconomic indicators in the Pacific Island countries. The third section provides economic literature on tourism and economic growth. The fourth section outlines the theoretical framework, data, and methodology for empirical analysis. The fifth section presents the results of the empirical analysis, and the last section provides a conclusion with policy implications.

Tourism in Pacific Island countries

Tourism is of critical economic importance in the Pacific. Until the Covid-19 pandemic, the tourism industries in the PICs were gradually growing, with countries diversifying their sources of tourists from regional and international markets. International travel and tourism in the Pacific are mostly in terms of short-haul visitors from Australia and New Zealand. Other markets are China, the USA, and Europe including the United Kingdom.

Table 1. Key tourism source markets for PICs under study (2019)

Source	Fiji	Solomon Islands	Tonga	Vanuatu	Oceania
Australia	41%	38%	48%	52%	14%
New Zealand	23%	7%	21%	13%	11%
United States	11%	7%	13%	na	9%
China	5%	na	2%	na	13%
United Kingdom	2%	na	na	na	6%
Rest of the World	18%	38%	11%	28%	47%

Source: WTTC (2020). na denotes 'not available".

Table 2. International tourist arrivals (Thousands)

Country	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
Fiji	691.7	754.8	792.3	842.9	870.3	894.4	140.6
Samoa	130.7	136.1	145.2	155.1	167.7	173.9	20.5
Solomon Islands	20.1	21.6	23.2	25.7	27.9	28.9	4.1
Tonga	50.4	53.7	59.1	62.1	54.1	67.5	8.9
Vanuatu	108.8	79.3	95.1	109.1	115.6	120.6	21.9

Source: NSOs and SPTO (2021)

International tourist arrivals have been rising in the PICs, although tourist arrivals are relatively low with respect to other destinations like Southeast Asia. Fiji, with a relatively developed industry among the other Pacific Islands, has served over 800 thousand visitors in 2019. The tourism industry contributed over 30% of GDP. Samoa and Vanuatu had smaller industries with over 170 and 120 thousand tourists, respectively. However, the Covid-19 pandemic which started in early 2020 devastated these economies by severely impacting the tourism industry.

Table 3. Tourism in the Pacific Island countries (2019)

Country	Contribution to GDP (millions)	Contribution to GDP (%)	Contribution to jobs (000s)	Percent of total employment	International visitor spending (millions)	Percent of total exports
Fiji	3727.4	32.0	88.2	25.3	28886.6	50.6
Solomon Islands	1024.8	9.3	28.1	8.4	690.0	13.9
Tonga	139.5	18.5	5.9	14.8	129.2	61.6
Vanuatu	38500.1	35.8	29.3	36.4	36486.0	72.5
Oceania average	194.1*	11.6	2.5	12.8	42.9*	9.8

Note: Values are in local currencies, except for Oceania, which is in USD. * denote in billions. Source: WTTC (2020).

Table 3 shows the contribution of tourism in the countries under study is a close one-third of GDP. While it is one-third in Vanuatu, the least is in the case of the Solomon Islands. Further, Vanuatu ranks number one, followed by Fiji in regard to the creation of jobs by tourism. Visitor spending as a percent of total earnings from exports of goods and services tops in Vanuatu followed by Tonga and Fiji.

The success of tourism is attributed to the steadily rising foreign direct investment (FDI) in the tourism industry. Hill and Athukorala (1998) observed that although traditionally FDI inflows were primarily those seeking to exploit natural resources, there had been an increasing trend in FDI inflows in service and manufacturing sectors. Later in the 20th century, the hotel industry, and the development of resorts along with golf courses received greater attention from overseas investors (Jayaraman & Choong, 2006). The rising FDI since the late 1990s in tourism has helped tourism to emerge as a highly and most significant economic sector contributing to the provision of jobs in all tourism-related activities.

Support Factors

As PICs are at distance from North America and Europe, the role of ICT became critically important as early as in the first decade of the New Millennium. However, the lack of capacity and infrastructure show PICs coming late into the technological revolution. The ICT in the PICs remains a developing sector with ongoing reforms to connect atolls and efficiently link industries and enhance productivity (Kumar et al., 2016). ICT is crucial for communication and creating opportunities for various economic activities including tourism. The demand for data-based ICT services in the region is increasing, similar to the world trend. In particular, the demand for mobile broadband is rapidly increasing due to mobile subscriptions services being the primary and most widespread source of internet access across the region (ITU, 2021).

Acknowledging the role of ICT in tourism development as immense by overcoming the hurdles posed by distance from source markets in regard to flight booking and purchase of air tickets, and booking for accommodation and tours, reducing the cost for travellers to a substantial extent, World Bank (2018) describes ICT as the game-changer. It is also visualized that ICT would play a significant role in other sectors in the future (World Bank, 2018).

Table 4. ICT Indicators for Pacific Island countries

Country	Mobile Cellular Subs per 100 inhabitants (2017)	Percent of individuals using the internet (2017)	ICT Development Index (ranking) (2017)*
Fiji	118	66	4.49(105)
Samoa	64	34	3.30(129)
Solomon Islands	71	12	2.11(154)
Tonga	59	41	4.34(109)
Vanuatu	80	26	2.81(136)

Source: International Telecommunication Union (20021). * ICT development index is a composite index based on eleven ICT related indicators to reflect changes in ICT development. The last ranking was done in 2017 with a total of 176 countries.

Macroeconomic Indicators

Table 5 on key macroeconomic indicators shows the impact of Covid-19 on the countries under study. We have data on Fiji, Samoa, and the Solomon Islands on key indicators. Data on Tonga and Vanuatu are incomplete. Among all the key indicators,

the most important one is the growth rate which has stunningly fallen to a negative double-digit zone in Fiji. On the other hand, negative growth was smaller in Samoa and Solomon Islands. The fiscal balance and current account balance did not deteriorate much in 2020. External debt in the case of Fiji went up in 2020, whereas in Samoa we have no data. In regard to the Solomon Islands, external debt has remained the same. Foreign reserves have gone up in all the countries under study, mainly because of support from Pacific islanders remitting funds from overseas. Remittances show healthy growth in 2020. The above data only partially reflects the Covid-19 impact.

Table 5. Key Macroeconomic indicators

	Fiji			Samoa			Solomon Islands			Tonga			Vanuatu		
Indicator	**2018**	**2019**	**2020**	**2018**	**2019**	**2020**	**2018**	**2019**	**2020**	**2018**	**2019**	**2020**	**2018**	**2019**	**2020**
Growth rate (%)	3.8	-0.4	-15.7	0.7	2.4	-9.2	3	1.2	-4.5	0.3	0.7	na	2.9	na	na
Inflation (%)	1.42	2.37	-1.26	2.02	2.17	0.33	3.46	1.63	2.96	Na	na	na	2.33	2.76	na
Fiscal Balance (% of GDP)	-4.6	-4	-3.4	27.5	102	na	1.5	-1.5	-2.4	2.9	3.1	na	8.4	na	na
CAB (% of GDP)	-8.4	-12.7	-13.75	2.8	4	-9.7	-3.3	-8.9	-1.6	4.4	-0.5	na	9.4	na	na
External Debt (% of GNI)	18.8	20.2	27.8	54	50.1	na	20.6	22.3	22.3	36	34.7	na	43.6	44.6	na
Foreign Res($ mill)	851.6	947.2	2200	151.3	169.3	270.5	580.3	529.1	655.1	202.9	206.2	289.2	413.5	504.9	606.5
FDI (% of GDP)	8.4	5.86	na	2.03	0.12	na	1.58	2.08	na	4.06	0.34	na	4.1	3.73	na
Remittances(% of GDP)	5.11	5.21	7.14	17.93	17.2	18.6	1.26	1.62	1.77	37.5	37.2	na	3.83	8.06	8.89

Source: World Bank (2021) and ADB (2021).

Literature review

The tourism activities and economic growth literature date back to 1997, largely to the pioneering study by Sheldon (1997).

Since then, the substantial research literature on tourism activities and growth nexus has emerged. The subject was examined using one of the two settings: a country-specific setting and a panel and cross-country setting. Some of the examples of country-specific studies on tourism and growth are Durbarry (2004) for Mauritius; Nowak et al. (2007) for Spain; Kumar (2014) for Kenya; Ishikawa and Fukushige

(2007) for Japan; Katircioglu (2009); for the Turkish and Dritsakis (2004) for Greece. Examples of panel studies include Wu et al. (2018); Holzner (2010); Kumar and Kumar (2013); Lee and Chang (2008); Narayan et al. (2010); Roque and Raposo (2016) and Seetanah (2011).

Numerous empirical investigations have confirmed the positive impact of tourism activities on economic growth. Studies like Balguer and Cantavella (2002) in Jordan; Brida et al. (2008) in Mexico; Lee and Chang (2008) in OECD countries; Jaforullah (2015) for New Zealand and Gunter et al. (2017) for Caribbean countries. However, the outcomes of the causality direction test varied among these studies. This could be due to different proxies of variables, datasets, and analysis techniques. Further, other factors such as differences in cultural traditions, political situation, and economic policies could be the reason for such results (Ozturk, 2010). Table 6. presents a summary of some selected studies including magnitude effects and causality direction viz. tourism and economic growth.

As observed, studies on the tourism-growth nexus focused on estimating the magnitude of growth effects and causality. It is also observed that there is an increasing diversification in the estimating technique used. With a few exceptions (Oh, 2005; Katircioglu, 2009), the literature suggests that generally, international tourism drives economic growth (Brida et al., 2016; Lee & Chang, 2008; Fayissa et al., 2008; Seetnah, 20011; Kumar & Kumar, 2012; Chang et al., 2012).

However, the information provided from this research is based on the premise of symmetric assumption and does not necessarily consider the inherent presence of asymmetries. Literature on asymmetry (see e.g. Balke & Fomby, 1997; Psaradakis et al., 2004) suggest that insight from the linear analysis is inadequate for credible inference. Anoruo and Elike (2015) emphasize macroeconomic variables can have differential nonlinear properties. Therefore, accounting for plausible asymmetries is needed to obtain a more comprehensive behaviour of variables. The asymmetry (nonlinear) model separates variables into positive and negative components and determines the differential effect of the shocks as reactions to the shock of economic variables may change. While few studies have examined tourism asymmetry and economic growth nexus (Eyuboglu & Eyuboglu, 2019; Kumar et al., 2016; Kumar & Stauverman, 2016), the Pacific Island countries remain unexplored in this area. Our study, therefore, contributes to the literature by examining tourism asymmetry in a panel of PICs using a nonlinear ARDL approach of Shin et al. (2014).

Table 6. Tourism - growth literature review: A summary

Author	Period	Country	Frequency	Variables	Methodology	Causality	Effect
Balaguer and Cantavella-Jorda (2002)	1975-1998	Spain	Quarterly	Tourist earnings, exchange rate	VECM	T→GDP	+
Durbarry (2004)	1952-1999	Mauritius	Annual	Tourism earnings, capital stock, human capital, labor	VECM	T↔GDP	+
Cortez-Jimenez and Paulina (2006)	1954-2000	Italy	Annual	Tourist earnings, capital stock, human capital	VECM	T↔GDP	+
Kim et al. (2006)	1971-2003	Taiwan	Quarterly and Annual	Tourist earnings	VECM	T↔GDP	+
Lee and Chang (2008)	1990-2002	OECD	Annual	Tourist earnings	Panel	T→GDP	+
Narayan et al. (2010)	1988-2004	PICs	Annual	Tourist earnings	Panel FMOLS	T→GDP	+
Seetanah (2011)	1990-2007	Panel of Islands (19)	Annual	Tourist earnings	GMM	T↔GDP	+
Tang and Tan (2015)	1975-2011	Malaysia	Annual	Tourist earnings, political stability	VECM	T→GDP	+
Stauvermann et al. (2018)	1980-2014	Sri-Lanka	Annual	Tourist earnings, capital stock, exchange rate, labor	ARDL	T→GDP	+

Notes: GDP - Gross Domestic Product. ARDL - Autoregressive Distributed Lag approach. na refers to not applicable. T→GDP - causality relationship from tourism to GDP. T↔GDP - the bidirectional relationship amid tourism and GDP. PICs - Pacific Island Countries. + is a positive effect of tourism on GDP.

Study material and method

Theoretical and empirical background

The present study examines the relationship between tourism and economic growth in a multidimensional framework. In addition to tourism, we also consider the core role of technological innovation and financial market liberalisation. International tourism, the spread of technology, and the development of financial markets are crucial for Pacific Islands towards promoting growth linkages (Kumar & Kumar, 2020; Jayaraman & Makun, 2020; Pratt & Harrison, 2015; Harrison, 2004). The essence of tourism-led growth can be seen by the reality that the tourism industry is the major driver of GDP in many Pacific Island countries. The tourism sector generates substantial foreign exchange earnings and jobs as well as strengthening inter-sectoral integration that spurs economic activity (Pratt, 2015; Kumar & Kumar, 2012). Similarly, technology innovation and financial market liberalisation are becoming a major conduit for economic growth that not only improves the production structure and enables sustainable growth but also helps to transform the tourism and travel industry (Jayaraman & Makun, 2020; Khan et al., 2020).

Based on this premise, it is accomplished that theoretical and empirical foundations are not necessarily substituted but rather examine a different aspect of the same phenomenon. This study's objective is based on a wider theoretical/empirical perspective. In doing so we follow Akadiri et al. (2020) and Razzaq et al. (2021) amongst others and construct the following linear model that examines the impact of growth in tourism, the spread of ICT, and financial sector development on economic growth.

$$y_{ti} = \beta_1 TOR_{ti} + \beta_2 ICT_{ti} + \beta_3 FSD_{ti} + \varepsilon_{ti} \quad (1)$$

Where y_{ti} is real GDP per capita- a synonymous measure of economic growth. TOR_{ti} is tourism variable, ICT_{ti} is information and communications technology, and FSD_{ti} is financial sector development. $\beta_{1,2,....4}$ are associated parameters to be estimated. ε_{ti} is residual and t is the time dimension.

Data and variable description

The study includes five major Pacific Island countries, namely Fiji, Samoa, Solomon Islands, Tonga, and Vanuatu, and covers a period of 25 years for which data are

available. Real GDP

per capita is employed as a proxy for economic growth and measured in constant (2010) prices. The data series on tourism is represented by tourism earnings and tourism arrivals. ICT is represented by mobile subscription per 100 inhabitants and FSD by broad money as a percent of GDP. The relevant data series were obtained from *World Development Indicators* (World Bank, 2021). The variables were appropriately transformed into natural logs, which would enable us to obtain elasticity estimates from the results of regression analysis. Tables 7 and 8 provide the descriptive statistics of these variables and the correlation matrix, respectively. Fiji has the largest mean tourism earnings and tourism arrivals among the five Pacific countries. The correlation matrix shows that tourism indicators are positively correlated with per capita income. Further, we find ICT and financial markets are also positively correlated with per capita income.

Table 7. Summary statistics for Pacific Island Countries

	Fiji					Samoa				
	LGDPP	**LTE**	**LTA**	**LFSD**	**LMOB**	**LGDPP**	**LTE**	**LTA**	**LFSD**	**LMOB**
Mean	3.5618	8.7924	5.7832	1.7640	1.2562	3.5175	7.8996	5.0319	0.3149	1.0282
Median	3.5630	8.8481	5.7380	1.7931	1.5996	3.5375	7.9073	5.0365	0.3012	1.2631
Maximum	3.6675	9.0945	6.0116	1.8702	2.0783	3.5853	8.2253	5.1987	0.6108	1.8900
Minimum	3.4946	8.4639	5.6375	1.6015	-0.5471	3.4138	7.5856	4.8325	0.0856	-0.3515
Std. Dev.	0.0488	0.2172	0.1118	0.0943	0.8715	0.0552	0.2465	0.1054	0.1683	0.7893
Skewness	0.5738	-0.1588	0.5368	-0.4239	-0.8339	-0.7218	-0.0737	-0.1568	0.2393	-0.4161
Kurtosis	2.6160	1.4655	2.1624	1.7014	2.3415	2.2570	1.3521	1.8768	1.7164	1.5572
Jarque -Bera (p)	0.5111	0.3245	0.4275	0.3321	0.2291	0.3721	0.3583	0.6005	0.4947	0.3534
Observations	22	22	22	22	22	18	18	18	18	18
	Solomon Island					**Tonga**				
	LGDPP	**LTE**	**LTA**	**LFSD**	**LMOB**	**LGDPP**	**LTE**	**LTA**	**LFSD**	**LMOB**
Mean	3.2112	7.4062	4.1868	1.4704	0.6761	3.5689	7.3179	4.7419	1.6217	0.9657
Median	3.2229	7.5571	4.2373	1.4840	0.8811	3.5622	7.2380	4.7760	1.6427	1.6566
Maximum	3.2914	7.9638	4.4609	1.6363	1.8683	3.6450	8.1959	4.9731	1.7512	2.0246
Minimum	3.1151	6.2041	3.7160	1.2909	-1.1937	3.5019	6.7709	4.4624	1.4307	-0.9059
Std. Dev.	0.0498	0.5229	0.2233	0.1169	1.1393	0.0417	0.3671	0.1448	0.0921	1.1155
Skewness	-0.2599	-0.8441	-0.7652	-0.1243	-0.2985	0.3672	0.4065	-0.3763	-0.6082	-0.7898
Kurtosis	2.1150	2.4834	2.5332	1.6023	1.4889	2.3039	2.3970	2.1712	2.5200	1.8410
Jarque -Bera (p)	0.6170	0.2396	0.3093	0.3970	0.2982	0.5867	0.5865	0.5206	0.4104	0.1355
Observations	22	22	22	22	22	25	25	25	25	25
	Vanuatu					**Panel summary statistics**				
	LGDPP	**LTE**	**LTA**	**LFSD**	**LMOB**	**LGDPP**	**LTE**	**LTA**	**LFSD**	**LMOB**
Mean	3.4360	8.1203	5.2223	1.9605	0.7296	3.4595	7.8955	4.9892	1.4813	0.9249
Median	3.4394	8.0949	5.2051	1.9682	0.9593	3.5019	7.8482	4.9638	1.6427	1.3401
Maximum	3.4589	8.5119	5.5527	2.0311	1.9340	3.6675	9.0945	6.0116	2.0311	2.0783
Minimum	3.3915	7.6532	4.8921	1.8751	-1.1429	3.1151	6.2041	3.7160	0.0856	-1.1937
Std. Dev.	0.0183	0.3004	0.2425	0.0414	1.1586	0.1402	0.6438	0.5580	0.5515	1.0421
Skewness	-0.9767	-0.0802	0.1051	-0.2682	-0.5024	-0.9261	-0.1130	-0.0986	-1.4567	-0.6657
Kurtosis	3.2287	1.3877	1.4045	2.2487	1.6446	2.8098	2.5195	2.3297	3.8447	1.9389
Jarque -Bera (p)	0.1445	0.2691	0.2739	0.6531	0.2409	0.0003	0.5210	0.3233	0.0000	0.0012
Observations	24	24	24	24	24	111	111	111	111	111

Note: Variables are in log (L) form. GDPP is per capita gross domestic product, TE is tourism earnings, TA is tourism arrivals, FSD is financial sector development, and MOB is the mobile subscription.

Table 8. Correlation matrix

	Panel correlation with TE					Panel correlation with TA			
	LGDPP	LTE	LFSD	LMOB		LGDPP	LTA	LFSD	LMOB
LGDPP	1.000	0.463	0.013	0.362	LGDPP	1.000	0.683	-0.012	0.306
LTE	0.463*	1.000	0.232	0.562	LTA	0.683**	1.000	0.213	0.400
LFSD	0.013**	0.232*	1.000	0.098	LFSD	0.012*	0.213	1.000	0.091
LMOB	0.362*	0.562**	0.098**	1.000	LMOB	0.306	0.400**	0.091**	1.000

Note: Variables are in log (L) form. GDPP is per capita gross domestic product, TE is tourism earnings, TA is tourism arrivals, FSD is financial sector development, and MOB is a mobile subscription. * and ** denotes significance level at 1% and 5%.

Methodology

As the key objective of this paper is to examine the asymmetric relationship between tourism and economic growth in Pacific Island countries, we use the recently developed NARDL model intended by Shin et al. (2014). Shin et al. (2014) extended Pesaran et al. (2001) linear ARDL to nonlinear ARDL cointegration. Unlike the linear model, the asymmetric model capture asymmetries and estimates the differential effect of positive and negative shocks. This is essential because growth responses to different macroeconomic shocks are not always identical. Further, this approach accounts for the potential heterogeneity effect and is suitable when the integration order(s) of the series are mixed (Salisu & Isah, 2017). Following Shin et al. (2014), asymmetric tourism impact on economic growth can be derived from Equation (1) is as follows:

$$\Delta ly_t = \alpha_{0i} + \alpha_{1i} ly_{t-1} + \alpha_{2i} lICT_{t-1} + \gamma_{3i}^{+} lTOR_t^{+} + \gamma_{3i}^{-} lTOR_t^{-} + \alpha_{4i} lEXP_{t-1} + \sum_{i=1}^{n} \beta_{1i} \Delta ly_{t-i}$$

$$+ \sum_{i=0}^{n} \beta_{2i} \Delta lICT_{t-i} + \sum_{i=0}^{n} \beta_{3i}{}^{+} \Delta lTOR_{t-i}^{+} + \sum_{i=0}^{n} \beta_{3i}{}^{-} \Delta lTOR_{t-i}^{-} + \sum_{i=0}^{n} \beta_{4i} \Delta lEXP_{t-i} + \mu_i + \varepsilon_t \quad (2)$$

Where $lTOR_t^{+}$ and $lTOR_t^{-}$ are the positive and negative partial sum derivation computed as:

$$lTOR_t^{+} = \sum_{t=1}^{n} \Delta lTOR_t^{+} = \sum_{t=1}^{n} \max(\Delta lTOR_{t,} 0)$$

,

$$lTOR_t^{-} = \sum_{t=1}^{n} \Delta lTOR_t^{-} = \sum_{t=1}^{n} \min(\Delta lTOR_{t,} 0)$$

.

Where $lTOR_t = lTOR_0 + lTOR_t^+ + lTOR_t^-$. The elasticity coefficient of $lTOR_t^+$ and $lTOR_t^-$ is computed as: $\phi^+ = -\frac{\gamma_{3i}^+}{\alpha_{1i}}$ and $\phi^- = -\frac{\gamma_{3i}^-}{\alpha_{1i}}$.

The error correction representation of Equation (2) yields the following:

$$\Delta ly_t = \rho ECM_{t-1} + \sum_{i=1}^{n} \beta_{1i} \Delta ly_{t-i} + \sum_{i=0}^{n} \beta_{2i} \Delta lICT_{t-i} + \sum_{i=0}^{n} \pi_{3i}^{+} \Delta lTOR_{t-i}^{+}$$
$$+ \sum_{i=0}^{n} \pi_{3i}^{-} \Delta lTOR_{t-i}^{-} + \sum_{i=0}^{n} \beta_{3i} \Delta lEXP_{t-i} + \mu_i + \varepsilon_t \quad (3)$$

The error correction term (ρECM_{t-1}) estimates the equilibrium asymmetric relationship in the specified model and the associated parameter (ρ) captures the adjustment rate. The short-run positive and negative changes in tourism earnings are captured by π_{3i}^+ and π_{3i}^- respectively. To test for the long run and short run symmetry, the standard Wald test is applied. The null hypothesis ($H_{null} : \phi^+ = \phi^-$) for long run symmetry is tested against the alternative hypothesis ($H_{alt} : \phi^+ \neq \phi^-$). Similarly, the short-run symmetry of tourism is tested by evaluating the null hypothesis ($\sum_{i=0}^{n} \pi_{3i}^{+} = \sum_{i=0}^{n} \pi_{3i}^{-}$).

Results and discussion

We begin the empirical analysis by addressing the stationary properties of the series in the model. An essential element of the NARDL model is that variables should not be integrated order of more than one. Ouattara (2004) argues that the result could be erroneous if the series are of I(2). Thus, it is important to determine the order of integration of the variables. To do this we applied panel unit root tests. The heterogeneous panel data model is commonly used where non-stationary is an issue. We used two different types of panel unit root tests. The first type of panel unit root test involves the null hypothesis of unit root with a common process (Levin et al., 2002). The second type assumes unit root with individual unit root process (Im et al., 2003; Maddala & Wu, 1999 -Fisher-ADF; Maddala & Wu, 1999 -Fisher-PP). Table 9 provides the results of the panel unit root test. The series are found to have unit root in level form. However, in the first difference form, all the variables are integrated of one [(I(1)]. Nonetheless, our estimation framework in the context of this study

takes into consideration heterogeneity and unit root concerns in the panel data setting.

Table 9. Panel unit root test results

Variables	Test statistics (p-values)				
Panel A: Level form	LLC	IPS	MW (ADF)	MW (PP)	Int order
Ly	1.731(0.257))	0.869 (0.192)	13.004 (0.223)	10.972 (0.358)	-
lTE	0.346 (0.635)	2.167 (0.984)	1.960 (0.996)	4.194 (0.938)	-
lFSD	0.932 (0.177)	0.909 (0.818)	5.001 (0.891)	5.114 (0.883)	-
lMOB	2.649 (0.619)	0.023 (0.491)	8.628 (0.567)	14.421 (0.154)	-
Panel B: Difference form					
Ly	0.650(0.041)**	2.466(0.006)**	23.376(0.009)**	32.427(0.000)*	I (1)
lTE	2.798(0.002)*	3.866(0.000)*	33.781(0.000)*	96.722(0.000)*	I(1)
lFSD	3.496(0.005)*	3.240(0.000)*	29.272(0.001)*	36.306(0.000)*	I(1)
lMOB	3.628(0.000)*	2.038(0.021)**	19.448(0.034)**	31.633(0.000)*	I(1)

Note: LLC and IPS indicate Levin et al. (2002) and Im et al. (2003) panel unit root tests. MW (ADF) and MW (PP) represent Maddala and Wu (1999) Fisher-ADF and Fisher-PP panel unit root tests, respectively. The LLC, IPS, MW (ADF), and MW (PP) all inspect the null hypothesis of a unit root. The values in brackets are the probabilities. * and ** indicate significance levels at 1% and 5% levels.

Next, we estimate the asymmetric tourism-growth model for the panel of five PICs. We use both the Pooled Mean Group (PMG) estimator and the Mean Group (MG) estimator (Pesaran et al., 1999). These are prominently used methodologies in panel estimation. The PMG and MG estimators are subjected to the Hausman test to determine the better estimator of the two (Salisu & Isah, 2017)[4]. The result of the Hausman test is reported in the respective tables. Our results indicate the null hypothesis cannot be rejected and that the PMG estimator is the efficient estimator for modelling the tourism-growth nexus. Therefore, the result of only the PMG estimator is reported and discussed in this paper. According to Bahmani-Oskooee and Bohl (2000), the long-run relationship between variables depends on lag order. On the other hand, taking too many or too few lags can invalidate the model in capturing essential information (Stock & Watson, 2012). Considering this essential feature, we used one lag following SBC criteria as optimal lag order.

We separate our analysis into three parts. First, we evaluate the tourism-economic growth nexus without asymmetry (Table 10a). Second, we take into account

[4]The MG estimator-relies on estimating *N* time-series regression and takes the average coefficient (Blackburne & Frank, 2007), whereas the PMG estimator takes the combination of pooling and averaging of coefficients. The null hypothesis is that the PGM is an efficient estimator while the alternative hypothesis is that the MG is an efficient estimator. In addition to panel regression analysis, the PMG and MG estimators also estimate the short-run coefficient of individual units.

asymmetry (Table 10b). Third, we re-estimate the first and second models using alternative tourism measures for robustness check (Table 6). Also, we include one additional column (b) in Tables 10 and 11 to examine the findings after eliminating the dominant country from the entire panel. This analysis is motivated by our initial preliminary analysis of descriptive statistics provided in section 4, where Fiji is considered as a dominant or influential country on the basis of the average value of their tourism earnings. The idea here is to examine whether the dominant country has any possible outlier effect on the overall result of the analysis.

Table 10 shows the long run and short run dynamics of symmetric and asymmetric effects of tourism earnings on per capita GDP. Beginning with the results of the symmetric model (see Table 10a); the estimated elasticity coefficient shows that, regardless of the size of tourism earnings of the countries included in the sample, per capita GDP response is consistent with changes in tourism earnings in terms of sign and significance. Consistent with the literature (Kumar & Stauvermann, 2016), we find a significant positive effect of tourism earnings on per capita GDP. This finding reinforces our preliminary correlation analysis in which two variables are positively correlated (see Table 8). In terms of the magnitude of the coefficient, however, we find that estimates of the full sample are slightly greater than the sub-sample estimates both in the long run and short run. In other words, the response of per capita GDP to changes in tourism earnings tends to be higher when Fiji is included, although per capita GDP is tourism inelastic. This indicates that the income of these island nations is susceptible to tourism-related shocks. This is not surprising given virtually all the sampled Pacific countries are tourism-dependent. Hence, any shock to tourism is likely to have an impact on domestic economic activity including government finances.

Table 10. Panel results for tourism earnings-GDP per capita nexus

Variable	(a) Full sample of five PICs		(b) Full sample (less Fiji)	
A: Symmetric Models				
Variable	Coefficient	P-value	Coefficient	P-value
lTE	0.051	0.071***	0.046	0.000*
lMOB	0.105	0.021**	0.089	0.000*
lFSD	0.341	0.000*	0.005	0.009**
Δ*lTE*	0.016	0.130	0.014	0.796
Δ*lMOB*	0.011	0.371	0.021	0.410
Δ*lFSD*	0.108	0.043**	0.102	0.010**
Constant	0.083	0.265	0.064	0.665
Trend	0.001	0.039**	0.001	0.048**
ECM_{t-1}	-0.304	0.008**	-0.109	0.002**
Hausman Test (X^2)	1.288 (0.260)		0.529 (0.314)	
Log Liklihood	333.641		259.762	
Observation	111		89	
B: Asymmetric Models				
$lTE^{+}(pos)$	0.087	0.005**	0.058	0.002*
$lTE^{-}(neg)$	0.142	0.000*	0.198	0.007***
lMOB	0.047	0.015**	0.053	0.162
lFSD	0.346	0.001**	0.812	0.056***
$\Delta lTE^{+}(pos)$	0.162	0.046**	0.006	0.8122
$\Delta lTE^{-}(neg)$	0.093	0.031**	0.056	0.036**
Δ*lMOB*	0.009	0.587	0.014	0.480
Δ*lFSD*	0.095	0.002**	0.112	0.083***
Constant	1.921	0.064***	0.123	0.0401**
Trend	0.001	0.025**	0.028	0.050**
ECM_{t-1}	-0.485	0.006**	0.658	0.003*
Hausman Test (X^2)	0.477 (0.186)		0.758 (0.394)	
Log Liklihood	381.119		253.627	
Observation	111		89	

Note: *, ** and *** indicate statistical significance at 1%, 5% and 10% respectively. "+" and "-" denote positive and negative partial sums, respectively. The probability value for the Hausman test is in the brackets.

With respect to the asymmetric model, in the long run, the positive and negative partial sum decompositions of tourism earnings exert a positive and statistically significant effect on the per capita GDP for Pacific countries. Similar to symmetric analysis, the per capita GDP of PICs countries is tourism inelastic both in the long run and short run, irrespective of whether change is positive or negative. However, the coefficient magnitude is higher for negative changes in tourism than positive. This implies that a decline in tourism earnings will have a relatively larger adverse impact on economic growth than the positive effect of tourism because of a rise in

tourism earnings. Specifically, a one percent increase in tourism earnings causes about a 0.09 percent ($lTE^{+}(pos) = 0.087$) increase in per capita GDP. When tourism earnings declines by one percent, it causes per capita GDP to fall by 0.14 percent ($lTE^{-}(neg) = 0.142$). In the short run, while the overall response of per capita GDP is the same (positive) for both negative and positive shocks in tourism, PICs countries respond more to positive changes ($\Delta lTE^{+}(pos)$ =0.162) in tourism than negative change ($\Delta lTE^{-}(neg)$ =0.093). The result, however, does not reject the asymmetry outcome observed in the long term but points to the view that adverse long-run response to shocks is not immediate. Thus, PICs may be responding to adverse shock in a positive way in the short term, but if shocks persist with time (i.e. in long term) countries tend to respond negatively.

Column (b) of Table 10 provides sub-sample estimates based on dominant countries. We use the mean value of tourism earnings for each country to identify countries with high average tourism earnings. Using this method, we find Fiji has higher mean statistics compared to other countries (see Table 6). To assess this sensitivity, we exclude Fiji from regression estimates. We find a similar result as in the symmetric model. The sign and statistical significance of the tourism-economic growth remain the same both in the full sample and sub-sample (excluding Fiji). In terms of the magnitude of the positive and negative shocks of tourism, there is a slight difference between the two sample regressions. Technically, the result implies that the analysis is insensitive to the dominance of one country at least with respect to direction and relationship significance.

Further, the effect of economic controls such as financial market (*FSD*) and information and communications technology (*MOB*) have a positive and statistically significant effect on economic growth in the long run. Like other developing economies, ICT is being adopted quite rapidly in PICs in the last few decades and is increasingly by rural and poor households (Foster & Horst, 2018). In addition, the overall trend effect accounting for other exogenous factors positively influences per capita GDP. The error correction term, which measures the adjustment dynamics has emerged with the correct negative sign and is statistically significant. However, it is observed that the magnitude of the adjustment is lower in the symmetric model ($ECM_{t-1} = -0.304$) than in the asymmetric model ($ECM_{t-1} = -0.485$). This implies that asymmetric analysis exerts superior specification of the model and adjustment to the equilibrium path.

Sensitivity analysis

In this section, we further evaluate the sensitivity of our result with respect to the employment of different measures of the tourism variable. To undertake this exercise, we re-estimate all the models by replacing the indicator for tourism (tourism earnings) with tourism arrivals. The results for the symmetric and asymmetric tourism arrivals are provided in Table 11, which also includes sub-sample estimates, respectively. Looking at the results and comparing them with our main findings, the direction of the relationship and significance of the estimates are generally the same in all regression models. As expected, however, there are few differences with respect to the size of the impact. Nonetheless, the results suggest that our estimates are robust to tourism indicators. In other words, irrespective of the tourism indicator, our conclusion remains steady.

Table 11. Panel results for tourism arrivals-GDP per capita nexus

Variable	(a) Full sample of five PICs		(b) Full sample (less Fiji)	
A: Symmetric Models				
Variable	Coefficient	P-value	Coefficient	P-value
lTA	0.007	0.059***	0.112	0.026**
lMOB	0.022	0.001**	0.022	0.014**
lEXP	0.122	0.008***	0.209	0.018**
ΔlTA	0.037	0.264	0.008	0.736
$\Delta lMOB$	0.018	0.133	0.009	0.402
$\Delta lFSD$	0.103	0.128	-0.067	0.102
Constant	0.652	0.000*	0.806	0.031**
Trend	0.001	0.021**	0.001	0.051**
ECM_{t-1}	-0.271	0.000*	0.222	0.028**
Hausman Test (X^2)	0.601 (0.161)		0.231(0.137)	
Log Likelihood	336.704		271.874	
Observation	111		89	
B: Asymmetric Models				
$lTE^{+}(pos)$	0.057	0.065***	0.074	0.051**
$lTE^{-}(neg)$	0.287	0.068***	0.248	0.061**
lMOB	0.006	0.000*	0.001	0.091***
lFSD	0.353	0.000*	0.516	0.001*
$\Delta lTE^{+}(pos)$	0.064	0.000*	0.106	0.382
$\Delta lTE^{-}(neg)$	0.128	0.010**	0.142	0.094***
$\Delta lMOB$	0.011	0.381	0.008	0.354
$\Delta lFSD$	0.094	0.003**	0.092	0.010**
Constant	0.082	0.256	0.677	0.115
Trend	0.003	0.004*	0.002	0.084***
ECM_{t-1}	-0.422	0.001**	0.346	0.000*
Hausman Test (X^2)	0.193 (0.261)		0.379 (0.239)	
Log Likelihood	365.909		266.485	
Observation	111		89	

Note: *, ** and *** indicate statistical significance at 1%, 5% and 10% respectively. "+" and "-" denote positive and negative partial sums, respectively. The probability value for the Hausman test is in the brackets.

Conclusion and implications

This study examines the tourism-economic growth relationship within the context of selected PICs. Essentially, we test whether the per capita GDP of PICs responds asymmetrically to shocks in tourism activity. While there are studies on tourism and growth relationship largely based on linear model assumptions, this paper attempts to offer some insights about nonlinearities and heterogeneity in tourism-economic growth nexus using panel data of selected Pacific countries. Few studies have substantiated the essence of conducting distinct nonlinearities as noted previously. We consider asymmetries by employing the nonlinear panel ARDL approach of Shin et al. (2014) initially applied in time series analysis. This approach is analogous to the unit root heterogenous panel model except it precludes potential asymmetries. Hence, apart from analysing nonlinearities in the tourism-economic growth relation, we also consider country differences and non-stationarity, which is an essential feature of panel econometric analysis. Practically, there may be some differences in cross-sections, and considering heterogeneity allows those variations to be captured in estimation.

For comparative purposes, we also examine the symmetric nexus. In the symmetric version, we find a positive and statistically significant relationship between tourism and economic growth (per capita GDP), which is consistent with theoretical expectation and extant literature. Our result also reveals that per capita GDP responds asymmetrically to changes in tourism activity. While the positive shock in tourism earnings increase per capita income and negative shock adversely affects income, the response of income seems to be stronger when there is a negative shock to tourism in the long run. It is observed that the magnitude of the adjustment is lower in the symmetric model than in the asymmetric model, implying that asymmetric analysis exerts superior specification. Our results are insensitive to dominant country effects and robust to alternative tourism indicators. The effect of ICT and the financial market as control variables are found to be both growth-enhancing and significant.

However, some limitations of the study and areas for future research remain. For instance, our estimation model is reduced form and therefore can be augmented to take into consideration other factors in the tourism-growth nexus, such as exchange rate and human capital. Secondly, the PICs tourism demand model can be developed with respect to the source markets to better understand the tourism dynamics.

From a policy perspective, our findings highlight that PICs are vulnerable to negative shocks. In the context of the current economic crisis unleashed by Covid-19, they

would face challenges in regard to tourism earnings and by extension in domestic economic activity. It is envisaged that tourism is not likely to bounce back to the pre-Covid-19 level in the short to medium term (McGarry, 2020), thus tourism development innovation needs to be more focused on improving tourism earnings. To this end initiating small elite ventures and understanding tourist willingness to spend on Pacific tourism products and services will be essential. Currently, PICs are not in the category of 'value for money or cheap-end location' relative to other locations such as Bali, Phuket, and Sri Lanka (Westoby et al., 2020). Thus, attracting a large number of tourists including low-end visitors will require revamping and strategizing including quality of services and pricing. Fiji, for instance in response to the Covid-19 shock, has relaxed tourism-related fiscal tax (Fiji Government Budget, 2020), which is expected to make tourism services less expensive. Going forward, consistency in policies and response to shocks will be pivotal to sustaining the tourism sector and growth prospects. In addition, given the high dependence on the tourism sector, the income responsiveness to positive and negative shocks to tourism is important for policymakers since the upward and downward shocks in tourism by the same size are not likely to have the same effect on income. Thus, with asymmetry presence in tourism and economic growth relationship, policymakers and investors may incorporate this information in their development plans. Further, investment in improving the financial sector liberalization and ICT pervasiveness should intensify to supplement tourism services. Financial services and ICT are fundamental in generating economic activity. The spill over from these services will have a positive impact on tourism and the overall economic growth process (Jayaraman & Makun, 2020). Thus, national policy initiatives should also focus on fostering financial markets and ICT inclusion in the tourism sector. Further, the findings of the negative shock of tourism may also call for a new direction. Aside from tourism, as a single growth driver, PICs have to open a new chapter. The new direction lies in developing agricultural resources and assisting hardworking farmers tilling land adding value to agricultural output, especially cash crops including fruits, vegetables, and traditional sugar production. The PICs have to "re-harvest" to commercialise agriculture by making large tracts of land presently unused under a very restrictive land tenure system. The use of these productive resources should be liberalised to generate jobs and income.

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Urban Fijian Indigenous Families' Positive and Negative Diet, Eating and Food Purchasing Experiences During the COVID 19 Safety Protocols

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Abstract

The Greater Suva Urban Area (GSUA) is the most densely populated area in Fiji and was greatly affected by the second wave of the COVID-19 outbreak. This study explores how lockdown and other COVID-19 safety protocols impacted the diets, eating behaviour and food purchasing behaviour of iTaukei (indigenous Fijian) families living in the GSUA. In-depth interviews with 13 iTaukei mothers from diverse socio-economic and occupational backgrounds highlight that loss of income was related to food insecurity, which also affected access to balanced meals and dietary diversity. Women also noted positive changes, including (1) reduced consumption of red and processed meat, (2) increased consumption of fruits and vegetables, (3) reduction in eating out and greater reliance on home-cooked meals, (4) reduction in food wastage, (5) increase in home gardening, and (6) greater concern for health and well-being. Unhealthy eating behaviours were also recorded, including greater reliance on energy-dense foods, increased cooking and baking of unhealthy foods, increased snacking, and replacing dinner with tea, snacks and sugary foods. These findings raise concerns about the long-term effects of COVID-19 safety protocols on health and well-being and provide insights into opportunities for promoting healthier eating lifestyles, better management of resources, and enhancing food security.

Keywords: COVID-19; Diet; Eating Behaviour; Food Insecurity; Food Purchasing Behaviour

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Introduction

The Greater Suva Urban Area (GSUA) is the most densely populated area in Fiji, housing approximately 29% of Fiji's population and 57% of Fiji's urban population (United Nations Human Settlements Programme [UN-Habitat], 2012). It is one of the first urban centres in Fiji to be hard hit by the second wave of the COVID-19 outbreak in April of 2021. The government's response to managing the outbreak in this area included complete lockdowns, which saw the closure of all non-essential businesses including restaurants and fast-food places, setting up of smaller containment zones within this area, and merging the entire area into one containment zone and then gradually re-opening businesses, including restaurants, with COVID-19 safety protocols. Essential businesses such as supermarkets could operate within the curfew hours throughout the lockdown, but with strict COVID-19 safety protocols that limited the number of people inside the supermarket at any given time and enforced social distancing. Wherever possible, remote working arrangements were made, and online classes were set up for universities and schools. These COVID-19 safety protocols inevitably affected family life, including dietary choices and eating habits.

The devastating impact of COVID-19 lockdowns on economies around the world is well established and loss of food security in low-income countries and communities is particularly concerning (Birner et al., 2021; Escobar et al., 2021; Food Security Information Network [FSIN], 2020). COVID-19 safety protocols have further exacerbated the situation of vulnerable populations and individuals who were already undernourished, facing acute hunger, and those who were already struggling with food security (FSIN, 2020). Studies indicate that the elderly, women and children, lower income households, individuals and households facing loss of income or changes in employment, and households with individuals with lower education have experienced higher levels of food insecurity during the pandemic (Elsahoryi et al., 2020; Escobar et al., 2021; Kharroubi et al., 2021; Niles et al., 2021; Parekh et al., 2021). Furthermore, this food insecurity has severely impacted dietary diversity, including difficulties in maintaining a balanced diet, and studies indicate significant impact on consumption of fruits, vegetables, carbohydrates, meat, poultry, and fish during the pandemic (Elsahoryi et al., 2020; Jayawardena & Misra, 2020).

In more prosperous communities, stay-at-home measures to control COVID-19 also had adverse impacts on lifestyles, diet, and eating habits. Notably, weight gain has been reported in a number of studies, and has been in part attributed to a lack of exercise and sedentary lifestyles, but also to adopting poor dietary habits such as

consuming more fatty foods, sugary foods, unhealthy snacks, processed foods, and alcohol, as well as a general increase in food consumption (Abed et al., 2021; Bemanian et al., 2021; Bennett et al., 2021; Drieskens et al., 2021; Palmer et al., 2021; Miller et al., 2021; Ronto et al., 2021). Several explanations for the increase in poor diet and eating habits during COVID-19 lockdowns appear relevant. First, higher levels of emotional eating triggered by psychological distress associated with the pandemic, such as job insecurities, loss of personal finances, health concerns and interpersonal relationships have been recorded (e.g., Bemanian et al., 2021; Salazar-Fernández et al., 2021). Second, in order to reduce shopping trips, consumers resorted to bulk buying and stockpiling processed foods, non-perishable snacks, meat and meat products (Hassen et al., 2021[a]; Hassen et al., 2021[b]); greater access could have resulted in higher consumption of these foods (Pechey et al., 2021). Third, increased baking and cooking of unhealthy foods during COVID-19 lockdowns has also been associated with unhealthy eating (Ronto et al., 2021). Fourth, disruptions in supply and increases in prices of fruits and vegetables led to reduced consumption of fresh foods during the pandemic (Bennett et al., 2021). Last, increased snacking and consumption of sugary foods during lockdowns have also been associated with boredom and disruption in normal work and study routines, causing a general lack of structure in daily routines (Avery et al., 2021).

Having more time at home during lockdowns has also resulted in healthier eating behaviours. While experimentation with cooking led to some unhealthy eating, it also resulted in a general increase in home-cooked meals, which tend to be healthier options than fast food, takeaways and restaurant-bought meals; although the consumption of the latter decreased due to closure or reduced operations of these businesses (Abed et al., 2021; Bennett et al., 2012; Hassen et al., 2021[a]; Hassen et al 2021[b]; Ronto et al., 2021; Wang et al., 2021). Another positive outcome reported by multiple studies is significant increase in fruit and vegetable intakes during the pandemic (Abed et al., 2021; Bennett et al., 2021; Hassen et al., 2021[a]; Hassen et al 2021[b]; Wang et al, 2021). This increase in consumption can be attributed in part to a growing interest and practice of home gardening during the pandemic, which has led to increased consumption of homegrown fruits and vegetables (Mullins et al., 2021; Niles et al., 2021) and to an increase in home-cooked meals (Bennett et al., 2021). Also, a decrease in food wastage due to improved cooking skills and better planned meals has also been reported by several studies (e.g., Hassen et al., 2021[a]; Hassen et al 2021[b]; Sharp et al., 2021).

It is important to consider the short-term and long-term impacts of changes in diet and eating behaviour on health and wellbeing, particularly for individuals with non-

communicable diseases (NCDs) and those at risk of NCDs (Kolokotroni et al., 2021). In comparison to global data, Fiji has extremely high rates of NCD-related deaths, which are largely attributed to poor dietary practices such as low intake of fruits and vegetables and high rates of overweight and obesity in the population (Fiji NCD Risk Factors: STEPS Report 2011, 2015; WHO, 2014a; 2014b). Further deterioration of dietary practices will not only increase the risk of severe COVID-19 for individuals with underlying chronic illnesses (Bohlouli et al., 2021) but will ultimately increase the burden of NCDs on a healthcare system that is already struggling due to the pandemic. The impact of the COVID-19 safety protocols on the diet, eating behaviour and food purchasing behaviour of Fijians has not been studied. This study aims to address this gap. In Fiji, mothers play key roles in selecting food, including what is consumed and how much is consumed. This study therefore explores how COVID-19 safety protocols have impacted the diets, eating behaviour and food purchasing behaviour of iTaukei (indigenous Fijian) families living in the GSUA using in-depth interviews with iTaukei mothers (Pacific Obesity Prevention in Communities Project [OPIC]: Fiji Country Report, 2010; McCabe et al., 2011). The results of this study will be useful in creating awareness of dietary changes, especially unhealthy eating, because of the COVID-19 lockdowns within iTaukei households in the GSUA.

Methods

Participant characteristics

Thirteen iTaukei women aged 28 - 48 years ($M = 37.61$, $SD = 7.78$) from GSUA were interviewed. Most of the participants lived in suburbs around the towns and city in the GSUA, and only two of the women lived in villages within GSUA. The sample had diverse occupational backgrounds and consisted of women employed full-time ($n = 4$), employed full-time and studying part-time ($n = 1$), enrolled as full-time students and working part-time ($n = 1$), those who had left the workforce to upskill as full-time students ($n = 1$), those who had lost their jobs recently ($n = 4$), and stay-at-home mothers ($n = 2$). Family sizes ranged from three to 10 people and five of the women were living in extended family settings whilst eight mothers lived with their nuclear families. All but two of the participants were married at the time of the interview. Household income also varied within the sample and, for the purposes of this study, participants were separated into three cohorts based on a clustering of their annual household incomes. Five families with annual household incomes ranging from FJD3,840 to FJD4,800 were classified as low-income households (LIH), five families with annual household incomes ranging from FJD15,000 to FJD35,000 were

classified as middle-income households (MIH), and three families were classified as high-income households (HIH) with annual household incomes ranging from FJD45,000 to FJD80,000. All women had at least a secondary education. Nine of the women reported gaining weight over the lockdown, three women shared that there were no changes in their weight, and one participant had recently given birth. Ethical approval for the study was given by the Research and Innovation Office of The University of the South Pacific and all participants were given pseudonyms to protect their identities.

Methods and Materials

Purposive sampling was initially used to recruit participants through community leaders to ensure a diverse representation of women in the sample, and theoretical sampling was used during data collection to saturate the themes. Participant inclusion was stopped based on the theoretical saturation – i.e., when no new information related to the themes was identified. Thematic redundancy was achieved by the ninth interview, and to confirm theoretical saturation, four additional interviews were conducted (Braun & Clarke, 2021).

Due to social distancing protocols enforced by the Fijian government during the time of this study (May to August 2021), in-depth telephone and Zoom interviews were conducted using a semi-structured interview guide with open-ended questions exploring changes in dietary patterns and food purchasing and eating behaviour since the COVID-19 lockdowns in mid-April. Informed consent was also obtained over phone at the beginning of the interview. All interviews were conducted in English and lasted approximately 50 minutes. Interviews were scheduled at a time convenient to the participant and participants were given FJD20 through online money transfer.

Data analysis

All interviews were manually transcribed verbatim within two days of the interview due to critical errors in Zoom auto-transcription. Inductive thematic analysis was used for data analysis and data analysis and collection were taken as "recursive" processes by the first author (Braun & Clarke, 2008, p. 86). The transcripts were read multiple times to generate initial codes manually. These codes where then used to identify potential themes and theoretical sampling was used to further saturate these themes. The themes were continually reviewed and updated and all data pertaining to each theme was coded across all the transcripts. The process produced a clear and refined set of interconnecting themes and a set of extracts from the transcripts to support each theme.

Results

Most of the participants (n = 11) shared changes in their diet, eating habits and food purchasing behaviour since the second wave of COVID-19 and the ensuing lockdowns, with some families being more affected than others. Seven of the women interviewed had either been laid off since the outbreak or their existing contracts were not renewed or were on reduced hours, and all seven women reported major changes in their diets, eating behaviour, and food purchasing behaviour, which they largely attributed to loss of family income. Four women whose families had not suffered loss of income since the lockdowns, attributed changes in their diet, eating behaviour and food purchasing to social distancing restrictions, lockdowns enforced by the government, distance learning and remote working arrangements, and an increase in health consciousness due to the pandemic. The changes reported by these eleven women are presented in this section

On the other hand, two of the women who were interviewed within a month of the COVID-19 lockdown shared that there had been little to no changes in their diets, eating behaviour and food purchasing behaviour since the lockdowns. Tevi, a stay-at-home mother from an LIH, continued making the same lunch (predominantly sandwiches) for her three children during the lockdown and cooking separate meals for other family members including her elderly parents who live with her. Her shopping routine also has not changed because she shops on the day she receives her social welfare assistance from the government. Lisa, who worked remotely during the lockdown, also shared that the diet of her family of ten had not changed during the lockdown. Lisa's family are vegetarian, and their diets consist mainly of locally grown fruits, vegetables and root crops, some of which she grows in her backyard garden. Both women also reported no changes in their weights.

Experiences and Responses to Food Security

Participants reported both positive and negative impacts of the pandemic on the availability of food and their ability to access food. Some mothers shared that, during the initial zonal lockdowns, supplies of groceries, fruits, and vegetables were momentarily disrupted, especially for communities living on the peripheries of GSUA.

> **Ru**: […] So, yes, it's the supply… the supply of food that we usually eat has really been impacted and apart even from what's in the market also supermarket and what the supermarket stocks up. […] So I guess this COVID lockdown is really impacting the supply of food, supermarkets don't stock up on the foods

that we normally prefer and we have to look for alternatives. But that was for a short time only. (aged 28, HIH, working mother – studying part-time, Nausori)

Faith: No, because we grow everything we eat and we only buy little stuff from the shops around the village. At one time we could not get sugar in the shop but just for a few days. (aged 30, LIH, laid off after COVID, village near Lami)

Access to food was greatly disrupted for families from LIHs who had suffered loss of income during the outbreak; participants from these families shared that they could no longer afford the food that they needed or used to consume.

Luisa: Io… you know my small baby, before he used to drink the formula milk? And then when COVID came, I lost my job and my husband has his pay cut… we had to… everything is cut down… I won't be able to buy milk for him. […] and instead of giving him milk, I had to feed him with boiled water or lemon tea… that… for him to have. At that time our cow doesn't give birth. But after it gave birth, now we get fresh milk from the cow and he has that. (aged 35, laid off after COVID, village near Suva)

Kala: When I was working, I was earning a lot and I used to buy a lot and stock it in the fridge… chicken and sausages and now that I'm not working and I'm at home, I just have to be within my budget. (aged 44, LIH, lost her job due to company downsizing, Vatuwaqa)

On the other hand, some participants shared that access to fresh produce, including fruits, vegetables, root crops and seafood, had improved during the lockdown due to door to door selling, home deliveries, and online marketing of fresh produce, livestock and seafood. Fruits, vegetables, and seafood stalls also had drive-through options where customers could select and pay for produce from their vehicles.

Sala: The good thing is that we also get people coming around and selling fruits and vegetables and we can also go to stalls that are like drive-through. You don't really have to get out of the vehicle. Also there are the Viber communities and Facebook pages where we can order fresh seafood as soon as they arrive. I think we get more seafood like lobsters and crabs because all the resorts are closed [laughs]. (aged 48, HIH, currently full-time student, Nabua)

Decrease in Consumption of Red Meat and Processed Meat and Increased Consumption of Fruits and Vegetables

Most participants who had experienced loss of family income during the second wave of COVID-19 shared that one of the first things that was removed from the family shopping list was meat and especially processed meat including corned beef, corned mutton, and sausages. The omission was especially notable in LIHs, where processed red meat was generally the most common source of protein. The omission also led to greater consumption of vegetables, as these families resorted to replacing meat with cheaper options such as vegetables, some of which were homegrown.

> **Lu**: You know before COVID, I see plenty people normally eat corned mutton, corned beef, bought from the shops but now it has really changed. People don't have the money to buy. Everyone is just planting their own vegetables and then they don't have to buy it. (aged 35, LIH, laid off after COVID, village near Suva)

> **Kala**: Well it really depends on case by case. If you are earning more, there will definitely be more meat in your meals. Like if both the couple are earning. But like us, right now, we find it hard to buy meat because we now have a smaller budget and we depend more on vegetables. But before when I was employed we used to eat a lot of meat. […] But I feel the more important factor is the household income because in a Fijian family, an iTaukei family, if the father, the husband is working, there is going to be meat. Like it's a must. (aged 44, LIH, lost her job due to company downsizing, Vatuwaqa)

> Another reason given by participants for increased consumption of fruits and vegetables was greater health consciousness during the pandemic as evidenced by the following report.

> **Kala**: […] because it is COVID and we want to be healthy and fit and no one wants to end up in the hospital during an outbreak! We eat more greens and meat is usually now only on Sunday. (aged 44, LIH, lost her job due to company downsizing, Vatuwaqa)

Greater Dependence on Energy Dense Foods to Ensure Satiety

Participants from LIHs who had suffered loss of income and constricted food budgets also shared that there was a greater dependence on energy dense foods, especially root crops, to ensure satiety.

> **Mere**: It's our root crops, Shaz. That's one thing that fills us up… the cassava, even if we have nothing else to eat, we eat boiled cassava with tea and we get full. So every meal we have root crops, and that will fill us up. (aged 49, LIH, laid off, Caubati).

> **Lu**: Io… like if there's cassava or *dalo*, I encourage them to eat more, because these are heavy foods and they will take them all through the night. And during the day they will have the energy to do their errands, play and its helps them grow too. (aged 35, LIH, laid off after COVID, village near Suva)

Bartering of Food Items to Increase Dietary Diversity

As a response to loss of income and money to buy items, LIHs with a farming background also resorted to bartering food items to access some of the foods that they could no longer afford.

> **Lu**: One another thing we have started doing here in the village. We barter, especially with the fishermen. So like when someone catches fish, I barter one 10kg flour bag full of cassava for a bundle of fish. I was telling them, "You this 10kg bag full, if we sell it in the town, it will be like $20". I have bartered *cassava* for fish… for *kaikoso*… and other things from the sea like that. We can barter vegetables, plenty of people here in the village are doing that now. (aged 35, LIH, laid off after COVID, village near Suva)

Lu's reports were further corroborated by Kala, who lives in a suburb near Suva. She shares that her family members from the village send her fresh produce that they farm and in return she buys them food items and kerosene from the shop. However, the latter arrangement appeared more of a courtesy, rather than a business arrangement.

Greater dependence and investment on home gardening

In addition to depending on home gardening to supplement diets due to loss of income for LIHs, participants from MIHs and HIHs also shared that, with lockdowns and remote learning and working in place, their families had started not only investing in backyard gardens but also routinely incorporated vegetables from their gardens in their diets. While this meant greater inclusion of fresh home produce, it also resulted in a loss of dietary diversity for some participants who preferred the convenience of homegrown produce instead of going to the markets to buy their fruits and vegetables.

> **Kesa**: Yes, COVID 19 has really, really, really changed a lot of things for my family, because everything was, you know, you have been confined to just one environment in one space, your own home. […] Yes, yes so now we have a little bit more time now with all of us at home, we have been growing things here in our backyard …we have lots of cabbage at home now and we well, apart from our normal bele and rourou. So I don't have to buy that. I use the cabbage with carrots and celery for stews and chop suey as well. I hardly go to the markets now, and just use the vegetables from the backyard garden and buy carrots and celery from the supermarket. [...] No, because we have young kids and they are not going to be vaccinated, we have been avoiding going to the markets [to buy fruits and vegetables]. (aged 27, MIH, full-time student and working part-time, Kinoya)

Increased Consumption of Herbal Medicine

Participants also shared that they had started to consume traditional herbal medicines during the outbreak to prevent sickness and ill-health. Some participants routinely used these, while others consumed them less frequently.

> **Kala**: We tend to drink a lot of Fijian medicine during COVID. Like pawpaw leaves, we boil that and drink that in the morning on an empty stomach. That is a really really good medicine. Its good for blood, for your immune system and your muscle. We also drink *layelaye* which is like a ginger, it's a family of a ginger. And the normal ginger too with hot water. We have started all of these during COVID. But before COVID, nope [laughs]. Because who ever even had the time to blend the pawpaw leaves [laughs]? (aged 44, LIH, lost her job due to company downsizing, Vatuwaqa)

> **Api**: Because my husband was brought up in the village he knows about herbal medicine. He makes a few things, and we take it reluctantly every now and then but not that much because I'm not a fan. So he makes *vevedu* that is being talked about and do you know *kavika*, the leaf? My husband makes them. (aged 41, MIH, on reduced hours, Caubati)

Reduction in Social Eating

Participants varied in terms of number of social and communal gatherings (e.g., weddings, birthday parties, work functions, funeral functions and church meetings) that they attended before COVID lockdowns. Some participants shared that would attend one to two such gatherings in a month, whilst others reportedly attended up to

four such gatherings per month, with the highest being four to five times per week. Regardless of the number of times participants attended these functions, it was widely shared that food, and especially meat, was the main feature of any iTaukei gathering, overeating was encouraged, and takeaways were common as evidenced by the following reports of participants.

> **Kesa**: In iTaukei gatherings, the meat is important. So it's usually the pork and maybe fish, but generally the pork and chicken and you will have root crops like cassava. And some palusami. But the main dish is always the meat. (aged 27, MIH, full-time student and working part-time, Kinoya)

> **Api**: […] Because when we go to a gathering, the food is in abundance so from my point of view, people just gorge themselves. And I am ashamed to say but some iTaukei families when they come to these gatherings, they come with their containers for takeaways for the family that didn't attend. And when people dish a little bit, others will keep encouraging, "C'mon c'mon, there's more, there's more. Have some more! There's plenty of food for everybody." So you are opening that door for people to overeat. So you can go for seconds, thirds and takeaways! (aged 41, MIH, on reduced hours, Caubati)

> **Sala**: Also in parties or social gatherings, you find that people keep nudging each other, sort of encouraging each other to eat more. Like "mai kana, mai kana" [come food]. And it seems to be a cultural thing too. Like part of iTaukei hospitality is to encourage your visitors to eat more. It's a Pacific culture… (aged 48, HIH, currently full-time student, Nabua)

At the time of the interview, social gatherings of any form were strictly prohibited by the Fijian Government and funerals were limited to ten individuals. Participants shared that the moratorium on social gatherings had major impacts on social eating as evidenced by the following conversation with Api.

> **Api**: Yes, I have found that during COVID, compared to when we had the freedom, with COVID, because we are not allowed to have functions, we have had a few deaths in the church, with the limited number that can attend, that person that's coming to the funeral, straight after the formalities, you are just given a takeaway and there's no other food dished, you just take that and you go and that's it. […] We have saved a lot of money in terms of these functions and especially in funerals, because funerals is a time when families flock all over from Fiji to attend and they will stay with the family till the end of the function. So that family has to then cater for all of the meals for everybody that has come

in for like week or so. And there's a lot of eating and drinking. People are just gorging themselves! And it's just all about the food! (aged 41, MIH, on reduced hours, Caubati)

Changes in Grocery Shopping

There was a general decrease in shopping from grocery stores and supermarkets for most of the participants and participants shared several reasons for the decrease. First, due loss of income some participants were no longer able to afford store-bought items. Second, social distancing protocols enforced by supermarkets meant that shopping trips required more time than usual and, third, participants reduced shopping trips to avoid contracting COVID. In the latter two situations, participants resorted to bulk buying and there was a greater dependence on smaller neighbourhood shops to replenish any urgently needed items. The following reports demonstrate these three reasons.

Lu: The money… the price of food is important because things are expensive now. And I lost my job too. So what we did was cut down on things we normally buy from the shop. Before we used to like buy plenty of tinned stuff from the store like tinned fish and corned beef and corned mutton and chicken and now during the pandemic, we just make do without it. (aged 35, LIH, laid off after COVID, Village near Suva)

Sala: For us, the grocery shopping has changed, instead of shopping weekly, now we shop monthly. One shopping trip now takes a bit longer and you have to adjust what time you go to avoid crowds so we try to now shop once a month. You know, we don't want to catch COVID or anything. And do bulk shopping. (aged 48, HIH, currently full-time student, Nabua)

Kesa: Shopping now requires more time to, like they have limits on the number of people who can be in the shop and at times, you end up standing in long lines outside, so the monthly shopping minimizes that. And if we forget something in the list, then we might go to the small stores just to avoid those long lines. (aged 27, MIH, full-time student and working part-time, Kinoya)

Participants who had faced loss of income also shared that they only focused on buying essential items and avoided unnecessary shopping by preparing grocery lists according to their revised budgets.

Kala: Well now I just focus on getting the essentials. I have cut our list down

and focus on just getting the important things. Like even, if I see something, I have to tell myself, "No, I have to stick to the list." Like setting priorities is more important now rather than buying based on wants. So it's just sticking to what we need that fortnight and that's it. (aged 44, LIH, lost her job due to company downsizing, Vatuwaqa)

Decrease in Food Wastage

Participants who had lost income during this pandemic also shared that they avoided food wastage in several ways. First, grocery shopping was more focused and unnecessary food items that may not be used were avoided.

Api: Like before, I would buy things like those different sauces and pasta that may sit in my cupboard for a while and even expire before I use them [laughs]. Now it's just what we need and that's it… (aged 41, MIH, on reduced hours, Caubati)

Second, participants also shared that they would cook enough for individual meals and reuse food the next day to avoid food wastage.

Mere: No Shaz, this is because of COVID and now we just have to use our money wisely so I just make enough and there's no wastage. So whatever, I serve, whatever I put on the table, my family just eat from that (aged 49, LIH, laid off, Caubati).

Kala: And one thing, food wastage at home has really decreased. Like because we are on a small budget, we just make enough and leftovers are always used for the next meal, like dinner leftovers, someone will have it for breakfast. There's no food sitting in the fridge and rotting away. So that's improved in that way. (aged 44, LIH, lost her job due to company downsizing, Vatuwaqa)

Increased Snacking, Cooking and Baking

All the participants in this study were spending more time at home since the lockdown due to loss of employment, reduced working hours, and working and/or studying remotely. Participants also reported increased snacking during lockdowns, which they attributed to (1) boredom, (2) access to the kitchen and snacks, (3) bulk buying of snacks, (4) increased cooking and baking, and (5) experimenting with new foods as evidenced by the following reports.

Kala: One of the things we have been doing more often during COVID is eating

fried food. And snack eating has gone up too, like we eat bongo, twisties and bean and peanuts and this is from you know the corner shops. We will just buy it when we are craving for it. Everyone's just bored and I suppose we eat when we are bored [laughs]. (aged 44, LIH, lost her job due to company downsizing, Vatuwaqa)

Ru: I eat a lot, I'm constantly eating. […] I mean, we're under lockdown and all, and you can't perform unless you are eating right? I mean there's the thermos, the milk and the tea! And then that does become a problem because you've got access to food all the time at home. (aged 28, HIH, working mother – studying part-time, Nausori)

Sala: That's a downside, so we end up buying all the snacks that we need for a month in that same trip and I find that the girls just finish it within a few days, a week tops. (aged 48, HIH, currently full-time student, Nabua)

Kesa: And you know people keep posting on social media the different foods they make, so we have been trying some of these like let's try this, let's try that. I have baked pizza. And I tend to feel like, you know, it's becoming too much, again, maybe the word for it is overconsumption of food, I guess, because you're staying at home, and you no longer have that routine so you end up eating and snacking a lot. (aged 27, MIH, full-time student and working part-time, Kinoya)

Reduction in Restaurant Meals and Fast-food and Greater Reliance on Home Cooked Meals

Participants also reported reduction in restaurant meals and especially fast-food, either due to loss of income, reduced access due to lockdowns, or concerns around minimizing the spread of COVID-19. However, it was also very clear from the interviews that participants missed their restaurant meals and fast foods as evidenced by the following reports.

Kala: Man I miss my takeaway. Especially my fried chicken and chips and burgers. I really do miss it. Sometimes I really crave for McDonalds, I really crave for fried chicken and chips, you know my body just wants it. Like I really crave for it. But can't do much about. Either I eat that one meal or feed my family an entire meal. Before when I was working I would have takeaways for lunch and even bring takeaways for everyone else, like on pay days. (aged 44, LIH, lost her job due to company downsizing, Vatuwaqa)

Api: For us, it has stopped dramatically. Because of the zonal lockdowns, we couldn't even go to places like Burger King, McDonalds, Wishbone to all those well know fast foods. And now because of the curfew, again it's hard to go out at night. So we now depend mainly on whatever I whip up at home and I am trying my utmost best to be creative about it. (aged 41, MIH, on reduced hours, Caubati)

Ru: And for me it's just a big no no for takeaways right now. I miss junk food, I do miss takeaways, I miss Jojji's, I miss Macca's. But if it's coming at a price of the safety of my community members of my family members, family members of either other families who have to go out to work in this food service industry. And I think the decision is clear, you know, go force yourself to be healthy and not eat fast food… for now. (aged 28, HIH, working mother – studying part-time, Nausori)

Changes in Meals and Eating Patterns

Another impact of lockdowns and remote working and studying practices was a shift in meal patterns. Participants shared that, since family members were now studying and/or working from home, brunch was more common where families combined breakfast and lunch, followed by a lighter dinner, which was usually high in carbohydrates.

Kesa: Sometimes, sometimes, when it is a heavy lunch, like right now during COVID that we are having brunch, then we have a tea and bread for dinner. But we have kind of changed during COVID. Before COVID and lockdowns, we would focus on dinner as the most important meal of the day. Like I would cook a proper meal but then we are starting to have a something heavy for lunch, like what we would have for dinner and then just have tea and bread for dinner. (aged 27, MIH, full-time student and working part-time, Kinoya)

Sala: Yes, now we have brunch. Like they wake up late so we combine lunch and breakfast. Or if we have a late breakfast, then combine lunch and dinner and have something light in the evening like I would bake pies and cake and we will have that with tea. (aged 48, HIH, currently full-time student, Nabua)

Discussion

This study explored the impact of the COVID-19 lockdowns on the diets, eating behaviour and food purchasing behaviour of iTaukei families living in the GSUA. The study documented positive and negative changes and recorded the various ways in which these families navigated the COVID-19 safety protocols and the changes brought on due to the lockdowns, including loss of income and changes in work and study routines.

Consistent with other studies, food insecurity was featured prominently in the interviews. The disruptions in household food supply reported in this study have also been recorded in other countries, prompting a re-analysis of the food supply chain (FSC) due to the impact on food security in these countries (e.g., in Southeast Asia by Musa & Basir, 2021). However, according to the participants of this study, initial disruptions in food supply due to lockdowns were resolved fairly quickly and food providers such as supermarkets and fresh produce vendors rapidly adapted to the changed circumstances by introducing services such as online shopping (for more established supermarkets), door to door selling, home deliveries, and drive-through market options. Local farmers, livestock owners, and fishermen also increased their outreach to potential customers through advertisements on social media groups. Musa and Basir (2021) suggest that this increased reliance on domestic produce will be fundamental to resolving any future disruptions in FSC. Moreover, similar success of online business platforms and social media marketing for small food service providers during lockdowns has also been recorded in other urban centres (e.g., Patma et al., 2020) and can be another important approach for promoting and increasing domestic food consumption.

Food insecurity was prolonged and seemingly permanent for LIHs and MIHs in this study who had experienced loss of income, and it affected dietary diversity and access to balanced meals for these families. Escobar et al. (2021) suggest that COVID-19 lockdowns and social distancing protocols have disproportionately affected occupational statuses and incomes of individuals of lower socioeconomic backgrounds because they tend to be employed in sectors such as tourism, manufacturing, retail, and food services, which have been severely affected by the pandemic. In addition to the impact of loss of income on diet of LIHs and MIHs, this study also documented how these families effectively managed their resources and finances to meet family meal demands on a reduced budget. A prominent feature of their adaptation was reallocating resources and reorganizing shopping lists by focusing on the essential food items to meet the changes in their budgets, which

resulted in three main positive dietary outcomes: (1) a reduction in consumption of red meat and processed meat, (2) increase in consumption of domestic fruits and vegetables, which were either home grown or were relatively cheaper options, (3) a reduction in eating out and greater reliance on home cooked meals. Participants also shared that they greatly reduced food wastage through better meal planning, and some used bartering of farm produce to increase dietary diversity. However, a concerning behaviour reported by participants who had suffered loss of income was greater reliance on energy dense root crops to ensure satiety, which can further increase rates of overweight and obesity in these populations. Similar reliance on energy dense foods and particularly inexpensive starchy foods was recorded in a two-city study in Bangladesh for residents from LIHs and those who had experienced loss of income due to COVID-19, and it raises serious concerns about the long-term impact of food insecurity on the health of vulnerable populations (Ruszczyk et al., 2021).

Reduction in social eating, which according to participants encouraged overeating, and a reduction in the consumption of fast foods, takeaways and restaurant meals, which are often associated with unhealthy meals (Partridge et al., 2020), were also reported by the majority of the women in this study due to COVID-19 safety protocols and/or loss of income. Additional time at home also meant that families invested more time in home gardening, included home produce in their meals and generally relied more on home cooked meals, which studies indicate contributes to healthy eating (e.g., Bennett et al., 2021). Another promising response to the second wave of COVID-19 was a greater concern for health resulting in a focus on healthy eating through inclusion of more fruits and vegetables in diets.

Furthermore, unhealthy eating was also reported due to increased cooking and baking of unhealthy snacks and food, feelings of boredom due to changes in work and study routines, and bulk buying and stockpiling, which resulted in increased snacking. Another cause for concern was the changes in meal patterns reported by participants, whereby two main meals such as breakfast and lunch were combined followed by a lighter snack for dinner, usually consisting of sugary foods like cakes, bread and tea. These two practices may explain why ten of the thirteen women indicated having gained weight during the lockdown. This is especially concerning as higher rates of obesity and overweight are already observed within the iTaukei population and amongst women in Fiji (Fiji NCD Risk Factors: STEPS Report 2011, 2015).

The increased concern for health and the healthy changes in diet and eating behaviour none-the-less offers several opportunities for further enhancement of healthy eating.

The increased interest in home gardening during COVID-19 lockdowns provides an avenue for supportive activities, including through outreach, and can serve as a mechanism to address food insecurity for families who have gardening space (Mullins et al., 2021; Niles et al., 2021). With limited skills and resources, most of the families in this study focused on leafy greens, which are easier to grow, and their dietary diversity can be enhanced through more training on home food procurement skills. Bartering of food items for families who had experienced loss of income to increase their dietary diversity was another interesting response to food insecurity, which solidifies the importance of development of home food procurement skills and facilities, especially for families vulnerable to food insecurity (Mullins et al., 2021; Niles et al., 2021). These findings also provide support for the Fijian Government's emphasis on home gardening initiatives for addressing food security in Fiji and especially in meeting the 2030 Agenda on Zero Hunger (Fijian Government, 2021). Families who had also experienced loss of income demonstrated better management of finances and resources, including through avoidance of food wastage and unnecessary buying; these behaviours present an opportunity to further enhance these skills and practices. The findings of this study also highlight the need for food literacy for mothers who cook for the family, as some mothers viewed a "lighter tea" comprising of energy dense foods, sugary snacks, or bread and tea for dinner as a healthier option.

Limitations

This study has several limitations. Firstly, the study did not consider the impact of lockdowns and remote work and studying on sedentary lifestyles, which can also have serious implications on weight, health, and NCD risk (Muhammad & Abubakar, 2021). Furthermore, while the study recorded experiences of iTaukei families in the GSUA in relation to diet, eating behaviour and food purchasing behaviour, these findings are open to social desirability biases, and experiences of other Fijians may differ. Future research should explore experiences of other sections of the Fijian population, especially non-metropolitan Fijians, and consider triangulation of findings using mixed methods research design, which include quantitative surveys with larger samples. Participants also self-attributed changes to COVID-19 safety protocols or to loss of income, and future research should explore whether the positive behaviours continue after the lockdowns. For instance, while there was a decrease in consumption of fast foods and takeaways in this sample, participants also shared how much they missed these foods.

Conclusions

None-the-less the findings of this study highlight some of the ways that COVID-19 safety protocols have impacted the diet, eating behaviour, and food purchasing behaviour of families living in the GSUA. The positive changes in diet, eating behaviour, and overall management of resources to address food insecurity provide great insights into how iTaukei families in GSUA navigated the COVID-19 safety protocols and provide opportunities for promoting healthier eating lifestyles, better management of resources, and enhancing food security. However, the unhealthy eating practices and the self-reported weight gain recorded in this study are concerning as they can further increase the burden of NCDs, which account for 80% of all deaths in Fiji (WHO, 2014a, 2014b). While the focus of the Ministry of Health of Fiji has been largely around containing the outbreak, the long-term effects of the COVID-19 safety protocols on health need to be also considered, and interventions to mitigate unhealthy eating and weight gain need to be considered for any future situations.

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We Are All in This Together: Evaluating Human Rights Restrictions in Selected Pacific Island Countries During Pandemic

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Abstract

During the COVID-19 pandemic, many countries around the world have resorted to restricting some human rights. Different measures from limiting the freedom of movement and assembly to the conditions to the right to work have been enforced to protect the right to life. Pacific Island Countries (PICs) are no exception; since the beginning of global outbreak, several PICs have enforced different limitations to human rights, and have done so even when the communities have not been directly exposed to the coronavirus at the time. This paper analyses these restrictions in four PICs (Fiji, Samoa, Solomon Islands and Tonga) through the literature on limitations and derogations of international human rights law. While Pacific Island Countries should be praised for quick responses to the pandemic that have saved lives from the COVID-19, this article argues their governments must also be critically scrutinised for the consequences of the adopted responses from a broader human rights perspective.

Keywords: COVID-19; Fiji; Human Rights; Pacific Island Countries; Samoa; Solomon Islands; State of Emergency; Tonga

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Prologue

After the first COVID-19 outbreak in Fiji in 2020[1], life was fairly normal for us for a long time. Closed borders meant that tourism halted and resorts were offering amazing deals under the 'Love Your Locals' initiative. We saw our island home during the first year of the pandemic like we never would have in normal circumstances, cruising to the most beautiful and remote islands that were previously the reserve of wealthy tourists. At the same time, we grew increasingly conscious of sharing our joy on social media as friends and family back home in Europe were struggling with the rising numbers and restrictions. Of course, the reality for many Fijians was not quite as picture perfect as for us expatriates. The death of tourism meant that thousands of people had already lost their jobs and fallen under the poverty line.[2]

Soon after the first confirmed cases, the Fiji government imposed nightly curfew hours. The official justification for the curfew was public health. For someone born and raised in Finland where, arguably, the protection of civil and political rights is as strong as it gets anywhere in the world[3], the struggle throughout the first year of the pandemic centred on these limitations to civil rights, such as restrictions to the freedom of movement and assembly. Surely, they did not affect our personal lives much. But, to me, the justification for curfew never seemed legitimate. Before the second dramatic outbreak of 2021, Fiji had over 300 days of zero community transmission, yet the government did nothing to lift these restrictions. Hundreds of people were consequently arrested for breaching curfew regulations. The child of the Global North was thinking this unjustified and a breach of not only my rights but also, more importantly, those of Fijian citizens.

Many, however, supported the curfew. Here, my Western upbringing had to come to terms with a more collective approach to human rights of Pacific islanders. The curfew was in place, many argued, to protect society from misbehaviour and crime. It was justified because of increasing poverty and hardship in the communities. I was more inclined to see the arrested juveniles than these communal justifications. I was more occupied by reading alarming research coming out all over the world of the

[1] The first Pacific cases were detected in French Polynesia, a French overseas territory, on March 11, 2020. Fiji followed on March 19.

[2] According to the Household Income and Expenditure Survey (HIES) published in February 2021, 29,9% of Fijian lived in poverty, 41% of people in rural areas (Gounder, 2021).

[3] Freedom House (2021), for instance, gives Finland 100/100 in its annual ranking on the protection of civil and political rights.

side effects isolation and lockdown were having in the realms of mental health and domestic violence – especially violence against women and children, already endemic in the Pacific region. The governmental approach made me anxious, as I felt that the protection of individuals and their rights were not being taken seriously.

Introduction

I explicate my personal feelings and reactions during the first year of the pandemic because they affect how I approach the questions I wish to explore in this paper. The study at hand combines the normative analysis of policies and legislations passed in Pacific Island Countries (PICs) at the time of pandemic to the study their impact on human rights. PICs offer an interesting focus for a research exploring limitations of human rights during the pandemic, as many of them have adopted austere restrictions to some key human rights, yet have also used different legal grounds for implementing these measures.[4] For instance: Samoa, Solomon Islands and Tonga have all enforced the state of emergency, while Fiji has not. Interestingly, the former three all declared the state of emergency before any community cases, while the latter refrained from doing so, even when positive cases were fast increasing.

In all of these countries, the restrictions to rights have included curfews, bans on gatherings, and school closures. In 2021 – when this research was conducted – only Fiji has had a significant number of cases.[5] Fiji, Tonga and Solomon Islands have adopted some form of mandatory vaccination policy as a way out from the pandemic, while Samoa is providing a nation-wide house-to-house inoculation programme.

As stated in key international human rights treaties such as the International Covenant on Civil and Political Rights (ICCPR) and the International Covenant on Economic, Social and Cultural Rights (ICESCR), any limitations to fundamental human rights have to be proportional. The paper evaluates the restrictions to rights

[4] The scope of this paper does not allow me to go in detail to the situation in every single PIC. Instead, I have chosen some important restrictions to the rights used in selected countries, and looked at their justification from the human rights perspective. Access to information regarding specific restrictions in different countries has also limited the scope of this work. The paper should not therefore be considered a comprehensive study of human rights limitations in the Pacific region.

[5] The COVID situation is fast evolving. In mid-2021 when this paper was first written, Fiji has had over 50,000 cases, Solomon Islands 20, Samoa one and Tonga none. At the time of revisions (February 2022), the situation has changed: Fiji's total number of positive cases is over 63,000, Solomon Islands' close to 1500, Samoa 32 and Tonga 3 (World Health Organisation, 2022). The analysis, however, concentrates on the restrictions made *prior* to 2022 and before to surges in numbers in late 2021.

implemented in selected PICs by comparing them to the international human rights obligations of these states, the general principles regulating restrictions to human rights at the time of crisis, findings by international organisations, and responses to the restrictions by local civil society organisations. The research draws on the academic and legal literature on limitations and derogations of human rights[6], whilst keeping in mind the global nature of the pandemic and human rights obligations of PICs.[7]

The paper then makes some policy recommendations for steps out from the health crisis in the Pacific region by relying on human rights-based approach (United Nations, 2021b; see also Lundy & McEvoy, 2021, p. 77) that has individual rights at its core. It further argues that the Pacific governments have to exercise extreme caution when imposing curfews and other restrictions to rights and freedoms of their citizens. Finally, governments must be held accountable for any potential human rights breaches and violations occurring *because* of COVID-restrictions. While Pacific governments can, and should, be praised for their timely responses at the initial phases of pandemic, they also have to be scrutinised for the measures they have chosen that have limited – and, in some cases, potentially violated – individual rights.

[6] At the time of writing this paper, the majority of academic literature on limitations and derogations of human rights in relation to COVID-19 has concentrated on the European Union. While the Pacific restrictions are generally comparable to the discussions in Europe, it is essential to note that the legal systems, as well as the level of protection of human rights in the Pacific and Europe are not the same. The literature used here, therefore, has been utilised at the level of theoretical guidance, rather than applied as such to the Pacific case.

[7] It must be noted that PICs vary greatly regarding their ratification status of core international human rights covenants. Fiji has ratified all 'Big Nine' of human rights conventions: ICCPR; ICESCR; Convention on Elimination of all forms of Racial Discrimination (CERD); Convention on the Rights of the Child (CRC); Convention on Elimination of Discrimination Against Women (CEDAW); Convention against Torture and other Cruel, Inhuman or Degrading Treatment or Punishment (UNCAT); Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families (CPMW); Convention on the Rights of Persons with Disabilities (CRPD); and the International Convention for the Protection of All Persons from Enforced Disappearance (ICPPED). Solomon Islands has ratified ICESCR, CERD and CRC; Samoa ICCPR, CEDAW, CRC and ICPPED. Tonga, finally, has ratified *none* of the UN human rights instruments so far. While only ICCESR and ICCPR have clear articles on derogations to the rights, the general principles on restrictions to human rights are still useful when thinking about COVID-measures, even if the country under consideration has not ratified a particular human rights instrument protecting a particular right in concern. (United Nations, 2021a)

Conditions of restrictions to human rights under international law

According to Article 4 of the ICCPR, the Parties to the convention may, "in the time of public emergency that threatens the life of the nation and the existence of which is officially proclaimed", take measures *derogating* from their obligations under the covenant. Article 4 then continues that *no* derogations are allowed from Article 6 (the right to life), Article 7 (prohibition of torture and other inhuman and cruel treatment), Article 8 paragraphs 1 and 2 (prohibition of slavery and servitude), Article 11 (imprisonment on the ground of inability to fulfil contractual obligation), Article 15 (prohibition of criminal responsibility ex post facto), Article 16 (recognition before the law) and Article 18 (freedom of thought, conscience and religion).

The ICESCR, in turn, states in Article 4 that "the State may subject such rights only to such limitation as are determined by law only in so far as this may be compatible with the nature of these rights and solely for the purpose of promoting the general welfare in a democratic society". Both covenants, therefore, recognise there may be moments in which *some* derogations from or limitations to fundamental human rights provided in these covenants are necessary. Both documents also acknowledge, however, that the threshold for such measures remains high.

International human rights law discusses both limitations to rights and derogations from them. This distinction is important, as these are regulated differently (Spadaro, 2020). Limitations to human rights can be used in *both* normal *and* emergency situations, whereas derogations are permissible only when the state of public emergency has been declared. According to the Siracusa Principles, presented by the UN Economic and Social Council in 1984, the restrictions that states can pose in the name of public health and safety are limited to following conditions: the restrictions must be provided for and carried out in accordance with the law; the restrictions must be directed toward the legitimate interest, that of public health; the restrictions must be strictly necessary to achieve the objective; the chosen restrictions must be the least restrictive and intrusive; any decision must be based on scientific evidence and be non-discriminatory in its application; and the rights should be limited in duration, respect human dignity and be subject to review (Rusi & Squarri, 2020, p. 170).

According to the General Comment No. 29 by the UN Human Rights Committee (United Nations, 2001) regarding Article 4 of ICCPR on states of emergency:

> a fundamental requirement for any measures derogating from the Covenant, as set forth in article 4, paragraph 1, is that such measures are *limited to the extent strictly required by the exigencies of the situation*. This requirement relates to

> the *duration*, *geographical coverage* and *material scope* of the state of emergency and any measures of derogation resorted to because of the emergency. (emphasis added)

On the scope of derogations, the Committee further articulates that:

> the mere fact that a permissible derogation from a specific provision may, of itself, be justified by the exigencies of the situation *does not obviate the requirement that specific measures taken pursuant to the derogation must also be shown to be required by the exigencies of the situation*. In practice, this will ensure that *no provision of the Covenant*, however validly derogated from *will be entirely inapplicable* to the behaviour of a State party. (emphasis added)

The important point here is that while states have the right to derogate from the Covenant at the time of public emergency, they must do so within a strictly limited scope and only to the extent that it is necessary. No derogation that would discriminate citizens on the ground of race, colour, sex, language, religion or social origin are permitted, and no exemption can be inconsistent with *other* existing human rights obligations of the state (national or international). States are further obliged to guarantee remedies for any violations of rights under the Covenant and maintain the rule of law and access to justice. Any state that wishes to resort to the state of emergency and the power of derogation under Article 4 of the ICCPR must immediately notify other state parties (through the United Nations Secretary-General) of the provisions from which it has derogated, and the reasons for such measures. The state party must also update the UN on any developments regarding the state of emergency, including its extension.

At the early stages of pandemic, the United Nations (2020a) reminded its member states that they "should not *abuse* emergency measures *to suppress* human rights" (emphasis mine). Whilst noting the pressing nature of the global health crisis, the UN experts highlighted the significance of the *principle of proportionality*, stating that "any emergency responses to the coronavirus must be *proportionate*, *necessary* and *non-discriminatory*". The experts reminded the member states that acceptable emergency measures have been clearly regulated under international law and that the international bodies should be duly notified of any restrictions to fundamental human rights, such as the freedom of movement, family life, and assembly.

The principle of proportionality determines whether any given limitation or derogation to a human right is justified. The principle of proportionality can be found in both civil and common law systems and it provides guidance for evaluating state

practice. Simply put, it judges the reasonability of any restrictions to the right.[8] The principle thus helps us to establish whether any restriction introduced is not only legitimate, but is also non-arbitrary, necessary, and does not extend further than required given the exceptional circumstances. It requires that *all* laws and regulations that affect human rights should be proportionate and reasonable, meaning that any restriction to the human rights must meet a strict criterion.

Firstly, in order to be proportional, any restriction to the right must be *adequate,* that is, be suitable in achieving the purpose it is seeking for. If a restriction to free movement, for instance, would not prevent the virus from spreading in the community (which I am *not* claiming is the case), restricting the right to free movement would not be adequate. It would therefore fail to fulfil the test of proportionality.

Secondly, the restriction must be *necessary*. This means that any restriction to the right must be among those potential restrictions that are necessary to achieve the purpose. For example, if closing schools is not necessary for stopping the spread of the virus through the community – if the spread could be controlled by other means, or if schools prove to be non-significant from the perspective of overall or severe case numbers – then school closure is not justified from the perspective of right of the child to education.

Thirdly, in order to pass the test of proportionality, any restriction must also pass the test of proportionality in its *stricto sensu* meaning. Therefore, one needs to examine and compare the benefit delivered towards the legitimate aim used to justify the restriction, and the severity of its intrusion into other human rights. No new law restricting a human right can bring with it more harm than good. For instance, if placing the whole population under a strict lockdown means that a great part of it becomes vulnerable to domestic violence – or under a threat of falling under poverty line – one has to weigh the pros and cons of such a lockdown. This means looking at proposed measures not only from the perspective of public health, but taking an *all things considered* approach. Protecting some individuals cannot cause disproportionate harm to others. (Cianciardo, 2010, p. 177-181)

When thinking about the human rights obligations of states, it is important to remember that states have adopted and ratified numerous of the core nine instruments

[8] It must be noted here that legal scholars do not all unanimously reduce proportionality test to reasonability. Instead, some require a more structured test. It is beyond this paper to go in detail into these debates, but I wish to thank Martin Scheinin for reminding me about this important point.

and, therefore, have different international obligations regarding the fulfilment of human rights. The Convention of the Rights of the Child, for instance, is the most widely ratified human rights instrument in the world, and also the most widely adopted international human rights treaty in the Pacific. At the same time, only a handful of PICs have ratified the ICCPR and ICESCR. Interest in voluntary commitment to human rights in the Pacific region has increased, but many countries continue to remain outside the framework of main international human rights instruments.

From the perspective of COVID-19, the most important restrictions have been made to the rights stipulated in the ICCPR and ICESCR – rights which Pacific Islands leaders have often argued "are already guaranteed under their constitutions and other domestic laws, including customary laws", and have therefore not formally adopted these treaties (Subedi *et al.,* 2021, p. 7). That said, many rights in these two documents also belong to the *jus cogens* norms (e.g. the right to life, freedom from slavery)[9], and so already define the limits of state action under public emergency such as pandemic. Through their peremptory nature, the fulfilment of these rights can be analysed even in cases in which the state in question has not ratified these covenants.

In addition to the international human rights obligations, states also have obligations to their citizens under their constitutions. Many states have indeed opted for making modifications to the domestic law through enabling stricter public health measures, or by limiting the operation of certain high-risk businesses in order to contain transmission. According to the human rights-based approach, any restrictions to domestic laws must also meet the test of proportionality, necessity and non-discrimination, thereby preventing any authoritarian tendencies and abuse of power during crisis. Whereas many restrictions have been justified from the public health perspective, others have caused increased public health concerns, including increased instances of domestic violence, as mentioned above (United Nations, 2020b).

When the pandemic reached the Pacific shores during the first half of 2020, many states in the region took firm measures to protect their populations. These measures included halting all international travel, closing schools, and enforcing local and nationwide lockdowns. While broadly used around the world to prevent community transmission and therefore secure public health and safety, these measures also have consequences beyond the elimination of transmission of the virus itself, and therefore

[9] Peremptory norms of international law to which *no* derogation is permitted.

have to be evaluated through the principle of proportionality. Most importantly, some states called for the state of emergency *without* any actual cases of community or border transmission, imposing severe national restrictions. Some of these restrictions are problematic from the perspective of human rights.

Around the world, the state of emergency has prevented enjoyment of certain rights provided by the international human rights law, including the right to education and the right to free movement. By the early stages of the pandemic – April 2020 – almost twenty countries globally had resorted to derogation, officially declaring the state of emergency and notifying the relevant international bodies of their plans to be exempt from some of their treaty obligations. The number of derogations due to COVID-19, as Martin Scheinin (2020) has noted, was unprecedented, and raises many important questions about the protection of human rights during a global health crisis.

Lockdowns and curfews

One of the most visible restrictions introduced in many Pacific countries – even those that have no cases, or did not have them at the time when the restrictions were first introduced – have been lockdowns and curfews. The stated purpose of lockdowns has been to prevent community transmission by limiting the movement of people, either locally or nationwide. Lockdowns have also allowed health officials time to do the contact-tracing and testing necessary for gauging the spread of virus. From the perspective of public health, planned lockdowns can be necessary for making a careful analysis of the situation.

Fiji was the first Pacific Island state to report positive cases in March 2020. During the first months of outbreak, the country reported 72 positive cases and two deaths. After prompt measures, the virus was quickly contained and the country enjoyed almost a year of COVID-contained status from June 2020 onwards. All the positive cases were efficiently stopped at border quarantine facilities. The country then experienced a second wave when the virus escaped from a quarantine facility and into the community in April 2021. By October 2021, the country had recorded over 50,000 cases and over 600 deaths[10], together with over 500 COVID-positive patients that have died with other underlying conditions. It must be noted that the number of positive cases is not a reliable measure of Fiji's epidemic situation, as health officials decreased systematic testing in June 2021 to focus resources on treatment of severe COVID-19 cases.

[10] As of February 2022, the death toll has arisen to over 800.

Since the beginning of local exposure, the Fijian government has enforced strict counter-measures. The country had closed its borders from mainland China already in February 2020. The main international airport in Nadi was then closed to all international travel from March 26. The government also enforced a nightly curfew. At the time of writing this paper, the curfew had been in place non-stop for over a year, including the period when the country was COVID-contained. The curfew remained in place when the country reopened its borders to international tourists in December 2021, and was finally lifted in February 2022. Over two years of curfew, Fiji's police force has reported arrests of numerous individuals on a daily basis. An overall number of arrests has not been made public, but hundreds of individuals have been fined for different curfew offences. To give an example of scale: between August 13-15, 2021, 78 curfew breaches were reported (Radio New Zealand, 2021a). Social gatherings make for a good proportion of daily curfew breaches, however, due to a lack of detailed data it is difficult to have a clear picture of reasons why people have breached curfew orders.

In Fiji's case, the constitutional power to declare the state of emergency has not been used. Despite exponential growth in cases during the second wave, the government stayed firm that the state of emergency is not needed and that it would be harmful socially and economically. One reason why the government has not used the state of emergency might be the obligation to notify the United Nations, stipulated in Article 4 of the ICCPR. Fiji is the only PIC under review here that has ratified both the ICCPR and ICESCR, and therefore has a strict treaty obligation to report to the UN of *any* derogation made to the rights protected under the ICCPR.

The case of Solomon Islands, Samoa and Tonga is a different one. Solomon Islands declared the state of emergency on March 25, 2020 under section 16 of Solomon Islands Constitution. At the time, there were *no recorded cases* of COVID-19 in the country. However, the threat of COVID-19 'seemed great': the population is susceptible to transmissible diseases and the access to healthcare, especially in rural areas, is limited. The state of emergency, therefore, was a *precautionary* measure. While the state of emergency was not the first in the history of the country, it was the first time that it has been used *prior to an actual crisis*. Measures in the case of Solomon Islands included border closures, halting inter-island travel, bans on informal markets, and closure of schools. (Ride & Kekea, 2020).

As of October 2021, Solomon Islands have had 20 positive cases and no COVID-

related deaths. No new cases were reported in 2021.[11] Regardless of this, the government extended the state of emergency on the basis of health crisis several times. In July 2021, the government declared that "it is necessary to take measures to ensure that COVID-19 is not transmitted from person to person within Solomon Islands (including by controlling the entry of persons into Solomon Islands and requiring the quarantining and testing of persons)" (Solomon Islands Government, 2021a). In August 2021, the government imposed a 36-hour lockdown in Honiara stating that "to test and sharpen our preparation and response plans is pertinent in preparation for limited re-opening of flights" (Solomon Islands Government, 2021b).

Tonga and Samoa have both also declared the state of emergency and extended it several times during the pandemic. Samoa first declared the state of emergency on March 20, 2020 (Samoan Government, 2020) – a day after the first case was identified in Fiji and two days after the first suspected case was tested in Samoa. International travel was halted, schools closed, and Samoan nationals, for instance students from Fiji, were advised to return home (Radio New Zealand, 2020). The state of emergency has since been regularly extended (Samoan Government, 2021), even if the (then) only positive coronavirus case in the country was reported in November 2020. It is worth noting here that Samoa is a party to the ICCPR.

In turn, the Kingdom of Tonga declared the state of emergency on March 20, 2020. A nationwide lockdown was declared on March 29, and included gathering restrictions and nightly curfew. As with Samoa and Solomon Islands, the state of emergency has been regularly extended in Tonga, despite the fact that there have so far been no active cases of coronavirus in the country (Tongan Government, 2021).[12]

The human rights law permits curfews and lockdowns. However, "such measures should always have *a proper legal basis*, be *evidence-based, geographically targeted*, and *temporary"* (Scheinin & Moelbek-Steensig, 2021, p. 6), further implying that curfews and lockdowns can only be introduced through the state of emergency, as they entail derogations – and not mere limitations – to human rights.[13] It is debatable whether the almost two years-long curfew, as in the case in Fiji, or

[11] Positive cases in the Solomon Islands quickly escalated in January 2022 when the Omicron variant was detected in the community. A similar fast rise in numbers has been seen in the previously COVID-free country of Kiribati (*France24,* January 25, 2022).

[12] The eruption of Hunga-Tonga Hunga-Ha'apai volcano on January 15, 2022, and the aid efforts that have followed have raised justified concerns of COVID-19 entering the country. Two positive cases were reported in early February (The Guardian*,* February 2, 2022).

[13] Again, I am thankful for Martin Scheinin for this clarification.

'precautionary lockdowns', as in the case in the Solomon Islands, Samoa and Tonga pass the test of temporality and necessity. Just weeks before the second outbreak in April 2021, the civil society organisations in Fiji called for an end to the 'stay-at-home-law', which at the time had lasted over 300 days – being allegedly one of the longest-running in the world (ABC Radio Australia, 2021a).

From the perspective of freedom of movement, Fiji's months-long curfew is not justifiable, as it does not pass the test of being temporary, or geographically defined. The curfew was enforced in the whole country, including areas without the history of community transmission. At the time this paper was written, the government had not yet provided a clear indication of when the curfew could be fully lifted, even if it had otherwise prepared for opening the society and international travel, including the tourism sector.[14] Importantly, Fiji has not declared a state of emergency or notified the UN of these formal derogations from the ICCPR.

The reactions to the pandemic have shown not only the severity of the global health crisis, but also the growing influence of the precautionary principle (PP) – "better to be safe than sorry" (Meßerschmidt, 2020, p. 268). Declarations of a state of emergency in the Solomon Islands, Samoa and Tonga are excellent examples of how the precautionary principle guides government policies. The justification for a 36-hour mock lockdown in Solomon Islands was to "test and sharpen" preparation, particularly for the Delta variant. It was argued that it is "vital to maintain operational preparedness," and to test the response capabilities of frontline personnel. When Tonga for the first time declared the state of emergency, it was stated that the virus has spread worldwide, and "in countries proximate to Tonga". The mere closeness of the virus was considered a sufficient reason for restrictive measures.

It must be noted here that a lack of virus in the community itself does not make the preparations necessarily unjustified. As Klaus Meßerschmidt accurately notes, "dangers that are distant in time and space and the low probability of occurrence must also be considered with likelihood and severity of harm in inverse relation" (2020, p. 273). At the same time, whereas the precautionary principle has gained some prevalence in the European Union case law, its further application in relation to human rights limitations (especially outside the protection of the EU law) must be analysed with caution. As Meßerschmidt further argues, "the application of the PP

[14] In his statement of October 10, 2021, Prime Minister Voreqe Bainimarama noted that "a curfew is not normal and cannot exist indefinitely". At the same time, however, it was only confirmed that "once we have the data to show that the virus no longer presents a serious public health threat, we will lift the curfew entirely" (Fijian Government, 2021a).

must *under no circumstances* lead to *the suppression of other legal standards*, in particular those of national constitutional law" (emphasis added) (ibid, p. 281). A particular point of concern in the application of the precautionary principle in the Pacific context is the lack of a supreme regional court (Jalal, 2009), in which any abuse of governmental power and unjustified limitations to the national constitutional rights could be contested (as it is the case in the EU context).

Finally, any restrictions to movement have to also be evaluated through their overall impact on society. Curfews and lockdowns place women and girls in particular in a vulnerable position, as it is the case that "for women already living in abusive and violent relationships, enforced social isolation and quarantine are particularly dangerous, putting women at risk because they are confined with their abuser" (Pacific Women, 2021). In the Pacific, the governments themselves have discussed very little in public about the negative consequences of lockdown measures to vulnerable groups. The awareness advocacy on sexual and physical violence during lockdown has been predominantly left to international and civil society organisations (Al Jazeera, 2021).

Mandatory vaccinations

Perhaps the most publicly contested feature of COVID-strategies both in Fiji and the Solomon Islands has been the mandatory vaccination. Fiji's 'no jab, no job' policy was introduced in early July 2021. In a statement to the public, Prime Minister Voreqe Bainimarama grounded the new policy by noting that under Fiji's constitution, guidelines can be issued that adhere to all public servants. By emphasising the government's duty of care, Bainimarama justified the new policy: "No jab, no job – that is what the science tells us is safest and that is now the policy of government and enforced through law" (Fijian Government, 2021b). The Cabinet of Solomon Islands adopted a similar policy later in the same month, requiring mandatory vaccinations for government employees and civil servants (Pacific News Service, 2021).

Hesitancy over vaccinations, especially at the beginning of immunisation campaigns, has been high in all PICs. Fake news and social media rumours have been widely spread against vaccinations (see e.g. Hansen, 2021). The safety of the vaccinations available to each country has also been questioned (ABC Radio Australia, 2021b; Radio New Zealand, 2021b). By January 2022, Fiji has vaccinated 74% of its population at least once and 68% of population twice. In Solomon Islands, respectively, 28% of the population has received one vaccine, while 11% of

population have been fully vaccinated (Our World in Data, 2022). In Samoa, the government organised a two-day snap lockdown in September 2021 with a goal to encourage the inoculation of 99% of the eligible population (Asia and the Pacific Policy Society, 2021).[15] Although Samoa used mandatory vaccinations after the measles outbreak in 2019 (Al Jazeera, 2019), it has not (at least officially) enforced mandatory vaccination this time.

From the perspective of human rights, individuals are considered having the right to choose regarding any medical treatment provided for them. According to Article 7 of the ICCPR, "no one shall be subjected without his free consent to medical or scientific experimentation". Article 12 of the ICESCR, respectively, states that everyone has the right "to the enjoyment of the highest attainable standard of physical and mental health," and that state parties to the covenant must take steps to achieve realisation of this right. A compulsory vaccination, in turn, could be defined as a duty to vaccinate with a fear of negative consequences if refused. The mandatory nature of a vaccine is often implied *indirectly* through linking it to enjoyment of certain (non-essential) services, such as preschool, or situations such as attending a concert or dining at the restaurant (Krasser, 2021, p. 208).

Individuals may refuse having a vaccine for several reasons. Early in the pandemic, there was little information about the COVID-19 vaccinations, which is why people globally were suspicious of them. Individuals are entitled to have sufficient information regarding any decision over medication or treatment affecting them. In order to protect their dignity and integrity, individuals are also considered as having the right to make decisions regarding their bodies. They also have the right, protected by the ICCPR, to hold an opinion without interference (Article 19), and the right to freedom of thought, conscience and religion (Article 18). Both these principles protect individuals if they refuse any medical treatment on religious or other conscientious grounds.

When a mandatory vaccination is introduced, the dilemma from the perspective of human rights is the following: on the one hand, we wish to protect individual autonomy (i.e., consent); on the other, we must protect the common good of society, as well as the right to life of those who cannot, for whatever reason, be vaccinated. Mandatory vaccinations are of course already practiced in many societies. The measles vaccination, for instance, is an obligatory requirement for travel to many

[15] As of February 2022, Samoa has vaccinated 71% of its population at least once, and 62% have received two doses (Our World in Data, 2022).

Pacific Island countries.[16] Children, moreover, are being vaccinated with the consent of their parents rather than with their own (see e.g. Zagaja et al., 2018).[17]

As a way out of the pandemic, several countries around the world have started to introduce vaccination requirements for accessing certain services. Usually, these services are considered non-essential (restaurants, concerts, recreational grounds, flights), rather than essential (health care, education, social services). Fiji and the Solomon Islands, as explained above, have both required vaccinations as a requirement for work (see e.g., Fiji Village, July 12, 2021). From the perspective of human rights, the right to work is complex, interlinked as it is with the right to adequate livelihood, the right to unionise and to earn a decent living among others. According to Article 6 of the ICESCR – ratified by Fiji and Solomon Islands – the state parties must recognise the right to work, "which includes the right of everyone to the opportunity to gain his living by work which he freely chooses or accepts and will take appropriate steps to safeguard this right." Obviously, the 'no jab, no job' policy appears to stand in contradiction to such right and is, therefore, problematic.

Both Fiji and the Solomon Islands have justified mandatory vaccinations of public and private sector workers by the protection of public good. In the case of Fiji, the mandatory vaccination policy has been taken to court by a group of individuals contesting its legality (ABC Radio Australia, 2021c; The Fiji Times, 2021).[18] By September 2021, the government had terminated contracts of 54 medical personnel and 122 teachers, who have refused the vaccine (Fiji Sun, 2021). While most of the population has decided to get vaccinated – either voluntary, or after the implementation of 'no jab, no job' policy – there are a significant number of individuals whose right to work has been at least contested by the mandatory vaccination. From the perspective of human rights, it is questionable if anyone has the right to *any* job they wish, and an argument can be made that public sector professions such as doctor, police officer, or teacher require the individual to be vaccinated if they want to keep a job. In these cases, the benefits to the community seem to outweigh the burden on the individual (vaccine/loss of work) when the individual is potentially putting others, especially those who cannot be vaccinated for

[16] I would like to thank Gordon Nanau for pointing this out to me.

[17] Legally speaking, vaccination of children is not a mandatory vaccination. Fiji, for instance, began the immunisation of minors in September 2021, requiring that parents/guardians must sign a consent form at the vaccination centre (Ministry of Health and Medical Services, 2021).

[18] At the time of writing this paper, the High Court had not yet ruled over the case.

any reason (e.g. children), at risk.

At the same time, it must be remembered that the right to work is also a human right and should not be limited lightly. Losing one's job might have serious consequences, all with significant impact on other human rights. When introducing such strong measures to encourage vaccinations, governments should be prepared to offer unvaccinated individuals alternative job avenues or social security. It is not clear whether either Fiji or Solomon Islands have introduced efficient re-employment programs or education opportunities for individuals in such cases.

Invisible children's rights

One of the least discussed groups of rights-holders throughout the COVID-19 pandemic is children. They do not belong to the high-risk category regarding severe forms of disease, nor were they first to be vaccinated when immunisation began globally. At the same time, children have seen many of their rights limited – most notably the right to education. Article 13 of the ICESCR as well as Article 28 of the CRC both recognise the right of children to access education. In all PICs explored here, schools have been closed for long periods of time. As noted by Gounder and Narayan (2021), "unless teaching and learning loss is recovered, the pandemic will exacerbate existing learning inequities in education – especially the gap between high- and low-achieving students and other vulnerable groups (such as those without access to the internet and computers)".

School closures in the Pacific have been introduced nationwide. From the perspective of the rights of the child, the decision to close *all* schools – including in areas in which there have been *no* active COVID-19 cases – is questionable. While the motivation behind such a measure has undoubtedly been an equal treatment of all children and a reliance, again, on some sort of precautionary principle, it can be argued that it has undermined the rights of thousands of children to equitable education. Whereas in Fiji approximately 70% of individuals have access to internet, in the Solomon Islanders that figure drops to only 29% (Kemp, 2021a, b). Remote learning, moreover, requires not only the availability of sufficient technology, but also teachers equipped to offer online teaching and support. In Fiji, teachers were requested to provide worksheets for parents to collect for their children. A great responsibility for learning has been put on parents, many of whom have lost their livelihoods during the pandemic. Keeping schools in non-COVID-19 affected areas open – especially on outer islands – would have provided governments more resources to concentrate on learning gaps that school closures will inevitably cause

and to focus additional support in areas where schools have been closed for direct public health reasons.

The school is not only a place of learning, but also a place where children should have access to at least one safe adult. Already after Fiji's first wave in 2020, reports were made of increased numbers of child abuse (see e.g. FBC News, 2020). In a statement of September 2020, then-Minister of Women, Children and Poverty Alleviation Mereseini Vuniwaqa stated that "the government of Fiji will keep working with all relevant stakeholders towards a society free from violence. I emphasize that violence against women, girls and children is preventable, not inevitable, and we all shall and can play our part" (Fijian Government, 2020). In 2020, Medical Services Pacific post-rape clinic in Suva received a total of 206 survivors, the majority of whom were brought to the Child Abuse and Sexual Offices Unit. There was an increase of 50% from 2019 (UNDP Pacific, 2021).

Sexual violence against children is an epidemic across the Pacific. In Solomon Islands, as noted in a recent report, one third of female children have been sexually abused or raped before the age of 15. The Australian Council for International Development report (2020, p. 5) states that the secondary impacts of COVID-19:

> impact women and girls greatest in countries with pre-existing high rates of [gender-based violence] and a lack of social and economic support services. *Impacts on women and girls include being confined with abusers, school closures, loss of income*, disproportionate caregiving and domestic responsibilities, and frontline care for the sick. (emphasis added)

School closures do not only therefore affect the right to education. The different limitations to rights already imposed have had significant consequences on the wellbeing of children in all countries – the consequences of which we unfortunately will not fully understand for some time.

Individual rights in the collective health crisis

In a recent pilot study on human rights compliance and public health resilience, Martin Scheinin (2021) makes an interesting observation that countries that have fulfilled their human rights obligations across the four main pillars of human rights protection – economic, social and cultural rights; political and civil rights; equality and non-discrimination; and the rule of law – have also been able to protect the most fundamental human right, the right to life, most efficiently throughout the pandemic. The countries that ranked highest in a pilot study conducted in 17 countries were

Taiwan, Finland and Portugal. While the order of countries varied in relation to the different set of items examined, the outcome supports "the conclusion that strong human rights performance in respect of any category of human rights entails or requires general human rights compliance across all categories. In human rights law this phenomenon is referred to as the principle of interdependence and indivisibility of all human rights" (Scheinin, 2021, p. 6). Fulfilment of civil and political rights – such as the right to free movement or assembly – is directly connected to economic, social, and cultural rights such as the right to health, the right to work, and the right to education. While the study was not conducted in the Pacific region, there are some important lessons to be learned for PICs.

First, it is essential to remember the interdependence and indivisibility of all human rights. This means that even at the time of a public health crisis, other human rights must be respected, protected and fulfilled as well as the rights to health and life. Here, one can arguably note that the PICs studied for this paper have not succeeded in protecting the civil and political rights of their citizens during a pandemic. While many of the measures adopted can be justified from the perspective of public health and safety, they have not always passed the test of proportionality or necessity when evaluated from the perspective of other rights, even the right to life. The lack of public data on domestic violence, for instance, makes it difficult to estimate the consequences of months-long lockdowns for women and girls in the Pacific countries. The studies worldwide, however, paint a grim picture on the relationship between lockdowns and the abuse of women and children.

Second, the precautionary principle should be applied with caution. While it is understandable that vulnerable PICs have used proactive means to protect their citizens from coronavirus, it is questionable whether *all* restrictions enforced have been necessary for the goal. From the perspective of vulnerable populations in particular, some restrictions have had unintended consequences with severe human rights dimensions. Moving forward, Pacific governments need to reposition themselves regarding precautionary measures, taking into account the human rights-based approach that looks at rights broadly and considers them in all political decision-making.

Third, the Pacific decision-makers must be scrutinised for their use of emergency measures, especially when the state of emergency has been renewed several times *without an acute health risk* posed by transmission in the community. As we have learned, the test of necessity is crucial for any human rights limitations and should not be taken lightly by the persons in power. Accountability to and transparency of

decisions made regarding restrictive measures rests with the respective governments and state agencies. Parties raising concerns about the consequences of such restrictions – or even providing much needed assistance to individuals in need – have at times been seen as opposing the government in the Pacific. The use of restrictive measures offers a slippery slope to authoritarianism, especially in countries in which parliamentary oversight is weak and civil society has no effective means (such as free media or the right to assembly) to raise their concerns (Spadaro, 2020, p. 6-8). The restrictions to fundamental human rights at the time of a pandemic should not be co-opted to supress political opposition.

Conclusions

This paper has looked at the restrictions to human rights imposed in different Pacific Island Countries during the COVID-19 pandemic. Due to their status as developing countries, many PICs are particularly vulnerable to external threats such as the global health crisis. The Pacific has experienced devastating epidemics in the past, which explains the prompt responses to the coronavirus in early 2020. Many countries in the region have resorted to strong legal measures to prevent the virus from arriving to their shores and have thereby been able to protect their citizens from it. At the same time, the pandemic and restrictions to rights – globally and nationally – have had negative impacts for all PICs.

A public health crisis tests not only resilience but also lawfulness of any given regime. While the temptation to bend the rules under the state of public emergency might be great, governments around the world have been tested in relation to their capacity to protect their populations broadly (not only from COVID-19), as well as their ability to maintain good governance despite the crisis. The pandemic has been a timely reminder of the interdependency and indivisibility of our rights. Governments from liberal democratic to authoritarian have resorted to restrictions of some rights, illustrating the challenge that balancing various rights poses to societies worldwide. While the first reaction has emphasised the right to life and public health and safety, the longer the pandemic has extended, the more important other rights and their protection has become. The negative side effects of restrictions to civil and political rights, such as the right to free movement or assembly, have been widely recorded from the suppression of opposition to domestic violence.

The pandemic has also been a timely reminder to the Pacific governments of their power and responsibility towards their citizens. If the pandemic had health impacts only for those infected, the exercise of restrictive measures would have been

relatively easy to implement. Unfortunately, even in the case of health one cannot just ignore the other, equally important human rights of all people in a given society. Restrictive measures implemented in the Pacific would have been widely criticised in some other societies. Institutionalising human rights might still be at its early stages in many PICs, but that does not mean that governments in the region should not be held accountable for the decisions they have made; decisions that might have significant consequences for the protection of human rights in the future.

Afterword

The pandemic has offered an opportunity to investigate the protection of fundamental rights in the Pacific, as well as hopefully providing us some insight on the importance of balancing individual and collective rights and freedoms. As my prologue illustrates, I entered into this process from a Western individualistic human rights perspective, with a strong liberal democratic ideology defining my approach to universal human rights.

In living through the pandemic in the Pacific, and witnessing the policies and discussions here, I have revised my approach to these rights. While I still firmly believe that governments should be held accountable for restricting individual human rights unnecessarily, I also have sympathy to the Pacific governments aiming at keeping their citizens safe with limited resources. Following the discussions on COVID-restrictions and vaccination strategies globally, I believe that there are important lessons that especially liberal democratic Western societies could learn from the more collective approach to the pandemic chosen by the Pacific Island Countries.

I cannot, for instance, quite understand why in Europe businesses could not restrict access from those who refuse to get vaccinated. While I believe that essential services in a democratic society must be available to all, I am not as convinced that we could not enforce some collective responsibility also to those who voluntarily decide to put others at risk. While I personally do not support mandatory vaccination policy, I do believe that individuals bear responsibility for their decisions, especially when they are related to the fulfilment of the rights of others.

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Post-COVID-19 Students' Remote Learning Experiences from the Discipline of Tourism and Hospitality Management at The University of the South Pacific

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Abstract

The COVID-19 pandemic changed the perceptions and feelings of belonging to a community, country, or world. The increase in worldwide mobility and travel has affected many in recent decades. Pacific Island mobility is focused on education, employment, migration and maintenance of familial ties, with travel for leisure relatively uncommon except for visiting friends and relatives. However, the abrupt pause on travel within Fiji on 30th March 2020 left many with unanswered questions and a lingering sense of uncertainty and fear. This intensified with increased COVID-19 cases in Fiji and The University of the South Pacific (USP) moving to online learning. While the transition from the physical learning environment to virtual platforms highlights the potential of online learning in Pacific Island Countries, it is important to understand student experiences and perceptions to assist with the planning and development of academic curricula.

This study investigated students' online learning experiences in the Discipline of Tourism and Hospitality Management at the USP post-COVID-19, using an online survey and Zoom to conduct interviews. The study aimed to understand the effects of the different core components of the online learning environment on the students'

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experiences and perceptions. In addition, the study investigated the coping measures students used to deal with self-isolation, maintaining relationships, and the sudden change from onsite to online classes caused by COVID-19. It explored the extent to which students have been affected by the pandemic. Findings revealed that while students found online learning difficult, they reported a generally positive attitude towards this mode of study. Online learning allowed students to spend more time with their families and friends. Students also found new and innovative ways to utilise technology to facilitate their learning. However, students did miss the socialisation aspects of attending face-to-face classes and faced mental health issues such as anxiety, stress and depression. This study will contribute to research in online education in tourism and hospitality literature and help educational institutes, including USP, with future curriculum planning and development.

Keywords: COVID-19, online learning, remote teaching, South Pacific, student learning experiences, tourism and hospitality education

Introduction

COVID-19 was a global pandemic which resulted in countries implementing lockdowns, enforcing physical distancing, encouraging the use of sanitisers, preventing social gatherings, closing schools and encouraging vaccinations (Ratten, 2020) to control the spread of the virus and bring life back to 'normal'. Since the closure of leisure travel in March 2020, most Pacific countries have experienced dramatic revenue drops for tourism-related businesses. With the emergence of new variants and the slow vaccination process, Pacific Island nations are continuing their lockdowns, physical distancing, enforcing masks and discouraging social gatherings to control the spread of the virus (Ratten, 2020).

The educational sector was significantly affected by this pandemic, and institutions changed their mode of delivery from face-to-face learning to remote online or virtual learning. The pandemic was particularly challenging for programmes with experiential courses that offer elements such as field trips and internships (Brammer & Clark, 2020; Marshall & Wolanskyj-Spinner, 2020). Studies (Ali, 2020; Aucejo et al., 2020, & Ghazi-Saidi et al., 2020) have revealed that educational institutes worldwide have moved from face-to-face learning to online since the World Health Organisation declared COVID-19 a global pandemic in 2020. This allowed institutions to continue with their academic programmes during the pandemic. COVID-19 has generated extraordinary challenges for such Higher Education Institutions as the Discipline of Tourism and Hospitality Management (DTHM) at the University of the South Pacific (USP). DTHM has now moved away from traditional settings to online classrooms. The pandemic has meant that all academic and industry professionals have had to make innovative decisions about providing meaningful student experiences, especially for such experiential aspects of courses as field trips and internships. The transition initially caused anxiety to students and instructors, but for instructors significantly, having the technical skills, prior online teaching and learning experiences, and infrastructure helped them cope with the sudden changes.

In this context, the paper has raised questions such as: How did higher education students cope with remote online learning during the pandemic, especially in Pacific Island Countries? How has the pandemic affected teaching and learning practices at DTHM? What were some of the challenges faced by students, and how has this situation changed the behaviour and attitudes of students during the pandemic? COVID-19 has exposed the vulnerabilities in our educational systems and the need

to explore flexible and resilient education systems that are appropriate to the times and challenges we face, including the need for social and psychological support systems. Several research studies have been published about the impact COVID-19 has had on online learning experiences. These studies considered several perspectives, such as student motivation and engagement (Cranfield et al., 2021; & Ferrer et al., 2020); the importance of attitude in online learning (Ferrer et al., 2020), and the use of online learning platforms and their related challenges (Al-Kumaim et al., 2021). However, few studies have been conducted on student learning experiences and perceptions, especially in the South Pacific.

This article investigated the online learning experiences and perceptions of students from the Discipline of Tourism and Hospitality Management at USP post-COVID-19, using a SurveyMonkey online survey and Zoom interviews. The objectives of the paper are as follows:

1. To examine the effects of the critical challenges of online learning on the students' experiences and perceptions. These include eLearning tools and the online learning environment, the impacts of the online mode on education, and teacher and school support in the online learning environment.

2. To investigate the barriers and the benefits of students' online learning, such as coping measures students used to deal with self-isolation, maintaining relationships; and the extent to which students have been affected by the sudden change from onsite to remote classes caused by COVID-19.

The shift of the learning environment from physical to virtual highlighted the need to develop online learning in Pacific Island Countries. This study contributed to research in online education in tourism and hospitality literature. It has also identified elements in the online course content and course delivery that contribute to students' online learning satisfaction. Instructors at USP can further modify their online course components to proactively enhance the student online learning experience. There has already been much investment in ensuring the availability of courses in flexible learning modes due to travel restrictions and the inability of students to return to the main campus of USP Laucala. Technical training has been provided at USP on the use of remote online learning tools for course coordinators, students and offering additional student support.

Towards Online Learning

USP is one of three regional universities worldwide (Halter, 2020). It serves 12 member countries scattered over 32 million square kilometres of the Pacific Ocean. Since its inception in 1968, USP has provided face-to-face, print, blended, and online modes of learning experiences to its students. In early 2010 USP started to explore the possibility of converting its courses to online mode (Halter, 2020). Online learning is any learning experience that uses the Internet or the World Wide Web as the primary mode of communication and presentation (Appana, 2008). USP has dedicated significant time and attention to upskilling its academic and professional staff to develop an effective online learning environment. This was seen as a timely move to transform learning in the region, but the initiative had its challenges, which included outdated infrastructure; the inability of the Moodle-based Learning Management System to cope with thousands of log-ins; irregular power in regional countries; students' access to smartphones and other ICTs; costly internet access; and maintaining and monitoring a sense of community (Halter, 2020).

Narayan and Singh (2020) studied online learners' experiences at USP and found that most learners were satisfied with the online course design and delivery. Positive learning experiences included timely feedback greater flexibility from course coordinators, and greater opportunities for interaction among their peers. Johnson, Reddy, Chand, and Naiker's (2021) study on the attitudes and awareness of regional students towards online learning found that 88% of students at USP owned at least one electronic device that allowed access to the internet. They also found that most students were technologically savvy and positive towards online learning. Many tertiary students from around the region could access the internet and computers because of the facilities and services provided by USP through USPNet. Web conferencing tools such as Zoom, Webex and Big Blue Button (BBB) have enabled more accessible communication and interaction between staff and students. Several studies have claimed that online learning provided educational opportunities for students to access course content as well as allowed interaction with course coordinators and peers irrespective of where they are located (See Dhawan, 2020; Dutta, 2020; Gikas & Grant, 2013; & Nihalani & Mayrath, 2010). There was also high student satisfaction regarding the pace of learning and the focus on student learning needs which led to increased learning (Adedoyin & Soykan, 2020).

Impacts of COVID-19 on Learning and Education

The emergency lockdown imposed by most countries during the COVID-19 pandemic profoundly impacted all aspects of social interaction and workplaces (Gossling. Scott & Hall, 2020; Kaushal & Srivastava, 2021). Traditional higher education providers had to adjust from predominantly face-to-face teaching to fully online or remote learning. The pandemic had created a unique opportunity for education providers to make changes to traditional curricula so that students could complete parts of their programmes, such as virtual internships, which were part of DTHM students' undergraduate degree programmes (Bilsland, Nagy & Smith, 2020). This fundamentally changed core teaching and assessment practices (Cranfield et al., 2021). As with other sectors, studies have shown negative impacts on higher education institutions due to COVID-19. Mok, Xiong & Rahman's (2021) study found that students from higher education institutions in Hong Kong were extremely dissatisfied with their online learning experiences and preferred courses delivered in modes which offered opportunities for social interaction. The absence of face-to-face opportunities with lecturers and hands-on practical activities is one of the main drawbacks of online learning (Dorovolomo, Rodie, Fito'o &Rafiq, 2021). According to a survey of 1500 students in one of America's largest public institutions (Aucejo et al., 2020), COVID-19 also led to a decrease in enrolment numbers, delayed graduations and loss of employment.

Other challenges included attendance tracking, assessment, evaluation, interactive lessons, travel restrictions, and psychological support (Suleri, 2020). Students in higher education who were graduating and facing challenges with online learning and future job opportunities were among the most at-risk groups for psychological issues (Jiang, Yan-Li, Pamanee, &Sriyanto, 2021). Their findings revealed that anxiety was the most problematic issue with students, followed by depression and stress. Blachandran, Alagarsamy, and Mehrolia (2020) stated that there was an increase in suicide rates among students due to the mental instability caused by the pandemic. Elmer, Mepham, Stadtfeld, and Capraro (2020) conducted a study to compare students' mental and social well-being in a Swiss university. Findings revealed that students were at risk of depression, social isolation, and anxiety depending on how COVID-19 affected them and those with whom they had a close relationship. Students worried about their academic and career goals were more likely to have anxiety, whereas those concerned with their family and friends' safety had a higher probability of being depressed. Some students were at a higher risk of social isolation and increased issues in mental health during the pandemic. This had

a profound effect on their wellbeing.

Abuhammad's (2020) study that reviewed distance learning challenges faced by students in local Jordanian Facebook groups found that challenges encountered could be categorised into four thematic areas: personal, technical, financial, and logistical barriers. Personal barriers included lack of training and support, technical knowledge, communication and lack of qualifications. Technical barriers included poor connectivity and high maintenance costs. Logistical barriers included a lack of student preparation and the incapacity of distance learning to meet students' needs, especially face-to-face social interaction. Financial barriers included the inability to buy technology and pay for internet services. Barriers could be removed, and the quality of distance learning enhanced if inter-school, student-student and teacher-student online relationships were developed and supported through appropriate policies and strategies. Proper training for teachers and students could bring about meaningful engagement and greater interest in using distance learning tools. Governments, internet providers; and training institutions should agree on costs [devices, internet, and technical support] for students to engage in distance learning.

Narayan and Singh (2020) found that student challenges at USP included poor internet connectivity and first-time online learners' unfamiliarity with navigating tools for online learning platforms such as Moodle and Zoom. At the USP regional campuses, students faced financial difficulties due to job losses, lack of ICT resources, lack of IT knowledge, and difficulties in printing online material and accessing the internet due to its cost (Dorovolomo et al., 2021; Lagi, 2020; Naiker et al., 2021). For lecturers at USP, it meant finding ways to effectively engage students, develop and monitor online communities (Halter, 2020), keep students interested and convert traditional onsite internships into virtual internships to provide students with experiential skill-based learning.

Methods

A mixed methodology was used to conduct the research. Data had been collected using purposive sampling with an online SurveyMonkey survey (n=235) and Zoom interviews with students (n=13) and teaching staff (n=7). The survey was conducted in Semester 2, 2021 with students enrolled in TS107, TS208, TS302 and TS405. The survey for this study consisted of 21 questions (See Appendix 1), which, apart from general demographics, were divided into the following themes to answer the research objectives:

i. eLearning tools and the online learning environment.
ii. Impacts of the online mode on education.
iii. Teacher and school support in the online learning environment.
iv. Barriers to students' online learning; and
v. Benefits of students' online learning.

These questions were adapted from the Global Shapers Community (2020) COVID-19 Youth Survey Report undertaken by WHO (See Appendix 1). This study disseminated 800 survey links via SurveyMonkey to DTHM students in TS107 Tourism in the South Pacific (1st year course), TS208 Operational Issues for Hospitality (2nd year course), TS302 Strategic Services Management in Hospitality (3rd-year course) and TS405 Entrepreneurship and innovation in tourism and hospitality (Postgraduate course) and received 235 completed responses which was a 29% response rate. Given that students were in lockdown and contactable only via the Internet and mobile phones, it was decided that SurveyMonkey would be used to disseminate the survey. The survey included a variety of open-ended and closed questions, with several questions containing a series of statements rated using a Likert scale.

The Zoom interviews with 13 students took 40 minutes to conduct (See Table 1). The relatively low response rate could be attributed to the remote learning mode undertaken by DTHM students, the lack of face-to-face contact between course coordinators and students, the length of the survey (20 minutes) and students having limited data and computer access to complete the survey. Table 1 listed the respondents for the interviews, their demographics, programmes, and the courses they were enrolled in. Data were coded according to the five common themes (See page 6) and further analysed using content analysis resulting in 27 codes indicating different student experiences and perceptions towards online learning. These themes were deductively derived from existing literature before the empirical analysis. Data were checked and triangulated by analysing responses to similar questions and themes and face-to-face interviews. All respondents were informed about the details of the study. Participation was voluntary, and respondents could withdraw from the study anytime. Only the researchers had access to the data. The study was approved by the USP Human Research Ethics Committee and conducted following the USP's Human Research Ethics Policies, which guides researchers on ethical research, particularly in the South Pacific Region.

Table 1. Face-to-Face In-Depth Interviews

Respondents	**Ethnicity & Gender**	**Country of Origin**	**Age**	**Programme**	**Mode**	**Year of Study**	**Courses enrolled in S2 2021**	**Interview Schedule**	**Interviewer**
1. Respondent 236	Indian Female	Fiji	20	B. Com Hotel Management	F2F Remote Learning	2nd year student	TS208, TS213, TS216, UU204	Thursday 23/09 11.30 am	HH
2. Respondent 237	Regional Male	Vanuatu	50	B. Com Management & Human Resource Management	Print & Online	1st-year mature student	DG100, LW112, PL101, TS106	Wednesday 22/09	EB
3. Respondent 238	Indian Female	Fiji	20	B. Com Tourism & Hospitality Management	F2F Remote Learning	2nd year student	TS208, TS213, TS216, UU200	Monday 27/9 6.30 pm	EB
4. Respondent 239	Fijian Male	Fiji	20	B. Com Hotel Management	F2F Remote Learning	2nd year student	MG201, TS208, TS213, TS216	Tuesday 28/9 6 pm	EB
5. Respondent 240	Fijian Male	Fiji	20	B. Com Tourism & Hospitality Management	F2F Remote Learning	2nd year student	UU100, TS208, TS213, TS216	Thursday 23/09 7.30 pm	HH
6. Respondent 241	Indian Female	Fiji	20	B. Com Hotel Management	F2F Remote Learning	2nd year student	TS208, TS213, TS216, UU200	Wednesday 22/9 6.30 pm	HH
7. Respondent 242	Indian Male	Fiji	20	B. Com Tourism & Hospitality Management	F2F Remote Learning	2nd year student	TS208, TS213, TS216, UU204	Thursday, 23/9 2pm	HH
8. Respondent 243	Fijian Female	Fiji	40	B. Com in Hotel Management	F2F Remote Learning	2nd year	TS208, TS213, UU204 ED184	Thursday 23/9, 6.00pm	HH
9. Respondent 244	Solomon Islands Male	Solomon Islands	22	B. Com Tourism & Hospitality Management	F2F Remote Learning	2nd year	MG201, TS208, TS213, TS216	Thursday 23/09 11 am	EB
10. Respondent 245	International Male from Korea	Fiji	23	B. Com Tourism & Hospitality Management	F2F Remote Learning	2nd year	MG201, TS 213, TS216	Monday 27/09 Time 7 pm	EB

Respondents	Ethnicity & Gender	Country of Origin	Age	Programme	Mode	Year of Study	Courses enrolled in S2 2021	Interview Schedule	Interviewer
11. Respondent 246	Indian Male	Fiji	20	B. Com Management & Public Administration and Human Resource Management	F2F Remote Learning	1st year	MG101, MG106, TS109, MG204	Sunday 26/9 12.20 pm	HH
12. Respondent 247	Rotuman Female	Fiji	23	B. Com. Financial Management & Tourism Management	F2F Remote Learning	3rd year	FM302, FM305, TS302, TS311	Tuesday 28/9 8.00 pm	EB
13. Respondent 248	Fijian Male	Fiji	30	B. Com Tourism & Hospitality Management	F2F Remote Learning	3rd year	MG101 TS311	Tuesday 28/9, 7.00pm	HH

Course Legend

DG100 Introduction to Leadership, Governance and Human Rights
ED184 Physical Education and Leisure Education I
FM302 Financial Management in the Pacific Region
FM305 Financial Risk Management
LW112 Legislation
MG101 Introduction to Management
MG106 Introduction to Human Resource Management
MG201 Organisational Behaviour
MG204 Management of Employment Relations
PL101Politics of Development
TS106 Introduction to Tourism
TS208 Operational Issues in Hospitality
TS213 International Tourism
TS216 Integrated Industry Learning in Tourism and Hospitality
TS302 Strategic Services Management in Hospitality
TS311 Sustainable Tourism
UU100 Communications and Information Literacy (USP Calendar, 2021).

Findings

RO1: To examine the effects of the different key challenges of the online learning environment on the students' experiences and perceptions.

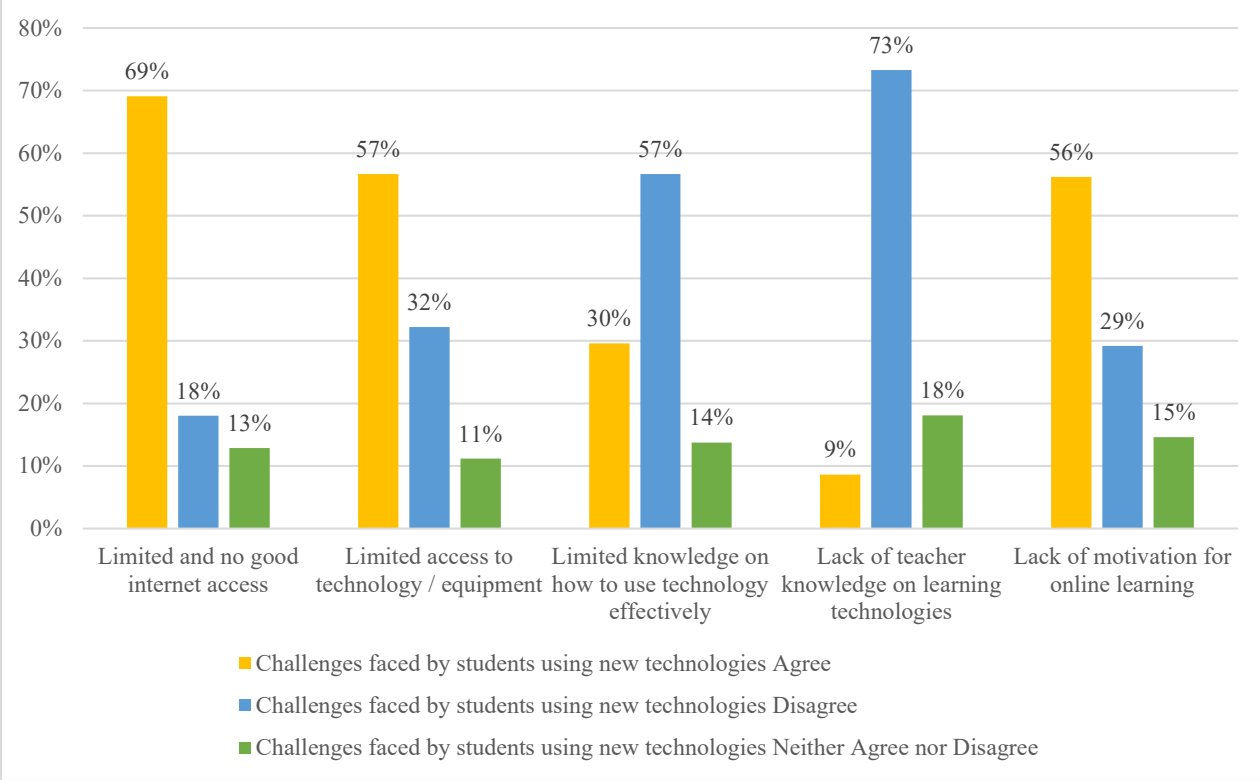
The first research objective was assessed with the following themes:

i. eLearning tools and the online learning environment
ii. Impacts of the online mode on education
iii. Teacher and school support in the online learning environment

Key Challenges with the Online Learning Environment

The sub-themes that emerged from the data analysis under this category were connectivity and internet access, hardware and software, familiarity with educational or conferencing applications such as Zoom, access to online course resources, students' and instructors' knowledge of online learning technologies.

Figure 1. Challenges faced by students using new technologies



The key aspects of the online learning environment, such as hardware, software, student learning resources and teacher support, were important to student learning. Figure 1 above illustrates that 69.1% of respondents found it difficult to access the internet. At the same time, 56.65% had limited access to technology and equipment. While 29.62% of students struggled with the introduction of new online learning platforms such as Zoom and other online conferencing tools, 73.27% indicated that teachers were able to use technology effectively. The survey also indicated that 59% of respondents found that the weekly Zoom video conferencing lectures and tutorials had positive impacts on their learning.

Common responses from students included: challenges with connectivity, conferencing software issues; lack of access to relevant hardware or technology and limited knowledge of technology. As explained by Respondent 48,

> I think some students are really struggling to cope with their work, and they receive poor grades. The internet connection is so bad in the West, and most of the time, Zoom is not working, and we are unable to attend classes which also affects our attendance, and this affects our marks. It is more difficult for students who use their mobiles because the mobile's storage capacity is less, and we cannot access PDF documents or Excel and have difficulty contacting our group members. If one member has access to everything (laptop, better internet connection) and the others do not, it becomes unfair as one person will end up doing most of the work.

The majority of students lack access to the internet and relevant technology, as echoed by Respondent 115, "We lack technology and access to the internet". At the same time, according to Respondent 81, they possessed "limited knowledge and skills of using technology". There were numerous training workshops offered by the Centre of Flexible Learning (CFL) and Information Technology Services (ITS) at USP that students could have attended to upskill but many seemingly did not do so.

On the other hand, Respondent 236 (See Table 1) argued that she had to improve her computer literacy, increase her knowledge of the Moodle learning platform and related technology, stating that:

> COVID-19 has made me more tech-savvy. I usually used my phone, so I barely used laptops, but now I have taught myself with the help of YouTube and MS applications on my laptop to be more computer literate. I have a computer, laptop, and phone; the network is around 80%.

This was also supported by Respondent 242, who claimed that "It was very difficult for me to learn on Zoom, to navigate and connect to the internet and download all those things. But now I have learnt to teach myself and am coping very well".

Impacts of online mode on student education

The shift from face-to-face learning to the remote online mode has significantly impacted student learning.

Figure 2. Online Mode of Study and Impacts on Student Learning

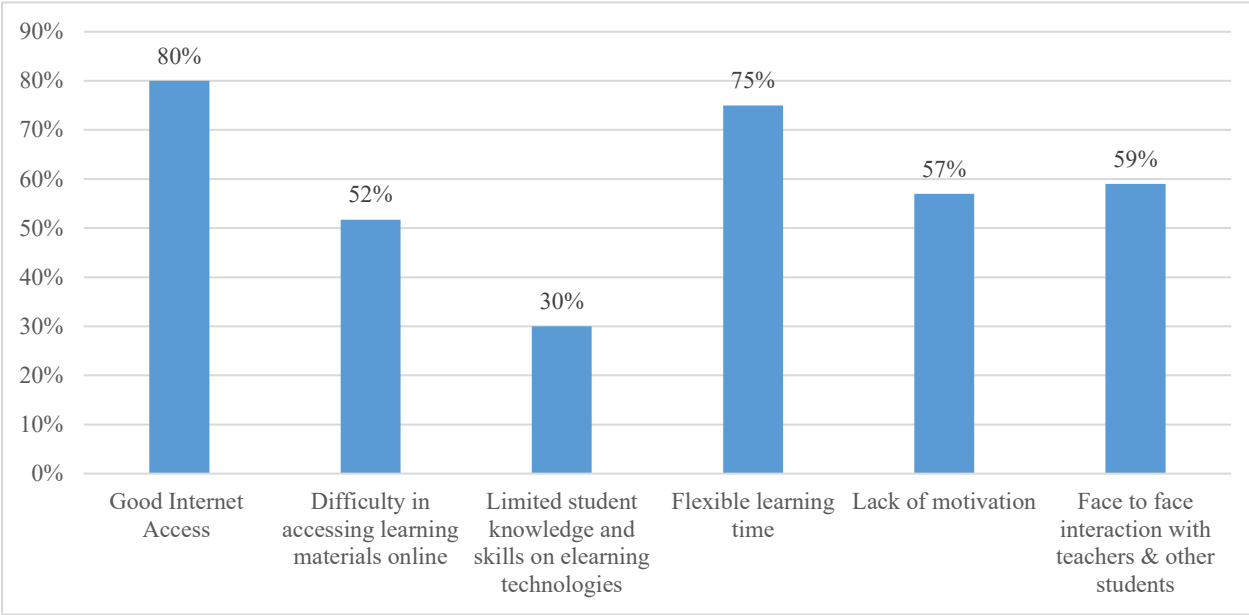


Figure 2 illustrated that over 80% of students indicated that access to equipment and the internet was essential and impacted their learning. At the same time, 52 % of respondents found it difficult to access learning materials online. Lack of face-to-face interaction also impacted students' learning, as 58.6% indicated that teachers had less opportunity to pay attention to individual learner's needs. However, 75% of the students also agreed that student learning time was more flexible and allowed more alignment with their lifestyle.

Common responses included: changes in the mode of learning which affected interactive learning; challenges of online learning such as connectivity; interaction with teachers; access to technology; access to university facilities; lack of practical learning and increased workload. According to Respondent 72:

> Face-to-face classes give us more interaction as we connect with our peers, and there are people from whom we can learn. Meeting our tutors or lecturers gives us more information regarding assignments, and we are able to share our knowledge with others. Learning online can be very challenging as one needs to learn everything independently. Our sponsorship can change due to COVID-19, affecting our studies later. Access to university facilities, especially the library and computer laboratories, is one of the major concerns since it provides us with proper information regarding our research and assignments.

This being so, one might argue that it is the social aspects of working in the library that students miss rather than using it to conduct research.

Teaching Support in the Online Learning Environment

Teaching support was the third core component in an online environment that impacted learning. The survey revealed 72.27% of respondents indicated that the teacher/ instructor understood and used the relevant technologies effectively. However, there was dissatisfaction with communication of assessment changes, a lack of understanding and flexibility from teaching staff, and limited communication with students. Thus, it was difficult to ascertain which courses students were expressing dissatisfaction with as they were enrolled in courses from several different Disciplines. As discussed by Respondent 152,

> Some lecturers did not understand how we tried to do our assignments on the phone, especially when using Google Slides or other Apps. Most of the time, these types of Apps are not accessible, and the fact is that phones are not reliable for studies. Some parents do not understand the type of studies we are doing, and they pressure students to help them earn a living instead of undertaking remote online classes.

> Parents believed online classes were a waste of time and that students were not learning but wasting money. The fact is that we do not have sufficient food, and we spend a lot of money on buying data for online classes. This discouraged students who were losing interest in learning. For students like me who do not have access to laptops and other materials, we stress about how to do our assignments, this gives me suicidal thoughts, and I believe some students have just given up on their studies.

Another respondent stated that “changes in assessments were not well explained”

and felt there was "a general lack of response to emails" by some course coordinators. Respondent 177 felt there "needed to be better course coordination and support from tutors". At the same time, due to connectivity issues, students relied on class recordings to be uploaded in a timely fashion; however, Respondent 173 stated, "In some cases, Zoom was not recorded or posted 2 or 3 days later". On the other hand, Respondent 247 strongly expressed how course coordinators at DTHM "…have been very prompt through Viber or Messenger and reached out whenever they can. They have been so helpful." Some THM course coordinators and tutors also held online social events such as games and quizzes in the evenings, on Facebook, to raise students' morale and provide virtual opportunities for socialising, discussion and sharing their experiences.

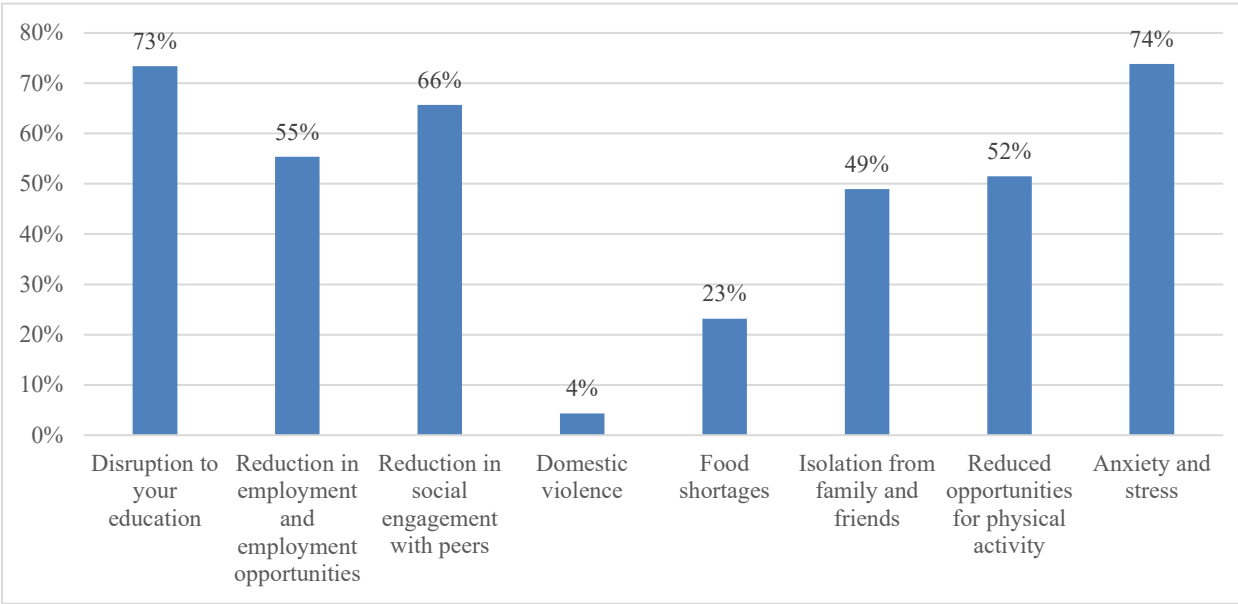
RO2: To investigate the coping measures students used to deal with self-isolation, maintaining relationships, and the extent to which students have been affected by the sudden change from onsite to remote classes.

The second research objective was assessed with the following themes:

i. barriers to students' online learning
ii. benefits of students' online learning

Barriers to Students' Online Learning

Figure 3. Negative impacts of the COVID-19 pandemic on student lifestyle



The environment in which students now reside and study will provide unique obstacles to the students' learning experiences. Figure 3 presents some of the negative experiences faced by students due to COVID-19. Overall, 74% of students reported that the health crisis disrupted their education. 55% of students found a reduction in employment and career opportunities; 23% encountered food shortages; 66% experienced a decrease in social interaction with their peers; and 52% found reduced opportunities for physical activity. 72% of students found that the pandemic affected their social well-being, including their relationships with family and friends. Students also felt isolated from family and friends (49%); experienced high levels of anxiety and stress (74%); some form of domestic violence in the home (4%); and financial pressures (75%).

Common responses included students having a hard time adjusting to the online mode of study from face-to-face mode. One student found that:

> Not being able to have face-to-face learning experiences due to the pandemic has been hard because I, for one, learn better having that experience. I feel like my learning has changed because of the online mode and getting used to studying that way has been a bit tough considering we can't have face-to-face interaction. Also, since I'm almost completing my studies, I hope that more ways are introduced to help students learn effectively online (Respondent 139).

Respondent 14 said, "assignments are all back-to-back, and pressure has been increased. We do not have our teachers with us. Though we have them online, answers given online versus face-to-face are different. Students need interaction to learn." The respondent felt that "when grading, teachers should be lenient and flexible". Other respondents were concerned about how the transition from face-to-face to online study would affect their grades.

> I, for one, am on the National Toppers Scholarship Scheme, and I fear for my grades as I currently have a GPA of 4.19 but need a minimum of 3.0 for my scholarship. I fear that my marks may change as I have not put in a 100% because of the psychological and emotional factors I have suffered from COVID-19 (Respondent 14).

Also, Respondent 240 stated that "comparing the two modes of study, I loved face-to-face classes rather than online classes because depending on my concentration, face-to-face was more effective, especially with lectures and tutorials". Despite this statement by Respondent 240, course coordinators and teaching assistants observed

that prior to the lockdown, student attendance at most lectures was low, except where accessed. However, tutorial participation was high because it was assessed. The face-to-face students had at least four hours of online contact with their course coordinators and teaching assistants, and the print and blended students had at least two hours of online contact.

Many respondents found their home environment was not conducive to study (for example, working from home, moving back in with family, having children and family around, finding private spaces to study etc.). According to Respondent 95, "Home is not a good place to study". Respondent 65 agreed, stating, "Not everyone has the same living conditions. Some live alone, some live with extended families, so this can disrupt studies". Gender also played a role in the home environment. Respondent 42 claimed that "being female and learning from home was challenging, especially in an indigenous Fijian (i-Taukei) household because you were still expected to perform your traditional household duties and they (family) sometimes did not give us time to do schoolwork". Furthermore, Respondent 183 stated that "Not everyone has all day to sit and work at their laptops or do assignments. For people like me, I have elderly grandmothers who both need attention, and my sister and I must attend to them every day of the week".

Moreover, students felt financial pressures, which included paying for necessities such as food items, purchasing internet data to complete assignments and attend online classes, university fee payment, and losing their scholarship allowance. Respondent 145 recalled that:

> Some issues included paying school fees, as COVID-19 has caused a lot of people to lose their jobs and not being able to earn money has been a huge burden on families. Also, the fact that the government has imposed a 'no jab' policy whereby if you don't get the jab, students who were on government scholarships would have their scholarships terminated was quite unfair (Respondent 145).

The safety of people and their health, job, money, and food are some of the challenges students faced; however, "one can survive without education at the moment, but not without food" (Respondent 129). Another student reflected that "a main issue that I do not think stakeholders understand was the financial difficulties we as students faced. The fees at USP for Semester 2, 2021, were still the same as Semester 1, which makes no sense because there are no field trips, and there were

limitations to online learning. Tuition fees must be reviewed and amended!" (Respondent 156). This being so, USP Finance advised that students could obtain refunds for field trip fees on request.

Many students felt USP, and their sponsors did not understand the financial challenges they experienced, stating:

> They don't understand finances. For example, if the Tertiary Education Loan Scheme (TELS) won't continue to give us allowances, we will not be able to buy recharge cards for data purposes. They say Moodle is free and subsidised by Vodafone and Digicel, but it isn't. We needed data to watch videos, research assignments, and much more. Our parents don't have proper jobs now, so there is not enough money; I'm worried about them and cannot decide whether to buy food or recharge cards to study (Respondent 189).

Budgeting their finances and choosing between food or data for internet access was a common challenge experienced by students. As Respondent 148 commented:

> I am a private student at USP, and the fees are so high during the COVID-19 pandemic. It's really difficult to arrange to pay the fee amounts on time. Plus, I'm renting. It's very hard for me to cope with my financial problems.

USP was flexible with fee payments, and students were given the option to negotiate repayment plans with USP Finance (See email from Boila, Executive Director Finance, 9.9.21). Despite the financial constraints experienced by students, only 12% of students applied for financial support services.

Other responses comprised mental health deterioration, including anxiety and stress and increased isolation from family and friends. As one respondent reflected:

> Mental health problems are important. Not every student can balance family life (pressures) with schoolwork. The majority of students and my friends went to school as an escape from these things but with COVID-19, this has become a great challenge for most of us (Respondent 109).

This experience is shared by many students, who looked forward to attending university to escape the traditional obligations and chores they faced at home. Another student stated that:

> The unequal wealth distribution and resources were more critical than many

> might assume. Not everyone can access these resources, and not everyone is located in areas where the internet catches. Also, in my personal experience, the extent to which the current situation impacts mental health is more concerning. I have had to deal with depression and extreme anxiety more often than before, not only because of school but because of current affairs and injustices going on in the world. I've had to deactivate all my social media platforms to try and retain a sliver of sanity (Respondent 53).

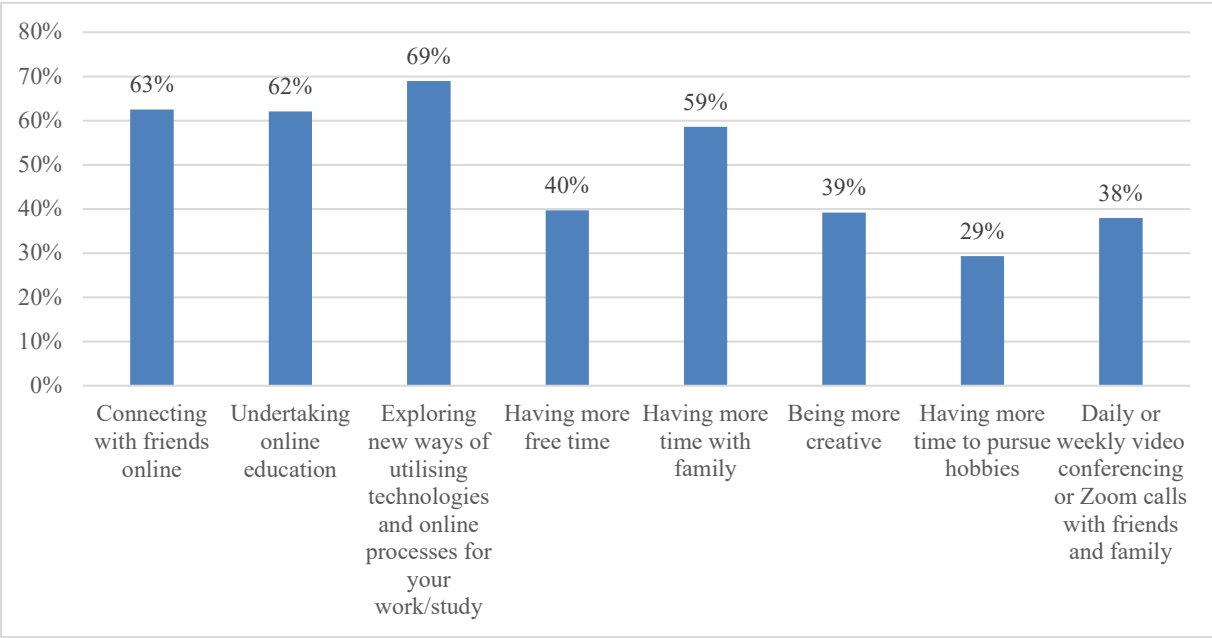
Others felt that they had the weight of the world on their shoulders. Respondent 153 stated, "being a full-time student, a wife, and a religious leader was already hard enough, but when COVID-19 hit the world, it worried me even more, knowing the preparation (spiritually and physically) that had to be done". With the implementing of the containment areas in Viti Levu many students were separated from their families and stranded in Suva. "To be honest, I have been away from my family now for about 8 months, and I really miss them; I am staying on campus. At times, I faced stress and boredom when I was isolated and alone" (Respondent 157). Students also felt demotivated due to not having the social aspect of attending USP on-campus lectures and tutorials. According to Respondent 115, students were 'lazy to study' due to the online nature of learning. Respondent 9 felt that "face-to-face classes gave us more interaction as we connected with our peers and there were people from whom we could learn. Meeting our tutors or lecturers gave us more information regarding assignments, and we were able to share our knowledge with others. Learning online could be very challenging as one needed to learn everything independently".

Other concerns comprising uncertainty about the future included: job security; graduation, grades and assessments, and academic progression. Respondent 136 was worried about "finishing off my study and the availability of fewer job opportunities due to COVID-19". Students were also concerned about job prospects within the tourism industry. "As a tourism student, are we going to get a job when we graduate from the university since the tourism industry is down?" (Respondent 130). Course coordinators attempted to allay students' concerns by sending them opportunities to interview for jobs and organising virtual career fairs and guest lectures to prepare them for the labour market. Anecdotal evidence from the tourism industry showed employers were looking to recruit new graduates as they were more affordable than experienced staff. Also, many of their long-term staff who were laid off due to COVID-19 moved on and found other employment and were not interested in returning.

Benefits of Students Online Learning

Figure 4 highlights some of the positives that students found with online learning. 63% of students found that they were connecting more with friends online, and 40% of students had daily or weekly video conferencing or Zoom calls with family and friends since COVID-19. 62% of students enjoyed online education, 69% found new ways of utilising technologies and online processes, and 40% felt more creative in delivering their assignments. Respondent 1 thought that "USP had delivered very well in online learning. From last semester's experience, I can happily say that even with the difficulties I faced at home, online learning was made easy for me." Respondent 153 observed that "tutors and lecturers were doing a very good job delivering education", and Respondent 128 stressed that there were no concerns as long as "the teachers played their part, but we, the students, on the other hand, have to play ours". Respondent 4 advised that "students should take advantage of this online learning as they can acquire better grades than face-to-face classes". Other important benefits of remote learning revealed that 40% of students have more free time, 29% of students have time to pursue hobbies, and 59% of students spend more time with family. Respondent 16 stated that "online classes helped me manage my time better, and I used the rest of the time to develop my cooking and other housework skills".

Figure 4. Positive Impacts of the COVID-19 Pandemic on Students' Lifestyle



Discussion

The transition from traditional classroom learning to remote online learning due to the COVID-19 pandemic has required simultaneous adjustments of learning styles, which has been challenging for students. Before the pandemic, USP had never had to implement remote learning on such a massive scale. This unprecedented situation presented an opportunity to examine the DTHM's student remote learning experiences critically. This paper provided an important starting point for studying these efforts. The table below provides a summary of the findings of the study.

Table 2. Summary of Findings

Research Question	Main Themes	Codes (Frequency of Statements)
RO1: To examine the effects of the different key challenges of the online learning environment on the students' experiences and perceptions.	eLearning tools and the online learning environment	• Limited and no good internet access (69%) • Limited access to technology/equipment (57%) • Limited knowledge of how to use technology effectively (30%) • Lack of teacher knowledge on learning technologies (9%) • Lack of motivation for online learning (55%)
	Impacts of the online mode on education	• Good internet access (80%) • Difficulty in accessing learning materials online (29%) • Limited student knowledge and skills in eLearning technologies (30%) • Flexible learning time (75%) • Lack of motivation (57%) • Lack of Face-to-Face interaction (59%)
	Teacher and school support in the online learning environment	• Instructors' knowledge of technology (73%)
RO2: To investigate the coping measures students used to deal with self-isolation, maintaining relationships, and	Barriers to student online learning	• Disruption to education (73%) • Reduction in employment and employment opportunities (55%) • Reduction in social engagement with peers (66%) • Domestic violence (4%) • Food Shortages (23%) • Isolation from family and friends (49%) • Reduced opportunities for physical health (52%)

the extent to which students have been affected by the sudden change from onsite to remote classes.		• Stress and anxiety (74%)
	Benefits of Student Online Learning	• Connecting with friends online (63%) • Undertaking online education (62%) • Exploring new ways of utilising technologies and online processes for your work or study (69%) • Having more free time (59%) • Being more creative (39%) • Having more time to pursue hobbies (29%) • Daily or weekly video conferencing or Zoom calls with family and friends (28%)

The findings supported Knouse's (2010) arguments that the key challenges of online learning were directly related to internet connectivity, especially in the case of Fiji, for rural areas and marine islands, and the availability of technology and equipment such as laptops, computers, and smartphones. For those with no connectivity issue, accessing online learning resources, for instance, their online learning platform [Moodle], became the next challenge. The findings also revealed that students faced issues with online conferencing facilities or software used for remote learning, such as Zoom. It took them some time to become used to the new software or e-Learning technologies. However, given that students have had almost three semesters of remote learning, the study showed that they were now more confident and experienced in using these new technologies to facilitate online learning. Course coordinators and teaching assistants observed that students worked well and were better prepared when participating in online Zoom tutorials and breakout rooms.

The study exhibited that the lack of knowledge of using online learning technology had an impact on their education, as students faced difficulties submitting assignments on time, attending online classes and tutorials or collaborating online. The inability to access online learning materials such as textbooks and readings due to lack of data also negatively impacted students. However, students had electronic copies of textbooks and study guide units, printed study guides and academic readings and Offline Print Packs (OPP) on request. There were also concerns raised about the lack of internships and practical opportunities that could later affect or delay their ability to graduate or retain their scholarship. This was particularly important for experiential courses and inclusive of field trips and internships (Brammer & Clark, 2020; Marshall & Wolanskyi-Spinner, 2020), such as many of those at DTHM. However, DTHM developed virtual internships for the three hotel

management practical courses (TS218 Rooms Division Practical, TS303 Food and Beverage Practical and TS304 Front Office and Sales and Marketing Practical) as well as TS216 (Integrated Learning in Teaching and Hospitality) and this enabled students to complete their programmes, especially the B.Com. Hotel Management which has a one-year period which comprises three internship courses. Moreover, nearly 80% of students agreed that there was more flexibility in their learning time, as they could always access lecture recordings online through Moodle if they missed their classes. Also, the findings showed a general level of satisfaction with the online mode of study once students became used to the e-learning technologies.

Findings revealed that students faced challenges receiving teaching support, especially at home. Whilst most students indicated that course coordinators possessed the relevant knowledge and skills to use technology effectively, students had to get used to communicating online with course coordinators and teaching assistants as well as their peers. The findings showed a lack of communication regarding changes in assessment, a lack of understanding of students' challenges and limited responses to student queries although this varied with discipline, course coordinators and teaching assistants. However, findings also revealed that some course coordinators went out of their way to check up on individual students and were reachable through various social media platforms such as Facebook, Messenger or Viber. This supported previous studies (See Dhawan, 2020; Dutta, 2020; Gikas & Grant, 2013; & Nihalani & Mayrath, 2010), which claimed that mobile and computer devices, such as cell phones, smartphones, and social media, provided educational opportunities for students to access course content, as well as interaction with course coordinators and peers wherever they were located. However, some students faced challenges when they did not possess such devices.

Moreover, it was evident that the time spent at home did not necessarily mean more time for study. A few students were exposed to domestic disputes at home, resulting in an unstable learning environment. Even in the absence of domestic disputes, some found it difficult to avoid undertaking household chores for siblings and parents or caring for sick, elderly, or young family members. Pacific Islanders were guided by values including "relationships, care, reciprocity, respect, family, community and spirituality" (New Zealand Human Rights Commission, 2020, p. 5), and often older family members or educated family members were expected to act as caregivers (Thaman, 1993) Moreover, physical space and privacy are vital for learning, even with a virtual learning environment (Baticulon et al., 2021). This privilege was not awarded to many studying from home who had become used to the comfort of the

USP library or classroom as a quiet study area.

Students reported that their financial situation was affected by COVID-19. The analysis of students' responses revealed that household finances had to be divided between necessities and internet data; scholarship allowances had been cut, and student loans were on hold. Some working students had lost their jobs due to the pandemic, which affected the payment of their tuition fees. Furthermore, students on Fijian scholarships and loans were in danger of losing them if they chose not to be vaccinated. Some expressed their displeasure that the cost of remote mode tuition fees had remained the same as the face-to-face mode of study, even though all the students were now studying online. Consistent with these responses Kapasia et al's., (2020) study reported similar findings where 181 out of 232 students at a university in India from a lower income bracket felt less capable of engaging in online learning. Baticulon, et al. (2021), stated that the added expense of online learning should not be underestimated in poor communities, especially with the example of USP students choosing between food and data.

The COVID-19 pandemic also negatively impacted students' mental health, making it difficult for them to focus on their education. Similar to Baticulon et al.'s (2021) findings, the students expressed feelings of anxiety, loneliness, homesickness, and isolation from family and friends. The students worried about their financial difficulties; the number of online assessments, being unable to attend online lectures and tutorials due to connectivity issues; career readiness, plans after graduation; uncertainty about returning to 'normal'; and the safety of their families from COVID-19. High rates of students experiencing some level of psychological stress have also been reported among students in Australia (Lyons, Wilcox, & Leung, 2020), in Japan (Arima et al., 2020), in Turkey (Aker & Mıdık, 2020) and Fiji. Students have also admitted to lacking the self-discipline and motivation to study. It was important that educators understood the needs, motivations, and past experiences of students to maintain engagement in a remote online curriculum. Students needed to be guided towards "self-regulated learning strategies, which include time management, metacognition, critical thinking, and effort regulation" (Baticulon, et al., 2021, p. 620) to achieve academic success. USP already has campus-based resources, such as health centres and counselling centres, and other support services, including offices dedicated to students with disabilities, multicultural affairs, and international students. According to Lederer, Hoban, and Lipson (2020), as most higher education institutions undergo budget cuts due to the pandemic, these entities that provide student support services needed to be prioritised

as a critical investment to student success. Lattie, Lipson, and Eisenberg (2019) advised that technology-based mental health services and interventions would be effective in enhancing students' mental health outcomes. Such services at USP must be further developed to deal with students' mental health post-COVID-19. It is also imperative that higher education institutions advocate for increased funding for technology access, given the known challenges of supporting students' health. With many USP students on scholarships and considering the cost of data regionally, it was important that sponsors considered additional funding for data and internet packages to support their online studies.

Conclusion

This study investigated the remote learning experiences of students from DTHM at USP post-COVID-19, using an online SurveyMonkey n=235 survey and online face-to-face interviews n=13 using Zoom. It explored the effects of the key challenges of the online learning environment on students' experiences and perceptions. These challenges were further categorised under (i) eLearning tools and the online learning environment; (ii) Impacts of the online mode on education; and (iii) Teacher and school support in the online learning environment. In addition, the study investigated the barriers and benefits to students' online learning, which included coping measures students used to deal with self-isolation, maintaining relationships, and the sudden change from onsite to remote classes caused by COVID-19. This study contributed to research in remote online education in tourism and hospitality literature and assisted educational institutions such as USP with future curriculum planning and development and the preparation of support systems that helped deal with students' educational; social; and psychological needs (Mok et al., 2021).

The findings revealed that while the shift from face-to-face to online learning was difficult, 62% of the students' attitudes towards online learning were generally positive. The students perceived that online learning allowed for more interaction with their family and friends, which made the learning process more creative. They found interesting ways to facilitate their learning using new technologies and online processes. However, students did miss the socialisation aspects of attending face-to-face lectures and tutorials and appreciated the weekly evening activities and quizzes organised by the staff. This agreed with Reddy et al. (2020) and Reddy, Sharma, and Chandra's (2020) studies, where the researchers found that the above-mentioned benefits led to a positive attitude towards utilising technology and online learning.

Limitations and Future Research

It was difficult to know what the post-COVID educational environment would be, given the threat of community transmission, by the opening of campuses to students and staff (Weeden & Cornwell, 2020). However, this study, although limited in nature, provided an overview of DTHM student experiences and perceptions of remote online learning. Limitations to the study included the relatively small sample of survey respondents n=235 and in-depth face-to-face interviews n=13. Future studies could focus on more qualitative interviews and a larger sample size survey, including students from other disciplines throughout USP. Student satisfaction levels could be analysed across different disciplines to discover the quality and consistency of teaching and remote online resources available to students from different disciplines and courses.

The findings from this study could assist USP with developing new support systems for remote learning students, not only related to educational and infrastructural resources but mental health and wellness (Mok et al., 2021) since many students claimed they suffered from differing levels of depression, especially those who had contracted the virus. USP can also consider the suitability of different remote learning modes for students, including online, blended or print options that meet some of the challenges faced by students from the region, rural areas, and maritime islands. Moreover, future studies could focus on definitions and characteristics of remote learning and modes such as face-to-face, online, print, and blended and their suitability for delivering quality education across the region and within a post-COVID educational environment.Fiji has a low prevalence of HIV/AIDS (< 0.1%); however, unlike the global HIV trend, which has stabilised in recent years, HIV is a growing problem in Fiji, with figures projected to have increased by 50% in 2020 (Fiji Centre for Communicable Diseases Control [FCDC], 2015; Ministry of Health and Medical Services, 2016; UNAIDS, 2016). This projected increase will place additional burdens on existing prevention, support, and care mechanisms employed in Fiji. Several factors increase Fiji's susceptibility to an HIV epidemic, including low and inconsistent use of condoms and barriers to condom negotiation amongst vulnerable groups such as commercial sex workers, men who have sex with men (MSM), tertiary students, seafarers and uniformed service; low knowledge on modes of transmission of HIV; high rates of multiple and casual partners; low perceived risk of HIV transmission; low rates of HIV testing; and early onset of sexual behaviour (Bavinton et al., 2011; Choudhary et al., 2020; Hammar et al., 2011; McMillan & Worth, 2010).

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Appendix 1 Survey Questions

1. **From your experiences, rank the following in terms of what areas of well-being you and young people you know have been most affected by COVID-19. Rate each on a scale of 1 being not impacted and 5 being highly impacted.**

Mental Wellbeing: Coping well with worries and anxieties, and enjoying a daily routine

Social Wellbeing: relationships with, and care for, friends and family

Financial Wellbeing: effectively managing your economic life

Physical Wellbeing: having good health and enough energy to get things done on a daily basis

Community Wellbeing: the sense of being part of the community where you live

Career Wellbeing: how you occupy your time or simply what you do for your professional development

2. Which of the following have negatively affected your well-being? Please select all that apply.

- ☐ Disruption to your education
- ☐ Reduction in employment and employment opportunities
- ☐ Reduction in social engagement with peers
- ☐ Domestic violence
- ☐ Food shortages
- ☐ Isolation from family and friends
- ☐ Poor access to internet
- ☐ Reduced opportunities for physical activity
- ☐ Anxiety and stress
- ☐ Other, please state.

3. Which of the following have had positive impacts on your well-being from your experience? Tick all that apply.

- ☐ Connecting with friends online
- ☐ Undertaking online education
- ☐ Exploring new ways of utilising technologies and online processes for your work/study

- ☐ Having more free time
- ☐ Having more time with family
- ☐ Being more creative
- ☐ Having more time to pursue hobbies
- ☐ Accessing support services when/if at risk (physical or mental health risk)
- ☐ Undertaking more community work
- ☐ Accessing financial support services
- ☐ Engaging in sport or artistic activities
- ☐ Participating in online religious services
- ☐ Daily or weekly video conferencing or Zoom calls with friends and family
- ☐ Weekly Zoom video conferencing with university lecturers
- ☐ Other, please state:

4. Rate the following statements from your experiences of the COVID-19 pandemic and how it has affected your mobility and ability to act within your communities, online or in other ways?

My routine has not changed much

I cannot go to university

I cannot go to work

I cannot play sport

I cannot spend time with my friends

I spend more time online

I check on/connect with elder relatives and persons more than before

I can spend more time reading and doing hobbies

I can spend more time with my family

I can be creative to think of new things to do with my time

I have not been affected

I am at greater risk of violence

I am finding it difficult financially to continue my online education

I feel stressed about my career prospects when I finish university so I do not

pay much attention to what is happening in the community

I cannot visit museums, cinemas, theatres, nightclubs and other places for cultural/social activities

I cannot attend religious services

I suffer from depression and boredom

I will continue my studies even if they continue to be online

I prefer a face to face educational experience

5. Rate the following statements from your experiences of negative behaviour by or towards youth in your community.

Young people have spread fake news

Young people have been responsible for hate speech

Young people have discriminated against others

Young people are not taking the pandemic seriously

Young people are continuing social gatherings

Young people have been blamed for negative behaviour in the media or towards older people

Young people are not participating in the online learning offered by their university

Young people have dropped out of university

Not having a routine of work and university leads to young people having poor time management

I have not seen or heard of any negative behaviour

6. What do you think are positive examples of young people responding to community needs (online, local, global)? Please select all that apply.

- ☐ Community activities such as food deliveries, entertainment, etc
- ☐ Family activities such as caring for grandparents or young children
- ☐ Campaigning to raise money or change behaviour
- ☐ Keeping in touch with peers to prevent isolation
- ☐ Forming new support networks amongst peers

☐ Setting up small business to contribute to family incomes e.g., catering, gardening, cleaning, lawn mowing, babysitting etc.

☐ Other, please specify_____

_____

7. Select examples of new ways young people are using technology to respond to COVID-19, either in terms of their daily lives, education, health (and well-being) and civic engagement. Select all that apply.

☐ Social media campaigns

☐ Collaborating through music, art, sport, and cultural activities

☐ Mentoring or providing advice and support to peers

☐ Taking advantage of online courses

☐ Designing apps that help social distancing, understanding of COVID-19, and related issues

☐ Regular Zoom meetings with friends and family at home and abroad

☐ Other, please specify_____

_____

8. Rate these challenges from your experiences of using new technologies.

It is difficult for me to have good access to the internet

I have limited access to technology / equipment

I have limited knowledge on how to use technology effectively

My teacher/instructor does not understand how to use technology effectively

I do not find it interesting to do everything online and it impacts my motivation.

9. Your education has been affected in a number of ways: some negative and some positive. What, in your opinion, are the most important changes affecting education and learning resulting from the pandemic? Rate your answers from 1 = Strongly disagree at all to 7 = Strongly agree

Students need to know how to be self-motivated to continue to participate in learning.

Family support to learning has become more necessary.

Access to equipment/internet is unequal and impacts some learners.

Learning time is more flexible and allows more alignment with lifestyle.

Access to education has become more divided on the basis of social status and wealth.

Access to education has become more divided based on where you live.

Learners, on average, spend more time studying each day.

Learners, on average, spend less time studying each day.

Learners, on average, have quality access to learning materials

Learners, on average, have poor access to learning materials

Teachers have less opportunity to pay attention to individual learners' needs

Women's access to education is lower.

Men's access to education is lower.

Uncertainty about graduation and qualifications is creating anxiety.

Education has become more expensive.

10. What are the opportunities that this crisis creates in terms of learning? Please select your 3 most important.

- ☐ Learners have more control over when, how and what they learn
- ☐ Universities have the opportunity to rethink the way education is designed and delivered
- ☐ Universities can create more varied learning experiences
- ☐ Universities can provide more access opportunities e.g. Online, blended, print etc.
- ☐ Lecturers can use more new technologies and delivery systems.
- ☐ Other, please specify

11. In your experience of this crisis, what, in your opinion, are the most important impacts on the individual rights of young people? Please select your 3 most important.

- ☐ Right to health
- ☐ Right to safety
- ☐ Right to education
- ☐ Right to employment

- ☐ Right to a healthy environment
- ☐ Right to food security and nutrition
- ☐ Right to participation and inclusion
- ☐ Right to peace and security
- ☐ Right to privacy
- ☐ Right to freedom of movement
- ☐ Right to travel and mobility
- ☐ Other, please specify

12. Are there, in your opinion, groups of young people that may be affected more than others? If so, who? Please select all that apply.

- ☐ Young people with disabilities or health conditions
- ☐ Young people living in cities and/or overcrowded conditions
- ☐ Young people living in developing countries
- ☐ Younger youth (under 20)
- ☐ Young people who have lost their job
- ☐ Young people who live alone
- ☐ Young medical professionals and first responders
- ☐ Young business owners
- ☐ Young migrants
- ☐ Youth caregivers, including young parents and those that care for the elderly or disabled
- ☐ Indigenous or ethnic minority youth
- ☐ Young LGBTIQ people
- ☐ Other, please specify.

13. As a USP student, what are you most concerned about right now in regard to COVID-19, your education and lecturers?

14. What are some of the issues that education stakeholders might not understand in regard to the realities and challenges you and other students are facing?

15. What concerns do you have regarding your education and COVID-19 that have not been answered for you? This could be in regard to alternative assessment, grades, access, sponsorship etc.

16. What is your age?

17. What is your country of birth?

18. What is your gender?

19. What programme are you enrolled in?

20. What mode of study are you undertaking?

21. How satisfied are you with the mode of study you have chosen, given the challenges you are facing post-COVID-19?

The Journal of Pacific Studies (JPacS) is hosted by The University of the South Pacific (USP) and is ranked by the ABDC (Australian Business Deans Council). It is a multi-disciplinary journal that focuses on development issues relevant to the Pacific Islands region. JPacS welcomes scholarly articles arising from a wide range of study relevant to the Pacific region including, but not limited to, Accounting and Financial Management, Business, Development Studies, Economics, Geography, History, Labour and Industrial Relations, Land Management and Development, Management, Marine Affairs, Political Studies, Population Studies, Public Administration, Social Policy, Sociology and Tourism Studies.

As development issues in the Pacific region are often complex and dynamic, JPacS tends to focus on contemporary issues.

The recently appointed team at USP that manages JPacS includes editors with a wide range of expertise. The review of articles submitted to JPacS usually takes between 1 to 2 months, with each article going through a rigorous process of review, revision, proof-reading and editing before the final version of the article is published. The review process includes many reviewers who are external to USP.

The journal is one of the primary outlets through which USP can express its intellectual life, public engagement and leadership.

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