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Fiji Kava: Production, Trade, Role and Challenges

Manoranjan Mohanty¹

Abstract

Like any other Small Island Developing State (SIDS), Fiji has limited entrepreneurial opportunities. However, these countries have some unique high-value niche products that have attracted global attention. Among the limited niche products in Fiji, kava (*Piper methysticum*) known as ‘*yaqona*’ or ‘*grog*’, is a popular agricultural and industrial product. Kava is not only a traditional, ceremonial and social drink in Fiji, but also a product that contributes to social and economic development through export and foreign exchange earnings and provides employment, and livelihoods, and alleviates poverty. As a beverage and pharmaceutical product, Fiji kava is increasing its importance nationally and internationally.

The paper analyzes kava in Fiji as an entrepreneurial and business product, its trends in production, trade, ‘niche market’, growth potential, its role, and also explores the issues and challenges associated with kava in Fiji.

**Keywords:** kava; kava trade; kava production; niche product; *yaqona*

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Introduction

Fiji is a middle income SIDS and the ‘hub’ of the South Pacific. Like any other small island developing nation, Fiji has limited entrepreneurial opportunities. Small-island business is the combination of local entrepreneurial flair with small-scale manufacturing activity and export orientation, and each of these qualities is rare in small-island territories (Baldacchino, 2002). They have, however, some unique high-value niche manufacturing products that have attracted global attention and helped them to grow. Baldacchino (2002) observed, small islands have excelled in small-scale, high value products and put to good use their island identity (cited in Prasad and Raj, 2006, p. 382). Small island developing economies such as Fiji are linked to the global market by their unique niche products, for example, kava and Fiji water.

Kava\(^2\) popularly known as, *yaqona* or *grog* in Fiji is one of the entrepreneurial products with niche market potential. It is a popular social, cultural, ceremonial, economic and entrepreneurial product and a cash crop in Fiji. Traditionally, kava maintains an island identity in Fiji and is an important element in socio-cultural life and economy in Fiji. Kava evolved as a ceremonial drink, became a popular social drink and today, is established as a cash crop and an industrial and niche product in Fiji and other Pacific Island countries.

Literature Review

Globalization and localization are more integrated today than ever before. Since neoliberal reformations failed to enhance economic productivity and development, niche\(^3\) production was offered as a possible solution. Niche production is a manifestation of the export-led strategies that have been embraced by many island countries including Fiji. It has focused on enhancing economic productivity of Fiji’s economy. However, because small island nations such as Fiji are located a long distance from major commercial hubs, they often incur the added costs associated with insularity and remoteness (Baldacchino, 1999). Jones, Murray &

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\(^2\) Kava is a slow growing perennial shrub that takes approximately 3-5 years to develop completely and the maximum height it reaches is 2-3m. It produces infertile inflorescence that sets no seeds (Davis & Brown, 1999, p. 17). Kava is grown as a low bush that is favoured by a wet and deep, well-drained soil (Sofer, 1985, p. 417).

\(^3\) Niche products can be defined as a process of carving out a small business sector by specializing (Shani & Chalamani, 1993, p.58).
Overton (2012, p. 12) noted that isolation and distance from the global markets have led to the development of unsustainable export systems.

In addition, Jones, Murray, & Overton (2012) observed that the advantages of niche production can be compounded into three arguments: (a) stimulation of economies; (b) connection of rural communities to the global market; and (c) increased product value. Niche production is therefore perceived as a form of globalisation where two forces, the local and global, work parallel to each other (Jones et.al., 2012, p. 16). According to Jones et al. (2012, p. 81), for niche products to be successful in the international market, a place-based market strategy is crucial, which involves the identification, definition, delimitation of places and their associated products. Such a strategy is useful as it builds narratives that link the product to place; thus assigning the product the ‘authentic and ‘unique’ value.

The cultivation of kava for the purpose of sale exemplifies the market influencing indigenous development based on local technical knowledge and skills, and derived from customary practices (Maiava & King, 2007, p. 89). Locally produced niche products such as kava are influenced by local structures and methods, but they participate in the global economy (Jones et al., 2012, p. 81).

The trends towards the consumption of “alternative”, “traditional”, and “organic” remedies in the industrialised West are well established (Murray, 2000a, p. 356). Kava as an entrepreneurial and niche product is “part of a much wider trend of agricultural globalization that has pulled (or perhaps more accurately pushed) many developing countries and regions into internationalized markets, supplying primary products to the Western capitalist economies” (Murray, 2000a, p. 356).

The kava plant (*Piper methysticum*) is a pepper plant indigenous to Polynesia, Micronesia and Melanesia (FAO/WHO, 2016). Kava in the Pacific Island countries is a traditional drink that has been used for cultural / ceremonial / social purposes for centuries (IKEC, 2010). Other names for kava include *ava* (Samoa), *awa* (Hawaii), *sakau* (Pohnpei, FSM) and *yaqona* (Fiji), *malok* or *malogu* (parts of Vanuatu), *waqa* in Tonga (IKEC, 2010; Rowe, n.d; SPC, 2018). Rowe (n.d.) commented that the tradition of kava has brought people together and consummated important social occasions in the Pacific for 3000 years. As the Austronesian people moved across the Pacific, so, too, did kava. From Vanuatu it went east, through Fiji, then onwards into Polynesia: Tonga, Samoa and Hawaii (Rowe, n.d). The main kava producing and exporting Pacific countries are
Vanuatu, Fiji, Samoa, Tonga and the Solomon Islands. Pacific peoples believe that kava is intimately linked with mana or spiritual power (Rowe, n.d).

Kava is a traditional beverage made from the roots and stems of the pepper plant (*piper methysticum*). It is not only a ceremonial and social product, but also a product of great importance, contributing to social and economic development through its export values and trade, labour employment, livelihoods and poverty alleviation and growth of informal sector activities. Kava is an important agricultural, entrepreneurial and business product in Fiji.

The active ingredients of kava are called kavalactones. There are 15 kavalactones found in kava, each having a different physiological effect (PHAMA, 2018). However, six major kavalactones account for 96 per cent of the fat-soluble extract from kava (ibid.).

Kava grows in its importance as an ‘exotic’ niche product in Fiji (Murray, 2000a). It has emerged in the international market as demand for bio-organics and herbal remedies increases. While Fiji Islanders consider kava as a traditional and ceremonial product, Western pharmaceutical companies recognise its medicinal potential. It was introduced into the global commodity chain that carved out a place for Fiji in the global economy.

Kava’s medicinal properties are highly desired by European pharmaceutical companies which used kava lactones, specifically kavain, to treat human maladies such as “unrest, nervousness, mental distress, inner excitement, psychological stress, lack of concentration and diseases caused by fungi” (Davis & Brown, 1999, p. 10). At the same time, kava is marketed to the Fijian diaspora communities as a way of maintaining their cultural identity. Kava not only helps to bind people and maintain cultural identity abroad, but also has emerged as a commercial agri-business product linking to the core-periphery relationships (ibid.).

Fiji has a well-established kava industry. The success of Fiji kava was evident during 1998-2001 however, it was short lived as the industry “suffered an economic vertigo in the global economy” (Jones et al., 2012, p. 41). Fiji’s kava export earnings were F$6 million in 1997 which increased to F$35 million in 1998 (Fiji Ministry of Agriculture, 2011, p. 25), an increase of 483 per cent during 1997-1998. The first “kava boom” for Fiji occurred in the 1990s when kava was exported as a traditional beverage, and exported to the European
Union as a nutraceutical product (PHAMA, 2018). By the year 2000, the first reports began to emerge of liver damage associated with taking kava extracts in Germany and the following year kava was banned in Europe and the United Kingdom due to concerns over liver toxicity (Takimai, 2018). The German drug regulatory authority banned kava from Pacific Island countries in 2002. Many European countries such as France, Germany, Ireland and Switzerland withdrew all pharmaceutical products that contained kava. Yoshida (2018) noted that: “Fiji was earning close to $100 million per annum since 1998 prior to the ban while in 2003 IKEC registered a combined claim of ‘loss of revenue’ of around $US200 million per annum for the Pacific Island producers”.

The ban had a severe impact on Fiji’s kava export value as it decreased from nearly FJS$ 6 million in 2000 to FJS$ 2 million in 2004 (Jones et al., 2012). In November 2008, the EU announced that it was lifting its kava trade ban, but the ban remained in Germany until a German Administrative Court ruling lifted the ban in 2015 saying the benefit-risk ratio of kava medicinal products was positive (Yoshida, 2018). Although the ban has been lifted by the European countries, Fiji kava has yet to be re-established as a niche product in the global market.

**Evolvement of Kava in Fiji**

**Kava Plantation/ Farming**

Historically, kava has been domesticated for around 3000 years (IKEC, 2010; Rowe, n.d.). In Fiji, yaqona was grown in the second half of the nineteenth century by Europeans on plantations on the island of Vanua Balavu and was sold to meet merchants in Levuka on the island of Ovalau (Sofer, 1985, p. 416). Most kava is grown along hillsides in steep sloping land under bush-fallow rotation in plots that are remotely located. Traditionally, kava is inter-cropped with other subsistence crops such as taro, yam and coconut trees. These crops help as windbreakers and provide shade which prevents moisture loss. Kava has a five-year cropping cycle.

There are more than 200 kava plant varieties (Singh, 1992). In Fiji, 13 varieties of kava are planted compared to 82 varieties of kava in Vanuatu (Fiji Times, 22 May 2013; Fiji Sun, 8 March 2017; SPC 2018). There are different names for the kava varieties in the various places where they are planted. Some of the Fiji kava varieties include: Matakar, Damu Gona vula, Dokobana vula, Qila balavu, Dokobana loa, Vula kasabalavu, Loa kasa leka, Kabra, Loa, and Vula kasa leka.
Fiji kava varieties are considered as “noble” varieties that are preferred for human consumption (PHAMA, 2018). Fiji is the second largest producer and consumer of kava next to Vanuatu.

The advantage of farming kava is that it is a high value cash crop, a non-perishable agricultural commodity and also it is not a seasonal crop that can be harvested at any time of the year. According to Sofer (1985) kava was produced mainly by small farmers in small land holdings in Fiji and in the late 1980s about 94 per cent of the area of yaqona was under mataqali. There were 10, 471 kava farmers in 2016 (PHAMA, 2018). The “great majority of Fiji’s kava farmers are i-Taukei unmechanised small holders, farming less than one hectare of mataqali land” (PHAMA, 2018). Most kava is grown using a combination of family and hired labour (PHAMA, 2018).

Kava Production

As Figure 1 shows, kava (yaqona) production in Fiji had highly fluctuating trends in the last two decades between 1998-2017. During this period, kava production in Fiji had reached its highest level in 2001 with a production level of 4,575 tonnes which then declined to the lowest level of 1,700 tonnes in 2006 (Fiji Bureau of Statistics, 2012). The production maintained 4,000 tonnes level in 2002 and thereafter, declined until 2006 and again in 2007, the production level jumped up to 3,350 tonnes and thereafter the production grew unprecedentedly (Figure 1). Between 4,000-4,500 tonnes of dry weight kava is estimated to be produced annually in Fiji (PHAMA, 2018). The annual average production of kava in Fiji was nearly 3,900 tonnes between 2007 and 2016 (Fiji Bureau of Statistics, 2018).

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4 A sub-clan, the exogamous social unit in Fiji which is recognized as the primary land-owning unit (Sofer, 1985, p. 418).
Figure 1. Trends in Kava Production in Fiji, 1998-2017


Kava production varies depending on seasonal weather conditions. Occurrence of extreme climate change events such as drought and cyclone affect the kava production in Fiji significantly.

Traditionally, the Northern division is the largest yaqona producing area, accounting for over 60 per cent of area and production in Fiji, followed by the Central and Eastern divisions (Fiji Ministry of Primary Industries, 2011). The yield of kava varied between two to three tonnes per hectare in various divisions in Fiji, the Northern division with the highest yield per hectare (Fiji Ministry of Primary Industries, 2011). Kava is grown in remote rural areas, mostly in outer islands. Moala kava from Moala Island in the Lau archipelago is a popular type in the urban market in Fiji. Other yaqona producing islands are Koro, Ovalau, Gau in the Eastern division and Taveuni in Northern division (Fiji Ministry of Primary Industries, 2011).

Cakoudrove province was the leading area in kava production in Fiji in 2016 followed by Kadavu, Lomaiviti, Bua, Naitasiri, and Macuata (PHAMA, 2018). Of the total of 10,471 kava farmers in 2016 in Fiji, nearly 72 per cent of the farmers were located in these six provinces (Table 1). There were 218 female kava growers in 2016, accounting for about 2 per cent of the total kava growers in Fiji (Table 1). The proportions of female growers were slightly higher in Namosi, Serua, Ra and Macuata, varying between 3.5 -4 per cent. In Kadavu, over 80 per cent of all households grew kava compared to Cakoudrove, Lomaiviti and Bua where the proportion of households growing kava varied between 35 to 42 per cent (PHAMA, 2018).
Table 1. Number of Kava Farmers by Province and Gender in Fiji, 2016

<table>
<thead>
<tr>
<th>Province</th>
<th>Number of Kava Farmers</th>
<th>% Total kava farmers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. of male</td>
<td>No. of female</td>
</tr>
<tr>
<td>Cakaudrove</td>
<td>3,005</td>
<td>31</td>
</tr>
<tr>
<td>Kadavu</td>
<td>1,523</td>
<td>6</td>
</tr>
<tr>
<td>Lomaiviti</td>
<td>1,155</td>
<td>36</td>
</tr>
<tr>
<td>Bua</td>
<td>889</td>
<td>28</td>
</tr>
<tr>
<td>Naitasiri</td>
<td>787</td>
<td>16</td>
</tr>
<tr>
<td>Macuata</td>
<td>662</td>
<td>25</td>
</tr>
<tr>
<td>Ra</td>
<td>429</td>
<td>17</td>
</tr>
<tr>
<td>Namosi</td>
<td>406</td>
<td>20</td>
</tr>
<tr>
<td>Ba</td>
<td>380</td>
<td>10</td>
</tr>
<tr>
<td>Nadroga</td>
<td>359</td>
<td>12</td>
</tr>
<tr>
<td>Tailevu</td>
<td>322</td>
<td>10</td>
</tr>
<tr>
<td>Rewa</td>
<td>159</td>
<td>1</td>
</tr>
<tr>
<td>Serua</td>
<td>139</td>
<td>6</td>
</tr>
<tr>
<td>Lau</td>
<td>22</td>
<td>0</td>
</tr>
<tr>
<td>Rotuma</td>
<td>17</td>
<td>0</td>
</tr>
</tbody>
</table>


Kava Processing

The raw kava roots are washed, converted into chips, dried in the sun and grinded into powder form. There are two kava processing factories in Fiji, located at Ovalau and Veisari near Suva. Pounding and grinding machines are used for processing kava for beverage and pharmaceutical uses. Kava is processed and marketed in different forms such as chips, powder, tablets and capsules. Fiji kava root powder is available in zip-lock foil pack as well.

Kava Trade

Fiji kava has an expanding market at different levels: rural, urban, regional and global. A large proportion of kava produced is, however, domestically consumed and traded in domestic markets in Fiji. Of the estimated 4,000-4,500 tonnes dry weight kava produced in Fiji annually, between 3,300-3,700 tonnes dry weight kava, that is, over 82 per cent is consumed in the domestic sector (PHAMA, 2018). The shrinkage, wastage and losses of kava are between 600-650 tonnes dry weight (PHAMA, 2018) which is nearly 15 per cent of total kava production. Only about 3 to 4 per cent of kava produced in Fiji was exported to global markets in 2016 and 2017 (Table 2).

Most of the kava is sold to domestic consumers through vendors in the municipal
markets and kava shops in either raw or powder form (PHAMA, 2018). A large volume of kava supplies come to towns and cities in Fiji mainly from the islands in the Northern and Eastern provinces. Much of the demand for traded kava in Fiji is in the urban areas such as Suva, Nausori, Lautoka, Nadi, Sigatoka in Viti Levu and Labasa in Vanua Levu. Most of the kava sold in the local markets are dried kava. Reddy, Naidu, and Mohanty (2003, p. 144) in a study on urban informal sector found that kava was a common household consumption product in Fiji and it ranked the third highest expenditure in urban households next to food and transport.

Kava roots are sold in various forms. Small lateral roots, termed *waka*, are the most common part of the plant that are used and sold in urban markets (Pollock, 2009, p. 273). The dried rootstock is known as *lewena* (Pollock, 2009, p. 273). Each part and product of the yaqona crop has a different price. Dried kava roots (*waka*) can cost at a local urban market in Fiji for F$100-150 per kg; dried rhizome (*lewena*) costs between F$80-120 per kg (PHAMA, 2018). Kava is also sold in the form of tea, capsule, powder or liquid. The pounded powder of *waka* costs F$80-100 per kg whereas the pounded powder of *lewena* costs between F$70-80 per kg (PHAMA, 2018).

Fiji diaspora communities living abroad play a crucial role in promoting kava exports. Prior to pharmaceutical companies’ demands, kava was mainly exported for consumption by some 1.25 million Pacific Islanders settled abroad mainly in the USA, Australia, New Zealand and Canada (Prasad and Raj, 2006, p. 385). According to the 2016 Census, nearly 61,473 Fiji-born people were living in Australia (Government of Australia, 2018). Similarly, 52,755 Fiji-born people were living in New Zealand in 2013 (Government of New Zealand, 2013). Fijian diaspora population accounted for 5.3 per cent of the total overseas-born population living in New Zealand (Government of New Zealand, 2013). Fiji’s emigrant population has created a market for kava export, especially in Australia and New Zealand. Fijian yaqona is more readily available in New Zealand than other types of kava (Pollock, 2009:274).

*Kava Export*

Kava is one of the chief export commodities in Fiji next to sugar, garments, gold, fish and mineral water. Fiji did not become a net exporter of kava until the 1980s (Mangal, 1988) and exports did not take off substantially until the 1990s (Murray, 2000a, p. 361). By 1998, a large increase in demand for kava for pharmaceutical
use had led to a dramatic rise in its price (Davis and Brown, 1999, p. 13). Because of the sudden surge in demand in the pharmaceutical industry, the farmers uprooted as much kava as they could, compromising the sustainability of the industry (The Fiji Times, 4 May 2012). Prasad and Raj (2006) argued that growers exploited the increased demand to their peril by exporting low quality products from the late 1990s and this adversely affected the yaqona export industry.

Fiji’s kava business created three market fields: pharmaceutical (drug), nutraceutical (nutritional supplement) and beverage (Pollock, 2009, p. 268). In 2011, about 12 per cent of kava produced in Fiji was exported which declined to nearly 3 per cent in 2017 (Table 2).

Table 2. Kava Trade in Fiji 2007-2017

<table>
<thead>
<tr>
<th>Year</th>
<th>Net trade (Export-import)</th>
<th>Export: import volume ratio</th>
<th>% share of kava export to total production</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Volume (Tonnes)</td>
<td>Value (Million F$)</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>-108.8</td>
<td>-1.67</td>
<td>0.616</td>
</tr>
<tr>
<td>2008</td>
<td>-36.1</td>
<td>-0.19</td>
<td>0.836</td>
</tr>
<tr>
<td>2009</td>
<td>+37.9</td>
<td>+0.98</td>
<td>1.217</td>
</tr>
<tr>
<td>2010</td>
<td>94.1</td>
<td>+1.51</td>
<td>1.629</td>
</tr>
<tr>
<td>2011</td>
<td>+26.5</td>
<td>+1.17</td>
<td>1.098</td>
</tr>
<tr>
<td>2012</td>
<td>+37.9</td>
<td>+1.25</td>
<td>1.149</td>
</tr>
<tr>
<td>2013</td>
<td>-190.6</td>
<td>-0.06</td>
<td>0.419</td>
</tr>
<tr>
<td>2014</td>
<td>+74.3</td>
<td>+4.16</td>
<td>1.532</td>
</tr>
<tr>
<td>2015</td>
<td>+87.3</td>
<td>+6.58</td>
<td>2.205</td>
</tr>
<tr>
<td>2016</td>
<td>+164.4</td>
<td>+10.56</td>
<td>2.744</td>
</tr>
<tr>
<td>2017</td>
<td>+187.3</td>
<td>+11.01</td>
<td>2.510</td>
</tr>
</tbody>
</table>


The annual average volume of kava export from Fiji was 226 tonnes during 2007-2017. As illustrated in Figure 2, the kava export volume had reached its peak in 2011 with 295 tonnes, an increase of about 21 per cent from the previous year. The Fiji Government’s export-led and import substitution policy had a significant impact on the kava trade. According to PHAMA (2018) the 35 kava exporters registered with Ministry of Agriculture (MOA) are exporting kava to various destinations. Fiji’s export volume had increased steadily from 137 tonnes in 2013 to nearly 311 tonnes in 2017. That was a 126 per cent growth in export volume, while the export value increased by 98 per cent during this period (Figure 2). Fiji witnessed the second “kava boom” in the last five years mainly due to increasing kava prices and growing demands for Fiji kava in the Pacific region and globally. The niche market demand for Fiji’s kava is mainly in the form of processed roots and for beverages and pharmaceutical uses. In contrast, the kava import volume declined by 62 per cent during this period (PHAMA, 2018). The export value

Kava export in Fiji generated nearly F$20 million in 2017, with an annual average value of nearly F$8 million during 2007-2017 (Figure 3). Of the total export value, nearly F$4 million was generated from within Pacific Island countries (Fiji Bureau of Statistics, 2018). Among the Pacific Island countries, Marshall Islands, Nauru and Tonga were the leading importers of Fiji Kava in 2017 (Fiji Bureau of Statistics, 2018). Outside the Pacific region, Fiji kava has a ‘niche’ market in six areas including New Zealand, USA, Hawaii, Australia, the United Kingdom and UAE (Fiji Bureau of Statistics, 2018). These countries together accounted for nearly 82 per cent of total export volume and 78 per cent kava export value of Fiji kava in 2017 (Fiji Bureau of Statistics, 2018).

Despite increasing yaqona production, Fiji remained a net importer of kava. The export and import volume ratio was 0.6 in 2007 that increased to 2.7 in 2016 (Table 2). The kava trade deficit in Fiji was highest in 2013 (Figure 2) with an export and import volume ratio of 0.4. However, the kava export grew substantially in the last four years since 2014 and the net trade volume has reached nearly 187 tonnes in 2017 (Table 2).

The kava export earning has been increasing since 2012 and it had reached nearly F$20 million in 2017 (Figure 3). The annual average export value was about F$8 million during 2007-2017 (Fiji Bureau of Statistics, 2018).
The New Zealand and United States are the leading export markets of Fiji kava. New Zealand accounted for about 42 per cent of kava export volume followed by USA in 2017 (37 per cent) (Fiji Bureau of Statistics, 2018). However, in terms of kava export value, USA was the leading country, contributing nearly 58 per cent of Fiji’s total export value in 2017 (Fiji Bureau of Statistics, 2018). The average export price was F$55 /kg during 2007-2016 with the USA export price value reaching an average of F$97/kg (PHAMA, 2018).

Kava Import

Due to fluctuations in kava production, Fiji has been a net importer of kava since 2002 with Vanuatu being the key market (The Fiji Times, 4 May 2012). Fiji imported about 328 tonnes of yaqona in 2013 with a negative net trade value of – F$ 0.06 million (Table 2). There was about a 30 per cent growth in imported kava in 2016 compared to the previous year, with an annual average volume of kava import of 192 tonnes during 2007-2017. The annual average import value of kava was F$5 million between 2007 and 2017. Fiji imported nearly 124 tonnes of yaqona in 2017. Vanuatu accounted for about 82 per cent of the total volume of Fiji’s imported kava and 91 per cent of total imported value in 2017 (Table 3). Papua New Guinea remained the second leading importer of Fiji kava during the period. The other countries from where Fiji imported minor quantities of its yaqona are USA, Singapore and Chile (Table 3). Some of the imported kava was re-exported (PHAMA, 2018).
The net-trade value grew from F$4 million 2014 to F$7 million in 2015 and F$11 million in 2017 (Fiji Bureau of Statistics, 2018). The export: import ratio had increased from 1.5 in 2014 to 2.5 in 2017 (Table 2).

### Role of Kava in Fiji

Kava has a distinct social, cultural, economic, developmental, environmental and political role in Fiji. The following section provides a brief description of the role of kava in Fiji.

#### Social and Cultural Role

Kava is a widely accepted ceremonial and/or social drink in Fiji. Kava promotes social networking and bonding, and provides a social safety net and thus has a critical role in promoting ‘social capital’. It promotes friendship, and sharing and caring for one another and has a social protection role. It thus facilitates an informal social protection system in Fiji. Kava has therefore, distinct human and social values in Fiji.

Traditionally, kava was used in religious rites and rituals and was consumed by chiefs (Fiji Ministry of Agriculture, 2011, p. 25). Yaqona rituals are the same in every part of Fiji. Kava used to be consumed by indigenous Fijians only but over the years, it has acquired a status of national drink consumed by all races throughout Fiji. Davis and Brown (1999, p. 12) observed that kava is a ceremonial drink in Fiji and there are several occasions of kava ceremonies that include “formal occasions, welcoming royalty or distinguished guests such as heads of

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**Table 3. Leading Countries of Kava Import in Fiji, 2017**

<table>
<thead>
<tr>
<th>Import country</th>
<th>Volume of import (Tonnes)</th>
<th>Value of import (F$)</th>
<th>% share to total volume of import</th>
<th>% share to total value of import</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vanuatu</td>
<td>101.16</td>
<td>7,868,680</td>
<td>81.6</td>
<td>90.9</td>
</tr>
<tr>
<td>Papua New Guinea</td>
<td>21.36</td>
<td>705,097</td>
<td>17.2</td>
<td>8.1</td>
</tr>
<tr>
<td>New Zealand</td>
<td>1.48</td>
<td>76,032</td>
<td>1.2</td>
<td>0.9</td>
</tr>
<tr>
<td>USA</td>
<td>0.01</td>
<td>900</td>
<td>0.01</td>
<td>0.0</td>
</tr>
<tr>
<td>Singapore</td>
<td>0.001</td>
<td>899</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Chile</td>
<td>0.001</td>
<td>190</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Total</td>
<td>124.01</td>
<td>8,651,799</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

state”. Additionally, informal kava sessions often happen at social occasions in Fiji. Kava thus forms an integral part of cultural, economic and social life in Fiji.

As a cultural beverage, kava consumption is regulated by village elders and chiefs. It is used in “events such as electing a new chief, marriage and death ceremonies, and important meetings of traditional institutions” (Sofer, 2007, p. 234). Kava is used in almost all social activities such as funerals, weddings, festivals, family and village functions. It enhances sociability. Prasad and Raj (2006, p. 384) observed that kava is used as “Fijian ceremonial rituals, an item of exchange as a means of strengthening social ties, a beverage to affirm social ranks, and a communal activity to facilitate communication and camaraderie”.

Another cultural implication that has emerged over the years is the consumption of kava by both genders. Prior to the commoditization of kava, it was largely consumed by men in a male-dominated environment -such as in the bures- in the presence of one woman (Pollock, 2009). Pollock (2009, p. 274) noted that “formerly, though women had a role in the preparation and formal presentation of kava, it was consumed mainly by Fijian men; however, that is changing”.

Kava is believed to promote to a great extent the cultural integration in Fiji. It bridges cultural differences between individuals and groups and brings them together. Nosa and Ofano (2009) found that kava brings equality and oneness as it allows each person to serve the other. Talanoa session is an important cultural element in Fijian society where people sit together and discuss their problems and resolve conflicts. Kava is an important element of talanoa sessions and it helps in breaking down social barriers and resolving interpersonal or intergroup conflicts (Sofer, 2007, p. 234).

In an island setting with limited recreational opportunities, kava drinking has various social and cultural implications. There are numerous social ills associated with kava consumption. Kava drinking sessions preoccupy individuals and groups for long period during night. As a result, this preoccupation affects inter-personal relations and at times, it leads to breaking of family ties. Kava drinking is also directly or indirectly associated with domestic violence and social crimes in Fiji.

Furthermore, kava consumption has an adverse impact on educational development as well. A study shows that in Fiji “one third of rural teachers consume yaqona for an average of six hours on nights prior to teaching in the classroom, and this negatively affects education delivery and student academic achievement”
Economic and Developmental Role

Kava is an important cash crop in Fiji and involves agri-business. Kava gives greater economic returns than other crops such as cassava and taro (Davis and Brown, 1999, p. 13). It is an important business product and is also one of the export products that generate substantial foreign exchange in Fiji. The total gross income from kava sales is about F$320 million, of which 92 per cent comes from domestic sales and 8 per cent from exports (PHAMA, 2018). The Fiji kava industry is valued at around FJ$66 million per year benefiting over 21,000 kava farms (Fiji Sun, 8 March 2017).

Kava industry enhances entrepreneurship, provides employment and creates a “niche” market. Kava business involves almost all major economic sectors in Fiji: agriculture, industry and service sectors for its growth and promotion. Economic sectors such as agriculture, tourism, and transport are heavily involved in the kava business. Kava business includes retailing and trading, thus is a tertiary economic sector activity as well. Thus, kava is a primary, secondary and tertiary sector activity in Fiji. The kava value chain includes farmers, traders, vendors and exporters.

Kava provides livelihoods to small rural farmers and retail traders. Nearly 44 per cent of Fiji’s population now lives in rural areas. One in 8 rural households is a kava grower in Fiji and in some provinces such as Kadavu, over 80 per cent of all households grow kava (PHAMA, 2018). Kava farming helps rural households through income-generation and clearly has a role in poverty alleviation in Fiji. The business generates household income and supports children’s education, and transport. According to The Fiji Times (4 May 2012), Kava business brings the village youth more money and creates the employment prospects better.

Kava industry has a large employment potential and the industry provides employment to a large number of people in the informal sector (Prasad and Raj, 2006). Kava remains a major source of income and livelihood to the rural farmers in Fiji. Rural communities are connected to global markets through this niche product.

Fiji kava promotes the tourism sector as well. Tourists are attracted to kava sessions and enjoy kava drinking with the local populace. They participate in
traditional Fiji kava ceremonies as well. Kava tourism is a significant revenue generator in Vanuatu (Rowe, n.d).

**Medicinal Role/Health Implications**

The health implications of kava have been heavily researched. Most of the research to date has focused on kava’s potential to reduce anxiety. Kava is an intoxicating product. Many argue that kava has several health benefits (Davis & Brown, 1999 and Lebot, Merlin & Lindstom, 1992 & 1997). Kava is an anxiolytic herbal medicine used in the treatment of sleep and anxiety disorders (2007). Kava’s biological effects is due to the presence of kava lactones which are reported to include sedative, anxiolytic, anti-stress, analgesic, local anaesthetic, anticonvulsant and neuroprotective properties (Gounder, 2006). Kava consumption induces relaxation and sleepiness (Catty, 1956 cited in Davis and Brown, 1999, p. 7). Traditionally, kava has been used to treat gout, rheumatism, diarrhoea, asthma, venereal diseases and convulsive disorders (Duva, 1976; Singh, 1992 cited in Davis and Brown, 1999, p. 10). Specific kava lactones (e.g. kavain) treat human maladies including unrest, nervousness, mental distress, ‘inner excitement’, psychological stress and lack of concentration caused by Fungi (Davis and Brown, 1999, p. 10). Folk medicine suggests that kava also may “treat sleeplessness and tension/anxiety, headaches, colds, rheumatism, menopausal symptoms, venereal diseases, menstrual and genitourinary tract problems” (Bilia et al., 2004).

Kava has considerable potential as a source of pharmaceutical compounds (Davis and Brown, 1999, p. 9). Western medical industries have identified kava’s effects as narcotic, hypnotic, diuretic and muscle-relaxant (McDonald and Jowitt, 2000, p. 218). Kava roots contain kava lactones which are used for treatment for people with anxiety and stress disorder (Fiji Ministry of Agriculture, 2011, p. 25). Kava’s “lactones act as anaesthetics and muscle-relaxants” (Davis and Brown, 1999, p. 9). Pharmaceutical capsules containing kava root extracts treat nervous tension and sleeplessness and promote muscular relaxation (Davis and Brown, 1999, p. 9). Kava is also used as an effective antibiotic to control minor skin infections (Davis and Brown, 1999, p. 9).
American Botanical Council described kava as follows:

The roots of kava are made into a recreational relaxing drink. It has no addiction potential or significant intoxicating effects, despite its genus name “*methysticum*” (Greek for “intoxicating”);...the relative safety of kava products is one of the reasons for its popularity in Europe, where kava extracts have benefitted from official marketing authorizations as medicinal products for the treatment of stress-related anxiety. (Yoshida, 2018).

A recent WHO risk assessment of kava products has found that kava has a “history of relatively safe use, with liver side effects never having arisen in the ethno pharmacological data” and concludes that “clinical trials of kava have not revealed hepatotoxicity as a problem” (WHO, 2007 cited in IKEC, 2010, p. 3). Based on available scientific information, it can be inferred that kava as a traditional beverage is safe for human consumption (WHO, 2007 cited in IKEC, 2010, p. 3). An effective dose of kavalactones is 70–250 mg which is beneficial to health.

However, overconsumption of kava is hazardous to health. Kava is considered as a drug, so abuse and excessive consumption of kava has many detrimental health effects such as elevated cholesterol and decreased albumin level (Nemecz and Lee, n.d). It is a “cerebral depressant beverage” (Sofer, 2007, p. 234). Overconsumption of kava may cause dermatological side-effects, oral and neurological manifestations (Ernst, 2000; Abebe, 2002; Spinella, 2001; Meseguer et al., 2002 and Sibon, 2002 cited in Maria et al, 2007). Kava itself produces toxicity. Consumed in combination with other pharmaceuticals, kava may raise the risk of toxic hepatitis (Maria et al, 2007). Kava has been seen to decrease glutathione in the liver and liver toxicity is greatly enhanced under this condition (Hentze et al., 2000; Clouatre, 2004 cited in Maria et al. 2007). Interaction between kava and alcohol has important clinical consequences, such as, increased central nervous system depression (Maria et al, 2007). Whether this combination leads to liver damage are conflicting views (Maria et al, 2007).

**Environmental Role**

Kava has various environmental implications. Kava crops promote conservation of soil and environment as the roots bind the soil and prevent soil erosion and land degradation. Joneset al. (2012, p. 55) found that kava cultivation does little
damage to the environment. Kava has very limited nutrient requirements; its main requirements are a lot of water and space and it grows in the wild, bushes, forests, on hill slopes and even on infertile soils. When kava is inter-cropped, it helps to minimise environmental impacts. Kava is “highly environmentally sustainable because of its relatively low demand on soil ecosystems and the great possibilities for rotational production” (Murray, 2000, p. 361). However, prevention of soil erosion along hill sloping land, soil fertility and sustainable land management are important issues. Pesticides and herbicides are used minimally in kava production; therefore, kava is largely an organic and environment-friendly product. Niche production potential of kava increases especially if it is certified as an organic product.

**Political role**

Kava is a product that is used in private and public spheres in Fiji. The kava ceremony in formal functions is a political affair, with individuals being served with kava according to their ranks. Kava in talanoa sessions acts as a platform for decision-making and helps in resolving social, cultural and political differences.

Kava trading becomes an element in international and regional politics. Kava trading involves bilateral external relations between Fiji and Pacific island states and other countries. The Pacific kava ban by European countries led to intense competition at the regional scale during 2004-2005. Vanuatu kava, for example, created competition for Fiji kava. Trade liberalization between Vanuatu and Fiji led them to protect their value-laden niche products. When the international demand for Fiji kava dropped, farmers had enough supply in the local market to meet the demand. The competition coupled with the belief that Vanuatu kava had various health implications led Fiji to ban Vanuatu kava. As a consequence, Vanuatu banned the importation of Fiji’s biscuits. The kava-biscuit politics between Fiji and Vanuatu had strained the bilateral relations between the two countries.

In the past, the ‘kava ban’ imposed by some European Union countries such as Germany on health grounds had affected the export of Fiji kava. The German health agency known as BfARM imposed a ban for fears over kava’s toxicity. However, the ban on kava exports to Germany was lifted in 2015, thus opening the German and other European Union markets for export of Fiji kava. The International Kava Executive Council (IKEC) focused on re-establishing the kava
trade between the kava producing South Pacific Island States and the countries of the European Union (IKEC, 2012).

**Issues and Challenges**

Kava consumption however, has both merits and demerits. Kava consumption raises several social-cultural issues and challenges. It has many educational, health and other socio-cultural ramifications.

Kava production and processing have other challenges. The incidence of dieback disease is the single most challenge to kava growing in Fiji (Davis and Brown, 1999; p. 13). Although kava is not susceptible to pests and diseases, kava dieback and root nematodes pose problems to kava farming (PHAMA, 2018). However, these diseases can be controlled through crop hygiene practices.

Climate change variability and natural disaster events such as increased temperature, water stress, droughts, cyclones and strong winds pose serious threats to kava farming. Tropical cyclone Winston in 2016 for instance, caused widespread damage to kava plantations, which lowered the supplies and increased kava prices. However, appropriate soil and water management and agricultural practices can minimise water stress and drought conditions, and other local climatic effects.

Fiji adopts more export-led and import substitution growth strategies today and kava remains to be one of the niche products in the export-led growth strategies. Augmenting the kava production to meet the growing demand and improving kava quality to compete in the global market are, however, the major challenges. The Fiji Kava Council (FKC) worked closely with the Secretariat of the Pacific Community (SPC) to improve the quality of kava being planted in the country (Fiji Times, 22 May 2013). Processing of quality kava in meeting the growing international demand is a major challenge.

Another pertinent issue is that Fiji lacks a regulatory mechanism for kava business. The government controls of small and micro enterprises in Fiji through its taxation policies affect the kava business as well. There is thus a greater need for state legislation that would protect kava producers, middlemen, retailers, wholesalers, exporters and importers.
The Kava Bill needs to be enacted as a Kava Act. The bill aims at establishing a Fiji Kava Council for the purpose of the regulation and the management of the kava industry and its related matters, to protect the interests of kava growers, processors, exporters and importers and to safeguard the export of Fiji brand kava. The Standing Committee on Natural Resources in its report on Kava Bill, 2016 stated that:

The Kava Industry in Fiji is a major contributor to the national economy and the demand for kava has increased in both the local and overseas markets. Since kava is generating millions of dollars in the Fiji economy, there is a need for a proper legal framework to establish an authority that will manage, administer and assist the growth of the kava Industry in Fiji. (Government of Fiji, 2018)

Kava quality and standard are of utmost importance to Pacific Island countries to fetch good prices and to capture the competitive world market. Various steps are being taken by a number of governments, industry groups and technical partners such as DFAT’s Pacific Horticultural and Agricultural Market Access Program (PHAMA) and SPC (Intra-ACP Agriculture Policy Program) to put in place quality standards, manuals, legislation and training to ensure that the kava industry has a strong base to produce consistent quality (SPC, 2018). The Pacific Horticultural and Agricultural Market Access (PHAMA) Program, an Australian and New Zealand-funded aid-for-trade Program launched in 2011, has partnered with governments in Fiji, Samoa and Vanuatu to develop national kava quality standards (Fiji Times, 11 July 2018). The Fiji Market Access Working Group (MAWG) which was established through PHAMA and MOA is now focusing on improving kava quality. PHAMA’s support for Fiji and Vanuatu’s kava industries has resulted in the protection of approximately F$26.5m of annual kava exports and 39,000 farm livelihoods (Fiji Times, 11 July 2018).

The Fiji Government launched two key documents; the “Fiji Kava Standard” and “Fiji Kava Quality Manual” in March 2017 (SPC, 2018). The “Fiji Kava Standard” (2017) provides information along with other requirements to ensure that kava meets minimum safety standards that include moisture content (less than 12 per cent), age (at least 3 years), aroma (non-foul smell), ash (less than 6 per cent) and others (SPC, 2018). In addition, kava must comply with international CODEX standards. The “Fiji Kava Quality Manual” (2017) identifies the range of Fiji kava varieties, how they are distinguished and suggested agronomic methods for cultivation (SPC, 2018).
One of the major challenges is the transportation of kava from remote, outer islands and inaccessible hilly areas in the rural areas where it is washed and dried before being transported to the urban markets. Kava theft especially in Taveuni and other parts in Fiji is another concern. Other issues include economic problems such as low investment and inflation that influence the kava business in Fiji. Moreover, the land tenure complexities adversely affect the kava crop production and the supply of kava for trading in the domestic and global markets in a sustained way.

Conclusion

Globalization and localization are more integrated today than ever before. Small island developing states such as Fiji are linked to global markets by their unique entrepreneurial and niche products. Fiji kava is an example of such a product. Fiji kava is a multipurpose commodity- a cash crop, and social, business and entrepreneurial product. Kava is a highly demand-dependent product. It plays a critical role in the social, cultural and economic life of Fiji. Kava trade clearly depicts the export-led growth and import substitution policy of Government. Nevertheless, there exists a great potential of Fiji kava as a “niche” product in the global market. Much of kava business expansion depends on internal as well as external growth dynamics. The domestic demand for Fiji kava is growing significantly. Fijian diaspora and communities living abroad help in expanding kava export markets. The expansion of health and pharmaceutical uses of kava in international markets especially in European countries, USA and Australasia has created opportunities for expansion of kava related entrepreneurial activities in Fiji. However, the global competition, global market volatility and crisis, and above all, the global climate change through temperature and rainfall variability and climate induced events such as droughts and cyclones pose serious threats to the sustainability of Fiji kava.
References


Competition and Regulation of Mobile Phones in Small Island Nations

Malcolm Abbott and Wei Chun-Wang

Abstract

Small island nations face a number of challenges in achieving economic development. The small size of these nations means they lack the economic density required to take advantage of economies of scale and specialization, and the distance from larger markets raises transportation costs and limits their ability to be part of global production networks. In meeting these challenges the telecommunications industry has a vital role to play. Telecommunications reform has meant the introduction of competition into parts of the industry (mobile phone, long distance, and Internet). In this paper, the growth of mobile phone use is observed and analysed. The findings are that growth of the sector has taken place at a varied rate across the various nations studied, and that lower mobile phone prices are associated with more competition and independent regulation.

Keywords: competition; mobile phones; regulation; small islands; telecommunications.

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Introduction

In recent decades, the telecommunications sector in most countries has gone through a period of reform, involving the phasing-in of competition into parts of the industry (mobile phone, long distance, and Internet). In addition, governments have imposed incentive-based regulation on monopoly elements. The impetus for this reform has come from a variety of factors, including technological change, the development of new services, and the view that vertically integrated firms do not achieve the greatest possible levels of efficiency (Berg & Hamilton, 2000; Estache, Goicoechea, & Manacorda, 2006). Private investment has also been sought by governments in order to encourage the development of the industry and to relieve the pressure on government finances to raise the necessary capital to finance investment in new telecommunications technologies (Kalba, 2008).

Increasing competition in the telecommunications sector does involve regulatory complexities and therefore substantial changes have been made in the way that firms in the industry are regulated. This has meant the creation of a range of new regulatory agencies in a number of countries (Wonka & Rittberger, 2010; Yesilkagit & Van Thiel, 2008; Knack & Keefer, 1995; Levy & Spiller, 1996; Gray, 1998, Estache & Martimort, 1999). This process has extended to relatively small countries as well as larger and wealthier ones (Stern, 2001; Gilardi & Maggetti, 2010; Abbott & Ma, 2013; ‘Ofa, 2012).

In the case of small island countries, economic development involves a number of challenges. The small size of these countries means that they lack the economic density needed to take advantage of economies of scale and specialization. The remoteness of these countries can also limit the scope of participation in global production networks (World Bank/Horscroft, 2012; Gibson & Nero, 2006). One way to mitigate the disadvantage of small size and isolation is through the development of new information and communication technologies (Rouvinen, 2006; Kalba, 2008; World Bank/Horscroft, 2012). The area of new communications technology that has seen the greatest growth in use in recent years is mobile phones. In a number of cases, mobile phone user numbers have increased dramatically (see Figure 1). Related to this growth has been the role of competition in lowering phone charges and enabling user expansion. In the case of small island countries, there has been some debate over whether the introduction of competition can appreciably lower service charges, given the small size of markets and the difficulty in achieving economies of scale within
The purpose of this paper is to quantify the impact of competition and regulation on the pricing of mobile phone services in small island countries. The method used in this study is to first provide an overview of the expansion of the mobile phone sector in a range of small island countries. This will be followed by a statistical determination of the relationship between the prices of mobile phone services in a range of island countries and variables such as the size and income of the country, population density, the number of operators, and the existence of independent regulators and government-owned companies. The price of mobile phone services would be expected to have an influence on user adoption of mobile phones, especially in low-income countries. The paper is structured as follows. In the first section the issue of the relative merits of monopoly versus competitive provision is addressed. A background to telecommunications and regulatory reform is then presented. This is followed by sections on the reform of the sector in a range of small island economies, a description of data and methodology used, and then the results of the study. The final section provides some conclusions.

**Monopoly Versus Competition**

Before the 1980s, it was universally accepted that the telecommunications industry had natural monopoly characteristics.

A monopoly created and sustained by increasing returns to scale is called a natural monopoly. The defining characteristic of a natural monopoly is that it possesses increasing returns to scale over the range of output that is relevant for that industry. (Krugman & Wells, 2013, p. 377)

This tends to be the case in industries where capital costs predominate, creating economies of scale that are large in relation to the size of the market and, hence, creating high barriers to entry (Pindyck & Rubinfeld, 2009, p. 368). These high barriers also reduce the possibility of new entrants, which means the market is not “contestable” (Baumol, Panzar, & Willig, 1982).

In the case of telecommunications, the source of the economies of scale was the open-wire line system, which involved stringing wires between poles in order to send messages. This required a considerable capital investment, which created a barrier to entry. In the case of the small island countries, links to other countries was via undersea cables. Both of these involved very high fixed costs and relatively low
marginal costs of adding customers. Economies of scale were, therefore, believed to be important and the assumption was that there was generally only room for one network (Viscusi, Vernon, & Harrington, 2000, p. 465; Alexiadis & Cave, 2010, pp. 501-502; Shy, 2001, p. 7). This meant that most countries had telecommunications services delivered either by a government-owned, monopoly telephone company or by heavily regulated privately-owned monopolies. These monopolies typically operated a range of services within a single company, such as long distance and local calls and later, when developed, mobile phone services. These companies were vertically integrated, which means they operated several aspects of the value chain of an industry, with some producing services that others use to produce finished services. In the case of telecommunications, this can mean that a firm operates long-distance links, the local loop, and mobile phone services as well as supporting equipment. Vertical separation, in contrast, means allowing new entrants to provide selected services, such as mobile phones, that interconnect with the other parts of the industry (Berg, 2001; Gutierrez & Berg, 2000).

The development of microwave radio technology and the use of satellite technology changed this. First of all, the use of satellite transmissions over long distances meant that multiple providers could operate, even to some of the most isolated parts of the world. Secondly it meant that wireless telephony in the form of mobile phone services were developed. These made use of a cellular radio system with relatively inexpensive receiver-transmitter stations to pick up signals from mobile phones to replace expensive-to-duplicate wires. This technological change greatly reduced the fixed-cost component of the cost function and resulted in smaller efficient firm size (Viscusi, Vernon, & Harrington, 2000, p. 466; Estache, Goicoechea, & Manacorda, 2006).

Even after these developments, there was still debate over whether small economies could maintain multiple, competing firms in mobile phone service provision, given the small—and often less dense—populations involved. The establishment of competing mobile phone networks did involve some capital expenditure (even though it was far less than that required for the establishment of a wires network). Effectively, by introducing competition, these economies of scale (if they still existed) were traded off in favour of competition, which it was hoped would encourage higher levels of productive efficiency (if not scale efficiency) and lower prices. If competition leads to lower prices, then it is implied that the economies of scale achieved from monopoly provision might still exist, but would be less important than the potential efficiency achieved from competition (Li & Xu, 2004; Kalba, 2012). In the case
of mobile phones, the existence of multiple providers in a number of small, island countries suggests that the economies either do not exist or, if they do, are not so substantial that they preclude new entries.

In addition, the nature of competitive strategies on the part of the mobile phone companies (incumbents and new entrants) should be borne in mind. It is possible, for instance, that a market leader could omit the opportunity to eliminate a competitor because it fears the retaliation a government might bring against it in the form of increased market regulation. The nature of competition is also impacted by the various strategies companies can take, such as bundling, product diversification, advertising, etc., which can help new entrants.

**Global Telecommunications Reforms**

As technology has improved, the general trend has been toward the opening up of these monopolies to competition in order to encourage efficiency gains, and to promote the introduction and adoption of new products (mobile phones, long-distance services, and Internet provision). Consumer demand for these products has also been high and has required substantial additions of new investment. As national governments have not necessarily had the resources available to invest in the creation of these services, they have often encouraged private companies to invest in the construction of new facilities.

To facilitate this process, a number of reforms have taken place, including the corporatization of government-owned telecommunication agencies and, in some cases, privatization. Corporatization has involved the separation of regulatory and commercial functions into separate government authorities and firms, which has meant the creation of new regulatory agencies (Shirley, 1999; World Bank, 1995). These changes have meant that the opening up of telecommunications markets has spread from developed countries to a number of smaller, developing countries.

This process of reform of infrastructure has been taking place now for a number of years and, in terms of the general impact of privatization, corporatization, and competition, a great deal of theoretical and empirical research has been undertaken. Summaries of this theoretical literature have been attempted by Vickers and Yarrow (1995); World Bank (1995), Shleifer (1996, 1998); and Megginson and Netter (2001). Although it is accepted that privatization, by depoliticising managerial decisions and creating greater incentives to innovate, can lead to the achievement of reduced costs;
it is the introduction of competition that is thought to be the most important driver of efficiency improvements (Nickell, 1996; Li, 1997; Ros, 1999; Wallsten, 2002; Berg, 2001). That said, competition and privatization often go together. Governments are less likely to protect incumbent utility companies from competition if they have no ownership stake; therefore, a privatized industry is one that is often also opened up to competition. In addition, competition raises the risks to the government of owning companies and therefore the introduction of competition often leads to increased pressures to privatize state-owned assets (Abbott & Cohen, 2014).

In the case of the telecommunications sector, a number of studies of the impact of privatization and competition have been undertaken. In particular, the increase in competitive pressures has been shown to have contributed to growth of the sector by raising productivity, lowering costs, and reducing the price of services (Li & Xu, 2004). Since the 1980s, the telecommunications sector has been a relatively fast-growing sector in most countries and this has been aided by competitive pressures (Li & Xu, 2002). There is also evidence that growth of the telecommunications sector creates positive externalities for the economy as a whole (Roller & Waverman, 2001). Further research on the reform of the telecommunications sector has been done by Li and Xu (2004), Levy and Spiller (1996), Kikeri, Nellis, and Shirley (1992); Boyland and Nicollet (2000), Gual and Trillas (2006), and Estache, Goicoechea, and Manacorda (2006).

In the case of lower-income countries, the rapid growth of the telecommunications sector, especially the adoption of mobile phone technology, has attracted a great deal of attention. A number of researchers, therefore, have studied the performance, regulation, and structure of the sector in developing countries. These include the work of Petrazzani (1995), Petrazzini and Clark (1996), Wallsten (2000, 2001), Gutierrez (2003), Ros (1999, 2003); Roth (1987), Fink, Mattoo, and Rathindran (2003), Montoya and Trillas (2007), Mohammed and Strobel (2011), Makhaya and Roberts (2003), Samarajiva (2000), Sridhar and Sridhar (2004), Berg and Hamilton (2000), and Maiorano and Stern (2007). Although this body of work is relevant to a study of the situation in small island economies, given the often low income levels in these nations, the work on developing countries has tended to concentrate mainly on markets of a fairly substantial size. This makes those markets fundamentally different from those of the small island countries, where the issues of scale economies are more acute. Reform of the telecommunications sector came relatively late to the small island countries; as did growth of the mobile phone sector. The developing Latin American countries, for instance, saw the introduction of widespread mobile phone
use (numbers of people subscribing) in the early 1990s and much of the regulatory reform in those countries took place at that time (Gutierrez & Berg, 2000).

As new telecommunications operators have entered various markets, and as national telecommunications operators have been corporatized or privatized, the role of the state has changed from being a main provider of telecommunications services to that of being a rule-maker and regulator (Majone, 1994, 1996, 2001; Balla, 2011). This has meant that in telecommunications markets new regulatory agencies have been established to license new entrants (technical regulation) and to regulate the prices of interconnection agreements between competing companies (economic regulation). These technical and economic regulatory functions have either been bundled together into a sector-based regulator (generally along with responsibilities over broadcasting) or, alternatively, the economic functions have been placed into regulatory agencies that combine the economic functions of a range of sectors (e.g., telecommunications plus electricity and water).

Sector regulators typically have regulatory authority over telecommunications, radio communications, and broadcasting transmissions. The main responsibilities include frequency and station-license allocations to broadcasters as well as the licensing of telephone (fixed-line and mobile-phone) operators. They also often have economic responsibilities in the form of the regulation of interconnection pricing agreements between operators. Sector regulators of this sort are common because combining communications and broadcasting together allows for some common use of scare knowledge and abilities.

These new regulatory agencies have been granted varying degrees of independence (Organisation for Economic Cooperation and Development, 1999; Maggetti, 2010; Samarajiva, Mahan, & Barendse, 2002). Independence, in this context, generally means that the regulatory agencies have been created by acts of parliament, function at arm’s length from government, and have power over such things as: inspection, referral, advice to third parties, licensing, accreditation, and enforcement (Stern, 1997). In most cases they are funded by industry levies or licensing fees. Not all countries have undertaken this type of reform to this degree. In a number of cases, the regulation of telecommunications is still undertaken by ministerial-led departments and in some the telecommunications industry is still dominated by government-owned agencies.
The Telecommunications Sector in Small Island Economies

In the case of small island countries, new entry to telecommunications markets has occurred, even though delayed. Originally, it was believed that economies of scale could only be achieved by single, vertically integrated monopolies, and for this reason most countries had single, government-owned operators. As competition entered the largest markets, it was still believed by some that small countries, such as the island economies, still benefited from monopoly provision. Gradually, new entrants entered these markets as well, despite the difficulties of scale that had to be overcome.

Telecommunications reform and growth is potentially very important to these countries, especially given the isolation and small-scale economies that they experience, which greatly increases the costs of doing business (Winters & Martins, 2004; Gibson & Nero, 2006; World Bank/Horscroft, 2012; Sutherland, 2011; ‘Ofa, 2012). There is evidence that the introduction of such things as mobile phones can improve the way in which businesses conduct their operations in small island economies (see, for instance, Pacific Institute of Public Policy, 2009).

In this study, a range of small island countries from a number of regions around the world was observed. These countries are listed in Table 1, and it can be seen that they do range quite a bit in population size and average income (see also Table A1 in the Appendix). The lower-income countries tend to be those in the South Pacific, while those in the Caribbean tend to exhibit a fairly wide range of income levels.

In terms of the development of mobile phones in these countries, development occurred most swiftly in the 2000s decade. This occurred after a period of telecommunications reform elsewhere, one of the most important being the privatization of the British company, Cable and Wireless. This company had been nationalized originally in 1947, after the Labour Party’s victory in the 1945 British general elections. While the company remained in being as a government-owned company (continuing to own assets and operating telecommunication services outside of Britain), all assets within that country were integrated with those of the Post Office, which operated the domestic telecommunications monopoly. Cable and Wireless was important to many of the small island economies because it was the main company that linked them with the outside world. In a number of the smaller Caribbean countries, it also operated the domestic telecommunications system. In many of the other countries, the domestic telephone service was carried out by the local post office, as it had been, at first, in Britain, and outside links were operated by Cable and Wireless. In a
number of cases in the Caribbean, the American company AT&T was an important carrier. In 1979, the Conservative Party government led by Margaret Thatcher began privatizing nationalized industries and in November 1981 the government sold the first half of its share in Cable and Wireless. The company was later reformed and its subsidiary in the Caribbean in 2008 adopted the LIME name. LIME operates as the incumbent telecommunications service provider in many of the islands where it resides, and in many cases was the original developer of mobile phone services (Table 1).

The other main mobile phone network provider in the Caribbean and South Pacific is the company Digicel. In 2001 the Jamaican Government decided to open its phone market up to competition and the company, owned by Irish entrepreneur Denis O’Brien, was established to operate in that market. Today (2018), it operates in 31 markets across the Caribbean, Central America, and Pacific regions. The company is incorporated in Bermuda and based in Jamaica and has about 13 million wireless users. As of 2018, Digicel’s markets comprise: Anguilla, Antigua and Barbuda, Aruba, Barbados, Bermuda, Belize, Bonaire, the British Virgin Islands, the Cayman Islands, Curacao, Dominica, El Salvador, Fiji, French Guiana, Grenada, Guadeloupe, Guyana, Haiti, Jamaica, Martinique, Nauru, Panama, Papua–New Guinea, Samoa, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname, Tonga, Trinidad and Tobago, Turks and Caicos, and Vanuatu. A part of the growth and spread of Digicel was encouraged by the takeover of the American company Cingular in 2005. Cingular, a joint venture between SBC Communications and BellSouth Corp., sold its operations and licences in the Caribbean and Bermuda to Digicel. Cingular took over the Caribbean business when it took over AT&T Wireless. Cingular sold former AT&T Wireless properties to Digicel, including licences, network assets, and subscribers in Barbados, Bermuda, the Cayman Islands, Antigua and Barbuda, Anguilla, Dominica, Grenada, St. Kitts and Nevis, St. Lucia, St.Vincent, and the Grenadines.

Reform in the South Pacific came a little later. The first island country to have competition in mobile phones was Tonga, where a new company was established in 2003 (it later was sold to Digicel). The Government of Samoa established a regulator in 2006 and began a process of privatization of its main telephone company. Digicel began operating in Samoa in 2006 and later expanded its operations to Papua–New Guinea (2007), Vanuatu (2008), Tonga (2008), Fiji (2008), Nauru (2009), and the Solomon Islands and Tahiti (Sutherland, 2012; 'Ofa, 2011). Finally, there are a few island countries that, to date, have retained the old model of dominance by a single
telecommunications authority and no new regulated entry. These island countries include the Cook Islands, Kiribati, and the Marshall Islands.

Table 2 includes a list of a range of small island nations along with the names of the regulatory agencies responsible for their telecommunications industry. As a number of small island countries have created independent regulators and have encouraged the introduction of new mobile phone operators into these markets, it is now possible to determine the degree to which this development has benefited consumers.

In the case of the development of regulatory agencies in small island nations, sectoral (as opposed to multi-sectoral) agencies are the most common. This is so because in most cases the technological and investment imperatives in the development of the telecommunications sector have been most compelling (in contrast to electricity and water supply). A number of island governments, therefore, have established sector-specific regulators in communications in order to facilitate its development. Island nations such as Cyprus, Malta, Mauritius, the Isle of Man, Samoa, the British Virgin Islands, and the Turks and Caicos Islands all have regulators of this sort. In addition, a range of other countries also have communications regulators alongside those operating in other utility areas (the Cayman Islands, Iceland, and Trinidad and Tobago). Those countries with multi-sector regulators that include the economic regulation of telecommunications include Anguilla, the Bahamas, Barbados, Guam, Jamaica, and the Virgin Islands.

Despite the proliferation of new regulatory agencies in small island countries, some nations have retained regulation under direct ministerial control. These countries include Antigua and Barbuda, Tonga and Palau (see Table 1). In each of these cases, competition in mobile phone markets has occurred without the creation of an independent regulator, with ministerial departments carrying out the technical regulation.
Table 1: Telecommunications data, small island nations, 2017

<table>
<thead>
<tr>
<th>Country</th>
<th>Competition introduced</th>
<th>Companies</th>
<th>Regulator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anguilla</td>
<td>2005</td>
<td>Lime; Digicel</td>
<td>Public Utilities Commission</td>
</tr>
<tr>
<td>Antigua &amp; Barbuda</td>
<td>2000</td>
<td>Lime; Digicel; APUA</td>
<td>Ministry of Information, Broadcasting, Telecommunications, Science &amp; Technology</td>
</tr>
<tr>
<td>Bahamas</td>
<td>N/A</td>
<td>BTC</td>
<td>Utility Regulation and Competition Authority</td>
</tr>
<tr>
<td>Barbados</td>
<td>2004</td>
<td>LIME: Digicel; Sunbeach</td>
<td>Fair Trading Commission</td>
</tr>
<tr>
<td>Bermuda</td>
<td>2003</td>
<td>Cellone (ATN); Digicel</td>
<td>Telecommunications Commission</td>
</tr>
<tr>
<td>British Virgin Is.</td>
<td>2008</td>
<td>Lime; Digicel, CCT</td>
<td>Telecommunications Regulatory Commission</td>
</tr>
<tr>
<td>Cayman Islands</td>
<td>2004</td>
<td>Lime; Digicel</td>
<td>Information &amp; Communications Technology Authority</td>
</tr>
<tr>
<td>Cook Islands</td>
<td>N/A</td>
<td>Telecom Cook Islands</td>
<td>None (single government telecommunications agency operates)</td>
</tr>
<tr>
<td>Cyprus</td>
<td>N/A</td>
<td>CYTA-Vodafone</td>
<td>Office of the Commissioner for Electronic Communications &amp; Postal Regulation</td>
</tr>
<tr>
<td>Dominica</td>
<td>2003</td>
<td>LIME; Digicel; Orange</td>
<td>Eastern Caribbean Telecommunications Authority</td>
</tr>
<tr>
<td>Fiji</td>
<td>2008</td>
<td>Fiji Telecom; Vodafone Fiji; Digicel Fiji</td>
<td>Telecommunications Authority of Fiji</td>
</tr>
<tr>
<td>Grenada</td>
<td>2003</td>
<td>LIME; Digicel</td>
<td>Eastern Caribbean Telecommunications Authority</td>
</tr>
<tr>
<td>Guam</td>
<td>1992</td>
<td>GTA; NTT Docomo Pacific</td>
<td>Guam Public Utilities Commission</td>
</tr>
<tr>
<td>Iceland</td>
<td></td>
<td>Siminn; Vodafone Iceland; Nova</td>
<td>Post and Telecommunications Administration in Iceland</td>
</tr>
<tr>
<td>Isle of Man</td>
<td>2007</td>
<td>Manx Telecom; Sure mobile</td>
<td>Communications Commission</td>
</tr>
<tr>
<td>Jamaica</td>
<td>2001</td>
<td>LIME; Digicel; Oceanic Digital (Claro)</td>
<td>Office of Utilities Regulation</td>
</tr>
<tr>
<td>Kiribati</td>
<td>N/A</td>
<td>TSKL Kiribati</td>
<td>None (single government telecommunications agency operates)</td>
</tr>
<tr>
<td>Malta</td>
<td>2003</td>
<td>Go; Vodafone</td>
<td>Malta Communications Authority</td>
</tr>
<tr>
<td>Marshall Islands</td>
<td>Na</td>
<td>NTA Marshall Islands</td>
<td>None (single government telecommunications agency operates)</td>
</tr>
<tr>
<td>Mauritius</td>
<td>2005</td>
<td>(Cellplus) Mauritius telecom; MTML</td>
<td>Information and Communications Technology Authority</td>
</tr>
<tr>
<td>Micronesia</td>
<td>N/A</td>
<td>FSMTMC Micronesia</td>
<td>None (single government telecommunications agency operates)</td>
</tr>
<tr>
<td>Nauru</td>
<td>N/A</td>
<td>Digicel Nauru</td>
<td>Department of Telecommunications</td>
</tr>
<tr>
<td>Palau</td>
<td>2006</td>
<td>PNCC Palau; PMC Palau</td>
<td>Ministry of Public Infrastructure, Industries &amp; Commerce</td>
</tr>
<tr>
<td>Samoa</td>
<td>2006</td>
<td>Bluesky Samoa; Digicel</td>
<td>Office of the Regulator</td>
</tr>
<tr>
<td>Solomon Islands</td>
<td>N/A</td>
<td>Solomon Telekom Bemobile</td>
<td>Telecommunications Commission of the Solomon Islands</td>
</tr>
<tr>
<td>St Kitts and Nevis</td>
<td>2003</td>
<td>LIME; Digicel</td>
<td>Eastern Caribbean Telecommunications Authority</td>
</tr>
</tbody>
</table>
As was previously mentioned, the introduction of mobile phones came later in the small island economies than in most other countries. Most of the growth of mobile phones was not to take place in the sampled nations (listed in Table 1) until the 2000s. In many other countries, substantial growth in use had taken place in the 1990s. Figure 1 shows the number of mobile phone users in the same nations shown in Table 1 between the years 2000 and 2016. From the data in Figure 1, it can be seen that at the beginning of the 2000s mobile phone use was not widespread in the island nations. By 2016, use had grown substantially, although it is noticeable that numbers have plateaued in recent years. Mobile phone use varies across the nations, and in Table 1 it can be seen that it is more than one phone per person in some nations in the Caribbean. Even in the islands of the Pacific, mobile phone use is quite widespread and a phone per every two people is common (see Table A1 in the Appendix). It is also noticeable that mobile phone use is almost universally more popular that traditional land-line use; in some cases the number of mobile phones subscribers being many times that of the number of land lines. In some cases, such as in lower-income countries like the Solomon Islands, telephone-line technology was never developed to a great degree and the use of less costly mobile phone technology is very widespread.

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>Service Providers</th>
<th>Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>St Lucia</td>
<td>2003</td>
<td>LIME; Digicel</td>
<td>Eastern Caribbean Telecommunications Authority</td>
</tr>
<tr>
<td>St Vincents</td>
<td>2003</td>
<td>LIME; Digicel</td>
<td>Eastern Caribbean Telecommunications Authority</td>
</tr>
<tr>
<td>Tonga</td>
<td>2003</td>
<td>TCC Tonga; Digicel Tonga</td>
<td>Ministry</td>
</tr>
<tr>
<td>Trinidad &amp; Tobago</td>
<td>2006</td>
<td>Bmobile TSTT; Digicel</td>
<td>Telecommunications Authority Trinidad and Tobago</td>
</tr>
<tr>
<td>Turks &amp; Caicos Is.</td>
<td>2006</td>
<td>LIME; Digicel; Islandcom (ATN)</td>
<td>Telecommunications Commission</td>
</tr>
<tr>
<td>Virgin Is. (USA)</td>
<td></td>
<td>Sprint PCS; AT&amp;T Mobility; Choice Wireless</td>
<td>Virgin Islands Public Services Commission</td>
</tr>
<tr>
<td>Vanuatu</td>
<td>2011</td>
<td>Telecom Vanuatu; Digicel</td>
<td>Telecommunications &amp; Radio communications regulator</td>
</tr>
</tbody>
</table>

Despite the widespread use of mobile phone technology across all of these countries, real income levels are important influencers of the level of penetration of mobile phones in a society. The highest income countries have the highest levels of mobile phone use, and there is some evidence that the highest income countries received mobile phone services first. Figure 2 breaks down the data from Figure 1 into regional growth rates (Pacific, Caribbean, Europe). The growth of mobile phone use is high in all regions, but tends to have been higher, earlier, in the small European island countries (Iceland, Isle of Man, Malta, Cyprus) before those of the Caribbean and the Pacific.

Figure 1: Number of Mobile/Cellular Phone Subscribers in Small Island Nations; 2000 to 2016

![Bar Chart](chart.png)

Source: (International Telecommunications Union.)
The main objective of this study is to quantify the impact of competition and regulatory reform on the pricing of mobile phones in small island countries. Some other economic factors that also may have had an influence on pricing are also included, such as the level of per capita income, population size and density, and the existence of an incumbent government-run telecommunications company.

The data on pricing comes from estimations made by ICT Pulse (the Caribbean countries), by Network Strategies (the Pacific nations), and by the authors of the paper directly from individual companies’ websites (the European countries). In compiling a price for mobile services, the method used by the Organisation for Economic Cooperation and Development (2006) for the monthly spend on mobile services for a low-volume user (US$ at purchasing power parity rates) has been used, over the years 2010 to 2012. In the small island countries, the majority of mobile phone users can be classified as low-volume users and so this spend figure is a good proxy for mobile phone charges overall. The countries covered in the study are those that were listed in Table 1, and the data used is provided in the Appendix in Table A2. The island nations in the study have a range of population sizes and densities and income levels, just as they have a range of mobile phone adoption levels.

The basic methodological approach used is to run a simple least squares regression...
using the monthly spend by low-volume users³ (price or charges) as the dependent variable and the number of mobile phone operators as the main independent variable.⁴ Other relevant independent variables have also been included (real per capita income, population). The equation was also estimated with dummy variables to indicate other characteristics, such as the existence of an incumbent government-owned operator and an independent regulator. Descriptive statistics of the data used are shown in Table 2.

Theoretically, it would be expected that lower prices would be associated with greater levels of competition as competing firms would put pressure on each other to operate at higher levels of efficiency, lower costs, and lower prices. It is assumed that the new entrants that bring competition do not suffer too much from a lack of scale economies, because, if that were important, entry would greatly favour the incumbent.

Table 2: Descriptive Statistics 2010 to 2012

| Mobile phone low-volume users spend (PPP $US) | MEAN | 19.4 |
| STDEV | 10.6 |
| MAXIMUM | 54 |
| MINIMUM | 5 |
| Number of mobile phone operators | MEAN | 2.0 |
| STDEV | 0.7 |
| MAXIMUM | 3 |
| MINIMUM | 1 |
| Per capita income PPP $US | MEAN | 19,768 |
| STDEV | 17,566 |
| MAXIMUM | 86,500 |
| MINIMUM | 2,327 |
| Population | MEAN | 356,277 |
| STDEV | 558,833 |
| MAXIMUM | 2,889,187 |
| MINIMUM | 9,200 |
| Population density | MEAN | 263.5 |
| STDEV | 306.5 |
| MAXIMUM | 1,311 |
| MINIMUM | 3 |
| Independent regulator | Yes | 69.7% |
| Incumbent government-owned company | Yes | 33.3% |


³ A low volume user is defined as one who makes 30 calls and sends 100 text messages per month (Network Strategies, 2013).

⁴ The software used for the analysis was Mplus version 7.1 (Muthén & Muthén, 1998–2013).
Equation 1 was developed by taking the monthly spend on mobile phones of low-income users for each of the years from 2010 to 2012 as the dependent variable ($P$) and as a proxy for mobile phone prices, with the following as independent variables:

- The number of mobile phone companies operating in the country ($N$)
- The population level in the country ($D$)
- The level of per capita real income in $US$ Purchasing Power Parity ($Y$)
- $R$ – A dummy variable where 1 is where an independent regulator exists
- $G$ – A dummy variable where 1 is where the country has an incumbent government-owned company
- $L$ – The population density of the country (people per square kilometres of land)

This is shown in Equation 1.

$$P = \alpha + \beta_1 N + \beta_2 D + \beta_3 Y + \beta_4 G + \beta_5 R + \beta_6 L$$  \hspace{1cm} \text{Equation 1}

**Results**

Initially, each independent variable was regressed with the dependent variable separately (Table 3a). When this was done the results are as follows:

- The relationship between mobile phone prices and the number of mobile phone operators is significant (significance level: 0.000). The sign here is a negative one, which is what we might expect. With a greater number of operators, the prices of services are lower. With fewer operators the prices tend to be higher.

- The relationship of mobile phone prices with the regulatory dummy is significant. In this case there is a negative relationship. This is as expected, as a regulatory agency is associated with more competition in markets and lower prices. It is possible that the creation of independent regulators is associated with a more pronounced movement towards competition and lower prices in mobile phone markets.
In the case of per capita income, the relationship with mobile phone prices is a coefficient of 0.000, with non-significant $p$ value of 0.065. Income therefore has no impact on prices.

The relationship between population size and prices is significant (significance level: 0.000). The relationship figure is a negative one. This is not what would normally be intuitively expected (i.e., larger populations enjoying economies of scale and lower costs), and it is not clear from the study why this might be occurring. Such a relationship may exist via the production costs (such as high-income countries having typically a higher relative wage—and thus costs—and, accordingly, the price being higher), but further research would need to be undertaken to confirm this.

The relationship of the mobile phone prices with the incumbent government-owned dummy is also significant, and a positive sign (significance level: 0.002). This implies that an incumbent government-owned entity is associated with higher prices.

There is no statistically significant relationship between population density and prices. This does not mean that there is no relationship between them, just that it is not being captured statistically in this study.

The $R^2$ in most cases is relatively small, except for the existence of an independent regular, which correlates with lower prices to a fair degree. This means that there must be other explanations that are important along with the variables used.

In addition to running the regressions separately, it is possible to run them in a single equation, and in doing so capture the effects of each of the independent variables on each other (Table 3b).

The model results of the estimated equation are in Table 3b. The results for Equation 1, shown in Table 3b, show that:

- The relationship of the variation of mobile phone prices with the number of companies is significant at the border line. The sign is a negative one, which is what we would expect. That means that a greater number of mobile phone companies (and more competition) is associated with lower prices. The tendency is for the introduction of more competition to put downward pressure on prices.
• The relationship of the variation of the price level with the dummy variable for incumbent government operation is not significant (figure of 0.515).

• The relationship of the variation of the price level with the dummy variable with an independent regulator is also significant (figure is 0.000). The figure 0.000 tells us the relationship is meaningful at the 99 % confidence level. The sign is a negative one. The existence of an independent regulator is associated with lower prices. This is not unexpected. An independent regulator is often associated with more competition and therefore lower prices.

• The $R^2$ is 0.423. This indicates that 42 per cent of the variations of the price of mobile phone services are explained by the factors that are included in the equation. It also means that just over half of the variation in mobile phone charges are explained by other factors. These factors might include such things as the individual characteristics of the various countries, as well as such things as the character of the companies that operate within them. It is also possible that, as the number of operators is often quite small (two or three), in some circumstances they may operate to collude on price setting and reduce the impact that competition can have on prices.

Despite the caveats made in the last bullet point, what is found overall is that the existence of an independent regulator and a number of mobile phone operators is associated with lower mobile phone charges. Higher- (or lower-) income countries are not associated with higher (or lower) charges. This means that it is possible for a country to achieve lower mobile phone charges regardless of its level of per capita income as long as the regulatory and competitive conditions promote this. Not all of the variation in mobile phone charges is explained by the variables in the equations. It is possible that a range of other factors are also important, especially individual country characteristics, and it is possible that a more sophisticated study with a broader range of information might help to understand these possible factors.

Table 3a: Regression Results with Individual Independent Variables
Note: D and Y being rescaled as D=D/1000; Y=Y/1000.

<table>
<thead>
<tr>
<th>Variable</th>
<th>$\alpha$</th>
<th>$\beta$</th>
<th>Sig level</th>
<th>$R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>21.285</td>
<td>-0.005</td>
<td>0.000</td>
<td>0.080</td>
</tr>
<tr>
<td>Y</td>
<td>21.421</td>
<td>0.000</td>
<td>0.065</td>
<td>0.029</td>
</tr>
<tr>
<td>N</td>
<td>32.311</td>
<td>-6.534</td>
<td>0.000</td>
<td>0.170</td>
</tr>
<tr>
<td>G</td>
<td>16.636</td>
<td>8.212</td>
<td>0.002</td>
<td>0.134</td>
</tr>
<tr>
<td>R</td>
<td>28.733</td>
<td>-13.429</td>
<td>0.000</td>
<td>0.341</td>
</tr>
<tr>
<td>L</td>
<td>19.710</td>
<td>-0.001</td>
<td>0.549</td>
<td>0.001</td>
</tr>
</tbody>
</table>
Table 3b: Multiple Regression Results  
*Intercept*=32.081, *R*-square=0.423  
*Note*: *D* and *Y* being rescaled to *D*=D/1000; *Y*=Y/1000.

<table>
<thead>
<tr>
<th>Variable</th>
<th>β</th>
<th>Sig level</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>-0.004</td>
<td>0.001</td>
</tr>
<tr>
<td>Y</td>
<td>0.014</td>
<td>0.727</td>
</tr>
<tr>
<td>N</td>
<td>-2.770</td>
<td>0.053</td>
</tr>
<tr>
<td>G</td>
<td>1.606</td>
<td>0.515</td>
</tr>
<tr>
<td>R</td>
<td>-11.018</td>
<td>0.000</td>
</tr>
<tr>
<td>L</td>
<td>0.003</td>
<td>0.080</td>
</tr>
</tbody>
</table>

**Conclusion**

In recent years there have been considerable developments in the structure of telecommunications markets in a range of countries around the world. In the case of the small island countries, the main developments in terms of regulatory governance and industry structure have been in the provision of mobile phones. In the case of the telecommunications industry, many of these small island countries have corporatized or privatized national telecommunications companies and opened up markets to new entrants. In doing so, in some cases, they have established sector regulators to license new entrants and regulated some interconnection arrangements. On the whole, this reform has been successful, as in many cases relatively small markets now operate with a number of competing companies. Mobile phone usage in particular has grown substantially in these countries aided by the investment of new operators. The findings of this study were that lower prices are associated with more competition and independent regulation. The variables used do not explain all of the variation in mobile phone charges, and it is possible that individual country characteristics are important. Future research might be able to achieve a more comprehensive understanding of what influences prices in these nations, and in particular if would be useful to research what strategies were used both by new entrants and by incumbents.

The findings are consistent with many previous studies on the telecommunications industries for larger, more developed countries, arguing that efficient regulation and competition provides the best climate for growth and efficiency in the industry. In the case of the small island nations, the development of mobile phone use took place after that of many other countries, but grew quite swiftly once the regulatory climate was reformed and competition allowed. It is noticeable that even quite small
island markets, with modest average income levels, are able to maintain competition between two mobile phone providers.

The result indicate that there is little reason to maintain monopoly provision of mobile phone operators, even in small isolated countries, and that competition in the industry can bring advantages. Further research into the role and importance of incumbent government-owned entities in competitive markets would be useful in determining the degree to which they have an impact on pricing. Further research into the impact of the nature of competition and pricing strategies would also be important in the case of those countries that have very small populations.
References


Appendices

Table A1: Telecommunications data, Small Island Nations, 2017 *N/A-data not available*

<table>
<thead>
<tr>
<th>Country</th>
<th>Population</th>
<th>Per capita income</th>
<th>Telephone lines</th>
<th>Mobile subscribers</th>
<th>Telephone lines</th>
<th>Mobile subscribers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>US$ PPP</td>
<td>No.</td>
<td>No.</td>
<td>No. per 100 people</td>
<td>No. per 100 people</td>
</tr>
<tr>
<td>Anguilla</td>
<td>17,087</td>
<td>12,200</td>
<td>6,000</td>
<td>26,000</td>
<td>35.1</td>
<td>152.2</td>
</tr>
<tr>
<td>Antigua &amp; Barbuda</td>
<td>94,731</td>
<td>26,500</td>
<td>22,504</td>
<td>180,000</td>
<td>23.8</td>
<td>190.0</td>
</tr>
<tr>
<td>Bahamas</td>
<td>379,988</td>
<td>25,100</td>
<td>121,088</td>
<td>360,200</td>
<td>31.9</td>
<td>94.8</td>
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<tr>
<td>Barbados</td>
<td>292,336</td>
<td>17,500</td>
<td>139,715</td>
<td>332,208</td>
<td>47.8</td>
<td>113.6</td>
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<tr>
<td>Bermuda</td>
<td>70,864</td>
<td>85,700</td>
<td>29,200</td>
<td>59,500</td>
<td>41.2</td>
<td>84.0</td>
</tr>
<tr>
<td>British Virgin Is.</td>
<td>35,015</td>
<td>42,300</td>
<td>12,000</td>
<td>42,000</td>
<td>34.3</td>
<td>119.9</td>
</tr>
<tr>
<td>Cayman Islands</td>
<td>58,441</td>
<td>43,800</td>
<td>34,116</td>
<td>95,656</td>
<td>58.4</td>
<td>163.7</td>
</tr>
<tr>
<td>Cook Islands</td>
<td>9,790</td>
<td>12,300</td>
<td>7,800</td>
<td>11,000</td>
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Sources: (Central Intelligence Agency, 2013; International Telecommunications Union, 2018; World Bank, 2018.)
Table A2: Data Used in Regression

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Objecting to Objectivity: Reflecting on Evaluation in Vanuatu

Martha Geary Nichol¹ and John Overton²

Abstract

Evaluation is intended as an objective activity to assess and learn from development interventions. In practice it is donor driven to meet donor needs and is predicated on donor conceptions of knowledge, evidence and meaning. Rejecting the notion of objectivity and viewing evaluation as a reflection of Western epistemologies, this paper draws from observations of two evaluation exercises and several interviews in Vanuatu to highlight a significant shortcoming of current practice: the failure to recognise contextual factors of kastom, place and language. It questions the fundamental approaches to evaluation in different cultural settings and concludes with a call to focus on relationships as a first step toward more inclusive evaluation.

Keywords: monitoring and evaluation; objectivity; ownership; relationships; Vanuatu

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Observing Evaluations

After volunteering for just a year at a multi-funded youth centre and sexual health clinic in Vanuatu, the first author became familiar with visits from reviewers, evaluators and donors. Their appearances were so frequent that their origin, purpose and relationship to the centre and clinic were often forgotten. Evaluations and reviews took time and required staff members to drop the tasks at hand to respond to questions. While most of these visits faded quickly from memory in a blur of questions and presentations, two stood out in their markedly different approaches and levels of success.

The first evaluation team was made up of a group of Western expatriates based in Port Vila. They seemed to follow a textbook-informed approach. In the centre’s main hall, they explained who they were and their reason for being there to all of the centre’s employees: comprising clinic and management staff as well as tutors, all ranging in age and gender from teenage boys to *mamas* (women) over forty. The team arranged for the meeting to take place at a time when all staff members were at the centre. Unfortunately this also meant that the tutors had to leave their classes unattended. Following their introduction, the evaluation team divided staff members into small groups so that questions could be asked in a more private setting.

While the team used as much Bislama (Vanuatu’s national tongue) as possible, their strong accents and heavy code-switching with English meant they were not very well understood. They often reverted completely to English when they saw that no one understood them, which further confused staff. However, their poor command of Bislama was not the only barrier to their communication. When the evaluators spoke, the young males stared at the ground and the *mamas* not wanting to fall behind on their handicraft classes were silent, apart from their clicking fingers which continued to crochet. After no one volunteered responses, one evaluator went around the circle asking questions directly to each person. This resulted in many “I don’t know” answers and continuous staring at the ground. The evaluator was obviously frustrated by this and did not seem to understand that in such situations avoiding eye contact is not uncommon in parts of Vanuatu.

One of the questions enquired into the number of youth from the previous year who had returned. The evaluator then approached each person in the circle for a response. Seeing that she would have to answer, a *mama* asked for the purpose
of the question to be explained. The first author replied that the evaluator might wish to understand how well the centre retained youth, how the centre made sure that the youth wanted to return the next year. The mama looked somewhat annoyed and she responded that they weren’t like ‘white’ people; they moved around and often went back to their home islands. She didn’t feel that the question was appropriate.

This first team marks a stark contrast to the approach of a second evaluation. The evaluator was an Australian man who visited the centre together with a Ni-Vanuatu woman who was familiar to staff members as she worked for the same organisation in another island. The man arrived at the centre soaked in sweat and, after greeting everyone, sat down to fan himself, exclaiming in a friendly manner, “I’m so hot!” This seemingly unprofessional gesture succeeded in breaking the ice with the staff who laughed at this man in his pressed shirt fanning himself in the Vanuatu heat.

His style was far less formal. He sat and relaxed with the staff in the working area while his colleague arranged interviews through the centre’s manager. He then made time to talk to staff members, either individually or in groups, in their own space and as they preferred. Surprisingly, some staff members requested interviews with him and he accommodated them by making the time to see each person on her/his own terms. While he did not speak any Bislama he conducted all interviews with the Ni-Vanuatu woman. He joked with the staff in English and through his light-hearted manner many aspects of his conversation and personality were understood despite the language barrier. After the interviews, he stayed around to watch the hip-hop group as they had wanted to show him some of their new moves. When the group did not start on time he sat around patiently under the trees waiting for them.

The two evaluations above sought to examine and report broadly on the same things, but they were profoundly different in practice and, in the way they were perceived critically, and engaged with locally. We propose that the second one gained a better and deeper understanding of how the project really worked. How is it then, we ask, that appropriate knowledge for effective evaluations might be uncovered less through ‘scientific’, rigorous and objective methods and more through understanding and engaging with locally-specific ‘ways of knowing’ (epistemologies) and ways of relating to one another?
Ownership in Evaluation

Ownership is recognised as crucial to successful development (IMF, 2001; Killick, 2003; Leandro et al., 1999; World Bank, 1998) and is the main principle of the Paris Declaration on Aid Effectiveness (OECD, 2005). However, the definition of ownership in aid is unclear. As Buiter (2007) points out, it can mean anything from a country having designed and drafted its own programmes, to a country being informed of programmes drawn up by another party. Even the ‘owner’ whom the term refers to is debatable and raises questions over legitimate representation (Buiter, 2007) and power dynamics. In practice, the concept varies and its meaning is often tailored to suit the needs of the user.

Given the shifting nature of the term according to parties involved, time and space, ownership should be viewed as broad and relative. “It really only makes sense when seen in the context of what happened before, and thus ownership can be seen as moving away from the imposition of the content and process … by outsiders.” (EURODAD, 2001, p.3) While this statement refers to structural adjustment programmes, it is also appropriate in trying to understand ownership in other areas of aid management, including evaluation.

Like the concept of ownership, evaluation has often been emphasised through a results management agenda such as in the Paris Declaration principle of “measuring for results” (OECD, 2005). In this context, ‘results’ become the driving principle: pre-determined project targets and objectives against which progress can be measured. Evidence of progress can then be analysed through auditing procedures and used to satisfy requirements for demonstrating accountability. The use of evaluations to inform decision-making for both recipients and donors is critical (OECD, 2010, p. 22).

Evaluation is intended as an objective assessment to understand the extent to which activities meet their objectives. In reality the practice is largely moulded to donor needs, showing a bias towards systems and approaches developed in the West, disregarding local knowledge and failing to capture complex relationships, cultural subtleties and contextual factors (Wallace, Bornstein, & Chapman, 2006). The heavy reliance on donor systems is due partly to donors’ reluctance to hand over ownership to recipient systems as they prefer to practise “risk avoidance” rather than “risk management” (OECD, 2011, p. 52). However, there is little evidence that donors are more likely to use country systems even if
they are of sound quality (OECD, 2011, p. 41). Consequently country ownership of evaluation remains low and evaluation, including utilisation of findings and recommendations, is weak (Segone, 2009, pp. 23-24).

Evaluation procedures are underpinned by particular epistemologies. In evaluation, epistemology is revealed in the concepts, tools and methodologies used by those employed to undertake evaluation. In most instances, evaluation is seen as a rational and scientific exercise: it seeks evidence by gathering data, preferably quantitative data, which is then subject to analysis, comparison and judgement. This positivist epistemology relies on universal techniques and approaches that claim replicability and verifiability. Objectivity is a desirable, indeed necessary, characteristic: evidence should not be tainted by the subjective biases and worldviews of evaluators or swayed by the prejudices of informants. Such knowledge is deemed to be rigorous, reliable and understandable across the realms of academia and policy making. It contrasts markedly with ‘indigenous epistemologies’ in places such as Solomon Islands (Gegeo 1998, Gegeo and Watson-Gegeo, 2001) which see the world of development and relationships very differently. Gegeo (1998) argues that people make sense of foreign concepts, such as ‘development’ and ‘business’ through the lens of their own ontologies, values, social relationships and histories. Knowledge, then, is subjective - socially and culturally constructed - and ‘reality’ is diverse and often contested.

This paper suggests that effective evaluation practices need not only to recognise these epistemological questions, but also to adapt both evaluation methodologies and methods accordingly. We argue that social constructivist and indigenous epistemologies are critical if evaluations are both to have and give meaning to people in Pacific Island settings, though we also recognise that evaluations also need to engage with forms of positivism, in that factual evidence is needed and has value. In terms of methodology (or the ‘theory of method’), therefore, we contend that a syncretic approach is needed, drawing on and reconciling both quantitative and qualitative research to generate knowledge and meanings to inform evaluation of development activities. This then leads to, and must inform, the choice of appropriate methods. As we will see below, we suggest a range of methods but particularly those which are grounded in kastom, place and language. Methods such as storian, the involvement of local researchers and evaluators and concern for the location of evaluation, are all ways to enhance the effectiveness of evaluation and its social and cultural appropriateness in places such as Vanuatu.
Considering that Western positivist epistemology usually provides the foundation for evaluation, this paper challenges the notion of objectivity in the practice of evaluation. We argue that the pretence of objectivity equates to the use of donor methods to meet donor needs. Donor dominance in evaluation undermines the global ownership focus and infringes on the effectiveness of the practice. With evaluations largely directed toward donor accountability and learning rather than addressing local information needs (Segone, 2009) and drawing on ways local people give meaning to their world, evaluations are unsuccessful in meeting their purpose of informing decision-making. Instead, if we see greater awareness of the links between appropriate epistemologies, methodologies and methods of evaluation, we might see evaluation becoming a tool for enhancing local ownership of development – and its overall effectiveness – rather than simply reinforcing donor discourses and control.

**Aid Trends in Vanuatu**

Vanuatu relies heavily on aid. In 2016 it received $US128.6 million in official development assistance, equivalent to 16.5% of its gross national income (World Bank, 2017). It is the third largest aid recipient in Oceania (next to Papua New Guinea and Solomon Islands). With such a heavy reliance on aid, Vanuatu is naturally subject to global aid trends and practices, including the neoliberal structural adjustment programmes and the results-management agenda.

External interventions in Vanuatu have been criticised in the past for their lack of ownership and failure to recognise contextual factors. For example, Vanuatu’s Comprehensive Reform Programme of 1997, instituted following pressure from the Asian Development Bank and other donors and aimed at reforming the country’s public sector (Nari 2000), was criticised for the lack of consultation surrounding its development and subsequently the absence of local ownership of its policies (Gay, 2004, 2014). The programme failed to recognise contextual factors such as *kastom* and land ownership (Gay, 2014). Land reforms aimed at expanding the economy were seen to undermine the relationships that Ni-Vanuatu have with their land (Daley, 2010).

The results management agenda has been picked up in Vanuatu. The Government of Vanuatu has acknowledged the role of strong monitoring and evaluation for decision-making and evidence-based policy through the establishment of a monitoring and evaluation unit in the Department of Strategic Policy, Planning
and Aid Coordination (DSPPAC) and the development of a monitoring and evaluation policy. The unit collates data collected by individual ministries and is responsible for the planning, monitoring and evaluation of the economic and development agenda of the Government (Pacific Institute of Public Policy, 2009). Such a unit has the potential to strengthen national demand for monitoring and evaluation by setting culturally sensitive standards and providing a space for greater dialogue on evaluation between multiple stakeholders (Segone, 2009, p. 28). Despite the active step forward in taking ownership of the evaluation of government activities, evaluation is still largely a new practice to Vanuatu and continues to be driven by donors (Pacific Institute of Public Policy, 2009, p. 18).

Research

This paper presents local perspectives of evaluations in Vanuatu’s two largest towns of Port Vila and Luganville where the majority of development projects are based. Semi-structured interviews were undertaken in April and May 2013 with 10 non-governmental organisations (NGO) and eight government staff members working in the monitoring and evaluation departments.

Participants were identified through personal networks or by emailing contact addresses on NGO and government websites, with the intention of interviewing a broad range of participants. While the interviews produced rich data and clear themes emerged, the research was limited by time and availability of participants, and consequently several proposed interviews were not able to be conducted. Time constraints also excluded other service providers such as churches from the scope of the study.

Participants were asked to talk about their experiences and views on monitoring and evaluation practices in development projects. Interviewing solely NGO and government department staff was an opportunity to emphasise the local point-of-view of the practice. During the data collection process, reflexivity was constantly exercised including reflecting on positionality – how the researcher’s actions, history and identity affected the research. The first author, who conducted the interviews, is a young female of British and Māori descent who grew up in New Zealand and spent time living in Italy and Vanuatu. Her positionality and awareness of how she was perceived in Vanuatu informed her approach, including building rapport with participants through making connections and respecting the appropriate protocols for organising interviews.
Interview techniques employed borrowed heavily from *storian*, Vanuatu’s form of *talanoa* (Warrick, 2009). Like *talanoa*, *storian* involves and translates to swapping stories, talking and yarning (Crowley, 1995, p. 235; as cited in Warrick, 2009, p. 83). Its central feature of “building rapport with participants” (Warrick, 2009, p. 83) stresses the importance of being physically present (Halapua, 2000). In order to employ a *storian* approach, interviews were either conducted in Bislama or techniques were borrowed from the story-telling nature of Bislama for interviews conducted in English. In the majority of cases, data was documented through voice recordings and then transcribed verbatim and coded and grouped into themes manually. Translations of quotes used in this paper were reviewed by a Ni-Vanuatu translator.

**Findings**

Evaluation was viewed by participants as externally-driven and dominated by overseas evaluators checking appropriate spending of funds or proving the value for such spending. Similar to the critique of Vanuatu’s Comprehensive Reform Programme, context-specific factors, despite their importance for ownership, were not seen to be prioritised. The participants saw evaluation as a practice undertaken in an objective, one-size-fits-all manner, but through this perspective failed to recognise three important contextual features: *kastom*, place and language.

**Kastom**

*Kastom* is a concept closely tied to Ni-Vanuatu identity. There is a lack of clarification around its definition (Tonkinson, 1982). For example, Bolton (2003) found that many people do not distinguish between custom, culture and tradition, but *kastom* is often used as an umbrella term representing all three. Former President of the *Malvatumauri* (Vanuatu’s National Council of Chiefs), Chief Willie Bongmatur, wrote that only Melanesians can know for themselves the “meaning and significance of the terms culture, custom, and tradition and the importance of these concepts within national and village life” (Bongmatur, 1994, p. 85). Therefore, in this paper, the understanding of *kastom* will be kept broad and will represent custom, culture and tradition. The Bislama word is used to keep its definition dictated by Ni-Vanuatu.

Better inclusion of *kastom* in evaluations was seen as imperative. Contrary to the “objective” Western approach, understanding and including *kastom* is necessary
for successful execution of evaluation. *Kastom* influences epistemologies which in turn advise data collection methods and indeed, the appropriate data to be collected. For example, *kastom* can guide communication techniques ensuring appropriate methods are employed and effective collection of information is achieved. Hence, *kastom* is key to the collection of worthwhile, reflective data to inform local decision making.

Approaches need to be better tailored by local *kastom*, which can vary from island to islands and village to village:

> O even for M&E from we Vanuatu hemi kat wan diverse culture, yu no save apply wan standard o wan size fits all I stap long Torres kasem. Mo aelen tu oli difren. Wanem mi tokabaot long Santo, sem message ia we yu komunicate long Santo yu no tink se bambae I kam gud blong talem yu mas jenjim langwis blong yu blong sutem man we I andastand we I tekem. (Participant A – Government Employee, personal communication, 2013)

[Or even for monitoring and evaluation, because Vanuatu has a diverse culture, you cannot apply one standard or one-size-fits-all from the Torres down. All the islands are different too. What I talk about in Santo, this same message that you communicate in Santo you don’t think that it can be told like that, you need to change the language to suit the person you are speaking to so he understands.]

Furthermore, an understanding of *kastom*, by recognising and valuing local assets and capabilities, can help provide evaluations with richer data and deeper understanding. For example, participant D highlighted the custom of oral communication in Vanuatu:“…verbal communication in Vanuatu is still very strong. Amazing people remember the things they’ve done the last 12 months very well so they verbally communicate it.” (Participant D – Government Employee, personal communication, 2013)

**Place**

Vanuatu is characterised by considerable cultural diversity within its nearly seventy inhabited islands and this is reflected in a wide range of customary land tenure systems, encompassing both patrilineal and matrilineal systems and varying mixes of communal, kin and individual rights (Rodman, 1995). Yet common throughout is the very strong link between land and identity (Regenvanu, 1980). “*Wetem kraon nao hemi save talemaot hem mo wetem kraon hemi save holem taet ol kastom tambu paoa blong hem*” (It is with land that he defines his identity and it is with land that he maintains his spiritual strength) (Regenvanu, 1980, p. 66).
A person’s sense of being is related to her or his customary home and the social relationships there. ‘Land’ encompasses not just the physical earth and biota but the cultural and social values embedded in it. Thus, being at home on one’s land is important for a sense of identity and being able to communicate with outsiders with confidence.

When working within communities where land and identity are strong and interconnected, development professionals must recognise and respect the environment, history, protocols and power structures that exist in that place. Yet the practicalities of evaluation exercises often mean that they do not travel to villages that may be only accessible by dirt roads or sea and arduous to get to following frequent, heavy rains. This parallels Robert Chambers’ (1983) observations regarding ‘rural development tourism’ and the ways the most marginalised are not visited and rendered invisible in the course of development practice.

On the other hand, when the views of a community are sought away from their homes, the resultant evaluations can be compromised. For example, an air-conditioned office in a town close to the airport may suit the needs and budgets of evaluation teams, but it is ‘out of place’ for communities. Away from their land and their cultural hearth, community members may lose identity and mana (spiritual authority and power) and the confidence to express and assert their views. They can become relegated even more to passive and faceless ‘interviewees’ or ‘focus group discussants’, particularly when consultants from outside seek views on local conditions and impacts of development interventions. Thus, taking account of people’s physical location and acknowledging their relationship with their land means meeting them on their terms and on their own ground, respecting local kastom, relationships and ways of interacting, and acknowledging the unique identities and knowledge systems of that place.

**Language**

*Kastom* and identity is heavily embedded in and practised through Vanuatu’s languages: “Ol kastom blong Vanuatu ikat stamba blong olgeta hemi langwis” [It can be said that language is one of the bases of custom in Vanuatu] (Ligo, 1980, p. 58). While Bislama is the national language, and English and French are official languages, Ni-Vanuatu have another 106 indigenous languages (Lynch & Crowley, 2001) in which the varying numbers of speakers’ identity and kastom, are expressed.
The dominance of English as the primary language for evaluation design and delivery ignores the linguistic reality that English isn’t the *lingua franca*. English may not be spoken by many or may be the second, third or fourth language for others. Even for those who speak English proficiently, the pressure to use the language formally in the context of an evaluation can be intimidating and limiting. The heavy reliance on English for evaluations thus restricts involvement of individuals and communities being evaluated, often making interviewees unwilling or unable to express themselves. Needless to say, the use of English does not encourage a *storian* approach.

A further concern is the difficulty for interviewees to fully understand the purpose and origin of the evaluator when this information is presented in English. It is understandably difficult for interviewees to express themselves freely when they do not know who is interviewing them. This sentiment was captured in one participant’s words:

> Hemia lo saed lo research olsem o hemia we oli kam review ia ol man blong review ia olsem se I gud blo wan we hemi review hemi toktok bislama hemi mas traem I andastandam langwis blong ples long hia because samtaems sam infomesin we I save gud be oli no save hao blong oli kivim stret tingting ia long wan man we I shud be. I mekem se sam taem oli fraed from oli no save toktok English, o oli fraed long man we I kam ia. (Participant B – NGO Employee, personal communication, 2013)

[That’s with regard to research, like, when they come and review here, all the people who do reviews, like it would be good if [the] one who reviews speaks Bislama. He must try to understand the language of this place, because sometimes some information which can be good they don’t know how to give their straight thoughts to this man. It makes it that sometimes they are afraid because they cannot speak English, or they are afraid of this man who has come.]

The dominance of English in evaluation limits ownership of the practice by promoting the use of a foreign language (in many cases) and restricting participation of those involved locally.
Local participation

In order to promote the better inclusion of kastom, place and language, the participation of local people in the running of evaluations is critical. It is inconceivable that an external evaluator could understand the intricacies and differences between the kastom of different communities in Vanuatu. Local people, drawing from their own epistemologies, can tailor evaluations to better suit the needs of local people.

A local person, with her/his knowledge of the context, may be received better within the community due to her/his ability to guide the evaluation according to kastom and conduct it in the right language in the right place. One participant further highlighted a local person’s ability to make others feel more comfortable by having a similar appearance:

… culture blong yumi hemi very important so mi mas helpem donor blong save about sensitivity blong culture blong yumi. Mekem se taem we mifala I ko long wan community olsem sam taem yu se people bambae save be open sapos oli luk appearance blong yu hemi klosap semak blong olgeta (Participant A – Government Employee, personal communication, 2013)

[… culture is very important so I must help the donor know about the sensitivities of our culture. Therefore when we go to a community sometimes people will be open if they see your appearance is quite similar to theirs.]

Participants were very aware of donors’ drive for objectivity and it was acknowledged that involving someone so close to the examined organisation ran the risk of a conflict of interest and therefore a loss of this required “objectivity” demanded by evaluation’s definition. However the benefits of including someone with a local understanding outweighed the use of evaluators who “often lack skills and understanding of local context” (Wallace et al., 2006, p. 113). “I think it’s better and then it’s better because then they’ll know the situation and I dunno whether the information given it’s you know, not conflict of interest and everything but it’s honestly reporting on what’s on the ground.” (Participant C – NGO Employee, personal communication, 2013)
Discussion

Participants highlighted the necessity for inclusion of contextual factors of *kastom*, place and language. This would allow for more reflective data to be collected which in turn would more accurately inform decision-making. The integration of these factors demands the greater inclusion of local people and local epistemologies, resulting in a movement away from the implementation of practices by outsiders (EURODAD 2001) and therefore increased ownership.

For contextual factors to play a greater part in evaluation, a movement away from traditionally Western approaches towards Ni-Vanuatu approaches is needed. This requires a change in epistemologies within the framework of evaluation: towards viewing the practice from a local standpoint, embracing *kastom*, place and language. Such a standpoint demands the inclusion of local people as facilitators and evaluators throughout the evaluation process.

In practice the extent to which the evaluation can embrace contextual factors varies according to context and the current relationship between donors and their Ni-Vanuatu counterparts. Ongoing negotiations and dialogue need to occur between donors, government and NGOs for relationships to be developed and maintained. Sound and respectful relationships, in which balances of power are examined and addressed, would allow for a better space for government and NGOs to impart their views. Such a call for a focus on relationships is not new (see Eyben, 2004, 2010; Mancuso Brehm, 2001). A participant in a Wallace et al. (2006) study argued “there needs to be a middle path between donors’ interests and the NGOs’ interests … Building relationships and not just systems is key” (2006, p. 116). This type of relationship building and the move to better address issues from a local approach will require flexibility on the part of donors. The development of local approaches will require trial and error. Unlike donor practices that have already had decades to develop, local approaches will require time for fine-tuning.

The focus on relationships rather than physical project outputs challenges the idea that evaluation is primarily a funding instrument. It suggests that evaluation should be flexible, personal and focused on long-term development outcomes. Instead, presently a significant proportion of donors’ communication with participants is through donor visits for evaluation and reporting, resulting in a relationship centered on funding.
The strengthening of relationships, including negotiating intricate power relations, would not replicate a formal Western relationship recognised through a memorandum of understanding. Rather, it too would take the lead from the local context. *Kastom* outlines its own approaches to building and maintaining relationships incorporating different practices such as the sharing of food, the use of *storian* and the drinking of kava. These customary protocols regarding the establishment and maintenance of relationships are supported by vital elements of inter-personal communication – personality, humour, openness, respect – all of which build trust and shared understandings and experiences. It is logical that a relationship aiming to increase Ni-Vanuatu ownership is guided by *kastom*. Approaches such as *storian* may not necessarily provide a direct, prescribed outcome, but rather advocate participation and sharing centred around relationships (Warrick, 2009).

Seeking to approach evaluation through new epistemologies and strengthened relationships will be difficult. It requires taking risks and trying new approaches that will be unfamiliar and perhaps not recommended in Western methodologies. It takes time, for which government and NGOs (as well as donors) are already pressed to undertake current evaluation requirements. However, a relationship focus would not only benefit evaluation, it would spread its value over into other aspects of donors, government and NGOs’ shared work.

**Evaluations in Retrospect**

Returning to the original story of the two evaluations at the start of this paper, the techniques and methods observed can now be examined in light of the research and subsequent discussion.

The first team seemed to follow pre-determined, deliberate procedures for appropriate engagement. They introduced themselves, stating the purpose of their evaluation, followed by interviews in small groups so that interviewees could supposedly feel comfortable speaking. Each person was addressed with each question individually, to ensure complete participation. “Rigorous procedures, design and methodology” (United Nations Development Programme, 2009, p. 8) were followed. However, interviewees seemed reluctant and uncomfortable in providing information, giving their insights and sharing their knowledge. The “rigorous procedures” had resulted in interviewed staff avoiding the evaluators’ questions.
The evaluation group’s “objective” process was based on Western models of participation and was unsuccessful in this Vanuatu context. Contextual factors were not taken into consideration. For example, the evaluators demonstrated their poor understanding of *kastom* through their confusion with the young male staff staring at the ground. Despite their use of Bislama, their poor command of it and reversion to English meant that staff did not feel comfortable to talk and express themselves. While the evaluation did take place on the centre’s grounds, the evaluation group did not allow individuals to dictate the location of interviews. Furthermore, the timing of their evaluation did not fit with everyone’s schedules and undermined the centre as some of the staff were forced to leave their classes unattended. Needless to say, in striving for an objective approach, relationships were not prioritised.

Without the comfort to speak frankly to the evaluators, the staff members were unable to dictate the terms of the evaluation. There was little local ownership and subsequently the information collected only offered a partial view of the centre’s work.

The second evaluator on first impression appeared less methodical in his approach. He seemed almost unprofessional fanning himself and complaining about the heat. He stayed at the centre well beyond his set work hours to see the hip-hop group perform and appeared to be making friends with the staff. Overall, his approach appeared far from objective.

However, his methods were much more successful and in line with the local context. He used *storian* techniques and was guided by *kastom* through his Ni-Vanuatu colleague who accompanied and worked with him. While she guided and translated for him, he let interviewees set the time and place of interviews.

The evaluator emphasised the importance of relationships by acknowledging each person and giving her/him the opportunity to be met either independently or in groups. Despite the heat he still dressed formally to indicate his respect for the occasion.

The evaluator recognised his own place in the evaluation, challenging the notion of objectivity. He disclosed his positionalities, acknowledging and sharing who he was and incorporated this into his approach. He offered himself as a person, rather than solely an evaluator. In doing this he acknowledged and challenged power
relationships and aligned with Robert Chambers’ (1997) call to destabilise the ‘uppers-lowers’ relationships that often develop when development professionals interact with local people. This was seen in the way he waited around to see the hip hop group and joked with the staff. His techniques succeeded in making himself less intimidating which allowed others to relax around him. Staff felt comfortable approaching him, had a thorough understanding of the purpose of his visit and could subsequently offer him a better reflection of the realities of the centre.

While his approach involved uncertainty, it allowed those interviewed to steer the conversation and determine what was of importance (O’Loughlin, personal communication, 2014). By sharing ownership of the evaluation he consequently obtained more reflective data. By ceding a certain degree of control, he was able to ensure a more effective evaluation.

Conclusion

This paper highlighted the interdependent nature of ownership and contextual factors. It stressed their necessity for increased effectiveness of evaluation. The findings were based on a small group of participants and although their comments were largely congruent, the sample size and selection process mean that this study needs to be considered alongside other research based in this region and field of study.

Accordingly the findings of this study would lend well to future research in this area. Given the identified link between contextual factors of kastom, place and language with ownership, future research could examine these factors to reflect on changes in ownership. For example, language is an easily identified indicator of ownership. Therefore, examining its use in evaluations would shed light on changes in ownership. For example, is Bislama the primary language for evaluations? Are local languages used? The presence of kastom could be seen in the methods used for evaluation. Are local techniques employed over popular Western participatory methods? In addition, it should be asked how Vanuatu’s geography is taken into account as part of the practice. Do meetings and interactions occur ‘in place’? Are rural communities consistently participating in evaluations and are their distinct identities and cultures being recognised? Have systems been set up to ensure this? The extent of the employment of these changes would demonstrate movement “away from the imposition of the content and process …
This study contributes to calls for a deeper critical review of evaluation that reaches into, and questions, its epistemological roots. Most evaluations are driven by a positivist epistemology that seeks ‘evidence’ and ‘results’. They adopt techniques widely used throughout the world that measure (and frequently quantify) changes leading towards or away from pre-determined development objectives. There is a strong material element (what is built or provided) and knowledge about such things is deemed to be objective, rigorous and scientific. Those who evaluate are skilled and neutral and the personalities or biases of the evaluators should never impinge on the process. ‘Results’ are measured, and ‘success’ is evaluated, against what was planned. Such evaluations are important and necessary in development practice worldwide. They aim to satisfy donor requirements for transparency and accountability for aid funds.

Yet at the local level, such as in villages and organisations in Vanuatu, people may construct meaning and knowledge about development in very different ways (Gegeo and Gegeo-Watson, 2001). What may determine whether a change is good or bad is how people feel about it. Thus, it may not be predetermined objectives but the process of change that is important, and it may be as much visceral as material. How are power relationships altered? Are identity, mana and custom compromised? Are relationships restructured? Alternative indigenous epistemologies, then, would drive evaluations by seeking knowledge that was constructed in place through a network of social and cultural filters. It is knowledge that is not objective but may be highly subjective. It is ‘evidence’ that may seem soft or variable or contested or even irrational to outsiders. Yet, it is knowledge that is built and held by the people who have to live with the development that takes place. These people should be the ones who determine ultimate success or failure.

Furthermore, the personality of the evaluator is important: to understand local meanings and interpretations, appropriate communication is vital and that is predicated on effective relationships between evaluators and those being evaluated. Being impersonal, scientific and objective may well undermine the very essence of effective evaluation. If ownership is a key principle for effective development, then evaluation should be driven by the ultimate (local) owners of development. The meanings and knowledge and the meaningful knowledge that
inform evaluations, and the relationships that facilitate evaluations, have local contexts as much as the development projects themselves.
References


CONFERENCE REVIEW:
Critical Tourism Studies – Asia Pacific, Yogyakarta, 3-6 March 2018

Alexander Trupp¹, Apisalome Movono² and Lynn Beckles³

Critical Tourism Studies – Asia Pacific (CTS-AP) is an international network of scholars who share a vision of promoting social change in and through tourism practice, research and education (www.criticaltourismstudies.com). CTS seeks to find new ways of understanding and transforming travel and tourism by locating it in its wider political, economic, cultural and social contexts. CTS embodies “more than simply a way of knowing, an ontology, it is a way of being, a commitment to tourism inquiry which is pro-social justice, equality, and anti-oppression: it is an academy of hope” (Ateljevic et al., 2007, p. 3).

The first CTS conference was held in 2005, but the 2018 conference in Yogyakarta Indonesia was the first CTS conference that took place in the Asia Pacific Region. The region is characterized by its socioeconomic, cultural, and political diversity (Dolezal & Trupp, 2015) and is a mix of mature, emerging and nascent tourism destinations (Hall & Page, 2016; Pratt & Harrison, 2015). Pacific Island Countries – in contrast to many nations on the Asian mainland – have narrow economic bases and thus, limited choice but to seek further development of tourism (Cheer et al., 2018). Pacific Island Countries are well positioned to reap rewards from tourism investments, yet lack the critical lenses and experience (compared to Asia) required for planning and developing tourism sustainably (Movono, 2017). As such, the CTS movement and its communal networks ideally set itself as a hub for knowledge and information sharing which facilitates genuine exchanges on critical tourism issues that affect the Asia Pacific region.

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The conference was hosted by Gadjah Mada University and sought to progress the dialogue between different stakeholders from both academic and practical backgrounds. The conference theme *Re-Centering Critical Tourism Studies* suggested an urgent as well as a pragmatic and inclusive multi-stakeholder approach to discussing the issues surrounding tourism development in the Asia Pacific region that will be meaningful to its varied stakeholders, host communities in particular.

The themes covered by the keynote addresses represented a range of provocative topics and featured the following scholars and presentations:

- Kathleen Adams: On gateways and yellow brick roads: Rethinking travel and travelers in an era of (im)mobility
- Tim Edensor: Bidding farewell to ethnocentric tourist theory
- Ploysri Porananonond: Liminality and the play with water in Chiang Mai’s Songkran festival
- Wiendu Nuryanto: Heritage, tourism, and millennials: Is it a new paradigm?
- Stroma Cole: Empowered or burdened? Gender and tourism development in Indonesia
- Chris Gibson: Critical tourism studies: Achievements, challenges, and prospects
- Regina Scheyvens: Tourism and Sustainable Development Goals: Continuing the myth of tourism as a sustainable industry?

Given the region’s rich diversity it would be remiss of the organizers not to address topics such as heritage tourism, gender and development, tourism sustainability and the Sustainable Development Goals. These topics remain as evidence of the negative socio-cultural and socio-economic impacts yet to be successfully
harnessed by developing economies and tourism-dependent economies. Two very important issues raised were that of liminality within tourism experiences and a move away from ethnocentric biases within the development of tourism theory. Given the existence of sacred expressions of culture and the presence of indigenous people in the Asia and Pacific region, these presentations offered a starting point for the inclusion of the marginalized voices in that region. Notably absent from the conference keynotes, however, was a representation from the Pacific Island region.

Generally, the regional focus of the conference panel presentations was on East-and South-East Asia with only six presentations focusing on the Pacific Island Region. First, Lisa Sadaraka in her presentation investigated the sexual harassment experiences of Cook Islands hospitality employees by customers to gain insights into what social and environmental factors influence this behavior. Her findings suggest that customer-perpetrated harassment in the Cook Islands is prevalent and can be linked to existing causality models. The second paper on the Cook Islands was discussed by Marcus Stephenson and introduced a qualitative study of the perspectives of the host community concerning the socio-cultural challenges aggravated by tourism. He showed the ways in which tourism is re-defining local cultural performances and dances, as well as cultural codes of behavior and moral codes of conduct. Lynn Beckles examined the value proposition of a heritage tourism niche in the Marshall Islands. The contested views of policymakers and practitioners are examined within this framework in an attempt to articulate and interrogate the actions that can be supported by the host community which would be critical to the facilitation of the development of a cultural tourism experience.

Apisalome Movono set the stage for three papers focusing on Melanesia. He assessed how tourism-related development has set the people of one Fijian village along two distinct development pathways. His research explores how preferential access to tourism benefits has created certain disparities within the community leading to diminished community solidarity. Another paper on Melanesia was presented by Alexander Trupp. His research examines the economic and socio-cultural impacts of souvenir and handicraft businesses in Vanuatu and the Solomon Islands. His findings show significant differences between the two destinations in regards to the representation of locally made products. Finally, Andreas Neef discussed the role of tourism in post-disaster response and recovery, the case of Vanuatu in the aftermath of tropical cyclone Pam in 2015.
In addition to the academic presentations briefly outlined above, the conference also facilitated two fascinating movie screenings and discussions. Hill-Smith’s *Strange Birds in Paradise: A West Papuan Story* (2009) presents a country which on the one hand features a rich musical, cultural and natural heritage and on the other is weighed down by Indonesian military oppression. The other movie, the documentary *Waiting for John* (2015), directed by Jessica Sherry, tells the story of America’s impact on the island of Tanna in Vanuatu and explores one of the last surviving Cargo Cults, the John Frum Movement.

To sum up, a hopeful and ambitious research agenda is possible given the range of issues addressed. This raises the question of the role of the conference as a space to inspire transformation. A collaborative approach is needed if meaningful progress is to be achieved in addressing the myriad of simultaneously occurring issues within a multi-stakeholder multi-disciplinary group of academics and practitioners. Already limited by its biannual schedule, radical and timely action plans must be developed if there is to be a meaningful shift to position this forum as a leading think tank for the realization of the economic, social and cultural development promise of tourism. Connections forged through the CTS conference have translated into the establishment of a Pacific Island Researchers Facebook group where networking, discussions and knowledge sharing are already afoot. Another positive outcome of the CTS conference is the fruition of the SDGs for Tourism Conference which is being organized by one of the CTS conference keynote speakers, Regina Scheyvens along with others including Apisalome Movono (CTS presenter). Such collaborations made through links made at the CTS conference will carry discussions and further the agenda of the CTS movement within the Pacific region and beyond. If the next moves are strategically planned, the regional CTS conferences promise to be a critical space to serve the diverse and multiple cultural interests and priorities in the development of tourism in the Asia-Pacific region.
References


Information for Contributors

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Spelling: British (not American) spelling is preferred. Follows the Concise Oxford Dictionary.

Notes: foot notes (no end notes) and single spaced.

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