

**School of Economics Working Paper Series**

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**October 2017**

**Working Paper # 2017/02**

**Recommended Citation:**

Prakash, K.; and Ram, R. 2017 “Does globalization affect visitor arrivals in Pacific island developing states? The case of Fiji”, *School of Economics Working Paper No. 2*, School of Economics, The University of the South Pacific, Suva.

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# **Does globalization affect visitor arrivals in Pacific island developing states? The case of Fiji**

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## **Abstract**

Globalization is not a new phenomenon in development economics. Countries either developed or developing has overtime experienced different levels of globalization and the countries in the Pacific region are no exception. However, very few studies have been undertaken in the context of Pacific island countries to understand how globalization has influenced these economies. In this study, we analyse the role of globalization on visitor arrivals in Fiji. Using VECM empirical technique, this paper finds that improvements in globalization index along with its three measures of economic, social and political index has positive and significant impact on the visitor arrivals in Fiji over the 1975–2013 period. The study highlights that Fiji should continue to exploit its globalization opportunities in promoting tourism ventures in the economy coupled with sound economic and political environment to create more investment opportunities.

**Key words:** globalization, tourism, VECM, developing countries, Fiji

**JEL classification:** F4, F6, O1

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## 1. Introduction

In recent years, globalization has become one of the most contested agenda in the economics literature due to the growing interest in how the opportunities and threats are presented by it. Globalization is a result of massively increased trade and cultural exchange which through its interconnectedness has increased reliance and interdependence. Overtime, economies all over the world have put in efforts to link people, regions and countries much more closely together than they have ever been before. Though there have been a number of studies analyzing and discussing the varying impact of globalization on various economic and social indicators in the context of a number of countries<sup>1</sup>, the literature still does not seem to come to consensus.

Almost all the countries have experienced the effects of globalization in one way or the other which often happens at the economic, social or political level. Additionally, in an effort to reap the benefits of globalization, developing countries have put in efforts to invest in the world's fastest growing sector, the tourism sector. To this phenomenon, Pacific Island Countries (PICs) including Fiji, is no exception. Nkurayija (2011) argues that the tourism industry creates job and growth opportunities and it would be a tool for these countries in this era of globalization. Visitor arrivals to any country are deemed to be dependent on the access of technology, ease of transportation, communications, political situation and on the characteristics which makes a destination unique to visit. Globalization to this front, allows countries to penetrate into the global tourism market and showcase to the world on what it has to offer. There are number of studies which have argued in favor of globalization to boost tourism. These studies among others include Dwyer (2015), Zmysłony (2011), Alejziak (2011) and Mustafa (2010).

Tourism is one of the leading export earning sectors in many developing countries including Fiji. Data shows that in 2015, close to US\$800 million was earned by the tourism industry in Fiji which is almost equivalent to around 60% of Fiji's total export of services (FBOS, 2016). World Travel

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<sup>1</sup> See among others (Wu, Perrings, Kinzig, Collins, Minter and Daszak, 2017; Eppinger and Potrafke, 2016; Grossman and Helpman, 2015; Sa'idu, Umaru and Yusuf, 2014; Bergh and Nilsson, 2014; Ermini and Santolini, 2014; Steger, 2013; Hamdi, 2013; Mutascu and Fleischer, 2011; Rao and Vadlamannati, 2011; Villaverde and Maza, 2011; Chang and Lee, 2010; Heshmati and Lee, 2010; Hulme, 2009; Schuh, 2007; Hjalager, 2007; Bhagwait, 2007; Stiglitz, 2003).

and Tourism Council (2015) indicates that tourism itself contributes about one third to Fiji's GDP and approximately provides direct employment to about 40,000 people in the country. The total tourist numbers in the country has increased almost three fold since the beginning of the new millennium and is close to reaching one million visitors in a year (Appendix 1). Despite Australia being the major source country followed by New Zealand for tourism, Fiji has been gaining popularity and is attracting tourists from a number of emerging markets including China, India, South Korea and other PICs (FBOS, 2016).

Moreover, Fiji is one of the first countries in the Pacific region to embrace globalization either at economic, social or political level. Its overall globalization index has increased from as low as 33 in the 1970s to an index of 57 in 2013<sup>2</sup> (KOF, 2016). Given a number of literature attempting to validate the nexus of globalization on tourism earnings and visitor arrivals, such literature is almost non-existent in the context of PICs. This is no different for one of the most developed country in the region, Fiji. It is in this direction, we attempt to contribute to the economics literature on the following aspects. Firstly, the results will help identify the overall contribution of globalization on tourist arrival in Fiji. Secondly, it will help identify which aspects (economic, social or political) of globalization contribute most to visitor arrival in Fiji. Thirdly, it will be the first study utilizing the globalization data from KOF database to analyse the impact of globalization on any economic indicator in the context of a PIC. It is often argued that any phenomenon or theory gains greater acceptance when it is tested with experience of countries with different sizes and structures. Hence, the case for a PIC would provide with a unique case study. Fourthly, the methodology applied can be easily used to undertake similar studies in the context of other developing countries for many other different macroeconomic indicators.

The remainder of the paper is organized as follows: the next section presents a brief survey of the literature followed by a brief economic overview of the Fiji's economy with reference to globalization and tourism in section 3. In the fourth section, we present the empirical methodology and discuss the empirical results of this study. The final section concludes with policy implications.

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<sup>2</sup> The KOF database was constructed by Dreher (2006) and is being updated yearly. The data is available on <http://globalization.kof.ethz.ch/>

## **2. Literature Review**

Bhagwati (2007) sees globalization as a platform to overcome social and economic development issues, create jobs and improve the living standards for locals. However, it is often argued that government policies or any economic phenomenon for that matter cannot directly influence economic growth and development of a country without its transmission via an economic sector or channel. Tourism sector is often seen as one of the sectors which are highly influenced by the rate of globalization in an economy (Mpofu, 2009). This is largely due to the geographical scale of the industry with increased means of linkages between places and people from different locations. As globalization makes easier access to countries, a stronger tourism environment has begun permitting people to experience and enjoy other cultures along with creating new economic and social ties with different communities all around the globe.

The literature documenting several channels on the impact of globalization in the economy including its impact on the tourism sector is increasing (see among others; Ivanov and Ivanov (2016), Dwyer (2015), Ivanov and Webster (2013) and Weibinh and Xingqun (2006)). Using empirical techniques, scholars including Nkurayija (2011), Zmyslony (2011), Mustafa (2010) and Peric (2005) find a unidirectional relationship from globalization to tourism. These studies find that tourism in a country increases with increased globalization. Peric (2005), in particular, argues that with increased globalization, there is improvement in computerized information and reservation system which allows decrease in costs of air travel and increases the possibilities of visiting destinations at relatively low price and in less travel time. Additionally, Dwyer (2015) argues that globalization improves tourism because people are more and more international and multicultural in their attitude. According to Mustafa (2010), cultural differences between individuals and countries also play a vital role when selecting holiday destinations and hence, globalization helps reduce this cultural difference. The study further adds that the driving forces of globalization have substantial positive effects on tourism. In particular, in the context of the Arab countries, these driving forces include improvements in the development of transportation and infrastructure which bring about easier access to the country.

On the other hand, Dwyer (2015), Mpofu (2009) and Sugiyarto, Blake and Sinclair (2003) produce mixed results concluding that globalization has both positive and negative impacts on tourism

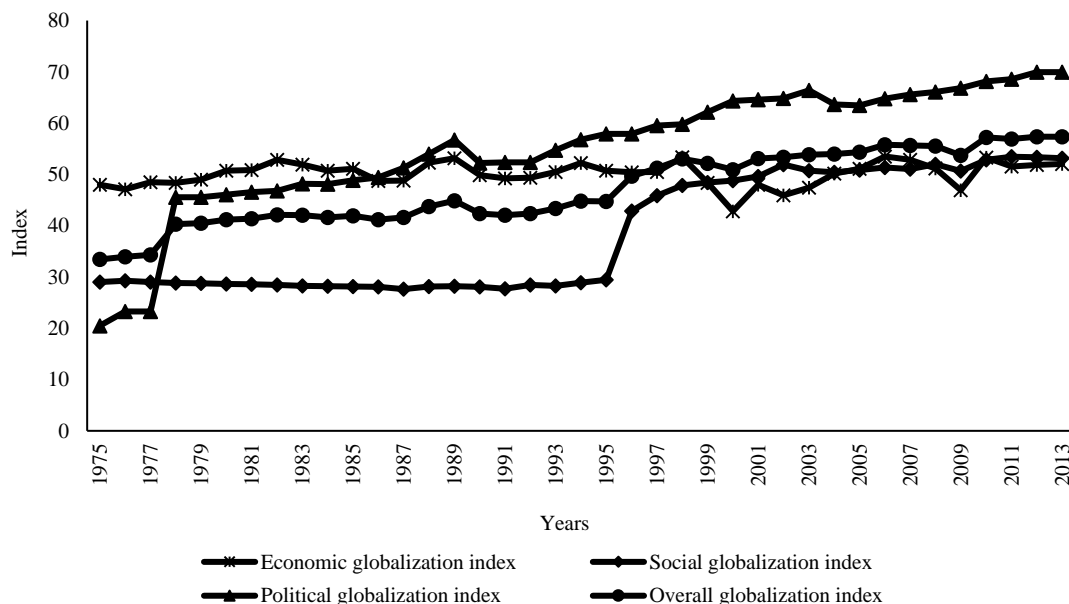
while Smeral (1998) argues it only has negative impact. Sugiyarto et.al. (2003), find that tourism in the case of Indonesia strengthens the positive effects of globalization and decreases its adverse effects by increasing production and improving welfare for its people. Mpofu (2009) studies the impact of tourism globalization on the African economies and finds that the majority of the African countries have overtime experienced increase in earnings, job creation, new technology; and improved their tourism facilities and services to meet international standards. However, the study argues that globalization contributes to financial leakages and price increases both of which has adverse effect on tourism. Moreover, it is argued that globalization has an impact on commercializing the local culture and the historical significance of the culture is at a risk. Similar argument was also made by Szemik (2011) who finds adverse cultural effects in the economy of Poland. Additionally, Smeral (1998) finds that increased globalization tends to increase business competition for small enterprises engaged in European tourism industry such as local travel agencies. The study notes that some of these SMEs have to move out business or to be more innovative in this midst of growing tourism industry.

Furthermore, Ivanov and Webster (2013) find no significant correlation between globalization and tourism earnings. The study employed a cross-sectional analysis in conjunction with bivariate correlations on 167 (developed and developing) countries from 2000-2010 periods and find that the economic, social and political openness of a country does not significantly influence tourism's contribution to economic growth in the country. Seddighi, Nuttall and Theocharous (2001) on the other hand, argue that political factors play an important role in the tourism industry of a country. The study argues that the demand for tourist destinations change with political circumstances as countries with political instability are deemed as less safe making them unattractive. In a nutshell, it is clearly evident that the various studies on this development agenda find varying impact on the economies but none have emphasized on this phenomenon in the context of any PICs. It is hence in this interest that we attempt to contribute to this strand of literature and in particular focus our study in the context of the Fijian economy.

### 3. Fijian economy: Globalization and Tourism

Fiji is one of the small island developing states with less than one million populations. It is a country which has experienced fluctuating economic growth rates largely because of the adverse effects of natural disasters, political instability and global economic crisis (Prakash and Maiti, 2016). The economy which had historically been dominated by agricultural sector is now experiencing their tourism sector as the largest foreign exchange earner.

Tourism in the Pacific island developing states has been ever increasing and so is in Fiji. The Fijian economy is one of the most globalized economies in the Pacific region according to the KOF database (Appendix 1). The economy is currently ranked 86<sup>th</sup> in the world with a globalization index of 57.33 as per the 2013 globalization index. Apart from Samoa which is relatively globalized as the Fijian economy, the other countries in the region have their globalization index below the 50 percent mark. In particular, in the context of Fiji's economy, the globalization index including its three measures which accounts for globalization at the economic, social and political level has been steadily improving (Figure 1).

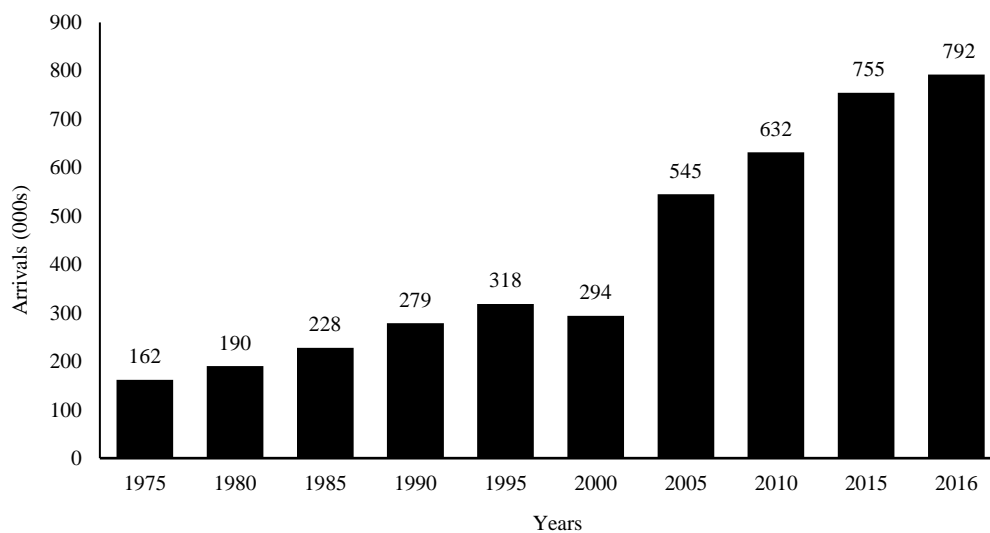


Source: KOF Database

Figure 1: Trend of globalization index for Fiji, 1975–2013

The graphical trend shows a sudden increase in political index in 1978 due to Fiji sending its first ever battalion to Lebanon as part of the United Nations Interim Force in Lebanon that year (FijiGuide, 2016). This significantly strengthened Fiji's political ties within the United Nations and contributed to sharp increase in the political globalization index. Similarly, the social index experienced a sharp increase in 1996 due to the introduction of digital radio microwave system which led to the use of mobile technology and significant information flows in the country. Moreover, the economic globalization trend has also increased modestly over the years.

Moreover, visitor arrivals to Fiji over the last four decades have increased almost fourfold (Figure 2). Fiji which is centrally located in the South Pacific region enjoys relative comparative advantage compared to its neighbouring countries largely because of a number of direct flight connections from its major tourist source countries such as Australia, New Zealand, Hong Kong and the Singapore to Fiji. Tourists from Australia and New Zealand, in particular, account for more than 60 percent of annual visitor arrivals to Fiji (Appendix 2).




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Source: FBOS (2016)

Figure 2: Trend of visitor arrivals to Fiji, 1975–2016

Moreover, Fiji's economy has also undergone episodes of currency devaluation since 1987. In particular, it was devalued twice in 1987 by a total of 33 percent and once in 1998 and 2009 by 20 percent on each occasion. This generated a huge interest among scholars who attempted to evaluate

the effect of devaluation on trade performance (Prakash and Maiti, 2016; Narayan and Narayan, 2007; Rao and Singh, 2007 and Reddy, 1997), economic growth (Narayan, 2013 and Narayan and Narayan, 2004) and inflation (Jayaraman, 1999). Additionally, currency devaluation which reduces the purchasing power of the local currency is likely to encourage tourism in the local economy. However, this has not yet been empirically tested in the case of Fiji.

Based on this brief overview of the Fijian economy, it is quite clear that Fiji is one of the most globalized economies in the region and is effectively translating its gains via increased tourism flows. In particular, we are interested to evaluate to what extent is the improvement in globalization index contributing to visitor arrivals in Fiji. Hence, in the next section, we attempt to empirically examine these on the tourism visitor arrivals in Fiji.

## **4. Empirical Specification and Results**

### **4.1 Empirical Model**

Hereafter, as part of our empirical procedure, we propose to use the Vector Error Correction Model (VECM) to estimate our model evaluating the impact of globalization on visitor arrivals in Fiji. The testing procedure involves three steps; testing for the existence of unit root, cointegration test followed by estimating the long- and short-run relationship among the variables in the model specification.

Accordingly, based on the VECM methodology and following the works from the related literature (see Kilic (2015); Ying (2014); Mutascu and Fleischer (2011); Rao, Tamazian and Vadlamannati (2011); Rao and Vadlamannati (2011); Chang and Lee (2010); Afzal (2007) and Wade (2004)), we now present the parsimonious multi-variate models. The variables used in this model are visitor arrival ( $tou_t$ ) globalization index ( $glob_t$ ), economic index ( $eco_t$ ), social index ( $soc_t$ ), political index ( $pol_t$ ) and real effective exchange rate ( $reer_t$ ). We also incorporate a dummy variable ( $coup$ ) to capture the effects of political coup in the years 1987, 2000 and 2006 in the country.

In particular, we first attempt to estimate the impact of overall globalization index on the visitor

arrivals and then estimate the same using the three indices which make up the globalization index (economic, social and political). This is particularly important to evaluate which aspect of globalization is contributing the most to the tourism industry in the country. This leads us to estimate the following two equations as specified below:

$$\ln TOU_t = \beta_0 + \beta_1 \ln glob_t + \beta_2 \ln reer_t + \beta_3 coup + \beta_4 ECT_{t-1} + \varepsilon_t \quad (1)$$

$$\ln TOU_t = \gamma_0 + \gamma_1 \ln eco_t + \gamma_2 \ln soc_t + \gamma_3 \ln pol + \gamma_4 \ln reer + \gamma_5 coup + \gamma_6 ECT_{t-1} + \varepsilon_t \quad (2)$$

The signs and sizes of the  $ECT$  will reflect the direction and speed of adjustment on the dependent variable to deviations from the linear long-run relationship. We are interested in testing whether the coefficient of globalization index together with its three measures (economic index, social index and political index) are statistically significant in influencing visitor arrivals in the country. We expect “a priori”,  $\beta_1 > 0$ ,  $\gamma_1 > 0$ ,  $\gamma_2 > 0$  and  $\gamma_3 > 0$ . This states that we expect overall globalization index together with its three components to have positive impact on visitor arrivals in Fiji. Similarly, as control variables, it is ascertained that currency devaluation (increase in  $reer$ ) while making the local currency weaker is going to provide an incentive for tourists to visit Fiji. Hence, we expect a positive coefficient of  $\beta_2$  and  $\gamma_4$ , respectively. The coefficients of the dummy variable;  $\beta_3$  and  $\gamma_5$  is expected to be negative as any form of political instability is likely to cause fear and loss of confidence in foreigners wishing to visit the country.

The data<sup>3</sup> used in the study are time-series covering the period from 1975–2013 with 39 year observation points. All the variables are also transformed into its log-linear form to allow the coefficients from the regression results to be interpreted as elasticities.

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<sup>3</sup> The data used in this study are explained in Appendix 3.

## 4.2 Empirical Results

Before modelling, it is important to run causality test between the independent and dependent variables and hence the results of the granger causality test are presented in Appendix 4. It is found that the null hypothesis is rejected for all the cases except for political globalization index. The results highlight that at least at the 10% level of significance, the overall globalization together with economic and social globalization causes changes in the visitor arrivals in the country. The results also report that the exchange rate has an impact on the visitor arrivals in Fiji.

Hereafter, we test the variables of its unit root properties using the Augmented Dickey–Fuller (ADF) tests by paying appropriate attention to the correct specification for each of the variables. The results report that we are not able to reject the unit root null hypothesis for the variables in level form at the conventional significance level but when the variables are taken in their first difference form, we find that all the variables are integrated of order one, i.e.  $I(1)$  (Appendix 5). Next, we check for the cointegration using the Maximum Eigenvalue statistics by allowing for linear deterministic trend. The results indicate that there exists at least one cointegrating equation in both the models (Appendix 6) which suggests the presence of co-movements among the variables indicating long-run stationarity in our model.

The long-run estimate of overall globalization index on visitor arrivals in the country is found to be statistically significant and positive (Table 1) along with the other three measures of globalization. These results suggest that increased globalization has indeed played a significant role in attracting tourism for a long period of time in the country. Increased economic integration together with improvements in connectivity overtime has increased tourism travel to Fiji. Additionally, the increased presence of the country in the international market via opening of embassies and by being part of international treaties and organizations have helped Fiji create a brand name in itself which has attracted tourists from all over the world.

Additionally, in trying to dissect the positive impact of globalization on visitor arrivals, the results show that the large significant positive impact is contributed by the economic globalization followed by political and then social globalization measures of the overall globalization index

(Table 1). The findings show that increased economic globalization which translates in a reduction in trade and investment restrictions results in more foreign investment in tourism related ventures. This has led to improvements in infrastructure which creates more business opportunities in the tourism market. The improvements into the social aspects of the country such as better technological connectivity and closer cultural ties have also helped Fiji to attract tourist who prefer to travel to places with familiarity of some kind. Similarly, building on ties with international organizations and being part of international treaties strengthens political ties which allows for increased relations with other countries on various levels of trade and investment. Moreover, Fiji's active participation in World games such as Olympics, Commonwealth Games and World Championships has made Fiji's mark on the global tourism map. Even the recent historic Gold Medal win at the 2016 Rio Olympics in the sport of Rugby Sevens has made many people around the globe know of a country that exists as Fiji. This has allowed Fiji to tap into the tourist markets of not only its neighboring partner countries but also into the niche markets.

Table 1 <b>Estimates in the long-run</b>		
<b>Variables</b>	<b>ln <i>tou</i> (Equation 1)</b>	<b>ln <i>tou</i> (Equation 2)</b>
ln <i>glob</i>	2.772 (0.325)***	
ln <i>reer</i>	0.273 (0.268)	0.580 (0.472)
ln <i>eco</i>		4.052 (1.449)***
ln <i>soc</i>		0.567 (0.287)*
ln <i>pol</i>		1.469 (0.324)***

**Notes:** Standard errors are given in parentheses. (\*), (\*\*) and (\*\*\*) denotes significance at the 10%, 5% and 1% level, respectively.

Moreover, the long-run impact of real exchange rate is found to be positive but insignificant. Though the positive sign indicates that devaluation would result in an increase in visitor arrivals in the country, the insignificance of the variable in both the equations implies that changes in the exchange rate does not really matter for tourism numbers in the country. This leads us to question the effectiveness of a number of devaluation episodes in the country. We argue that tourists'

decision to visit Fiji is not dependent of the value of domestic currency but on other aspects of the local tourism industry such as the warm weather all year around, beautiful beaches, resorts and the peace one gets by being on an island and secluded from the busy work life. Nonetheless, this finding is consistent with Culiuc (2014) who find that the service sector does not respond to changes in the exchange rate in small island countries including Fiji.

**Table 2 Estimates in the short-run**

Variables	$\Delta \ln tou$ (Equation 1)	$\Delta \ln tou$ (Equation 2)
$\Delta \ln glob_{t-1}$	0.209 (0.650)	
$\Delta \ln reer_{t-1}$	0.576 (0.303)*	0.677 (0.360)*
$\Delta \ln eco_{t-1}$		0.739 (0.307)**
$\Delta \ln soc_{t-1}$		0.015 (0.215)
$\Delta \ln pol_{t-1}$		0.002 (0.119)
<i>coup</i>	-0.256 (0.054)***	-0.170 (0.041)***
<u>Diagnostics</u>		
$ECT_{t-1}$	-0.796 (0.181)***	-0.652 (0.140)***
$R^2$	0.901	0.581
<i>Adjusted</i> $R^2$	0.721	0.480
$\sigma$	0.062	0.080
$X^2N$	1.225 [0.541]	1.149 [0.563]
$X^2Het$	30.720 [0.183]	13.512 [0.467]
<i>LM Test (SC)</i>	10.492 [0.312]	31.285 [0.179]
<i>AR roots graph</i>	Stable	Stable

**Notes:** 1. Standard errors are given in parenthesis. 2. (\*), (\*\*) and (\*\*\*) denotes significance at the 10%, 5% and 1% level, respectively. 3.  $ECT_{t-1}$  represents the error correction terms,  $\sigma$  is the standard error of equation; diagnostics are Jarque-Bera statistics for normality ( $X^2N$ ) and chi-squared for heteroskedasticity tests ( $X^2Het$ ), and LM Test statistics for serial correlation (SC). 4. The p-values are in brackets [ ] and a value greater than 5% indicates, the model passing the particular diagnostic test.

Furthermore, the short run estimates (Table 2), also points out in the similar direction as the long run results. In particular, the overall globalization index together with its measures of economic, social and political index has positive impact in the short-run. However, only the improvement in the economic globalization is found to have positive and significant impact on the visitor arrivals in Fiji in the short-run. The results also show that the impact of real exchange rate also has positive and significant impact at least at the 10% level of significance on the visitor arrivals in the country. It further implies that changes in exchange rate and in particular, currency devaluation plays some role in promoting tourism; however, its impact is short-lived in the economy. Prakash and Maiti (2016) argue that Fiji's exchange rate does not stay devaluated for a long period of time but instead starts appreciating after few periods. This re-affirms our results that the currency devaluation has only short-run significant effect but is not effective in the long-run.

Additionally, the dummy variable (*coup*) is found to have negative and significant impact on visitor arrivals in the country. As argued earlier, political instability such as coup creates fear and loss of confidence in the country for visitors wishing to visit the country for business and leisure.

## **5. Conclusion and policy implications**

Fiji is considered to be the most developed when compared to other Pacific island countries and policy makers have to some extent been able to reap the benefits of its central location in the Pacific region. With increased globalization, Fiji has been able to exploit its geographical location and tap into the ever increasing global tourism market. The results from this study finds that the globalization index along with its three measures of economic, social and political index have positive and significant impact on the visitor arrivals in Fiji over the 1975–2013 period. In addition to this, currency devaluation is found to have positive effect on promoting tourism at least in the short-run. However, political instability is found to have adverse effect on the economy.

Hence, from policy perspective, it is recommended that Fiji should continue to exploit its globalization opportunities in promoting tourism ventures in the economy. Sound economic and political environment is likely to create more opportunities which would lead to development of the economy creating more employment for its people. This positive impact of globalization on all its fronts means that the economy should continue to focus more towards export oriented growth

with diversification in the export sector. It is also important to highlight that making continuous presence of Fiji in the international platforms such as being actively involved in international organizations, international peacekeeping duties, along with Fiji's participation in Olympic Games, Commonwealth Games, and World championships will give a boost to Fiji's tourist arrivals in years to come.

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## Appendices

### 1. Recent globalization index and rankings of Pacific island developing economies

Country	Globalization Index 2013	Ranking
Fiji	57.3	86
Samoa	51.0	111
Papua New Guinea	49.7	118
Palau	46.3	130
Timor Leste	44.8	142
Vanuatu	41.6	156
Kiribati	37.3	173
Tonga	31.1	186
Federated States of Micronesia	28.0	189
Solomon Islands	25.1	192

**Source:** KOF Database

### 2. Visitor arrivals to Fiji by Country- 1975–2016

Periods	Australia	New Zealand	USA	UK	Continental Europe	PICs	Others	Total
1970s	67,387	41,288	27,684	4,502	5,952	9,618	18,808	175,239
1980s	84,845	25,613	38,333	7,491	12,853	12,174	33,191	214,500
1990s	89,811	52,512	42,482	26,224	29,867	18,963	62,342	322,201
2000s	172,975	87,402	60,181	37,822	24,632	28,698	61,855	473,565
2010	318,185	97,857	53,122	23,813	29,115	39,198	70,578	631,868
2012	337,291	106,122	56,478	17,076	29,327	38,886	75,410	660,590
2014	349,217	123,968	61,924	16,782	30,585	52,511	57,643	692,630
2016	360,370	163,836	69,628	16,712	31,916	82,063	67,795	792,320

Source: Authors calculation; FBOS (2016)

### 3. Data Description

The data used in the study are explained below. All the data used in the regression models are compiled from (i) World Bank's World Development Indicators (WDI) online database and (ii) KOF Index of Globalisation database.

#### *i). Visitor arrival ( $tou_t$ )*

This is our independent variable of interest. This variable captures the number of tourist visiting Fiji in a years measured in numbers. The data for this variable is obtained from WDI database.

#### *ii). Overall Globalisation index ( $glob_t$ )*

This is our main independent variable of interest. This variable is obtained from the KOF index of Globalisation which was introduced in 2002 (Dreher, published in 2006). This index is used to capture the process of globalisation that erodes national boundaries, integrates economies with the rest of the world, captures aspects of cultural and governance integration. More specifically, it is made up of three measures; economic globalisation (36%), social globalisation (38%) and political globalisation (26%).

#### *iii). Economic globalisation index ( $eco_t$ )*

This variable is one of the measures of overall globalisation and is obtained from the KOF index of Globalisation. This index is used to capture trade flows and restrictions on trade. More specifically, this index has two major components of actual trade and investment flows (50%) and restrictions on trade and finance (50%).

#### *iv). Social globalisation index ( $soc_t$ )*

This variable is one of the measures of overall globalisation and is obtained from the KOF index of Globalisation. This index is used to capture social aspects of a country including data on personal contact (33%), data on information flows (35%) and data on cultural proximity (32%).

#### *v). Political globalisation index ( $pol_t$ )*

This variable is one of the measures of overall globalisation and is obtained from the KOF index of Globalisation. This index is used to political relations of country with the rest of the world like

embassies in country (25%), membership in international organizations (27%), international treaties (26%) and participation in UN security council missions (22%).

*vi). Real effective exchange rate ( $reer_t$ )*

This variable measures the trade-weighted real effective exchange rate defined to show an increase as devaluation of the Fijian currency expressed as an index of 2010=100. The data for this variable is obtained from WDI database.

*vii). Coup ( $c o u$ )<sub>t</sub>*

This variable is used as dummy variable to capture the political shock of coup in Fiji. This is represented by ‘1’ in the year of coup, 1987, 2000 and 2006.

#### 4. Results of the Granger Causality test

Null hypothesis	F-statistics	P-value
Globalisation index does not Granger Cause Visitor arrivals	3.937	0.055
Economic globalisation index does not Granger Cause Visitor arrivals	3.623	0.014
Social globalisation index does not Granger Cause Visitor arrivals	2.286	0.079
Political globalisation index does not Granger Cause Visitor arrivals	0.535	0.747
Real effective exchange rate does not Granger Cause Visitor arrivals	3.457	0.071

## 5. Results of the Unit Root Tests

Variables	Levels (p-values)	First Difference (p-values)	Conclusion
$\ln tou$	0.288 (3) [0.974]	5.314 (2) [0.000]	I(1)
$\ln glob$	1.787 (0) [0.381]	6.199 (0) [0.000]	I(1)
$\ln econ$	0.370 (2) [0.786]	5.922 (1) [0.000]	I(1)
$\ln soci$	0.323 (0) [0.911]	4.976 (0) [0.000]	I(1)
$\ln poli$	1.533 (0) [0.966]	6.396 (0) [0.000]	I(1)
$\ln reer$	1.430 (1) [0.557]	4.200 (0) [0.002]	I(1)

**Note:** The critical values for ADF test including intercept in the test equation are based on MacKinnon (1996) which at 1%, 5% and 10% significance levels have values of 3.632, 2.948 and 2.612, respectively. The null hypothesis for ADF tests is that a series has a unit root (non-stationary). The optimal lag lengths are chosen based on Akaike Information Criterion (AIC) method. The optimal lag lengths are given in brackets ( ) while the p-values are given in braces [ ]. Based on the test, the results show that all the variables are integrated of order 1.

## 6. Results of the Cointegration Tests

Hypothesized number of cointegrating equations	Eigenvalue	Max-Eigen Statistic	5% critical value	p-values
<i>Equation 1</i> $(\ln TOU_t = \beta_0 + \beta_1 \ln glob_t + \beta_2 \ln reer_t + \beta_3 coup + \beta_4 ECT_{t-1} + \varepsilon_t)$				
None*	0.517	26.251	21.131	0.008
At most 1	0.196	7.861	14.264	0.393
<i>Equation 2</i> $(\ln TOU_t = \gamma_0 + \gamma_1 \ln eco_t + \gamma_2 \ln soc_t + \gamma_3 poli + \gamma_4 reer + \gamma_5 coup + \beta_6 ECT_{t-1} + \varepsilon_t)$				
None*	0.834	62.904	33.876	0.000
At most 1	0.521	25.772	27.584	0.083

**Note:** (\*) denotes rejection of the hypothesis at the 5% level. p values are from MacKinnon-Haug-Michelis (1999) with trend assumption and linear deterministic trend. Based on the results, Max-Eigenvalue test indicates one (1) cointegrating equation at the 5% level.

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