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# Investigating prospects for luxurious tourist destinations: A case study of the island of Mauritius

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# Investigating prospects for luxurious tourist destinations: A case study of the island of Mauritius

**Abstract**

It is very costly for any country to invest in marketing campaigns with the aim to attract more tourists. Therefore, the targeted market should be able to provide a high number of tourists as well as generate, ideally, high-spending tourists. The purpose of this study is to make recommendations to the Mauritian Government as to which markets it should intensify its marketing campaigns. Mauritius has been aiming to increase its tourist's arrivals by 1 million per year. Using an empirical model, this study provides suggestions as to which markets will provide high-spending tourists. In total, eight markets are proposed; the Nordic countries, the Netherlands, United Arab Emirates, Japan, North America, Russia, and Switzerland.

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LAKE FOREST COLLEGE

Senior Thesis

Investigating prospects for luxurious tourist destinations:  
A case study of the island of Mauritius

by

Deeya Karishma Jhummon

April 2, 2015

The report of the investigation undertaken as a  
Senior Thesis, to carry one course of credit in the  
Department of Economics, Business, and Finance

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Michael T. Orr  
Krebs Provost and Dean of the Faculty

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## **ABSTRACT**

It is very costly for any country to invest in marketing campaigns with the aim to attract more tourists. Therefore, the targeted market should be able to provide a high number of tourists as well as generate, ideally, high-spending tourists. The purpose of this study is to make recommendations to the Mauritian Government as to which markets it should intensify its marketing campaigns. Mauritius has been aiming to increase its tourist's arrivals by 1 million per year. Using an empirical model, this study provides suggestions as to which markets will provide high-spending tourists. In total, eight markets are proposed; the Nordic countries, the Netherlands, United Arab Emirates, Japan, North America, Russia, and Switzerland.

## **DEDICATION**

I dedicate this work to my parents. Their continuous support and encouragement in my life has been a pillar of strength against all obstacles. Though physically far away, I always felt them by my side and hence I could face challenges more confidently, knowing that I was not alone.

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## **Introduction**

*“Mauritius was made first, and then heaven, and that heaven was copied after Mauritius”*

*Mark Twain*

The Republic of Mauritius is a small island of 1860 sq. km situated in the Indian Ocean, on the east coast of South Africa. Mauritius, volcanic in origin, is an independent nation of 1.3 million people (World Bank, 2015). It was once a British colony and it obtained independence in 1968. Some years later, it started being referred to as an African economic, social and political success story because of its rate of economic growth and its lively democratic system (Anker, Paratian, & Torres, 2001; Frankel, 2010). Since its discovery in the year 1598 by the Dutch it is often referred to as the pearl of the Indian Ocean (Kohli, 2008). Modern Mauritius has set an example to other African states by opening its economy to investors and this strategy ranked Mauritius first in Africa on the World Bank Ease of Doing Business Index (Southern African Development Community, 2012).

Mauritius is mostly well known on the global stage for its sparkling clear blue sea water and its white sandy beaches. Over the past three decades it has earned the world reputation of being a luxury sand and sea tourist destination. Every year since 2009, Mauritius has been the winner of many World Travel Awards (2015). The latest award was the 2014 World’s Leading Honeymoon Destination (World Travel Awards, 2015). Mauritius has finally succeeded in establishing itself worldwide as a leading sun, beach and honeymoon destination in the Indian Ocean.

The contribution of the tourism industry in the overall well being of the Mauritian economy is very significant. This sector of the economy generates a generous amount of foreign currency. According to the World Travel & Tourism Council (WTTC) report on the Economic Impact of Travel and Tourism 2014, the total contribution of the Travel and Tourism industry in Mauritius was 25.3% of its

GDP in 2013 (WTTC, 2014). This demonstrates that the Mauritian economy is highly dependent on its tourism industry.

For the year 2014, Mauritius had a little more than 1 million tourists (Mauritius Tourism Promotion Authority, 2015) but the Government of Mauritius still considers that there is much more scope in this industry. During the past few years, Mauritius has braced itself to achieve the target of attracting 2 million tourists yearly, by 2015 (OECD, 2007). The aim is to make the tourist industry a dominant pillar in its economy. Although, it is almost impossible for Mauritius to double its tourist's arrivals within a year, it can still be set as a long-term project for the Mauritian tourism industry to work upon. In that context the Mauritian government has inaugurated a new state-of-the-art modern airport with a capacity of receiving 4.5 million passengers per year (African Aerospace, 2013).

In order to double its tourists' arrivals, Mauritius will have to engage in fierce promotion campaigns. Therefore, the Mauritian government shall have to imperatively target countries that are the best markets, to promote itself. Although increasing the number of tourist arrivals will definitely boost the country's economy, targeting the right market will maximize the outcome. Tourists generally contribute to a country's growth by spending generously during their leisure holiday and thereby bringing in foreign currency. Therefore, the government of Mauritius would be making a wise investment by targeting tourists who will be potential big spenders in its country.

This study's aim is to make recommendations to the Mauritian government as to which markets it should promote the island as an ideal tourist destination. On a broader basis, this case study aims at making a framework upon which the Mauritian ministry of tourism can elaborate in order to strategically pick areas to focus upon so as to expand its tourism industry. It can also be useful to other luxurious tourist

destinations states especially nearby islands like the Seychelles and the Maldives, which have the same target market as that of Mauritius.

### **The Tourism Industry**

The World Travel & Tourism Council states that the travel and tourism industry is among the world's largest industries, contributing 9.8% of the world's GDP and assisting 277 million jobs worldwide (WTTC, 2015). With increasing competition in most industries around the world, especially in the extensive technology-based industries, many developing countries have been aiming to stimulate their economies through their tourism industry. Among the many countries that have experienced an economic growth due to the tourism industry are Brazil (do Paco, Alves, & Nunes, 2012), India (Selvanathan, Viswanathan, Selvanathan, & Mangai, 2009), China (Donaldson, 2007), Tanzania (Kulindwa, 2002), Mauritius (Carlsen & Jaufeerally, 2003), Myanmar (Cha, 2013) and Seychelles (Gabbay & Ghosh, 2003).

Therefore countries with limited or no other resources except human resources should bank more on organizing a lively tourist industry, thereby limiting unemployment and increasing the standard of living and education of their citizens. The Mauritian model can be a source of inspiration to such countries.

### **Why is tourism important?**

The tourism industry, for many countries, has a significant impact on their economy and by extension on the lives of their citizens. To begin with, this industry is a good generator of foreign currency, especially for countries with a low export rate (Sinclair & Stabler, 1997). International tourists exchange their home currencies for the host country's currency in order to pay for their vacation. Therefore, the host country can have an inflow of foreign currency and thereby using it to pay for its imports and its general infrastructural development.

Sinclair (1998) confirms that the tourism industry “provides increasing per capita income, foreign currency and government revenue” (p. 38) but she also mentions that tourism is “characterized by high growth” (p. 38). The reason for the tourism industry to have such an impact on the GDP of a country relates to the multiplier effect (Steenge & Van de Steeg, 2010). This effect creates lots of jobs that directly and indirectly orbit the main core that is the tourist industry. The money thus injected into the economy by tourists is multiplied within the economy (Lejarranga & Walkenhorst, 2010). This multiplier effect can also be observed within the Mauritian economy. In 2014, the direct contribution of the Travel & Tourism industry to the total GDP was only 11.3 % while actually, the total contribution amounts to 25.3% of the GDP (WTTC, 2014).

Even if countries spend considerable amounts to promote their tourism industry, for instance on advertisements (Agarwal & Yochum, 1998) and on supplying appropriate infrastructure (Sinclair, 1998), the benefits usually outweigh the costs.

Therefore, countries with a focus on the tourism industry have to be able to provide safe and secure infrastructures in order to attract more and more visitors. This accelerates the rate of overall development in the country. Countries usually emphasize development in regions that have touristic potential; often for developing countries, the rural areas tend to be more exotic and hence development is more pronounced there. From this point of view, tourism is not just a component that helps in stimulating the country’s economy and in increasing the GDP but it also helps in improving the lives of the local people. These local residents are able to take advantage of the developmental infrastructures in their area due to tourism, such as access to electricity, water, sewage systems, transportation and communications (Ashley, De Brine, & Wilde, 2007).

In addition, the tourism industry is synonymous with the hospitality industry. It is a labor-intensive industry (Balaguer & Cantavella-Jorda, 2002) and it creates job opportunities for the local unskilled or low-educated people. Tourists often like to be in touch with locals when they are visiting a country and hence it compels companies to hire locals in order to satisfy the tourists' expectations. Many unskilled workers and people having a low level of education are given jobs and trained to cater for tourists.

Another positive aspect of the tourist industry is the bringing down of the taboo of women joining the work force in many societies. Although, in many parts of the world, women are still victims of unequal job opportunities, they have become more active in the overall work force in the past few decades. The tourism industry is now known to be employing a lot of women worldwide (León, 2007). Even though, it does not necessarily break gender stereotypes in patriarchal societies where women are subordinates of men (Feng, 2013), it still provides numerous job opportunities to women. The fact that jobs are available for women can drive the adult women of that society to aim for even higher recognition.

### **Does the nationality of a tourist matter?**

Generally, a tourist destination welcomes tourists from all over the world. It indeed becomes a rich and vibrant environment when people from all over the world converge to visit a place. However, even in such an environment, tourists do differ in their expectations and in their aspirations. In other words, their nationality affects their behavior in the host country (Pizam & Sussmann, 1995). In many tourist destinations, locals have stereotypes about the different nationalities (Pizam & Sussmann, 1995). These stereotypes are based on the hosts' observations on attitude towards local cultures, photo-taking habits, and more important to this study, their spending habits. Thus, the nationality of a tourist generally helps trip organizers to shape the visitor's vacation in the host country.

Over the years, Mauritians, under the guidance of the Mauritius Tourism Authority, have gathered a rich experience on this issue; even specially designed five star hotels are made to cater for uncompromising Japanese and Chinese Buddhist tourists. Their beds have to be in an east-west direction, the scents in their rooms and the meditation center have to be specific; Indian tourists do not like the bath tub, not even the shower, they prefer a bucket and a jug to have a good bath. Tourists love to be addressed in their mother tongue and it is an immense pleasure for them if the host knows the details of their culture, their likes and dislikes and what they consider taboos.

The primary level on which tourists can differ from each other is on the motives of their travels. The tourism industry is a constantly evolving sector catering for a constantly evolving demand. Different people travel for different reasons; adventure travel, cultural tourism, rural tourism, ecotourism, or even medical tourism. These motives are highly influenced by their nationality (Kastenholz, 2005). Eventually the motives of the tourists affect the activities they engage in the host country; their length of stay, and of course their spending habits. Kastenholz (2005) found that older tourists who value high-quality hospitality facilities, history and culture are better targets for rural North Portugal, for example. This highlights that each country has different types of tourists that it can best attract.

Although in big countries the tourist industry can be divided into local and international tourists (Saayman, Saayman, & Rhodes, 2001), the tourist industry in Mauritius, which is a very tiny nation in area, is based only on international tourism. Nationality has been found to be a factor that impacts the spending habits of tourists. Thrane and Farstad (2012) demonstrated that different nationalities spend differently in Norway. One of their findings was that nationality solely accounted more than 35% of the overall variation in tourist spending. This highlights the fact that the role of nationality is quite important on the spending habits of tourists. The reason for this

variation could be the items upon which different nationalities emphasize their spending on.

A meta-analysis found some determinants of tourist spending (Marcussen, 2011). Some of the determinants that Marcussen (2011) found were the types of accommodation, length of stay, travel party size, destination, eating habits such as having every meal in restaurants, package tours and income. These variables were significant in all seven of his models. This finding emphasizes further the importance of this present case study. Mauritius would gain more if it targets nationalities that are big spenders on these determinants. A country will be able to promote these determinants more effectively if it has good knowledge and understanding of the tourists who form part of its market. It can, thus, develop strategies to encourage visitors towards maximum spending.

Lin (1984) found that the consumption of goods and services by tourists is dependent on the price elasticity and the expenditure elasticity. A change in the price level or income of the tourist affects their spending habits. Hence, the nationality of tourists might affect their price and expenditure elasticity, thereby compromising their willingness to spend in the host country. In that context, Mauritius has made hotels with prices of accommodation ranging from two to five star hotels. In the past decade, even individuals have been allowed to rent out their private bungalows provided they get the necessary permit from the tourism authority.

All these studies affirm that the nationality of tourists affect their spending habits in the host country. Different nationalities tend to spend differently in the host country. This study builds an empirical model that finds that the nationality of tourists and the characteristics of their home country impact their expenditures level in the host country. Using these findings, some recommendations are made to the Mauritian government as to which markets it should intensify its promotion campaigns.

## Theory

### Tourism and consumption

Although consumption is defined as goods and services that households buy, it clearly does not limit itself only to the citizens of a country. Tourists visiting a country can highly contribute to the consumption component of the Gross Domestic Product (GDP). The GDP is an account of the total output (production level) of an economy in a given period of time (Mankiw, 2013). A positive increase in the GDP value will mean economic growth since more goods and services are being produced. For this reason, countries having a booming tourist industry find their GDP highly dependent on the influx of visitors.

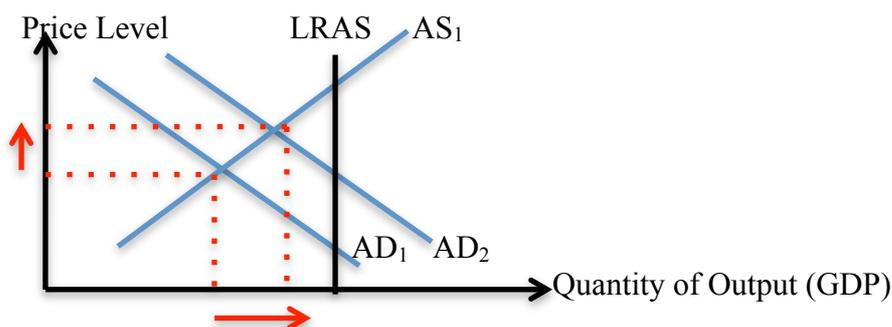
GDP can be divided into four different categories, mainly consumption (C), investment (I), government expenditure (G) and net exports (NX) (Mankiw, 2013).

$$GDP = C + I + G + NX$$

Hence, tourists are seen to increase the consumption level within a country by spending on nondurable goods, durable goods and services. Tourists buy food and pay entrance fees to attraction centers, they shop for souvenirs and clothes, and they pay for all sorts of leisure available including guided trips. The more tourists spend in the host country, the more they are contributing to that country's GDP (Mataloni, 2014) and the tourist destination of Mauritius is no exception.

The aggregate demand is the total goods and services demanded in an economy at a given time (Mankiw, 2013). This enables us to use the same GDP equation for the aggregate demand, since GDP can be determined by using the expenditure approach. The expenditure approach uses the total expenditure of an economy's total output of goods and services to evaluate the GDP (Mankiw, 2013). Considering that total expenditure of output in an economy is directly related to the aggregate demand, we can assume that aggregate demand equals to the GDP:  $AD = C + I + G + NX$

Graph 1.



Graph 1 demonstrates that the Mauritian economy is operating under its natural level of output, as its equilibrium output is lower than the LRAS output. One of the reasons for this underproduction is because the country can still accommodate for more tourists. With an increase in tourist arrivals, consumption within Mauritius increases. This leads the aggregate demand of the country to shift from  $AD_1$  to  $AD_2$ . With an increase in demand, firms start selling more of their products and employing more workers. This results in a movement along the  $AS_1$  curve. The new equilibrium is now at  $AD_2, AS_1$  where both the overall output and the price level increased.

Thus, by increasing the number of tourists visiting the country, Mauritius is able to move towards its natural level of output. This increase in quantity output is not only short-term but also long-term. It is long-term too because the country is using more of its labor resources. If it is able to use all of its resources efficiently, then the country will be able to operate at its natural level of output.

### **(i) The Holiday Mood**

The planned spike in consumption is a well-observed phenomenon in tourists' vacation peak time. According to the standard economic principles, it is believed that time should not influence our decision-making. This is because standard economic principles believe that we are already consuming at our optimal level (Thaler & Benartzi, 2004) and therefore, the consumption rate should not change as the time period changes. However, this is not the case for tourists. It has been observed that tourists usually spend more during their vacation than when they are no longer

tourists in their home country (De & Devi, 2013). When they are in their home country, they tend to save for future planned trips and generally, while they are tourists, they are willing to spend more on food, accommodation, transportation and entertainment.

This increase in consumption in the host country can be seen as a planned spike in consumption. Tourists usually take time to plan their vacation and save up money for it. They are aware that they will spend more in the host country, as they want to maximize their utility. Tourists are especially prone to time inconsistency problems when making decisions but like everyone else, they make intertemporal choices. Intertemporal choices are decisions based on the overall benefit one receives at a specific time period (Frederick, Loewenstein, & O'Donoghue, 2002, p.351). These decisions are not time-consistent for the tourists and neither do tourists efficiently spread their consumption over time. The intertemporal choices enable us to understand the inconsistency in the spending habits of tourists when visiting a country. Since the likelihood of them getting the same product at the same price in the future is slim, they focus on gratifying their wants at the very moment. This includes spending on goods and services that is unique to the host country. While spending on these, the tourists feel that they are making the most of their vacation.

#### **(ii) Purchasing-Power Parity (PPP)**

The increase in consumption by tourists can also be tied up with the purchasing-power parity concept. Purchasing-power parity proposes a one-price law, whereby the prices of products are the same across countries, if expressed in a common currency (Telatar & Hasanov, 2009). However, the purchasing-power parity hypothesis states that “the farther the real exchange rate drifts from the level predicted by purchasing-power parity, the greater the incentive for individuals to engage in international arbitrage in goods” (Mankiw, 2013, p. 160). Therefore, tourists with stronger currency are able to buy more of the host country’s currency. This leads them

to believe that they have more money in that host country. They tend to perceive products as cheaper in the foreign country.

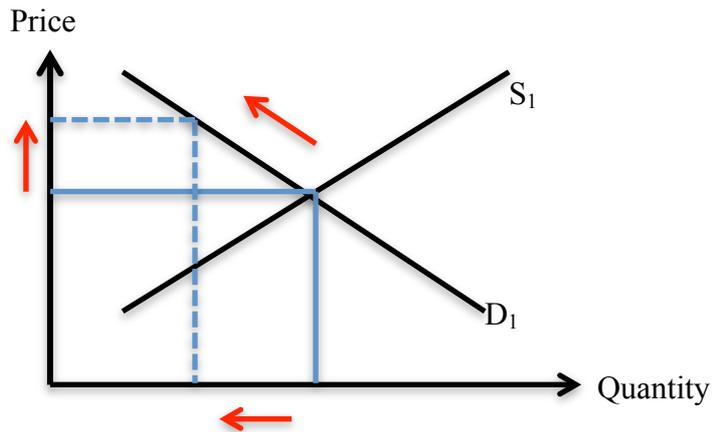
Therefore, it leads to the misconception of having more money, which encourages towards a higher consumption level. Tourists bringing in stronger currency from home, e.g individuals with the euro are more inclined to experience this phenomenon in weaker currency countries like Mauritius. For this reason, the exchange rate is included in the empirical model of this study.

### **The Economics of Tourist Expenditure**

There is a certain repetitive pattern of expenditure related to the average tourist. He generally spends on accommodation, entertainment, shopping including souvenirs, food and drink, and transportation (Saayman, Saayman, & Rhodes, 2001). The national economy highly benefits with these sectors of the tourism industry. Although tourists are generally considered to be spending machines, they are highly influenced by certain economic factors that bear an impact on their spending habits.

While some economists might be surprised with the ease with which tourists spend their money, holidaymakers can be found to follow some rules on their consumption habits. Tourists are susceptible to both price and income-elasticity of demand (Harcombe, 1999). The price elasticity of demand is a measure that shows the change in the demand responsiveness of a particular good or service due to a price change (Frank, 2010). In other words, if the prices of goods and services are more expensive in the host country, the consumption level of tourists may decrease. Graph 2 shows that tourists, discouraged by comparative price hikes, will be less likely to spend on goods and services that are relatively cheaper in their home country.

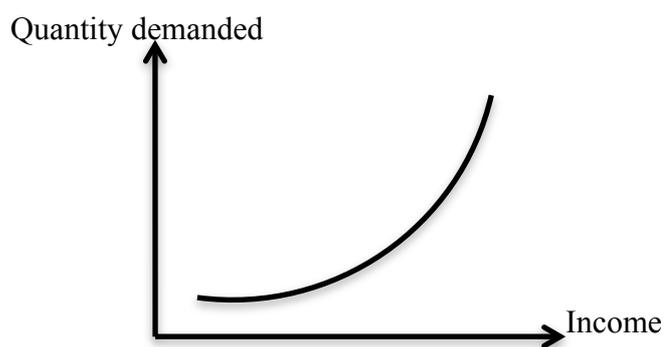
Graph 2.



Graph 2 demonstrates that as the price of the product increases in the host country, there is a shift along the individual demand curve of the tourists,  $D_1$ . Hence, tourists demand/consume less if the prices of products in the host country are higher than in their own country. This demonstrates that the amount of money tourists spend is subject to price elasticity of demand. Thus, cost of living in their home country will have an impact on the expenditure habits of tourists in the host-country. For the empirical model of this study, the relative CPI (Consumer Price index) is used as an indicator of the relative changes in price level in the different countries and Mauritius over the 4 years.

In addition, tourists are also affected by income-elasticity of demand. Income-elasticity of demand measures the responsiveness of customers to a particular product when they experience a change in income (Frank, 2010). This suggests that the income change in the tourist's home country will affect the spending habits in the host country.

Graph 3.



Graph 3 shows that there is an exponential relationship between income and quantity of a particular commodity demanded. As income increases, the quantity demanded increases. Therefore, the higher the income, the more a tourist will spend in the host country. The products on which he spends on can be classified into two categories: necessity goods and superior goods. Necessity goods refer mainly to products that are essential for survival such as lodging, food, water, and gas. These products have an income elasticity of demand value less than 1. On the other hand, superior goods are luxurious products such as hotels for accommodation, caviar for food, champagne for drinks, and designer clothes. They are usually expensive products. Consequently, as income rises, the demand for superior goods increases in the host country. Therefore, tourists earning a higher income are more likely to spend a larger portion of their income on superior goods in the host country. The relationship between spending and income is explored in the empirical model with the variable average monthly wage.

It is important to note that it is the disposable income that affects the overall spending of a country. One factor that affects the amount of disposable income available to a person is the income tax rate he is expected to pay. As the Keynesian consumption function shows, the disposable income is proportionate to the consumption level.

$$C = c_0 + c_1 Y^d, \text{ where } Y^d \text{ is income after tax (Mankiw, 2013)}$$

Therefore, consumption/spending will be directly affected by a change in taxes, as it will impact the amount of disposable income. If there is an increase in the income tax rate, all else constant, then it should negatively influence the consumption level, as there is less disposable income available.

Incomes across countries differ because the cost of living changes from country to country. Tourists who have high-level of disposable income are likely to

consume more goods and especially more of superior goods in the host country. As a result, tourists from countries with higher living costs than the host country will consume more since with the same amount of money, they will be able to buy more products in the host country. This is known as the income effect. The income effect states that as prices fall, real income increases and this leads to more purchasing power for consumers (Frank, 2010). With a decrease in price in the host country, the tourists feel wealthier. This can also be translated as having relatively more income in the host country, which encourages tourists to consume more, as Graph 3 demonstrated.

Another factor that may influence the spending habits of tourists is the unemployment level. The unemployment level of a country can be an indicator of the economic situation within that country. For example, during the Great Recession in 2008, there was an increase in the level of unemployment in many countries (Pissarides, 2013). Hence, home countries with an increasing unemployment level indicate that their overall economies show signs of concern. This affects the spending habits of their citizens as they might try to save more money with the stressful speculation that the future might become worse. This situation results in the individual tourist spending less of his savings in the host country.

Furthermore, the policies in the home countries of tourists affect their spending behavior. Monetary policy states that increasing bank interest rates leads to higher saving level and lowers the spending in an economy. The higher the interest rates, the more the incentive to save increases. This is because people receive higher returns on their principal amount with a high interest rate, thus encouraging them to save rather than spend that money. Due to this, tourists will have less disposable income to spend if they are saving a larger portion of their income. Consumption becomes an opportunity cost for saving. Thus, the variable interest rate is included in the empirical model as it is predicted that countries with higher interest rates might

discourage spending from their citizens and tourists from these countries will have less disposable income to spend in the host country.

The bank lending interest rate also matters. The bank lending interest rate is defined by the World Bank as “the bank rate that usually meets the short- and medium-term financing needs of the private sector” (World Bank, 2015). If banks are more willing to give out loans to businesses, it becomes an additional income to the companies. They do not have to save a lot of money in order to materialize their projects but they can take loans and slowly repay them. In view of this, their employees will also benefit, as the company does not need to lay-off employees or go through a budget-cut in order to raise capital. The employees are expected to flourish with the companies’ progress. They have secure incomes since companies have ways of financing their projects and methods of avoiding bankruptcy as they now have the choice to rely on bank loans as well. This is predicted to encourage spending in the host country by the tourists since companies have a higher chance of succeeding in getting financed and their jobs, income as well as long-term promotion are more secured.

Besides having disposable income to spend in the host country, the number of paid vacation days is highly correlated to the number of vacation days people take. A study by Altonji and Usui (2007) found that increasing the number of paid vacation days resulted in an increase in the number of vacation days taken. Therefore, countries with more paid vacation days make it less costly for their citizens to take more vacations, giving them the opportunity to travel and spend more time in a host country. This suggests that tourists from these home countries will spend more time in the host country and will lead to more total consumption and spending during their vacation. This trend is due to the fact that the tourists do not face a budget constraint by taking vacations. In other words, they do not have to compromise their wages for more leisure time.

## **Tourism in Mauritius**

Mauritius has established itself as a luxury tourist destination. During the past few years, Mauritius has diversified its markets, moving from the traditional European markets to Asian countries and South Africa. It has been able to maintain a “high-class” tourist clientele by keeping flight tickets and hotel prices relatively expensive. By limiting the type of tourists visiting the island, Mauritius placed a demand constraint on potential tourists.

By imposing high airfares and expensive accommodation, it seems that the Mauritian government is competing with the Seychelles and the Maldives. These islands are also located in the Indian Ocean and they target the same tourists as Mauritius; upper-class high spenders tourists. These three luxury-beach destinations form an oligopoly in the Indian Ocean, all offering very similar products. The formation of the oligopoly explains the low quantity and high price of these destinations.

Being in an oligopoly demands that Mauritius keeps track of its competitors’ marketing strategies but also, it has to take decisions regarding the behaviors of the other islands. Since, Mauritius has the capacity to accommodate more tourists, it needs to increase the demand for its tourist destinations. In other words, Mauritius needs to strategically promote itself to countries that would provide a good supply of tourists who would be likely to spend a considerable amount of money during their vacation. Mauritius should try to get a competitive advantage over its competitors by marketing itself to countries that are not targeted by its competitors or where it has a cultural/ political advantage.

Based on the economic theories discussed above, this study builds an empirical model that assesses the impact of how variables in the home country of the tourists affect the spending habit in the host country. Thus, the model predicts the spending tendency of tourists in the host country. Using the empirical model, this

study will then make recommendations to the Mauritian Government as to which markets it should intensify its marketing campaigns to attract more high-spenders tourists.

### Empirical Model

The current study focuses on factors that have an impact on the spending habits of tourists. This framework models spending as a function of the following: relative CPI, average income tax, average real interest rate, exchange rate, GDP of the tourist's home country, bank lending rate, unemployment rate, number of paid vacation days allocated, the Gini coefficient, the average monthly wage, whether the tourist has a direct flight from his home country to his destination, in this case, the island of Mauritius and finally the average retirement age. This is illustrated by the following functional form, which is the base empirical model of this study.

$$\begin{aligned}
 \text{Spending} = & \beta_1 + \beta_2 \text{RelCPI} + \beta_3 \text{InTax} + \beta_4 \text{IntRate} + \beta_5 \text{ExR} + \beta_6 \text{GDP} \\
 & + \beta_7 \text{BankLend} + \beta_8 \text{Unemploy} + \beta_9 \text{Vacation} + \beta_{10} \text{GINI} \\
 & + \beta_{11} \text{avwage} + \beta_{12} \text{direct} + \beta_{13} \text{coverage} + \beta_{14} \text{AvRetire}
 \end{aligned}$$

Variable	Mean	Standard Deviation	Minimum	Maximum
Year	2011.538	1.120295	2010	2013
Spend	44421.85	10815.4	22130	64858
RelCPI	0.9825262	0.0521565	0.8664922	1.151832
AvMonthlyWage	6804.265	6947.252	1912.17	30141.3
InTax	41.58692	10.07312	13	50.6
IntRate	1.855897	2.219065	-6.4	4.2
ExR	26.52538	19.48171	0.55	49.87
GDP	2601.853	2004.869	350.63	9240.27
BankLend	4.937692	3.164842	0.5	10.6
Unemploy	10.64103	8.697813	3.5	29.4
Vacation	21.96923	7.160423	6.7	30
RetireMen	62.63897	2.581572	60	66
RetireWomen	60.23513	4.449308	50	65.17
Pop	309159.7	505856.2	828.6	1357380
CityDirect	1.333333	1.304513	0	4
CityPop	56214.65	221408.1	0	1384872
GINI	0.3650513	0.1039868	0.283	0.65

Avwage	89378.92	64853.99	5516.83	241919.5
Direct	0.6923077	0.4675719	0	1
Coverage	0.3038292	0.5604363	0	1.850099
AvRetire	61.43705	3.248303	55	65.17
Sample size: 39 observations				

There are a total of 4 models in this study.

### **Data Description**

The data about tourists' expenditure and their nationality were obtained from the Mauritian Handbook of Statistical Data on Tourism 2013 (Ministry of Tourism & Leisure, 2013). This is a longitudinal study, which focuses on tourists coming from 10 main countries for the years 2010 to 2013, with Russia as the exception (data only from 2011-2013). The countries considered are China, France, Germany, India, Italy, Reunion Island, Russia, South Africa, Switzerland and the United Kingdom. From Table 1, we can observe that the average amount of money spent by tourists, *Spend*, is Mauritian Rupees (Rs.) 44,421.85 (approx. 1,320 USD). The average spending range varies widely with the maximum spending amount, Rs.64,858.00, being almost three times higher than the minimum tourist's expenditure. Over the four years, Russians appeared to spend the most with an average of Rs.60,305.66 and tourists from nearby Reunion Island spending the least, Rs.24,333.75. Even though, France and Reunion Island supply the most tourists to Mauritius, they are however not the ones who individually spend the most in the host island.

Before describing the variable, it is important to note that some of the data for Reunion Island is actually that of France. Since Reunion Island is still a French colony, many of the Reunion Island data is unavailable or it gets included in France's data. Hence, there are overlapping data entries for France and Reunion Island, mainly for the relative CPI, income tax, real interest rate, GDP, bank lending rate, number of paid vacation days, Gini coefficient and average retirement age.

The relative C.P.I, *RelCPI*, (base=2010) across the ten countries is 0.98, with a minimum relative CPI value of 0.87 and a maximum CPI value of 1.15. The relative CPI index of the above ten countries was used to see if there was considerable change in the price level in the concerned countries with respect to the price level in Mauritius.

The average income tax rate, *InTax*, across the countries is 41.59% with Russia having the lowest income tax rate of 13% and France having the highest income tax rate of 50.6% in 2012.

The average real interest rate, *IntRate*, is 1.86% over the past four years for all the countries, with a maximum rate of 4.2% and a minimum rate of -6.4%. The negative rate signifies that banks in the country, in this case Russia in 2011, are charging people in order to keep their money. Therefore, instead of receiving an interest in saving their money in the bank, people are getting penalized for it. This is a strategy used to encourage spending and investment in an economy or even, to encourage foreigners to remove their money from the country. Although, there are countries that had a negative interest rate for a year or two, the United Kingdom is the only country to have had a negative interest rate for all four years.

The exchange rate, *ExR*, is the conversion rate of each currency into the Mauritian Rupee (Rs). The average exchange rate is Rs.26.53, where the weakest currency is the Indian Rupee with 1 INR giving Rs.0.55 in 2013. The strongest currency is the British pound with an exchange rate of 1 GBP into Rs.49.87 in 2013.

The average GDP, *GDP*, is 2601.85 billion USD. The GDP gap is substantial as it ranges from 350.63 Billion USD to 9,240.27 billion USD. South Africa had the lowest GDP in 2013 while China had the highest GDP in 2013. Even though, there is no hypothesis as to how GDP might affect the spending habits of tourists, it is a controlled variable.

Overall, the average bank lending rate, *BankLend*, is 4.94%, with a minimum lending rate of 0.5% for the United Kingdom and a maximum lending rate of 10.6% for India in 2012. It is interesting to note that in all 4 models, the interest rate, *IntRate*, and the bank lending rate, *BankLend*, are weakly correlated. The Pearson-r's range for the 4 models is 0.11-0.15. This weak correlation may be due to fact that the interest rates are associated with the rate that individuals are charged on loans and the rate they receive on their savings. While the bank lending interest rate is the interest rate that banks charge private companies on loans. Hence, the interest rate that individuals and companies pay on their loans and savings differ and hence, the weak correlation.

The average unemployment rate, *Unemploy*, for all ten countries is 10.64%. In 2010 and 2011, India had the lowest unemployment rate, 3.5%. On the other hand, Reunion Island had the highest unemployment rate in 2012 with 29.4% of its work force without a job.

This study also took into consideration whether the number of paid vacation days might have an impact on tourist spending. The average paid vacation days, *Vacation*, is 21.97 days. China has the lowest number of paid vacation days; 6.7 days while France offers the highest number of paid vacation days, a total of 30 days.

The average retirement age was obtained by taking the mean of retirement age for men and women which was found on the Trading Economics website. The average retirement age for men, *RetireMen*, was 62.64 years old while for the average retirement age for women, *RetireWomen*, was 60.24 years old. This difference of nearly two years occurred mostly because the women in China retired approximately at the age of 50 years while the men retired at around the age of 60. The average retirement age, *AvRetire*, across the ten countries is 61.44 years old, with only ten years difference between the minimum and maximum retirement age. In the models, only the average retirement age is used as the retirement of each gender is highly correlated to each other.

The Gini coefficient measures the income distribution in a country and is also a reflection of inequality. It is included in the study in order to see if inequality in income distribution affects the spending habits of tourists in the host country. Unfortunately, the Gini coefficient could not be found for all the four years in the study, as most countries do not update their Gini coefficient on a yearly basis. Therefore, in order to fill in the missing values, some assumptions had to be made; the missing Gini coefficient was assumed to be the same as the previous year. The average Gini coefficient, *GINI*, was 0.37, with 0 showing the lowest inequality level. In 2013, Germany had the lowest Gini coefficient of 0.28 and South Africa had the highest Gini coefficient in 2012 with a value of 0.65.

The average monthly wage, *AvMonthlyWage*, was found for each country in their respective currency. However, for India, the only wage data that was accessible was the wage per man-day in the industry sector, reported in the Annual Survey of Industries for the years 2010 and 2011. The monthly wages for 2012 and 2013 were assumed to be the same as the wage in 2011, the latest data available. The average monthly wage in India is the product of the wages per man-day worked (in INR) and 20 days per month, assuming that Indians work on average 5 days per week. The average monthly wage for South Africa and China had to also be calculated since they were reported quarterly for South Africans and annually for Chinese. In order to simplify the analysis and avoid confusion, all the wages were converted into Mauritian Rupees. The average wage in Mauritian Rupees, *avwage*, is Rs.89,378.92. Reunion Island had the lowest average wage, Rs.5,516.83 whereas in 2013, Russia had the highest average wage, Rs.241,919.50.

In addition, this study tries to assess whether having direct flights from the tourists' home-country to their final destination affects their spending habits during their vacation. It is a factor to be considered as it could infer that without a direct flight connection, Mauritius is not yet a famous holiday destination in their home

country. The variable *CityDirect* demonstrates that overall, the countries had an average of 1.33 cities with direct flights to Mauritius. India has the maximum number of cities offering direct flights. Throughout the 4 years, Italy, Russia and Switzerland had no direct flights to Mauritius. A dummy variable, *direct*, indicates how many countries had direct flights to Mauritius. On average, 7 of the 10 selected countries had direct flights to Mauritius.

Another variable, *coverage*, was generated to measure the accessibility of a departure airport for tourists getting direct flights to Mauritius from their home countries. *Coverage* is the quotient of the average population of the city/cities where the direct flights are offered, *CityPop* and the average population of the entire country, *Pop*. Overall, only 30.38% of the tourists had a direct flight to Mauritius from the city they lived.

Reunion Island is an overseas department of France (BBC News, 2013) and for this reason, many variable values are actually those existing in France. Hence, Reunion Island was removed from this dataset to see whether it would offset any averages. The only big difference from Table 1 is the increase in minimum values for the variables *Spend*, *AvMonthlyWage* and *Pop* (see Table 2 in Appendix A). The unemployment rate, on the other hand, decreased as Reunion Island had the highest unemployment rate among all countries.

## Results and Discussion

<b>Variable</b>	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>	<b>Model 4</b>
RelCPI	-32952.04 (23254.54)	-2899.02 (40730.87)	-28257 (15622.46)	5837.27 (23711.45)
InTax	314.95 (498.54)	-1019.12* (394.17)	68.10 (341.61)	-1568.41** (241.50)
IntRate	167.14 (511.56)	-1199.52 (925.40)	310.24 (342.15)	-4.38 (560.20)
ExR	-1340.19* (581.93)	818.15* (397.34)	-1829.66** (405.29)	402.83 (255.62)

GDP	9.15** (1.91)	1.47 (1.99)	9.74** (1.30)	3.63** (1.20)
BankLend	1306.59 (1204.20)	2501.13 (2148.30)	-1359.29 (938.13)	-1631.01 (1407.91)
Unemploy	-1205.65** (203.16)	-224.30 (219.74)	998.47* (427.70)	747.73 (185.77)
Vacation	4305.93** (1396.04)	-978.15 (751.29)	4319** (942.68)	-737.52 (439.68)
GINI	139727.90** (19572.38)	-	6738.83 (28179.45)	-
avwage	0.34** (0.08)	0.14 (0.09)	0.31** (0.06)	0.06 (0.05)
direct	471.20 (1956.60)	4088.30 (3651.56)	450.81 (1391.01)	1070.35 (2263.93)
coverage	-13917.09** (4344.92)	-	-18091.52** (2991.34)	-
AvRetire	118.03 (627.55)	-568.79 (910.19)	-3.98 (464.50)	1358.08 (671.90)
<b>Constant</b>	-91083.21 (51011.35)	99396.58 (85109.97)	-20062.38 (40111.93)	17094.22 (53701.86)
<b>R-squared</b>	0.9411	0.7642	0.9640	0.8898
<b>Adjusted R-squared</b>	0.8983	0.6266	0.9320	0.8127

*Note* \*\*indicates statistically significant at 1% level and \* indicates statistically significant at 5% level

*Model 1: Including all variables and country data*

Although only 7, out of the 13 variables, are statistically significant with a p-value less than 0.05, the adjusted R-square is 0.8983. This means that even if the model is backed by a small sample size, it accounts to about 89.83% of the variations in the dependent variable *Spend*. This signifies that it is a robust model.

In Model 1 from Table 3, the regression predicts that if there is a unit increase in exchange rate of their home currency, there is a decrease in the spending amount of tourists by Rs.1340.19. This is an unexpected finding, as it does not follow the purchasing-power parity hypothesis. However, a possible explanation for this finding

could be the fact that the exchange rate had the highest collinearity. This signifies that the exchange rate is a function of other variables present in the model.

On the contrary, the GDP had a positive influence on the spending habits of tourists. With a 1 billion USD increase in GDP, there is Rs.9.15 increase in tourists' expenditure. This suggests that if there is an increase in the GDP level, spending increases by a very small amount. Tourists from home countries with higher GDP are more likely to spend more money in the host country than tourists from lower GDP countries. A higher GDP level means that the economy is flourishing and the citizens of that country may be benefiting from increasing economic activity, resulting in an increase in consumption.

Unemployment level in the home country was seen to negatively influence the expenditure habits of the tourist in the host country. A 1% increase in the unemployment level in the home country results in a decrease in spending by Rs.1205.65. This signifies that unemployment increases, people in the home country become more pessimistic about the economic situation and consequently, they tend to save a larger portion of their money for the expected worse future.

As expected, we observe that the number of paid vacation days positively influenced the spending habits of tourists in the host country. As the number of paid vacation days increases by 1 day, the amount of money tourists spend in the host country increases by Rs.4305.93. Hence, tourists who have a higher number of paid vacation days do not feel that their vacation is an opportunity cost to their wages. Tourists from countries with a higher number of paid vacation days are, thus, willing to stay longer in the host country and they therefore spend more since they are not compromising their paychecks.

The finding for the relationship between the Gini coefficient and the spending tendency of tourists is surprising. With a 1-unit increase in the Gini coefficient, tourists increased their spending by Rs.139,727.90. This is quite unexpected as an

increase in the Gini coefficient implies a higher income inequality. Nevertheless, a possible explanation could be that the greater the income inequality, the more benefits the high-wage workers receive. High-wage workers are more likely to receive more paid vacation days (Pierce, 2001), which results in their ability to go for longer vacations and to spend more money. Another possible explanation could be that in countries with high-income inequality gap, people are more class conscious and are more pressured to affirm their status. This compels them to spend and consume more in an expensive host country, especially at a luxury tourist destination like Mauritius.

Although it is a relatively small effect, a 1-unit increase in average monthly wage led to a Rs.0.34 increase in spending. Keeping income tax constant, an increase in average income entails a rise in disposable income, which prompts consumption. Tourists who gained an increased wage are more prone to spend a higher budget in the host country.

Another unanticipated result is with the coverage variable; it is a variable designed to measure the proportion of the country's population that had access to direct flights to Mauritius. For every person who has access to direct flights, there is Rs.13,917.09 decrease in spending. In other words, the more the number of citizens that have access to a direct flight, the less they spend in Mauritius. It is quite counterintuitive, as one would expect the opposite. A viable interpretation could be that coverage indicates the popularity of the tourist destination. If a tourist destination is popular in a country, then the host country attracts a wider class of people across the social ladder. For example Mauritius might attract middle-class to upper-class French citizens as it is a well-known French tourist destination. The average expenditure range of a middle-class and an upper-class tourist differ, this therefore lowers the average spending amount of a French tourist. Conversely, countries that do not have direct flights to the tourist island destination demonstrate that Mauritius is not a common vacation destination for them and thus it can be more expensive to

reach. Tourists from such countries are more likely to be from the upper-class of the socio-economic ladder, explaining the rise in the spending budget in the host country.

*Model 2: Excluding GINI and coverage variables*

$$\begin{aligned} \text{Spending} = & \beta_1 + \beta_2 \text{RelCPI} + \beta_3 \text{InTax} + \beta_4 \text{IntRate} + \beta_5 \text{ExR} + \beta_6 \text{GDP} \\ & + \beta_7 \text{BankLend} + \beta_8 \text{Unemploy} + \beta_9 \text{Vacation} + \beta_{10} \text{avwage} \\ & + \beta_{12} \text{direct} + \beta_{13} \text{AvRetire} \end{aligned}$$

Since there were a few assumptions made for the Gini coefficient and the city population, which affects the *GINI* and *coverage* variables were removed from the regression model in order to see whether there were any important changes. The model was moderately robust with an adjusted r-square value of 0.6266. This states that 62.66% of the variations in the dependent variable, *Spend*, is accounted for by the model. Only 2 out of the 11 variables were statistically significant (see Table 3). There is also a dramatic decrease in collinearity when the *Gini* and *coverage* variables are removed. The mean variance inflation factor (vif) decreases from 67.21 in Model 1 to 14.34 in Model 2. This indicates that these variables are functions of other variables.

As predicted, the income tax negatively impacted the spending habit of tourists. For every percent increase in income tax, there is a Rs.1019.12 decrease in spending. The reason behind is that an increase in income tax diminishes disposable income; all else equal. With a decrease in disposable income, tourists spend and consume less in the host country, as they are unable to spend as much as they had wished.

The exchange rate was another variable that was statistically significant with a p-value of 0.05. Contrary to the first model, a 1-unit increase in exchange rate increased the tourists' spending by Rs.818.15. Therefore, as the home currency of a tourist becomes stronger, he ends up spending more in the host country. This confirms

the purchasing-power parity hypothesis and the Keynesian consumption function as the tourist has more disposable income in the host country.

*Model 3: Excluding Reunion Island data*

The only difference between Model 1 and Model 3 is that in Model 3, Reunion Island was removed from the dataset. This is because much of the data was that of France since Reunion Island is an overseas department of France (BBC News, 2013). Therefore, removing Reunion Island from the regression model provides the means to investigate whether it skewed the results of Model 1 (see Table 3).

Model 3 was a highly robust model with an adjusted R-squared of 0.9320. Six out of the 13 variables were statistically significant with a p-value of less than 0.05. The six variables were the same as those in Model 1; exchange rate, GDP, unemployment, number of paid vacation, average monthly wage and coverage. The only variable that was found to be statistically significant in Model 1, but not in Model 3, was the Gini coefficient.

Another inconsistency between Model 1 and Model 3 was the relationship that unemployment had on spending. In Model 1, unemployment negatively impacted the spending habit of tourists. Contrarily, in Model 3, unemployment in the home country seems to have positively influenced the spending of tourists in the host country. For every percent increase in unemployment, tourists spend Rs.998.47 more in the host country. It is important to note that during the 4 years, Reunion Island had the highest unemployment rate. By excluding Reunion Island data, the average unemployment rate dropped by 2.10%.

This rise in spending as the unemployment rate increases could be the result of a widening gap between the rich and the poor. As the gap between the rich and poor expands, people from the upper socio-economic group are the ones who are more likely to go on vacation, especially to Mauritius, a luxury tourist destination. The upper-class group is also a synonym for high-income earners. As a consequence, the

upper-class tourists spend more money in the host country since they have a higher amount of disposable income available to them.

*Model 4: Excluding Reunion Island data and GINI and coverage variables*

The 4<sup>th</sup> Model omitted Reunion Island dataset and the variables; *Gini* and *coverage* as a few assumptions were made in order to fill the missing values. Thus, by removing them from the regression model allows us to see whether the result in Model 1 was biased.

The model has an adjusted R-squared of 0.8127, showing that it is robust. Only 3 variables, namely income tax, GDP, and unemployment, were statistically significant with p-values less than 0.01. As previous models, the GDP had a positive influence on the spending habit of tourists. Similar to Model 3, unemployment had a positive effect on spending and coinciding with Model 2, income tax had a negative impact on spending

Overall, the findings can be summarized as GDP, number of paid vacation days, Gini coefficient and the average monthly wage have a positive effect on the spending habit of tourists in the host country while income tax and coverage had a negative impact on the spending budget of tourists. Exchange rate and unemployment rate had contradicting results in the models; it would be better to confirm their overall effect with a larger dataset and on that account, they would not be considered in the recommendation section.

### **Recommendations**

Put in a nutshell, Mauritius should promote itself to countries that have a high GDP while having an income inequality gap. The tourist's home country should also offer a relatively high number of paid vacation days to its labor force and also have a high average monthly wage. At the same time, the tourist's home country should have a stable, if not a decreasing rate of income tax, preferably with no direct flights available to Mauritius. Considering all these characteristics, I would like to suggest 7

market targets where Mauritius could concentrate its promotion if its goal is to make each tourist spend more money.

### **The Nordic Market**

The Scandinavian countries; Denmark, Norway, and Sweden, and Finland are all good potential markets for Mauritius to intensely promote itself as a luxury tourist destination.

#### Norway

Norway is a highly developed and a rich country, which is ranked first on the United Nations human development index scale in 2013 (United Nations Development Programme, 2014). Norway's GDP has had an overall upward trend over the years with an approximate expansion of 200 billion USD over the last 10 years (World Bank, 2015). For year 2013, the World Bank reported that Norway had a GDP value of 512.6 billion USD (World Bank, 2015). Although, Norway has a low Gini coefficient of 0.25 (OECD, 2015), there have been small increases in the disposable income inequality over the past years (Garcia-Penalosa & Orgiazzi, 2013).

In addition, Norway offers a total of 21 paid vacation days annually (World Bank Group, 2015). This is less by one day to this study's average vacation days of 22 days. Nevertheless, Norway is a very high earning income country where the average monthly wage was NOK 41065.7 in 2013 (United Nations Economic Commission for Europe; UNECE, 2014), which roughly equaled to Rs.207,246.27. This is slightly more than double the average monthly wage of all 10 countries used in the empirical model (Rs.89,379.92). The income tax has decreased from 40% to 39% in 2014 (Trading Economics, 2015), which should positively impact the disposable income available to Norwegians. There are no direct flights from Norway to Mauritius. The main possible routes are either to have a transit via London, Paris or Dubai.

In general, Norway seems to be an ideal country for Mauritius to intensively promote itself to. Using Model 1, it is predicted that a Norwegian is likely to spend

approximately Rs.95,299.03 during his vacation in Mauritius. This is slightly more than the double of what an average tourist spends in Mauritius. In 2013, Mauritius recorded a total of 3,086 Norwegian tourists entering the island for vacations (Ministry of Tourism & Leisure, 2013). However, this is a relatively very small number, as in the same year, Mauritius had registered 244,752 French visitors. With some aggressive advertising strategies, Mauritius should be able to attract a bigger portion of the 5.084 millions of people composing the Norwegian Population (World Bank, 2015).

### Sweden

Sweden is quite similar to Norway, both culturally as well as economically. It is a first-world developed country and has had an increasing GDP over the past 10 years. In 2005, its GDP was approximately 389 billion USD and in 2013, it had reached 579.7 billion USD (World bank, 2015). The increase in GDP shows that just like Norway, the Swedish economy has been expanding. The Scandinavian countries are known for their low-income inequality and Sweden is no exception. It has a Gini coefficient of 0.27 (OECD, 2015) but Garcia-Penalosa and Orgiazzi's (2013) study showed that it had also experienced small increases in the disposable income inequality.

Furthermore, Sweden gives 25 vacation days annually (World Bank Group, 2015). This is a relatively large number of paid leave days as the maximum paid vacation days in the empirical model was 30 days. Besides being generous on the number of paid vacation days, Sweden is a high-income earning country too. In 2013, an average Swede earned SEK 30,951.2 monthly (UNECE, 2014). It is estimated to be around Rs.140,796.08. This is not as high as an average monthly Norwegian wage but it is still above the average monthly wage of this study.

Despite the increase in income tax rate in 2014, it should not have any significant changes on the Swedish lifestyle as the tax rate had increased by 0.2%

(Trading Economics, 2015). Unfortunately, Sweden has a higher income tax rate than Norway. In 2013, the income tax rate was 56.7% (Trading Economics, 2015). This is higher than France and the United Kingdom who had the highest income tax rate in this study. Like Norway, Sweden does not have direct flights to Mauritius and the same possible routes are available to them just like in the case of Norway.

Surprisingly though, in 2013 Mauritius had registered 4,577 Swedish tourists visiting the island for vacation (Ministry of Tourism & Leisure, 2013). It is higher than Norwegian arrivals. It is interesting to note that there was a peak in Scandinavian arrivals in Mauritius during 2007 and 2008, with Swedish arrivals having the highest increase (Ministry of Tourism & Leisure, 2013). Only for the year 2007, 9,891 Swede tourists visited Mauritius (Ministry of Tourism & Leisure, 2013). However, due to lack of definite information, the reason for this sudden increase is unknown.

The evidence shows that even though Sweden has high income tax rates and lower average monthly wages than Norway, it is still a promising market for the Mauritian tourism industry. Sweden's population is nearly double that of Norway with 9.593 million citizens (World Bank, 2015) and using Model 1, it is predicted that an average Swede tourist will spend approximately Rs.93,144.40 during his vacation in Mauritius. This is twice the average spent by an average tourist, Rs.44,421.85. This means that Mauritius can have a higher success rate in increasing the number of Swedish visitors by having an efficient marketing strategy, reaching a larger audience.

### Denmark

As opposed to Norway and Sweden, Denmark is a relatively small kingdom but it still has 5.614 million citizens (World Bank, 2015). The Danish economy has been more or less stable since 2009 as it had very small fluctuations in its GDP (World Bank, 2015). In 2013, the World Bank recorded the Danish GDP to be 335.9 billion USD (World Bank, 2015). In spite of not having a higher GDP like Norway and Sweden, Denmark is ranked 13<sup>th</sup> in The Global Competitiveness Report 2014-

2015, just behind Norway and the United Arab Emirates. This establishes Denmark as having a reliable economy. Akin to its fellow Scandinavian countries, Denmark has a low Gini coefficient of 0.25 (OECD, 2015), but since 22.1% income share is held by the highest 10% (World Bank, 2015), Mauritius can market itself solely to highest 10% of the population.

Like Sweden, Denmark offers 25 paid vacation days annually (World Bank Group, 2015). The average Dane in 2013 earned DKK 34,013.3 per month (UNECE, 2014), equaling to Rs.179,514.03. This is higher than a Swede's average monthly wage. Denmark is also classified as a high-income earning country but at the same time with a high income tax rate. Denmark's income tax rate rose by 0.2% in 2013, resulting in an average income tax rate of 55.6% (Trading Economics, 2015). Since this increase is of small magnitude, it should have a negligible effect on the living standards of its citizens.

Denmark does not have direct flights to Mauritius either. However, in 2013, 3,282 Danes visited Mauritius (Ministry of Tourism & Leisure, 2013). This highlights that Denmark is a potential market for Mauritius to explore, especially that a Dane is likely to spend approximately Rs.108,201.41 during his vacation. This is more than a typical Norwegian tourist will spend. With a relatively stable economy and highly paid citizens who receive a high number of paid vacation days, Denmark seems to be a favorable market for Mauritius to seriously consider.

### Finland

Finland, like the Scandinavian countries, forms part of the Nordic Countries. Finland's GDP trend resembles that of Denmark. It has been quite stable with relatively small fluctuations since 2009, with its GDP being 267.3 billion USD in 2013 (World Bank, 2015). Finland has a low a Gini coefficient of 0.27 (OECD, 2015) but there is a wage gap between immigrants, especially the non-OECD immigrants

and the natives (Sarvimaki, 2011). Typically, natives have higher wages than the immigrants.

Finland is the only Nordic country that gives as many as 30 paid vacation days (World Bank Group, 2015). This is equal to the number of paid vacation days that France gives to its labor force, which was the maximum number of days in the empirical model of this study. Finland is also known as a high-earning income country and in 2013, an average Finn earned €3,341.0 (UNECE, 2014), which equivalents to Rs.131,512.45. In spite of having the lowest average wage among the Nordic countries, Finland still has a higher average monthly wage than the mean monthly income of all 10 countries combined.

In 2013, the income tax rate increased from 49% to 51.1% (Trading Economics, 2015). This 2.1% increase is not a drastic change and on that account, it is assumed not to have a significant alteration in the spending habits of Finns. Consistent with the other Nordic countries, Finland does not have direct flights to Mauritius.

The Handbook on Statistical data on Tourism 2013 did not specifically report of any Finn arrivals. It could have accounted it in the “Other European”, which indicates that there may have been a very small number of Finnish tourists visiting the island. Yet, Finland is a good candidate for Mauritius to expand its promotion campaign. It has a relatively stable economy and its citizens earn relatively high-income compared to the global standards and they receive a month of paid vacation. Model 1 predicts that a Finn will spend approximately Rs.58,199.41 during his vacation in Mauritius. It is definitely not as much as a Dane or a Norwegian, but it is still higher than the current average tourist will spend, Rs.44,421.85.

Consequently, the Nordic countries that are Norway, Sweden, Denmark and Finland, appear to be an excellent market for promoting Mauritius as a luxury tourists destination. Moreover, considering their climatic conditions, the Mauritian market could provide for tourists all year round. During their winter season, Mauritius is at its

peak summer season and thus they can evade their harsh and depressive winter for some days of bright and warm sunshine. During their summer season, Mauritius, being in the tropic of Capricorn enters its winter season whereby the climate is on average still warmer than the Nordic summer. Thereby, if the Mauritian summer is too hot and humid for some Nordics, the winter would be ideal for them.

### **The Dutch market**

The Netherlands is a developed country with a GDP of 853.5 billion USD (World Bank, 2015). It had experienced little fluctuations in its GDP trend of its economy after 2008; this observation is most likely due to the 2008 recession. Nonetheless, the Human Development Reports ranked the Netherlands 4<sup>th</sup> on the global Human Development Index in 2013 (United Nations Development Programme, 2014) and the Global Competitiveness Index 2014-2015 ranked the Netherlands 8<sup>th</sup> (World Economic Forum, 2015). This demonstrates that the Netherlands still has a thriving economy.

Even though the Netherlands is not part of the Nordic countries, it still shares a lot of economic, political and social resemblances with them. One of the significant similarities is a low Gini coefficient. In 2010, the Netherlands had a Gini coefficient of 0.29 (World Bank, 2015). Moreover, it gives 20 paid vacation days annually (World Bank Group, 2015). This is lower than the average vacation days in the empirical model, but it still is 3 weeks of paid holidays, and it is much higher than the minimum vacation days in this study, 6.7 days.

An average Dutch employee earned €3,540.90 monthly in 2013 (UNECE, 2014), and this is equivalent to Rs.139,381.15. This is slightly more than 1.5 times higher than the average monthly wage of this study sample. The Netherlands has had a stable income tax rate of 52% since 2001 (Trading Economics, 2015). Although, it has a high income tax rate, the fact that it stayed constant for the past so many years

indicates that the citizens are already used to paying this high percentage of income tax and hence, it should not affect their spending plans and vacation habits.

There are no direct flights from the Netherlands to Mauritius, yet in 2013, 4,499 Dutch citizens visited the island. The maximum number of Dutch tourists that Mauritius registered between the years 2004 to 2013 was 6,331 tourists in 2007 (Ministry of Tourism & Leisure, 2013). Even though Model 1 predicts that an average Dutch tourist is only going to spend Rs.24,729.52, the data for some variables were not updated since the early 2000s. In addition, if the tourist had 30 paid vacation days instead of 20 days, then the model predicts that they would spend approximately Rs.67,788.82. Considering that employees usually benefit from sick leaves as well, I still believe that the Netherlands is a potential market for Mauritius to consider. This highlights that if Mauritius effectively promotes itself to the Dutch market, it can boost the number of Dutch tourists spending their holidays on the island.

### **The United Arab Emirates market**

The United Arab Emirates (UAE) has a population of 9.346 million people and it has been experiencing a tremendous economic growth (World Bank, 2015). Its GDP increased from 253.55 billion USD in 2009 to 402.34 billion USD in 2013. This illustrates that the UAE's economy has been growing quite fast over the past few years.

Unfortunately, there was no data available for the Gini coefficient or the income distribution in UAE. Nonetheless, the World Bank (2015) classified the UAE as a high income earning country and the United Nations' Human Development Reports (2013) stated that only 0.06% of the UAE population lived multidimensional poverty. It is also ranked 41<sup>st</sup> globally on the Human Development Index with an HDI value of 0.818 (United Nations Development Programme, 2014). Taking into consideration all of this information, the UAE can be considered to be a country with a low-to-moderate income inequality.

The UAE gives 26 paid vacation days annually to its citizens (World Bank Group, 2015) and the average monthly wage is approximately 18,812 AED (Salary Explorer, 2014). This approximately corresponds to Rs.151,810.96. Despite its relatively high average wage, the UAE does not impose any personal income tax on its citizens (Galadari & Associates, n.d). This is an uncommon practice but it also means that they have more disposable income available.

In contrast to the European countries discussed above, there are two daily direct flights offered from Dubai to Mauritius. However, Dubai's population is only 2,213,845 (Dubai Statistics Center, 2014). This means that only 24% of UAE's population has access to a direct flight to Mauritius in their country. This is a small percentage of the population but as this study found, a decrease in coverage will lead to a higher spending in the host country.

UAE citizens seem to fit the model of high-spending tourists for Mauritius. They earn a high wage and receive 26 paid vacation days while they do not pay income tax. In 2013, there were already 8,161 tourists visiting the island (Ministry of Tourism & Leisure, 2013). There has been an increase in the number of tourist coming to Mauritius from the UAE over the past ten years and with effective advertising campaign, Mauritius is likely to attract a bigger proportion of the UAE's population. Although Model 1 cannot be used to predict the amount an UAE citizen is going to spend since the GINI coefficient is not available, but it can be assumed that they will be big spenders. This is because the UAE has 26 paid vacation days and 0% income tax.

### **The Japanese market**

In 2013, the World Bank (2015) ranked Japan as the 3<sup>rd</sup> country with the highest GDP, 4.920 trillion USD. This demonstrates that even after several disasters especially after the terrible 2011 Tōhoku earthquake followed by a disastrous tsunami,

resulting in the nuclear power plants disaster at Fukushima that badly affected the country's economy (Hayashi, 2012), Japan still ranks as the 3<sup>rd</sup> largest economy.

In 2009, Japan had a Gini coefficient of 0.34 (OECD, 2015). This suggests that Japan has a moderate income inequality. The Gini coefficient has been increasing over the years, from 0.32 in 2003 to 0.34 in 2009 (OECD, 2015). According to the empirical model of this study, this should positively affect the spending budget of Japanese tourists. Furthermore, the average paid vacation days that a 10-year tenure worker receives are 20 days annually (World Bank Group, 2015). This is the same number of days that a Dutch employee receives.

Japan's average monthly wage is 471,276 JPY (Salary Explorer, 2014). This is higher than the average monthly wage of the countries used in this study and it approximately equals to Rs.143,371.58. Like most countries with high wages, Japan also has a high income tax rate. Its income tax rate increased by 0.84% in 2013, reach a 50.84% income tax rate (Trading Economics, 2015). This increase is of such a small magnitude that it is predicted not to affect the spending habits of the Japanese people.

Japan's population totals 127.3 million people (World Bank, 2015) and yet, in 2013, only 1,768 Japanese visited Mauritius (Ministry of Tourism & Leisure, 2013). While, there are no direct flights from Japan to Mauritius, this should technically be a filter to attract the high-income Japanese, as per the findings in this study. Model 1 predicts that an average Japanese tourist is likely to spend Rs.127,684.16 during his vacation. Therefore, backed by an intense promotion, Mauritius has the potential to attract more Japanese tourists. Japanese are high income-earners living in a relatively big economy where there is a moderate income inequality; this makes them perfect candidates for the Mauritius tourism industry.

### **North America**

Promoting Mauritius to the North American countries could be quite risky as these countries are found on the opposite side of the globe. Nevertheless, I include

these countries in the recommendations, as they perfectly fit the empirical findings and they are potential markets to invest in, in the next few decades since the world is becoming more of a global village. The travel facilities between continents are continuously improving and these countries could, thus, be a potential market for the long-term.

#### United States of America

The United States of America (USA) was 1<sup>st</sup> on the global GDP ranking in 2013 (World Bank, 2015). Even though USA was badly affected by the 2008 recession, the economy has been growing since 2009, with a constant GDP growth. In 2013, USA's GDP was 16.77 trillion USD (World Bank, 2015). Even if USA is a world leading economy, it has a relatively high Gini coefficient of 0.39 (2011); since Chile has the highest income-inequality in the world with a Gini coefficient of 0.50 (OECD, 2015). As from 2007, USA's Gini coefficient has been constantly rising.

Although the USA does not give any paid vacation days to its citizens (World Bank Group, 2015), it is quite common for employees to take vacation leave because companies usually have a maximum quota of leave for each one. The average monthly wage of a US citizen was 4,695 USD in 2013 (UNECE, 2014); Rs.139,193.65. Once again, this is higher than the average monthly wage of the countries in this study.

Notably the USA has had an income tax rate of 35% for the past decade (Trading Economics, 2015). This is a lower rate than the average income tax rate of the 10 countries in this study, which amounts to 41.59%. With a relatively low income tax rate and a favorable average monthly wage, US citizens have a substantial disposable income that can be spent on tourism.

Since the USA is found on the other side of the globe as compared to the geographic position of Mauritius, there are obviously no direct flights to Mauritius. The fact the USA does not give paid leave and it's very far from Mauritius in contrast

to most European, Asian and African countries, the Mauritius Tourism Promotion Authority may not find it worthwhile to venture into the US market. However, it is important to note that in 2010, the World Bank (2015) reported that 29.6% of the income of the US citizens was held by the highest 10% of the population. This is quite a big portion. Hence, if Mauritius makes the highest 10% of these US citizens its market target, then it may attract some significant number of tourists from the USA. This can become a feasible project, as in 2013, Mauritius had 5,777 US tourists visiting the island (Ministry of Tourism & Leisure, 2013) and the model predicts that a US tourist is likely to spend Rs.110,263.04 during his stay in Mauritius.

However, the advertising of Mauritius in the US must first start with making Mauritius known because most Americans do not know the existence of Mauritius. It is such a tiny dot on the world map that many ask what is there to see in such a small place. Is it worth spending so much time and money on travelling to such a distant island? It will be a big challenge to convince Americans to travel to Mauritius and the advertising and promotional campaign should be tailor made for the American people.

#### Canada

Canada's market is very much like that of the USA. Canada is a developed country with GDP 1.827 trillion USD in 2013 (World Bank, 2015). Canada has a very strong economy; its GDP has been increasing since 2009 from 1.371 trillion USD. Canada has a moderate Gini coefficient of 0.32 in 2011 (OECD, 2015). It is lower than that of the USA, but it has been quite stable since 2006.

In contrast to US citizens, Canadians receive 10-paid vacation days yearly (World Bank Group, 2015). This is still very little though, considering that the average paid vacation day for the sample in this study is 22 days. This could be of small significance if Mauritius solely aims to market itself to the upper socio-economic group of retired Canadians and self-employed people. The average monthly

wage of Canadian in 2013 was 5,053.90 CAD (UNECE, 2014); Rs.145,505.02. This is higher than this study's average monthly income.

At the same time, Canada has an income tax rate of 29% (Trading Economics, 2015). This rate has been constant for the past 10 years. This is nearly 1.5 times lower than the average income tax in the empirical model. Canada, like the U.S., is too far from Mauritius to be able to have direct flights. Even then, in 2013, Mauritius had 4,435 Canadians entering the island (Ministry of Tourism & Leisure, 2013). The number of Canadians visiting Mauritius has increased over the years. In 2003, there were only 2,341 Canadians coming to Mauritius (Ministry of Tourism & Leisure, 2013). This rise in Canadian arrivals into Mauritius is a positive sign and with effective marketing strategy to the appropriate market target, Mauritius can boost the number of arrivals from Canada. Mauritius has also an added advantage as the island is known to Canadians. Many Mauritians have settled in Canada and through them, the island is being advertised to some extent.

Even though Model 1 predicts that Canadian tourists will spend only Rs.9,650.12 during the vacation, Canada can still be a potential market for Mauritius. However, Mauritius will have to be very specific while targeting its Canadian market. The best marketing strategy would be to target the upper socio-economic group of retired Canadians and self-employed people as mentioned above. As per Model 1, if Canadians had 30 paid vacation days it is predicted that they would spend Rs.95,768.72. The vacation variable highly hinders the spending habits of Canadian tourists, which make the retired and self-employed Canadians the ideal target market.

#### **Already established markets**

Even though, Russia and Switzerland are present in the model of this study, I believe that they could generate more tourists, especially since these 2 countries had the highest tourist expenditure in Mauritius.

#### Russia

Russian tourists in Mauritius spend an average Rs.60,205.67 and yet in 2013, there was only 14,905 Russians visiting Mauritius (Ministry of Tourism & Leisure, 2013). This is a very small portion of the Russian population of 143.5 million people (World Bank, 2015). Therefore, Mauritius should definitely intensify its promotion campaign in Russia.

Russia has been a blossoming economy with GDP 2.097 trillion USD in 2013 (World Bank, 2015). Nonetheless, Russia still has a relatively high Gini coefficient. In 2010, its Gini coefficient was 0.40 (OECD, 2015). This explains the quite low average monthly wage in Russia since there is a big income distribution. In 2013, a Russian employee earned on average 30,141.30 RUB (UNECE, 2014); Rs.28,052.21. This is far less by two thirds than the average monthly wage of the study. This is extremely low. Due to the low average monthly wage, it is not surprising to see that Russia has a low income tax of 13% (Trading Economics, 2015).

Even if the wage is relative low, Russians still receive 22 paid vacation days (World Bank Group, 2015) and there is no direct flight from Russia to Mauritius. While many might be septic with the Russian market due to the low average wage, one should consider that approximately 47% of the Russian income share is held by the highest 20% (World Bank, 2015). Therefore, by efficiently targeting the wealthy Russian population, Mauritius will be able to attract more tourists to its island.

### Switzerland

Tourists from Switzerland were the second biggest spenders in Mauritius, with an average of Rs.57,168.25. The number of Swiss tourists coming to the island increased over the years but it is still comparatively quite small. In 2013, there were 27,756 Swiss citizens coming to Mauritius (Ministry of Tourism & Leisure, 2013), which still represents a small fraction of the 8.081 million Swiss population (World Bank, 2015).

Over the past years, the Swiss economy has been growing; with a GDP increase from 407.5 billion USD in 2005 to 685.4 billion USD in 2013 (World Bank, 2015). Its Gini coefficient was 0.29 in 2011 (OECD, 2015). This is a fairly low Gini coefficient, indicating the low income inequality in Switzerland. The average Swiss employee monthly earned around 7,030.50 CHF in 2013 (UNECE, 2014), which is equivalent to Rs.224,846.85. This is 2.5 times higher than the average monthly wage of the study and yet, the income tax rate is only 40% (Trading Economics, 2015). The income tax rate of Switzerland is lower than the average income tax rate of the 10 countries present in this study, which is situated at 41.59%, even though the Swiss earns a very high monthly wage. This signifies that they have a high disposable income, which might explain their high spending habits in Mauritius.

The Swiss can also enjoy 20 paid vacation days annually (World Bank Group, 2015). Although it is nearly 2 days less than the study's average, it is still nearly 3 paid weeks of vacation. There are also no direct flights from Switzerland to Mauritius. From the findings of this study, a 0% coverage positively impacts the spending budget of Swiss tourists in Mauritius. Therefore, in order to attract more Swiss tourists, Mauritius does not need to invest in building new systems of travel but rather improve its promotion strategies. Since French is one of the official languages in Switzerland, it could be another very advantageous factor that might be used to attract even more Swiss tourists since Mauritius too is a French-speaking country.

### **Conclusion**

The model identifies variables that are important to tourist spending habits. Tourists' spending is related to the GDP of their home country, Gini coefficient, number of vacation days, wage, income tax rate and the percentage of population that has direct flights to Mauritius.

Tourists from home countries with increasing GDP and a Gini coefficient spend more in Mauritius. Besides, if they receive a high number of paid vacation days

and they earn a high monthly wage, their expenditure increases as well. On the other hand, an increase in the income tax rate reduces their spending. In addition, it shows that the tourist destination does not necessarily need direct flights from the different tourist-generating countries. The study shows that the more direct flights to Mauritius a country has, the less the visitors tend to spend.

On the basis of these findings, 7 markets were recommended for the Mauritian government to actively promote Mauritius as a luxury tourist destination. These countries are: the Nordic countries, the Netherlands, the United Arab Emirates, Japan, North America, Russia and Switzerland. These markets will generate high-spender tourists. By targeting these markets, Mauritius will be able to achieve its goal of welcoming 2 million tourists within a few years and at the same time increase the average expenditure per tourist.

For future studies, it will be interesting to see if with a larger dataset, any of the other variables might significantly impact the spending of tourists. While these findings are limited to luxurious tourist destinations, it is important to find out how it differs from other tourist destinations. This should impact on the marketing strategy of concerned countries.

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## Appendix A

**Table 2**  
**Table of Descriptive Statistics without Reunion Island Data**

Variable	Mean	Standard Deviation	Minimum	Maximum
Year	2011.538	1.120474	2010	2013
Spend	46717.63	8790.211	31160	64858
RelCPI	0.9857822	0.0531441	0.8664922	1.151832
AvMonthlyWage	7363.361	7127.769	2320.8	30141.3
InTax	40.814	10.33813	13	50.6
IntRate	1.748571	2.316123	-6.4	4.2
ExR	24.80486	19.85929	0.55	49.87
GDP	2593.682	2119.149	350.63	9240.27
BankLend	5.21	3.231011	0.5	10.6
Unemploy	8.548571	6.371461	3.5	25
Vacation	21.05143	6.989209	6.7	30
RetireMen	62.64543	2.599806	60	66
RetireWomen	59.96686	4.551244	50	65.17
Pop	344396.9	523003.8	7824.909	1357380
CityDirect	1.257143	1.357828	0	4
CityPop	62600.68	233194.1	0	1384872
GINI	0.3716286	0.1079371	0.283	0.65
avwage	90507.02	68467.37	5516.83	241919.5
direct	0.6571429	0.481594	0	1
coverage	0.292385	0.5913753	0	1.850099
AvRetire	61.30614	3.306305	55	65.17

Sample size: 35 observations