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Remarks from the Editors

This is the leading project in the field of travel and tourism. The research series comprises a multitude of activities which together form one of the world's fastest growing international sectors. The research takes an interdisciplinary approach and includes planning and policy aspects of international, national and regional tourism as well as specific Cambodian tourism management studies. This issue's contents reflect its integrative approach - including primary research articles, discussion of current issues, case studies, etc.

The research comprises of articles which are relevant to both academics and practitioners, and are the results of anonymous reviews referees chosen by the writers for their specialist knowledge. The writers concerned with the planning and management of travel and tourism, including tourist experiences and the consequences of those experiences for communities, economies and environments.

It is also concerned with the creation of an image, the shaping of tourist experiences and tourist perceptions, and the ways in which tourist organizations manage themselves and destinations. All combine articles topics and emerging themes that inform and advance the theoretical and conceptual understanding of key areas within travel and tourism management.

In particular, we welcome opinions seeking to both introduce new research methods and critiquing existing ones within the context of tourism research.

Thank you all very much.

Sincerely,

Hor Peng, Ph.D., Chief Editor
Ly Sok Heng, Ph.D
Dr. Heng Sopheap

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TOURISM DEVELOPMENT AND ECONOMIC GROWTH IN CAMBODIA

Dr. Tan Saroeun¹

Abstract

In the current study it is measured the impacts of tourism roles, number of tourists and tourism income, and economic growth, total revenues, tax revenues, and GDP per capita, of Cambodia in period from 2000 to 2017. The result test confirmed that the best suited lag period is total revenue, tax revenue and GDP per capita were obtained from the World Bank, IMF and Mundi Index. As for tourism data was obtained from Cambodia Ministry of Tourism Statistical Data. For this purpose, the multiple regression test was performed under condition of its assumption check for the goodness of model fit including normality of data test, heteroskedasticity, and serial correlation (Durbin's alternative test and Breusch-Godfrey LM test) check. The result showed that their total tourists' inflows and tourism income have significant impact on total revenue, tax revenue and GDP per capita of Cambodia. Thus, to sum up, it can be concluded that tourism positively contributes to the economic development of Cambodia.

Even though the tourism development help to push economic growth, it cannot avoid from a negative impact especially on the social cultural environment and the economic sector. To reduce the negative impacts, all tourism policy maker relevant take a clear strategic plan and well-being action plans to orient benefits by linking firmly with the rests of the direct and indirect economic to decrease leakages of the tourism benefits to the foreign countries.

1. Introduction

1.1. Background of the Study

Tourism is a multi-trillion-dollar industry and a dominant force in the lives of millions of people globally (Kurtzman, 2005)². It is a product of technological and scientific advancement coupled with industrialization, urbanization and population explosion. The incredible progress in the field of industries and other productive activities directly led to economic and social progress, higher real income, longer leisure time, and increasingly cheaper and varied tourist plant

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² J. Kurtzman, "Economic Impact: Sport Tourism and City," *Journal of Sport & Tourism* 19, no. 1 (2005): 47-71.

facilities. The consistent increase in the discretionary income, democratization of leisure, socialization of transport facilities and ever stronger and varied tourist plant facilities have together worked as a force motivating people from all over the world to undertake travel for tourism purposes.

Tourism has gained significant importance as one of the fastest growing industries of the world. This is because of multifarious benefits it ensures to the destinations, tourists and to the global geo-political environment as a whole. Tourism is one of the valuable attributes to most developing nations, which can act as a pivot of vehicle for economic development. The importance of tourism as a contributor to economic growth is so widely accepted that throughout the world a massive and growing investment continues to pour into its development. It is highly labor intensive, with highest employment multiplier. Again, the economic multiplier of tourism is also much higher than any other industry. It is for these multifarious benefits of tourism that the United Nations' Conference on International Travel and Tourism held at Rome in 1963 declared tourism "a basic and most desirable human activity deserving the praise and encouragement of all people." Thus, tourism is now become an inseparable part of the development programs of almost every country and it may be said that tourism can be seen as a promoter of development, both at macro and micro level.

The potential for tourism development therefore, largely depends on the variety and richness of tourist resources, which include the availability of recreational resources along with the factors like climate, seasons, accessibility, and attitude of local people, the existing tourist plant facilities and the degree to which they can be further developed within the existing limitations of natural, cultural and financial resources. Equally important factors in this context are proximity to the market, availability of market and many other factors. It has been realized that the more unique and varied the resources, the better the prospects for tourism development.

With its economic and all other advantages, tourism can certainly play a determining role in the development of poorer economies like Cambodia, which suffer from high degree of social backwardness, low capital for investment besides, other socio-economic problems. Being an important economic activity, the growing importance assigned to tourism shows Cambodia's earnestness to attract more and more tourists from every corner of the World. In fact, it is the high time for Cambodia to go ahead with tourism development programs. The Royal Government envisages Cambodia to be one of the world's most tourist destinations, based on the country's immense natural resources, cultural heritage, magnificent architecture,

meaningful history, and natural environment and modest courtesy of the people of Cambodia. The Ministry of Tourism encourages both domestic and foreign investors to invest in this sector which might ensure economic efficiency in responding to the conservation of cultural assets, environment, nature, customs and traditions. In addition, it might contribute substantially to the improvement of living standard of the people by creating income and providing employment opportunities.

1.2. Statement of the Problem

Today, the economic significance of tourism gives the industry greater respect among the business community, public officials, and the public in general. Numerous studies have demonstrated that tourism can play a significant role in balanced sustainable development, and that it can be effectively harnessed to generate net benefits for the poor (UNWTO, 2002)³. However, the ability of the national economy to benefit from tourism depends on the availability of investment to develop the necessary infrastructure and on its ability to supply the needs of tourists.

Tourist attractions can be generally categorized as features related to the natural environment, historical and cultural features and special types of features. These features may exist as resources, but can only be considered as attractions when they have been properly conserved, developed with visitor facilities and conveniently accessible.

The study of tourist demand for a destination often includes an analysis of elements of general nature. Melian-Gonzalez and Garcia-Falcon (2003)⁴ explains the main concepts required to develop a procedure for evaluating the competitive potential of a tourism type in a destination. To assess whether a territory will succeed in a type of tourism, it is necessary to consider the resources of the destination. It has been thought that the resource-based approach can offer a suitable theoretical framework for investigation of the subject. Moreover, the understanding of the attractiveness of a resource in both qualitative and quantitative terms necessitates an in-depth study of the tourism trends at national and international level, keeping in view the interest, preferences and priorities of the tourists. Therefore, many of

³ UNWTO, *Tourism and Poverty Alleviation* (Madrid: United Nations World Tourism Organization, 2002).

⁴ A. Melian-Gonzalez & J.M. Garcia-Falcon, "Competitive Potential of Tourism Destinations," *Annals of Tourism Research* 30 (2003): 720-740.

the attractiveness of the tourist resources could only be made on the basis of the responses obtained from different tourist interest groups. In addition, on the basis of these responses, possibly one can find out the relative attractiveness of the resource in numerical terms. Thus, the total attractiveness of a natural or cultural feature doesn't only depends on its own quality but it is determined by a host of other factors which include accessibility, seasonality, environmental features, attitude of hosts, cost and quality of facility and also the presence of additional resources, attractions or features.

The economic contribution of tourism has been widely studied in the literature. Economists emphasize the economic effects of tourism development on the economy. As tourism is a multidisciplinary activity, it involves several industries and draws upon a variety of skills. There is a wide consensus on the benefits that tourism has on economic growth. The positive effects of tourism on growth are transmitted in a multiple way, such as by providing foreign exchange, promoting investments in infrastructure and human capital and by creating ample job opportunities in the country. This economic relationship is known as Tourism Led-Growth hypothesis. According to this hypothesis, the international tourism is considered as a potential strategic factor for economic growth (Sinclair and Stabler, 2002)⁵; so that, tourist spending, as an alternative form of exports, provides the foreign exchange earnings. Subsequently, it is used to import capital goods to produce goods and services, which in turn leads to economic growth in host countries (Balaguer and Cantavella, 2002)⁶. Also, there is a belief that tourism industry benefits poor people in particular by introducing the concept of “pro-poor tourism” (Ashley and Mitchell, 2006)⁷. Thus, the tourism industry may contribute significantly in economic growth, employment and reduction of poverty, in particular, the countries that suffer from high rates of unemployment and low levels of per capita GDP. Thus, both from academic and policy perspective, it is important to know the role of tourism in economic development of Cambodia.

The Kingdom of Cambodia is located at the heart of what has been considered as the most dynamic region of the world economy, i.e., Southeast Asia. In 2016, with

⁵ T. Sinclair & M. Stabler, *The Economics of Tourism* (London: Routledge, 2002).

⁶ L. Balaguer & M. Cantavella, “Tourism as a Long-run Economic Growth Factor: The Spanish Case,” *Applied Economics* 34 (2002): 877-884.

⁷ C. Ashley, & J. Mitchell, *Can Tourism Help Reduce Poverty in Africa?* (London: Overseas Development Institute (ODI), 2006).

a population of 15.7 million⁸, Cambodia is increasingly integrating with the region and has enjoyed a decade of macroeconomic stability and growth. The country has made substantial progress in its economic reconstruction since 1993. Although the growth of the country was interrupted by the global economic downturn in 2008-09, Cambodia staged a strong recovery in 2010 and 2011. Cambodia remains largely agrarian with a large percentage of the population engaged in subsistence agriculture. Tourism is considered as one of the significant pillars of the economy as it creates jobs for 1,449,000 people and contributes to 3.6 billion USD in 2017. Further, Cambodia had attracted 5,602,157 international tourists in 2017, an increase of 11.8 percent compared to 2016⁹.

Since Cambodia represents its own geo-socio-cultural identity in the Southeast Asia region, it demands specific tourism development plans and actions, keeping in mind an overall tourism perspective of the country. It is forecasted that in Cambodia, by 2027, international tourist arrivals will reach 8,037,000 which support 3,389,000 jobs (33 percent of total employment). Further, this would generate an expenditure of KHR 28,312.0 billion¹⁰. Hence, specific plans must be designed to meet the future demands for tourist services in the country. Thus, keeping the above in mind, the present study makes a modest attempt to analyze the development of tourism in Phnom Penh with special reference to its problems and prospects.

1.3. Research Questions

1. What is the existing tourism trend, arrivals in Cambodia?
2. What is the role of tourism in economic development of Cambodia?

2. Objectives of the Study:

The objectives of the Study are as follows:

- To analyze the existing tourism trend, arrivals in Cambodia;
- To assess the role of tourism in economic development of Cambodia;
- To provide suggestions for the development of the tourism in the study area.

⁸ <https://countryeconomy.com/demography/population/cambodia>

⁹ Ministry of Tourism, *Annual Report on Tourism Statistics 2017* (Phnom Penh, 2018).

¹⁰ World Travel and Tourism Council, *Travel and Tourism Economic Impact 2017 Cambodia* (Cambodia: 2017).

3. Significance of the Study

Tourism is still an emerging discipline and hence any academic research in this direction would certainly enrich the existing stock of knowledge on the subject. The significance of the study lies in identifying and highlighting the problem areas in the field of tourism development in Cambodia and in providing appropriate solutions and prospects of development. The result from the study provides guidelines for future course of action to be followed by both public and private sectors.

Apart from others, today businesses and public organizations are increasingly interested in the economic impacts of tourism at national, state, and local levels. Tourism supports not only in terms of creating job opportunities but also by generating a million dollars of income in a community. Thus, a wide range of sectors in a community enjoys the benefits from tourism. Tourism's economic impacts are therefore an important consideration in state, regional and community planning and economic development. Economic impacts are also important factors in marketing and management decisions. Communities therefore need to understand the relative importance of tourism to their region, including tourism's contribution to economic activity in the area. Thus, in this context, as the present study categorically focuses on the role of tourism in economic development of Cambodia, the study intends to help the planners, policy makers, private entrepreneurs, community and above all the government in designing appropriate plans and policies for the development of tourism sector in the study area.

The main motivation for a business or region to serve tourists is generally economic. An individual business is interested primarily in its own revenues and costs, while a community or region is concerned with tourism's overall contribution to the economy, as well as its social, fiscal and environmental impacts. A good understanding of tourism's economic impacts is therefore important for the tourism industry, government officials, and the community as a whole. The present study aims to provide this understanding to various stakeholders of the tourism industry.

4. Literature Review

4.1. Introduction

Literature Review is one ingredient of research evidences which provide the value of research more clearly in seeking some tools to test hypotheses as well as solving problems. In this chapter, the critique is conducted against conceptual and

empirical literature of the present research problem study which indicates about the relationship between the independent and depend variables, i.e., the preference tourism development contributes on the indexes of economic growth in Cambodia through organizing of the regression equations model. There are many conceptual and empirical models which the previous researchers studied around the relationship between tourism development and economic growth by providing different results based on rural areas, regions, models of methodology and time-series information. To achieve the model which is mentioned in the next section; two sections of the literature study are reviewed at the following:

4.2. Tourism Development

Crouch & Ritchie (1999) defined that the basis of tourism development is to mix both assets and processes, assets are inherited (e.g. natural resources) or created or man-made (e.g. Infrastructures) and processes convert above assets into economic results.

Besides the rich resources, another factor tourism has to concentrate on goods and services mixed together with fixed proportions (Blake and Gilliam, 2001). Moreover, Kolb (2006) added that a successful tourism sector relies on good safety and security, health and hygiene, infrastructure, education and training. Developing tourism can help achieve some of these important goals.

4.3. Tourism Sector and Economic growth

Modeste (1995), Durberry (2002) and Steiner (2006) accepted together that the engine for economic growth in many countries is tourism, which plays a vital role as resilience and associated with positive effects in condition of generating foreign exchange earnings, generating jobs and income and encouraging domestic consumption. Haley and Haley (1997) in their research pointed out that tourism industry has to make more Vietnamese employment through direct employing in hotel, restaurant and entertainment and tourist services. Second, tourism can create jobs through multiplier effects, such as creating demand for local product supplied.

4.3.1. Tourist Numbers and Economic Growth

Cortes Jimenez (2008) pointed out that international and local tourists

accelerate tourism expansion. For creating Spanish economic growth, domestic tourism is a relevant factor; while, the international tourism seems to be more important for Italian economic growth. Moreover, both types of Tourists, domestic and international gave the benefits of 7.7 percent of GDP and provided 9.5 full time equivalent employment in New Zealand in 2010 (Ministry of Business, Innovation and Employment, 2013).

The results of the Granger causality test revealed one-way causality relationship between gross domestic products towards the number of tourists by using data from Islamic countries during period 1995-2005 (Mohammadzade and Najafi Nasab, 2010).

4.3.2. Tourism Incomes and Economic Growth

UNWTO (2002) and Mowforth & Munt (2003) observed that the economic benefits of tourism include the expansion of business opportunities for the poor, expansion of employment and wages by ensuring commitments to local jobs and training of local occupiers, and the development of collective community income. Other investigation made by UNWTO (2013) revealed that trillion dollars was received from the international tourists. It was approximately 1.035 billion in 2012 and is foreseen between 3-4 percent increasing in 2013. Many developing countries always select tourism for economic enhancement and poverty reduction.

Athanasopoulou (2013) also remarked that world tourism earns USD 1,075 billion, increasing from USD 1,042 billion in 2011. The EU (27) generates USD 368 billion, and ASEAN USD 92 billion from the foreign visitors' expenses on accommodation, hotel, food, beverage, shopping, local shipping, and entertainment which shares to supply chances for local engagement to share economic development.

It is important to know the role of tourism in economic development of Cambodia. Tourism has created jobs for 1,449,000 people and earnings of 3.1 billion USD from 4,775,231 international tourists in 2015 (MOT, 2016). WTTC (2017) forecasted that Cambodia would generate about USD 7.078 billion by 2027 from 8,037,000 international tourist arrivals.

4.3.3. Tourism Sector and Total Revenues

The review made by Khan et al. (1990) and Lim (1997) made it clear that tourism development impact positively on the economic development of the host

countries, because tourism development benefits household income, government revenues and balance of payment. TEYE (1999) on Tourism Development experience in Ghana has remarked that at the macro level, tourism helps to raise various forms of government revenue. At the micro level, tourism is expected to facilitate job creation, which ultimately improve the quality of life of residents. Another study made by Marcouiller, Kim and Deller (2004) highlighted that tourism sector by raising national income and employment ensures more equal income distribution to push the economic growth of developed and developing countries. Cortes Jimenez (2008) pointed out that creating Spanish economic growth, domestic tourism is a relevant factor; while, the international tourism seems to be more important for Italian economic growth.

4.3.4. Tourism Sector and Tax Revenues

Cha and Uysal (1995) have shown similar results by using economic indicators, such as obtaining sales volume of restaurant, hotels, recreation, cultural and service establishments. Tourism expenditures, employment generated by tourism, and taxes collected are the result of travelers' visit. For Lovingood and Mitchell (1989) the model of investigation was number of visitors, receipts from visitors, and state and local taxes to determine the economic outcomes of tourists visit. The investigation made by Lea (1993) and Sindiga (1999) in Tanzania noted that tourism's economic benefits share incomes for a government that gains from taxes and duties on things tourists use and purchase.

4.3.5. Tourism Sector and Per Capita Income

Harun (2012) found that tourism sector plays a major role towards employment creation, balance of payment, increasing national income per capita of people in Malaysia. Proenca and Soukiazis (2005) remarked that on the per capita income growth from the impact of tourism, it is revealed that tourism can play a significant role as an alternative solution for increasing regional growth in Portugal if the supply characteristics of this sector are improved. Bride, et al. (2008) found the significant relationship between the international expenditure and GDP per capita over the period 1987 to 2007 in Colombia. Sharma (2001) and Upadhaya (2004) evaluated the economic impact of tourism by using simple regression model in their inquiry.

4.4. Review of Study Methodologies

Adamou and Chlorides (2010) concluded in their study that tourism has put impact on economic growth through data from 162 countries (1980- 2005). The tool used was the multiple regression with variables such as GDP per capita growth, tourism receipts, tourism arrivals, etc. Proenca and Soukiazis (2005) by using panel data from 1990–2004 of Greece, Italy, Portugal and Spain through multiple regression found the impact of tourism on economic growth. For, Cortés-Jiménez & Pulina (2006) by using the data over the period 1964 to 2000 in Spain and 1954 to 2000 in Italy had found positive effects between international tourist receipts and GDP per capita through correlation analysis.

4.5. Conceptual Framework

On the basis of the review of literature, in the present study to know the role of tourism on economic development of Cambodia, while the tourism income, domestic and foreign tourists, and total tourists have been considered as independent variables, total revenues, tax revenues, and GDP per capita have been taken as dependent variables.

4.6. Conclusion

In Cambodian context, in the absence of a systematic study, the present study is an attempt to look into the development of tourism and its role on the economic development of the country.

5. Hypothesis

The research problem defined for assumption will be tested to find the relationship between the independent variable and dependent variable. The domestic tourists, foreign tourists, total tourists and tourism income considered as the independent variable. Tax revenue, total revenue and per capita as the dependent variable. In the representation of the assumption of the hypothesis, the null hypothesis will be exhibited in the negative form.

The present study seeks to test the following hypotheses:

- Ho 1: Tourism income have no significant impact on total revenue, tax revenue and per capita GDP of Cambodia.
- Ho 2: Total tourists' inflows have no significant impact on total revenue, tax revenue and per capita GDP of Cambodia.
- Ho 3: Total tourists' inflows and tourism income have no significant impact on total revenue of Cambodia.
- Ho 4: Total tourists' inflows and tourism income have no significant impact on GDP per capita of Cambodia.

6. Methodology

The aim of this chapter is to explain the methodology used in the present study. For this purpose, the chapter is divided into eight sections. The first section, analyze the existing tourism patterns, arrivals and use patterns in Cambodia in the study, while in the second section, evaluate the tourism role in economic growth of Cambodia. Subsequently, first and second sections includes explanations on the graphs and check assumption of time series variables of the regression equation, respectively. At the end of this chapter, a concluding remark is given.

6.1. Type of Analysis

The type of analysis carried out in the study is quantitative in nature. The growth of tourism sector over the period 2000 to 2017 and the role of tourism in economic development of Cambodia considering relevant indicators during the study period have been analyzed quantitatively based on the secondary information. Finally, quantitative analysis has been done to analyze the existing problems and prospects of tourism development in the study area. Thus, the study has employed quantitative methods of analysis as per its set objectives.

6.2. Types and Sources of Data

The present study is based on both primary and secondary data. To analyze the growth of the tourism sector over the period 2000 to 2017, and its role in economic development of Cambodia, secondary data have been used.

Secondary data (published and unpublished), have been collected from various sources for their use in this study. Several publications of the Ministry

of Tourism and National Institute of Statistics of the Ministry of Planning, Royal Government of Cambodia have been referred for necessary information. Besides, the other source of secondary data is the UNWTO Tourism Highlights of several years.

6.3. Statistical Tools

The secondary data collected for the purpose of the study have been processed and tabulated keeping the objectives of the study in the mind. The interrelationship among the data forms the basis for tabulation. Simple statistical calculations, such as multiple regression. In addition, relevant statistical tools have been used in the study to accomplish the study objectives. To assess the growth of tourism sector over the period 2000 to 2017 in terms of inflows of domestic, international and total tourists; tourism income and employment generated in the tourism sector, the following model has been used:

The three equations, the inflows of total tourists (Z_3) and tourism income (X) are considered as independent variables to determine their contribution to Cambodia's economic development. For this purpose, total revenue (TR), tax revenue (TX) and per capita GDP (PCG) are taken as dependent variables. The simple and multiple regression models used in the study are:

6.3.1. (A) Simple Regression (Tourism Income and Economic Growth)

$$TR = \alpha + \beta_1 X + U,$$

Where,

TR = Total revenue

X = Tourism income

α = Intercept term

β_1 and β_2 are the regression coefficient of X respectively.

U = Error term.

$$TX = \alpha + \beta_1 X + U,$$

Where,

TX = Tax revenue

X = Tourism income

α = Intercept term

β_1 and β_2 are the regression coefficient of X respectively.

U = Error term.

$$PCG = \alpha + \beta_1 X + U$$

Where,

PCG = Per Capita GDP

X = Tourism income

α = Intercept term

β_1 and β_2 are the regression coefficient of X respectively.

U = Error term.

6.3.1. (B) Simple Regression (Total Tourist inflows and Economic Growth)

$$TR = \alpha + \beta_1 Z_3 + U,$$

Where,

TR = Total revenue

Z_3 = Inflows of total tourists

α = Intercept term

β_1 and β_2 are the regression coefficient of Z_3 respectively.

U = Error term.

$$TX = \alpha + \beta_1 Z_3 + U$$

Where,

TX = Tax revenue

Z_3 = Inflows of total tourists

α = Intercept term

β_1 and β_2 are the regression coefficient of Z_3 respectively.

U = Error term.

$$PCG = \alpha + \beta_1 Z_3 + U$$

Where,

PCG = Per Capita GDP

Z_3 = Inflows of total tourists

α = Intercept term

β_1 and β_2 are the regression coefficient of Z_3 respectively.

U = Error term.

6.3.1. (C) Multiple Regression

$$TR = \alpha + \beta_1 Z_3 + \beta_2 X + U,$$

Where,

TR = Total revenue

Z_3 = Inflows of total tourists

X = Tourism income

α = Intercept term

β_1 and β_2 are the regression coefficient of Z_3 and X respectively.

U = Error term.

$$PCG = \alpha + \beta_1 Z_3 + \beta_2 X + U$$

Where,

PCG = Per Capita GDP

Z_3 = Inflows of total tourists

X = Tourism income

α = Intercept term

β_1 and β_2 are the regression coefficient of Z_3 and X respectively.

U = Error term.

6.4. Coverage of the Study

The present study analyzes the growth of tourism sector in Cambodia over the period 2000 to 2017 by considering several indicators such as number of domestic, foreign and total tourists; tourism income and employment generated in the tourism sector (on the basis of consistency of data availability). In addition, to examine the role of tourism sector in economic development of Cambodia, while tourism income and inflows of domestic, foreign and total tourists have been taken as independent variables, the total revenue, tax revenue and per capita GDP (dependent variables) have been considered as indicators of economic development of the country.

6.5. Concluding Remarks

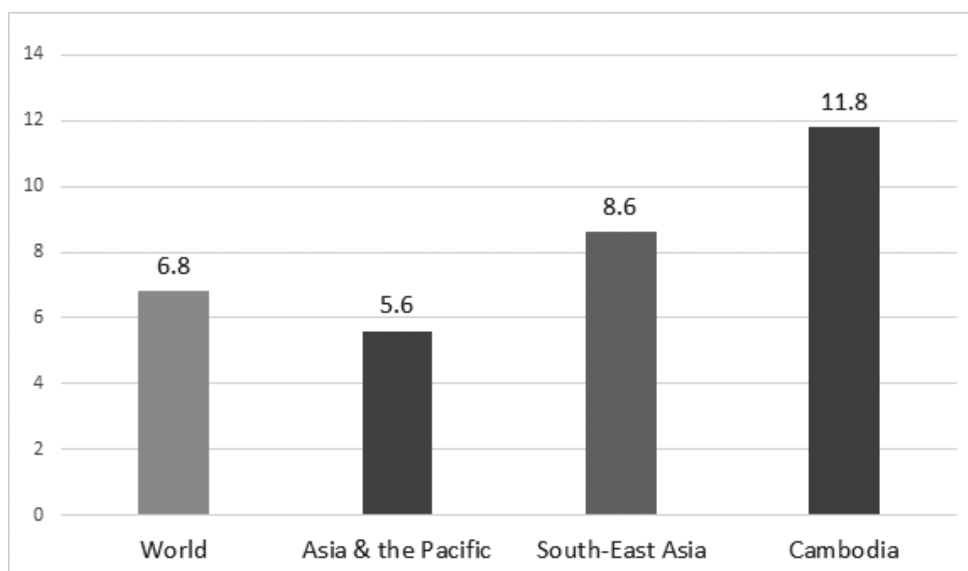
Thus, the above discussions clearly explain about the methodology adopted in the present study. To conclude, the study has used secondary data, it has employed quantitative analysis by using both simple and multiple regression. Finally, results of the study have been presented through tables and graphs.

7. Growth of Tourism Sector in Cambodia

As shown in table 7.1, the number of international tourist arrivals in 2017 rose by 6.8 percent to reach a total of 1,323 million worldwide, an increase of 95 million over the previous year 2016. Asia and the Pacific received 323.1 million international tourist arrivals in 2017, 17.1 million more than in 2016, which recorded close to 5.6 percent growth in international tourist arrivals. In addition, this region's share to total international tourist arrivals for the last two years, i.e., 2015 and 2016 had remained almost same (24 percent) to total. For the South-east Asia, an additional 9.6 million international tourists visited the region in 2017 as compared to 2016 and the growth was recorded as 8.6 percent. As revealed, there has been a marginal increase in the share of international tourist arrival in 2017, i.e., 8.6 percent as compared to 6.3 percent in 2016. In case of Cambodia, in 2017, an increase of 590,445 international tourists visited the country as compared to the previous year and as such the international tourist arrival rose to 5,602,157 million. Thus, an increase of 11.8 percent international tourist arrivals was found in 2017 compared to 2016. Figure

7.1. shows the change in the percentage of international tourist arrivals in 2017 compared to 2016

Figure 7.1.
Growth of International Tourist Arrivals to World, Sub-Regions and Cambodia (% change 2017/2016)



Source: UNWTO Tourism highlights, 2018.

Many countries in the world strongly consider inbound tourism as a vital source of foreign currency earnings and an important contributor to the economy, creating much-needed employment and further opportunities for development. Keeping this in mind, the data on international tourism receipts are presented below.

Table 7.1. (A)
International Tourism Receipts
(in USD Billion)

Region/ Country	Year		Market share percentage 2017
	2016	2017	
Cambodia	3.21	3.63	0.9
South-east Asia	116.7	130.7	10
Asia & the Pacific	370.8	389.6	29
World	1,245	1,340	100.0

Source: i. UNWTO Tourism Highlights, 2018. iii. Own computation.

Expenditure by international tourists in the destinations reached USD 1,340 billion in 2017. In real terms, i.e., taking into account exchange rate fluctuations and inflation, this represents an increase of 4.9 percent over 2016 (UNWTO, 2018). Asia and the Pacific region earned USD 389.6 billion in international tourism receipts, an increase of 5.6 percent in real terms. This region accounts for 24 percent of the world's arrivals and 29 percent of receipts. It has been observed that South-east Asia had experience an increase of around 8.6 percent in international tourist arrivals. It also has 10 percent market share of its international tourism receipts in 2017. Despite its economic backwardness, Cambodia has been experiencing a high growth of tourism as shown by the international tourist arrivals as well as tourism receipts. An elaborate discussion on this has been done in the following sections.

7.1.1. Year-wise Growth of Inflows of Tourists to Cambodia

To analyze the year-wise growth of tourism sector in Cambodia, in this section, along with the inflows of domestic tourists, foreign tourists' inflow as well as total tourists' inflow have been taken into discussion. The number of domestic, foreign and total tourists' inflow along with year-wise change in the percentage of these tourist inflow as well as their average annual compound growth rates are presented in Table 7.1.1. While Figure 7.1.1 (A) shows the number of domestic

tourists' inflow along with their year-wise change in percentage, Figure 6.1.1 (B) presents foreign tourists' inflow to the country during 2000 to 2017 in addition to change in percentage of foreign tourists. Subsequently, Figure 7.1.1 (C) presents total tourists' inflow to Cambodia in different years and the year-wise change in percentage of total tourists.

Table 7.1.1.
Growth of Number of Tourists in Cambodia
(2000 to 2017)

Sl. No.	Year	Number of Domestic Tourists	Number of Foreign Tourists	Number of Total Tourists
1	2000	794,040	466,365	1,260,405
2	2001	1,756,790 (121.2)	604,919 (29.7)	2,361,709 (87.4)
3	2002	2,108,138 (20.0)	786,524 (30.0)	2,894,662 (22.6)
4	2003	1,821,423 (-13.6)	701,014 (-10.9)	2,522,437 (-12.9)
5	2004	4,338,123 (138.2)	1,055,202 (50.5)	5,393,325 (113.8)
6	2005	5,278,113 (21.7)	1,421,615 (34.7)	6,699,728 (24.2)
7	2006	7,760,508 (47.0)	1,700,041 (19.6)	9,460,549 (41.2)
8	2007	5,827,518 (-24.9)	2,015,128 (18.5)	7,842,646 (-17.1)
9	2008	6,729,349 (15.5)	2,125,465 (5.5)	8,854,814 (12.9)
10	2009	7,021,509 (4.3)	2,161,577 (1.7)	9,183,086 (3.7)
11	2010	7,562,623 (7.7)	2,508,289 (16.0)	10,070,912 (9.7)

12	2011	7,900,000 (4.5)	2,881,862 (14.9)	10,781,862 (7.1)
13	2012	8,250,000 (4.4)	3,584,307 (24.4)	11,834,307 (9.8)
14	2013	8,518,753 (3.3)	4,210,165 (17.5)	12,728,918 (7.6)
15	2014	9,004,437 (5.7)	4,502,775 (7.0)	13,507,212 (6.1)
16	2015	9,678,992 (14.5)	4,775,231 (6.1)	14,454,223 (7.0)
17	2016	10,642,081 (9.9)	5,011,712 (5.0)	15,653,793 (8.2)
18	2017	10,864,368 (2.0)	5,602,157 (11.8)	16,466,525 (5.2)
Average Annual Compound Growth Rate (%)		381.4% (21.18)	282% (15.66)	336.5% (18.70)

Note: i. Total number of tourists is the sum of number of domestic and foreign tourists in a particular year under consideration.

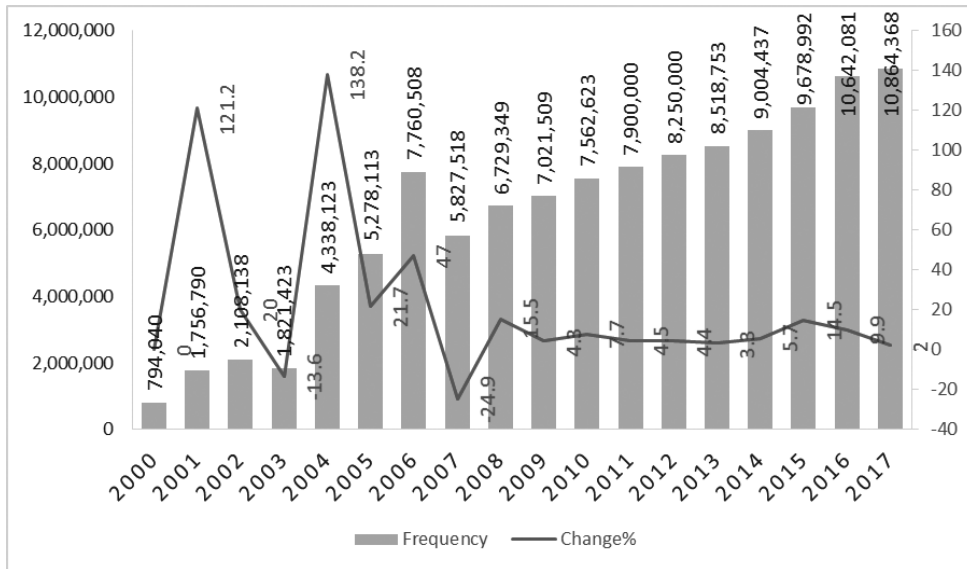
ii. Figures in the parentheses represent change in percentage compared to previous year.

Source: i. Ministry of Tourism, Royal Government of Cambodia

ii. Own computation.

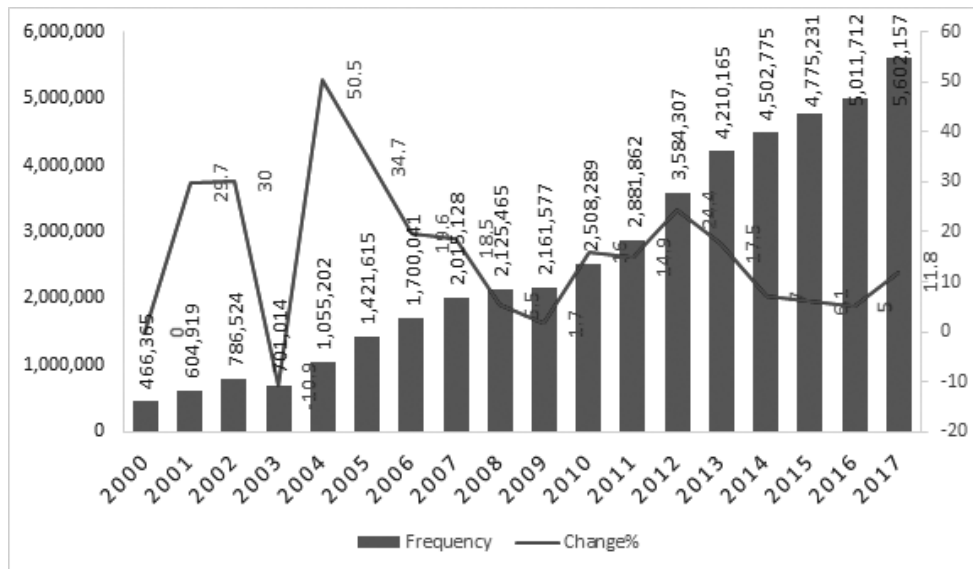
As revealed from the data, the total number of domestic tourists in the country had reached 10,864,368 in 2017 from 794,040 in 2000 resulting an increase of 381.4 percent over a period of 18 years. Further, the average annual compound growth rate was estimated to be 21.18 over the period of study. The number of domestic tourists' inflow had continuously been increased over the study period (2000 to 2017), except only for two years, i.e., 2003 and 2007. As such, as compared to 2002, in 2003 the percentage change was -13.6 and in 2007 as compared to 2006 it was -24.9 percent. Among 18 years, while the percentage change of domestic tourists was found to be the highest (138.2 percent) in 2004, it was the lowest (2.0 percent) in 2017 over 2016. The inflows of domestic tourists along with their year-wise change in percentage over the study period is shown in Figure 7.1.1 (A).

Figure 7.1.1. (A)
Number of Domestic Tourists along with Year-wise
Change in Percentage (2000 to 2017)



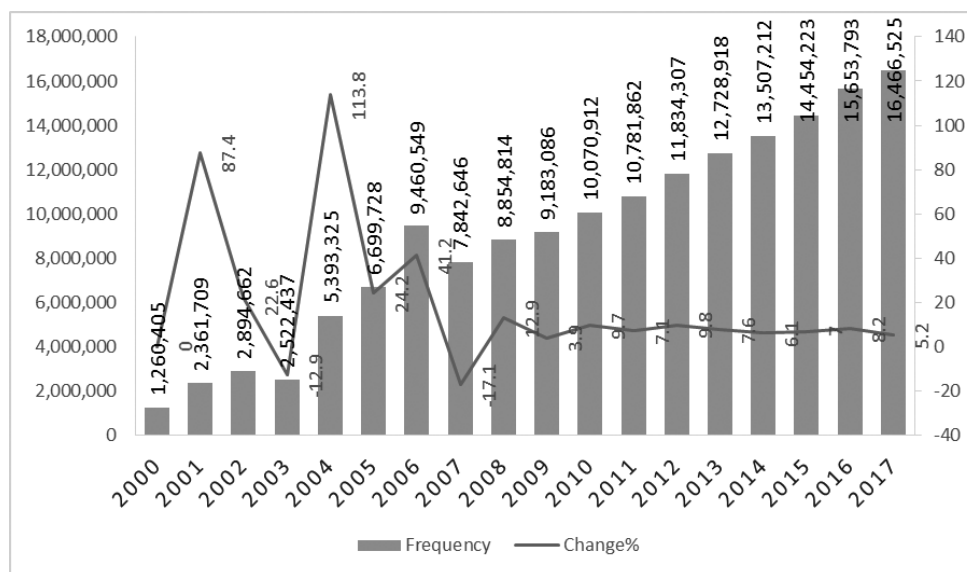
In the present environment, increased travel across the globe has been driven by growth in real incomes; greater amounts of leisure time; improved and highly accessible transportation systems; ongoing international business linkages, highly effective communication systems; and a significant number of new tourism services. Over the period 2000 to 2017, except the year 2003, there had been a continuous increase in the inflows of foreign tourists in the country. In the year 2003, the number of foreign tourists had decreased as compared to 2002 and as such the change in percentage was -10.9. While in 2000 the number of foreign tourists was 466,365, it had reached to 5,602,157 in 2017 showing thereby an increase of 282 percent over the above periods. Among all the years under study, the highest percentage (50.5 percent) increase of foreign tourist inflows was observed in 2004 followed by 34.7 percent in 2005. Similarly, over the study period, the lowest percentage (1.7 percent) increase in the inflows of foreign tourists was observed in 2009. On the whole, the average annual compound growth rate of foreign tourists was estimated to be 15.66. The inflows of foreign tourists along with their year-wise change in percentage over the period 2000 to 2017 is shown in Figure 7.1.1 (B).

Figure: 7.1.1. (B)
Number of Foreign Tourists along with Year-wise Change in Percentage
(2000 to 2017)



With regard to the inflows of tourists as a whole (both domestic and foreign tourists), it has been revealed from the data that over the study period (2000 to 2017), the total number of tourists in the country in 2017 had reached 16,466,525, whereas, it was 1,260,405 in 2000. This had led to an increase of 336.5 percent over a period of 18 years. However, in two different years such as 2003 and 2007, the inflows of total tourists had fallen compared to their respective previous years. While in 2003 there was a decline in inflows of both domestic and foreign tourists, in 2007, there was only a fall in the inflows of domestic tourists which led to a fall in the inflows of total number of tourists. Therefore, as compared to 2002, in 2003, the percentage change of tourists' inflows was -12.9 and in 2007 it was -17.1 as compared to 2006. Over the 19 years study period, the percentage change of total tourists was found to be the highest (113.8 percent) in 2004 followed by an increase of 87.4 percent in 2001. The lowest percentage (3.7) change of the inflows of total tourists was found in 2009 as compared to its previous year 2008. Overall, the average annual compound growth rate of the inflows of total tourists was estimated to be 18.70. The inflows of total tourists along with their year-wise change in percentage is shown in Figure 7.1.1 (C).

Figure: 7.1.1. (C)
Number of Total Tourists along with Year-wise Change in Percentage
(2000 to 2017)



7.1.2. Year-wise Growth of Tourism Income in Cambodia

To analyze the growth of the tourism sector in the country, besides inflows of tourists, income generated from tourism sector has been taken into consideration. As revealed from the data, except the year 2009, in all other years there had been a continuous increase in the income generated from the tourism services in the country. In 2009, though there was an increase in the number of tourists compared to 2008, but the fall in tourism income might have been due to less expenses made by the tourists. As compared to the year 2008, in 2009 due to the fall in the tourism income the percentage change was -2.1. It is interesting to further note that in spite of the fall in the inflows of tourists in 2003 and 2007 as compared to their respective previous years 2002 and 2006, the income generated by the tourism sector had experienced an increase in both the above years. Among all the years under study, the highest percentage (47.7 percent) increase in tourism income had been observed in the year 2004 followed by 33.5 percent in 2007 as compared to their respective previous years. Similarly, the least percentage (3.3 percent) increase in tourism income had been observed in 2003 as compared to 2002. Overall, the average annual compound growth rate of tourism income was found to be 14.56. The tourism income over the study period along with year-wise variations of income and changes in percentage

of income are presented in Table 7.1.2. In addition, Figure 7.1.2 shows year-wise tourism income along with change in percentage of income.

Table 7.1.2.
Growth of Tourism Income in Cambodia (2000 to 2017)

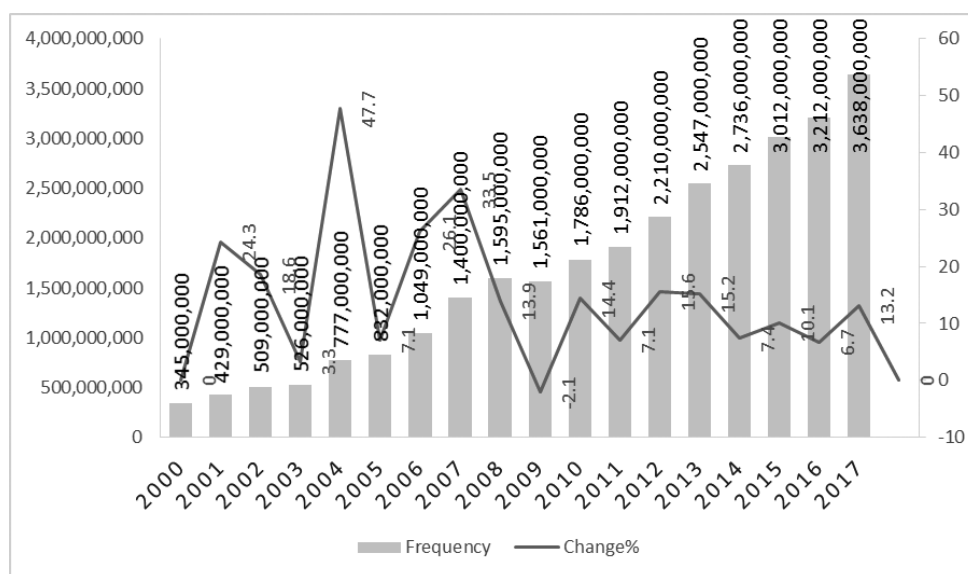
Sl. No.	Year	Tourism Income (USD)	Variation (USD)	Percentage Change
1	2000	345,000,000	-	-
2	2001	429,000,000	84,000,000	24.3
3	2002	509,000,000	80,000,000	18.6
4	2003	526,000,000	17,000,000	3.3
5	2004	777,000,000	251,000,000	47.7
6	2005	832,000,000	55,000,000	7.1
7	2006	1,049,000,000	217,000,000	26.1
8	2007	1,400,000,000	351,000,000	33.5
9	2008	1,595,000,000	195,000,000	13.9
10	2009	1,561,000,000	-34,000,000	-2.1
11	2010	1,786,000,000	225,000,000	14.4
12	2011	1,912,000,000	126,000,000	7.1
13	2012	2,210,000,000	298,000,000	15.6
14	2013	2,547,000,000	337,000,000	15.2
15	2014	2,736,000,000	189,000,000	7.4
16	2015	3,012,000,000	276,000,000	10.1
17	2016	3,212,000,000	200,000,000	6.7
18	2017	3,638,000,000	426,000,000	13.2

Average Annual Compound Growth Rate (%)	261.1% (14.56)	-	-
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Source: i. Ministry of Tourism, Royal Government of Cambodia.

ii. Own computation.

Figure: 7.1.2.
Year-wise Growth of Tourism Income along with Change in Percentage (2000 to 2017)



7.1.3. Year-wise Growth of Tourism Employment in Cambodia

The tourism sector has been considered as a major source of creating job opportunity for the people in Cambodia. It is a major contributor to employment creation particularly for women, youth, migrant workers, rural communities and indigenous people. Compared to other sectors of the global economy, the tourism industry is one of the fastest growing, accounting for more than one-third of the total global services' trade. The high intensity of labor within the industry, making it a significant source of employment and placing it among the world's top creators of jobs. According to the World Travel and Tourism Council data, in 2017, tourism directly created over 120 million jobs (3.8 per cent of total employment representing 3.2 per cent of total GDP) and supported (directly and indirectly) a total of 312 million jobs.

As travel across the globe has been increasing, more and more people are employed to service the needs of the tourists. Thus, the more visitors go to a destination, the more hotels, restaurants, and ancillary tourism services are needed and the more jobs in travel and tourism are created. The benefits of the travel and tourism related jobs are then further multiplied through the economy to the suppliers that support the industry. As such, tourism development is welcomed by local population as it generates stable employment and income while promoting cultural heritage and traditions. The tourism employment in Cambodia over the study period (2000 to 2017) along with year-wise variations of employment and changes in percentage of employment are presented in Table 7.1.3.

Table 7.1.3.
Growth of Tourism Employment in Cambodia
(2000 to 2017)

Sl. No.	Year	Tourism Employment	Variation	Percentage Change
1	2000	315,000		
2	2001	390,400	75,400	23.93
3	2002	441,500	51,100	13.08
4	2003	378,000	-63,500	-14.38
5	2004	523,500	145,500	38.49
6	2005	592,200	68,700	13.12
7	2006	612,200	20,000	3.37
8	2007	580,300	-31,900	-5.21
9	2008	560,900	-19,400	-3.34
10	2009	638,100	77,200	13.76
11	2010	761,400	123,300	19.32
12	2011	917,700	156,300	20.52
13	2012	996,000	78,300	8.53
14	2013	1,018,000	22,000	2.20
15	2014	1,047,000	29,000	2.84
16	2015	1,116,000	69,000	6.59
17	2016	1,131,000	15,000	1.34
18	2017	1,225,000	94,000	8.31

Average Annual Compound Growth Rate (%)	8.47	-	-
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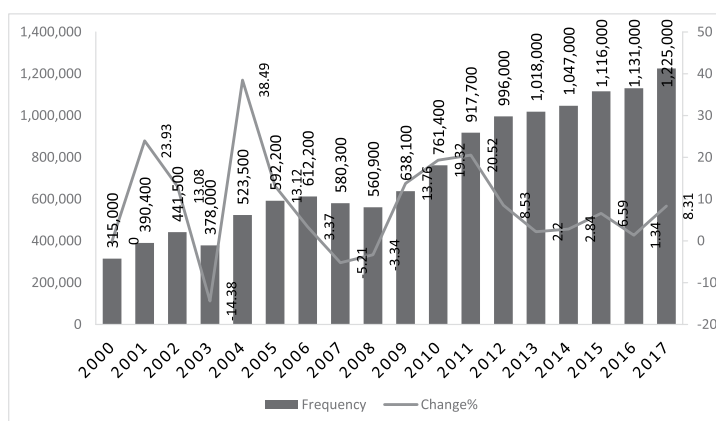
Source: i. World Travel & Tourism Council Data, 2018

ii. Own computation.

As revealed from the data, over the study period, 2000 to 2017, there had been a continuous increase in the employment created by the tourism industry in Cambodia in spite of fall in tourists' inflow in 2003 and 2007 and 2008. While the tourism industry had employed only 315,000 in the year 2000, it had gone up to 1,225,000 in 2017. As compared to the year 2003, in 2004, the percentage change of tourism employment was the highest (38.49 percent) followed by 23.93 percent in 2001. In 2016 as compared to 2015, the percentage change of employment was the lowest (1.34 percent). Overall, the average annual compound growth rate of tourism employment was found to be 8.47. Figure 7.1.3 shows year-wise tourism employment along with change in percentage of employment over the study period 2000 to 2017.

Figure: 7.1.3.

Year-wise Growth of Tourism Employment along with Change in Percentage (2000 to 2017)



Thus, from the above analysis, it is revealed that over the study period tourism industry has experienced a significant growth in terms of inflows of both domestic and foreign tourists, generation of income and employment in the country.

7.2. Role of Tourism Sector in Economic Development of Cambodia

Tourism is a driving force for economic growth and development. Being a major contributor to employment creation, it leads to the reduction of poverty and the promotion of socio-economic development of the nation. Today, the potential of the tourism industry to contribute to economic and social development has been widely recognized around the world. Thus, one of the primary motivations for a region to promote itself as a tourism destination is the expected economic improvement. Considering the case of Cambodia, to know the impact of tourism sector on economic development of the country, tourism income and tourist's inflow (domestic, foreign and total) are taken as independent variables and total revenue, tax revenue and per capita GDP are considered as dependent variables. The results of the regression model used in this study are presented below.

Assumption Check

Based on the time series data over period from 2000 to 2017, the test assumption is conducted for the goodness of model including normal data test, heteroskedasticity, and serial correlation (Autocorrelation) check.

(A) Shapiro-Wilk Check

A non-graphical test is the Shapiro-Wilk test for normality. It tests the hypothesis that the distribution is normal, in this case the null hypothesis is that the distribution of the residuals is normal. This is revealed from the corresponding normality test, Z and 'p' values of the residuals of three dependent variables (total revenue, tax revenue, and GDP per capita) as shown in Table 7.2.1(A). the Z value of Shapiro-Wilk of total revenue (U), Tax revenue (H), GDP per capita (E), p values are 0.65, 0.15 and 0.36, all are larger than 0.05. Thus, their null hypotheses (Ho) "Residuals are normally distributed" are accepted; they failed to reject the null (at 95%). Thus, they conclude then that residuals are normally distributed.

(B) Serial Correlation Check

The result of the time series variables has no serial correlation. This revealed from the corresponding autocorrelation (Durbin's alternative) test, the p-values as

shown in the table 7.1.2(C1) are larger than 0.05. Thus, the null hypotheses “the residuals are not serially correlated (autocorrelated)” are accepted.

Table (C1) Durbin’s alternative test for autocorrelation			
Lag (p)	Chi2	df	Prob>chi2
(Total Revenue) Lag (p)1	0.659	1	0.417
(Tax Revenue) Lag (p) 1	0.003	1	0.960
(GDP Per capita) Lag (P)1	0.860	1	0.353

Ho: no serial correlation

For reconfirming assumption, another autocorrelation check (Breusch-Godfrey LM test) was performed. The result of the time series variables has no serial correlation. The results presented in the table 7.1.2(C2) shown that the p-values of the three dependent variables; total revenue tax revenue and GDP per capita are larger than 0.05 . Thus, the null hypothesis “the residuals are not serially correlated (autocorrelated) are accepted.

Table (C2) Breusch-Godfrey LM test for Autocorrelation			
Lag (p)	Chi2	df	Prob>Chi2
(Total Revenue) Lag (p) 1	0.885	1	0.346
(Tax Revenue) Lag (p) 1	0.004	1	0.952
(GDP Per capita) Lag (P)1	1.042	1	0.307

Ho: no serial correlation

Based on the result of serial correlation test shown that all the residuals of dependent Variables, total revenue, tax revenue, and GDP per capita has no serial correlation. Thus, the original time series data could be used to run regression equations, except , Total revenue and Tax revenue residuals need to add their lag (LagToRE, LagTaxRE) to the independent box to run the equation.

7.2.1. Tourism Income and Economic Development

The tourism income (x) is considered as an independent variable to determine the extent of its contribution to Cambodia’s economic development which is shown in terms of total revenue, tax revenue and per capita GDP. The regression results show

that the tourism income had significant impact on the dependent variables such as total revenue, tax revenue and per capita GDP. This is revealed from the corresponding regression coefficient and its 't' and 'p' values as shown in Table 7.2.1. The regression coefficient of total revenue is 1.1118 and its 't' and 'p' values are 16.30 and 0.00 . Similarly, the regression coefficients of tax revenue and per capita GDP are 0.9712 and 3.22e-07 respectively. The corresponding 't' and 'p' values of the above two regression coefficients are respectively $t = 16.21$, $p = 0.00$ and $t = 31.93$, $p = 0.00$. The regression results indicate that the dependent variables, i.e., total revenue, tax revenue and per capita GDP had been significantly influenced by tourism income and the level of significance was at one percent. Hence, based on the above results, the null hypothesis **“Ho 1: Tourism income has no significant impact on total revenue, tax revenue and per capita GDP of Cambodia”** is rejected. In other words, it can be concluded that tourism income had significant impact on economic development of Cambodia.

Regression 1	Dependent Variable Total Revenue (TR)	$R^2 = 0.9432$ Ad. $R^2=0.9397$	$F = 265.70$ Sig. = 0.000
	Independent Variables Tourism Income (X)	Regression Coefficient	't' Value and Significant Level
		1.111899	$t = 16.30$ Sig. = 0.000
Regression 2	Dependent Variable Tax Revenue (TX)	$R^2 = 0.9426$ Ad. $R^2=0.9390$	$F = 262.69$ Sig. = 0.000
	Independent Variable Tourism Income (X)	Regression Coefficient	't' Value and Significant Level
		0.9712	$t = 16.21$ Sig. = 0.000
Regression 3	Dependent Variable Per Capita GDP (PCG)	$R^2 = 0.9846$ Ad. $R^2=0.9836$	$F = 1019.83$ Sig. = 0.000
	Independent Variable Tourism Income (X)	Regression Coefficient	't' Value and Significant Level
		3.22e-07	$t = 31.93$ Sig. = 0.000

Source: Own Computation.

7.2.2. Total Tourists Inflow to Economic Development

The regression results indicate that the dependent variables, i.e., total revenue, tax revenue and per capita GDP had been significantly influenced by the inflows of total tourists and the level of significance was at one percent. Thus, the null hypothesis **“Ho2: Total tourists’ inflows has no significant impact on total revenue, tax revenue and per capita GDP of Cambodia”** is rejected. It can be concluded that inflows of total tourists had significant impact on economic development of Cambodia.

Regression 1	Dependent Variable Total Revenue (TR)	$R^2 = 0.8209$ Ad. $R^2=0.8098$	$F = 73.36$ Sig. = 0.000
	Independent Variables Total Tourists (Z)	Regression Coefficient	‘t’ Value and Significant Level
		227.48	$t = -2.3158$, Sig. = 0.0375
Regression 2	Dependent Variable Tax Revenue (TX)	$R^2 = 0.9787$ Ad. $R^2=0.9754$	$F = 298.51$ Sig. = 0.000
	Independent Variable Total Tourists (Z)	Regression Coefficient	‘t’ Value and Significant Level
		-74.70848	$t = -3.05$, Sig. = 0.009
Regression 3	Dependent Variable Per Capita GDP (PCG)	$R^2 = 0.9812$ Ad. $R^2=0.9783$	$F = 339.59$ Sig. = 0.000
	Independent Variable Total Tourists (Z)	Regression Coefficient	‘t’ Value and Significant Level
		0.0000134	$t = 1.55$, Sig. = 0.146

Source: Own Computation.

7.2.3. Total Tourists Inflow and Tourism Income to Economic Development

Inflows of total tourists (Z) and tourism income (X) are considered as independent variables and total revenue (TR), Tax revenue (TX) and per capita GDP (PCG) as dependent variables.

The regression results presented in table 7.2.2 clearly show that the dependent variable, i.e., total revenue and GDP per capita had been significantly influenced by both the independent variables such as the inflows of total tourists to the country and tourism income as shown by R^2 value equal 98.48 and 98.55 percent, i.e., another independent variable are not mentioned in the current model only 1.52 and 1.45 percent (error terms). Moreover, the 'F' and 'p' values (F_1 : 281.65, F_2 : 508.43, and $p_{1,2,3}$: 0.000). As F-value is large means it determines that the outcome of the predictors is related to score in the population.

The regression results presented in table 7.2.2 clearly show that the dependent variable, total revenue had been significantly influenced by the independent variables, tourism income, except the inflows of total tourists had not been impacted on total revenue. The 't' and its 'p' values of the regression coefficients of the independent variables, i.e., tourism income indicate that the impact of the variables on total revenue is significant at five percent level of significance respectively. As such on the basis of this result the null hypothesis **“ H_{o3} : Total tourists' inflows and tourism income have no significant impact on total revenue of Cambodia”** is rejected. Thus, it can be concluded that inflows of total tourists and tourism income had significant impact on the economic development of Cambodia.

Further, it is revealed from Table 7.2.2 that the dependent variable, i.e., per capita GDP had been significantly influenced by both the independent variables such as the inflows of total tourists to the country and tourism income as shown by the 'F' and 'p' values ($F = 339.54$, $p = 0.000$). While the impact of the independent variable tourism income is found to be significant at the one percent level of significance on the dependent variable per capita GDP, the impact of total tourists has no significant impact on the dependent variable. Thus, when two independent variables are considered to examine their impact on the dependent variable per capita GDP, it is revealed that the impact of tourism income is found to be significant on per capita GDP, whereas, the impact of total tourists' inflows on per capita GDP is found to be not significant. However, the regression as a whole is found to be significant. Hence, the null hypothesis **“ H_{o4} : Total tourists' inflows and tourism income have no significant impact on per capita GDP of Cambodia”** is rejected. In other words, it can be concluded that inflows of total tourists and tourism income had significant impact on the economic development of Cambodia.

Table 7.2.3. Result of Three group of the Regression

Regression 1	Dependent Variable Total Revenue (TR)	$R^2 = 0.9448$ Ad. $R^2=0.9814$	$F = 281.65$ Sig. = 0.000
	Independent Variables Total Tourists (Z) Tourism Income (X)	Regression Coefficient	't' Value and Significant Level
		-47.64752 0.6434	$t = -2.3158$, Sig. = 0.263 $t = 2.28$ Sig. = 0.04
Regression 2	Dependent Variable Per Capita GDP (PCG)	$R^2 = 0.9855$ Ad. $R^2=0.9835$	$F = 508.43$ Sig. = 0.000
	Independent Variable Total Tourists (Z) Tourism Income (X)	Regression Coefficient	't' Value and Significant Level
		8.62e-06 2.84e-07	$t = 0.97$ Sig. = 0.348 $t = 7.00$ Sig. = 0.000

Source: Own Computation.

7.3. Conclusion and Implication

The analysis carried out in this chapter throws significant light on the growth of the tourism sector in Cambodia, South-east Asia, Asia & the Pacific as well as the world. In addition, it discusses the role of tourism in economic development of Cambodia. On the basis of the availability of data, indicators of tourism growth, such as inflows of domestic, foreign and total tourists; tourism income and employment created in the tourism sector over the period 2000 to 2017 were considered and the average annual compound growth rates were calculated to understand the growth of tourism over the study period. On the basis of the analysis, it is revealed that over the period 2000 to 2017, significant growth had taken place in the number of tourist arrival, tourism income and employment in the country. Further, it is revealed from the study that tourism income has significant impact on total revenue, tax revenue

and per capita GDP of Cambodia, domestic tourists' inflows have significant impact on tax revenue and per capita GDP of Cambodia, and foreign tourists' inflows have significant impact on total revenue, tax revenue and per capita GDP of Cambodia. In addition, total tourists' inflows have significant impact on total revenue, tax revenue and per capita GDP of Cambodia. While total tourists' inflows and tourism income have significant impact on total revenue of Cambodia, the impact of tourism income is found to be significant on per capita GDP of Cambodia. Thus, to sum up, it can be concluded that tourism positively contributes to the economic development of Cambodia.

Based on the result of the analysis, the policy-makers should develop appropriate policies for conserving and protecting each of the cultural and historic places in Cambodia. To attract more international tourists there is a need for destination diversification, including reinforcing Phnom Penh, Siem Reap as an important tourism destination; development of rural/ ecotourism; support for performing arts and historic restoration; and development of backward linkages with the agricultural sector. To improve tourism incomes, it is necessary to enhance tourists' supplies including enhancing network accommodation, restaurants, tour operators, safety and security, and other services relative to tourism sectors. These supplies provide tourism incomes through benefits, tax and employment.

Even though the tourism development is usually well known to positively benefit to the national GDP, and help to push economic growth, it cannot avoid from a negative impact especially on the social cultural environment and the economic sector. To reduce the negative impacts, all tourism sector authorities relevant take a clear strategic plan and well-being action plans to orient benefits by linking firmly with the rests of the direct and indirect economic to decrease leakages of the tourism benefits to the foreign countries.

7.4. Limitation and Future Research

To examine the role of tourism sector in economic development, dependent variables such as total revenue, tax revenue, per capita GDP have been taken into account. The study could have provided better results, had the dependent variables would have been more. Future researchers may consider to take into account other areas including Phnom Penh or Siem Reap to assess the potentiality of tourism development in the country.

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A STUDY ON DEVELOPMENT OF TOURISM IN PHNOM PENH

Dr. Tan Saroeun¹

Abstract

The Royal Government envisages Cambodia to be one of the world's greatest tourist destinations, based on the country's immense natural resources and fundamental of cultural heritage, magnificent architecture, meaningful history, natural environment and modest courtesy of the people of Cambodia.

The capital city Phnom Penh is one of the most attractive destinations of both the domestic and international tourists in the country. This is mostly because of Phnom Penh's rich cultural historic heritage, i.e., Royal Palace, National Museum, Toul Sleng Museum, French Colonial Construction, etc. In addition, it has a number of natural and man-made resources, sport/ recreation/ entertainment facilities, shopping and other tourist plant facilities. In 2017, Phnom Penh had attracted a total of 5,344,595 tourists, of which 2,656,869 were domestic and 3,144,875 were international tourists.

As compared to 2016, there was an increase of 12.1 percent international tourists to Phnom Penh. Further, compared to all other tourist destinations in the country, Phnom Penh as a single destination attracts maximum number of tourists. Thus, the current study surveyed 340 sample sizes by concentrating analysis of the existing natural and man-made tourist resources in Phnom Penh and their potentialities have been analyzed in a qualitative manner, i.e. tourist mode, strengths, weakness, opportunities and threats. Based on the primary data, the existing tourism patterns, arrivals and use patterns have been analyzed quantitatively. More over frequency, percent, mean were analysis both the main destinations and services for accommodation in Phnom Penh.

The result shown that most of the tourists came to Phnom Penh for holiday purposes. Moreover, the types of attractions are historical and cultural which visitors like the most. Most of the tourists impressed on the ancient history and art and culture of Phnom Penh. Finally, majority of the tourists need improvement in traffic and security provisions in Phnom Penh. Thus, the policy makers should consider the above result for designing suitable plans and policies to bring Phnom Penh as one of the most attractive destinations in Southeast Asia.

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1. Introduction

1.1. Background of Problem

Tourism has gained significant importance as one of the fastest growing industries of the world. Tourism is one of the valuable attributes to most developing nations, which can act as a pivot of vehicle for economic development. The importance of tourism as a contributor to economic growth is so widely accepted that throughout the world a massive and growing investment continues to pour into its development. With its economic and all other advantages, tourism can certainly play a determining role in the development of poorer economies like Cambodia, which suffer from high degree of social backwardness, low capital for investment besides, other socio-economic problems. Being an important economic activity, the growing importance assigned to tourism shows Cambodia's earnestness to attract more and more tourists from every corner of the World. It is the high time for Cambodia to go ahead with tourism development programs. The Ministry of Tourism encourages both domestic and foreign investors to invest in this sector which might ensure economic efficiency in responding to the conservation of cultural assets, environment, nature, customs and traditions.

1.2. Statement of Problem

Statemen Further, Cambodia had attracted 5,602,157 international tourists in 2017, an increase of 11.8 percent compared to 2016. The capital city Phnom Penh is one of the most attractive destinations of both the domestic and international tourists in the country. In 2017, Phnom Penh had attracted a total of 5,801,744 tourists, of which 2,656,869 were domestic and 3,144,875 were international tourists. As compared to 2016, there was an increase of 12.1 percent international tourists to Phnom Penh. Further, compared to all other tourist destinations in the country, Phnom Penh as a single destination attracts maximum number of tourists.

1.3. Research Questions

The study seeks to provide answers to the following questions:

- i. What are the natural and man-made tourist resources in Phnom Penh?
- ii. What are the potentialities of natural and man-made tourist resources in Phnom Penh?

- iii. What are the existing tourism patterns, arrivals and use patterns in Phnom Penh?
- iv. What are the existing problems and prospects of tourism development in Phnom Penh?

2. Objectives of the Study

The main objectives of the study are as follows:

- i. To identify the natural and man-made tourist resources in Phnom Penh;
- ii. To assess the potentialities of natural and man-made tourist resources in Phnom Penh;
- iii. To analyze the existing tourism patterns, arrivals and use patterns in Phnom Penh;
- iv. To identify and analyze the existing problems and prospects of tourism development in Phnom Penh; and
- v. To provide suggestions for the development of the tourism sector in the study area.

3. Significance of the Study

The result from the study aims to provide guidelines for future course of action to be followed by both public and private sectors to develop tourism sector in the country. The study intends to help the planners, policy makers, private entrepreneurs, community and above all the government in designing appropriate plans and policies for the development of tourism sector in the study area.

4. Literature Review

The purpose of the present section is to review the relevant literature with respect to the theme of research. For this purpose, the section is broadly divided into three parts.

4.1. Conceptual Literature

4.1.1. Definition of Tourism and its Potentiality for Development

Tourism is defined by the World Tourism Organization (1995) as “masses

who travel to and persist in places outside their common environment for more than twenty-four hours and not more than one consecutive year for leisure, business and other functions not related to the use of an activity remunerated from within the place visited.

Forms of Tourism²: There are three basic forms of tourism - domestic tourism, inbound tourism, and outbound tourism. These can further be combined in various ways to derive additional forms of tourism: internal tourism, national tourism and international tourism.

Focusing on the importance of tourism planning, Ayres (2000) stated that tourism planning is particularly important in the states which are highly dependent on the tourism sector and which have limited space capacity and natural recourses. Thus, as more regions and countries develop their tourism industry, it produces significant impacts on natural resources, consumption patterns, pollution and social systems.

Sustainable tourism should also maintain a high level of tourist satisfaction and ensure a meaningful experience to the tourists, raising their awareness about sustainability issues and promoting sustainable tourism practices amongst them. Ashley et al. (2001)³ established that the expression of the several strategies in the tourism development helps to generate income opportunities through creating employment for the communities.

4.1.2. Tourism Attractiveness of a Nation

In addition to specific plans and strategies, the kinds of asset a nation has can be used as the tourism products to attract the tourists. Saleh and Ryah (1993)⁴ describes activity participation are one of attractions to draw tourists to the destination.

Demographic profile such as age, gender, income, occupation, etc. are relevant to the segmentation of attractive destination inventories. Keeping in mind, researchers have to understand well the diversity of demographic characteristics. Several researchers have assumed that the main resources that attract tourists to

² UNWTO, *International Recommendations for Tourism Statistics 2008* (IRTS 2008).

³ C. Ashley, D. Roe & H. Goodwin, *Pro-Poor Tourism Strategies: Making Tourism Work for the Poor* (London: Overseas Development Institute, 2001).

⁴ F. Saleh & C. Ryah, "Jazz and Knitwear: Factors that attracts to Festivals," *Tourism Management* 14, no. 4 (1993): 289-297.

a destination are culturally and environmentally based. Gunn (1994)⁵ and Pearce (1987)⁶ suggested that the attractive destinations or resources such as natural, cultural, heritage/ historical components, supporting facilities, infrastructure, hospitalities, sports/ recreation activities, transportation/ accessibility, and cost should be considered as the factors for successful tourism development. Honey & Gilpin (2009)⁷ revealed that the more attractive the destination area than others, the satisfying demand for all tourists' characteristics that can encourage visitors to stick around longer.

As observed, natural amenities based on climatic characteristics, natural regions, outdoor recreation, broad views, and peaceful sunsets attract tourists. Natural amenities can be region-specific characteristics directly related with land and water resources. Marcouiller, et al. (2004)⁸ observed that the natural amenities involve aesthetics associated with forests and exposed space, water (lakes, rivers, and coastline), topography (mountains, canyons, and hills), and climate. Additionally, the instinctive and cultural historical resources; the agricultural harvest also includes the tourism resources for rural area (Arahi, 1998)⁹. Further, the author¹⁰ added that individual farmers who set up this type of farm may have creative business ideas of their own and area. For instance, visitors may be afforded the chance of going through life in a rural or mountain village, a fruit harvest, or casting a net to capture first. One type of interest has kitchen facilities so that visitors can prepare their own meals. Similarly, Crompton, Lee and Shuster (2001)¹¹ highlighted that tourism development creates diversity effects and contributes for the growth of basic sectors including local infrastructure, shipping, materials, agriculture, and fishery.

⁵ C. A. Gunn, *Tourism Planning* (London: Taylor & Francis, 3rd edition, 1994).

⁶ D. G. Pearce, "Toward Geography of Tourism," *Annals of Tourism Research* 6, no. 3 (1987): 245-272.

⁷ M. Honey & R. Gilpin, *Tourism in the Developing World: Promoting Peace and Reducing Poverty* (Washington: United States Institute for Peace, 2009).

⁸ D. W. Marcouiller, K. K. Kim & S. C. Deller, "Natural Amenities, Tourism and Income Distribution," *Annals of Tourism Research* 31, no. 4 (2004): 1031-1050.

⁹ Yutaka Arahi, *Rural Tourism in Japan: Regeneration of Rural Communities* (Tokyo, Japan: Rural Life Research Institute, 1998).

¹⁰ *ibid.*

¹¹ J. L. Crompton, S. Lee & T. J. Shuster, "A Guide to Undertaking Economic Impact Studies: The Spring-fest Example," *Journal of Travel Research* 40, no. 1 (2001): 79-88.

In addition to rich local resources, Blake and Gilliam (2001)¹² valued tourism development as based on commodities and services combined together with fixed dimensions. While, Kolb (2006)¹³ assessed that a successful tourism sector relies on food safety and security, health and hygiene, infrastructure along with training are equally important.

4.2. Empirical Literature

4.2.1. Tourism Potentiality for Development

Many under developed countries are not able to develop their economy through industrialization, but, fortunately, many of them have possessed various types of assets, natural and man-made considered to be potential for tourism development.

Yamauchi and Lee (1999)¹⁴ stated that the government of Lao PDR promotes tourism industry on the basis of its national cultural environment, national beauty and biological diversity, historical sites such as the ancient Khmer temples and the historic capital of Luang Prabang.

Considering the case of Cambodia, it should focus on the existing tourism assets along with proper caring of environment; careful manage of visitor flows to national parks, wildlife sanctuaries and other protected sites; protecting and managing forest resources in a sustainable way; and maintaining environmental health and safety standard by providing public education campaign for residents and tourists that can help control pollution. For attracting more tourists, cleanliness and environment are also important. Ross, et al. (2001)¹⁵ suggested that Cambodia should make better infrastructure such as a sewage treatment facility, a clean water distribution system, and environmental improvement. Clean and maintained environment while attract higher income tourists, polluted environment discourages them to visit the place.

¹² A. Blake & J. Gilliam, *A Multi-Regional CGE Model of Tourism in Spain*, paper prepared for the European Trade Study Group Annual Conference, Brussels, September 2001.

¹³ B. M. Kolb, *Tourism Marketing for Cities and Towns* (Oxford: Elsevier Limited, 2006).

¹⁴ S. Yamauchi & D. Lee, *Tourism Development in the Lao People's Democratic Republic* (New York: Department of Economic and Social Affairs, United Nations, 1999).

¹⁵ W. A. Ross, et al., "Cumulative Impact Assessment of Hotel Development in Siem Reap, Cambodia," *Community Tourism Destination Management: Principles and Practices*, Edited by Walter Jamieson, Saengsawang World Press Co. Ltd., 2001.

Tourism attraction does not only depend on the unique diversity of tourism assets, the quality of services also contributed towards its achievement. With regard to the elements of attaining the tourists' attraction, there is a need for systematic planning from the country government. World Bank Group (2005)¹⁶ highlighted that the sustainable tourism plan could include the elements such as destination diversification, including reinforcing Phnom Penh as an important tourism destination; development of rural/ ecotourism; support for performing arts and historic restoration; and development of backward linkages with the agricultural sector.

Vannarith (2009)¹⁷ examines the role of state in tourism development policies in post conflict Cambodia by discussing the speeches made by Prime Minister Hun Sen in respect of tourism development policies in Cambodia. Twenty-eight speeches were identified and analyzed under the framework of textual analysis and the discourse of power. Nine factors were determined in the context of tourism development: security and safety for tourists; infrastructure and tourism facilities development; stakeholders' collaboration; cultural heritage preservation; environmental protection; human resources development; tourism products promotion; simplification of travel procedures; and regional cooperation.

5. Methodology

The aim of this part is explained seven sections. The first section explains the type of analysis carried out in the study, while in the second, third and fourth section, explanations on sample design, types and sources of statistic and statistical tools used in the study. Subsequently, section five, six and seven includes explanations on procedure of data analysis, procedure of data collection. At the end of this chapter, a concluding remark is given.

5.1. Type of Analysis

The both qualitative and quantitative analysis have been done to analyze the existing problems and prospects of tourism development in the study area. The analysis of the existing natural and man-made tourist resources in Phnom Penh

¹⁶ World Bank Group, *Corporate Responsibility and the Tourism Sector in Cambodia* (Phnom Penh: Cambodia, 2005).

¹⁷ C. Vannarith, "State and Tourism Planning: A Case Study of Cambodia," *Tourism* 4, no. 1 (2009): 63-82.

and their potentialities have been analyzed in a qualitative manner. Thus, the study has employed both qualitative and quantitative methods of analysis as per its set objectives.

5.2. Sample Design

To carry out the present study in the capital city of Phnom Penh, the sample size (number of domestic and international tourists) has been determined on the basis of the following formula:

$$n_o = \frac{Z^2 pq}{e^2} \quad \text{Where,}$$

n_o = Sample size of the study (tourists)

Z = Standard normal variate (at 95 percent confidence level, Z value is 1.96)

e = Margin of error (assumed as) 5 percent, i.e., 0.05

P and q are the percentages of domestic and international tourists to total tourists in a given year (2017) respectively.

Further, considering the same percentage representation of both domestic and international tourists to total tourists, the sample sizes of domestic and international tourists have been determined as 228 and 114 respectively.

5.3. Sources of Data

The domestic and international tourists have been picked up from five different tourist destinations such as Royal Palace, National Museum, Independent Monument, Tual Slang Museum and Wat Phnom randomly and those who were willing to provide the information. Secondary data, have been collected from various sources for their use in this study. Both primary and secondary data collected for the purpose of the study have been processed and tabulated keeping the objectives of the study in the mind.

5.4. Procedure of Analyzing Data

The interrelationship among the data forms the basis for tabulation. For the purpose of analyzing the data, both tabular and graphical analysis have been carried out in the present study. Primary data for the purpose of this study have

been collected from the sample respondents, i.e., both domestic and foreign tourists through direct personal interview method by using a structured questionnaire.

5.5. Procedure of Data Collection

The questionnaire includes questions on several aspects relating to the theme of research such as the profile of the respondents, purpose of the visit, travel accompaniment, mode of transport to Phnom Penh, accommodation facilities, tourist facilities and complexes, tourism promotional facilities, prices being charged, etc. Before finalizing the questionnaire for collecting the primary data from the sample respondents, the draft questionnaire has been pre-tested and necessary modifications have been carried out.

6. Resource Potential for Tourism Development

6.1. Resource Potential Assessment of Phnom Penh

To assess the resource potential, several studies have been made in this direction but these studies focused on a specific area, resource, resource clusters, tourist activities or tourist market. Resource Potential Assessment of Phnom Penh et al., (1977) for British Columbia, Ferrario (1978) for South Africa and Mill & Morrison (1985) for the Ontarian region needs a retailoring of the method approach to suit the study area, i.e., Phnom Penh which is comparatively an altogether different region from its tourist resource potential point of view.

6.2. Criteria for Resource Potential Assessment of Study Area- Phnom Penh

Major tourist attractions in the capital city of Phnom Penh are the Royal Palace, the national museum, the view of the Mekong river, and the surrounding areas with its mountains, forests, lakes, and streams. The Great Capital Area consisting of Phnom Penh Municipality and Kandal province is located on the delta of four large rivers- Tonle Sap River, Upper and Lower Tonle Mekong Rivers, and Tonle Bassac River, and the south of Kandal borders of Vietnam.

The Wat Ounalom or the Ounalom Pagoda can be regarded as the most important pagoda in all of Phnom Penh, since it is the headquarters of the Buddhist patriarchate of Phnom Penh and was also the home of the Buddhist Institute and library until 1999. About 18 kilometers from Phnom Penh, turn off National Rouge

5 at Phsar Prek Phnev, the market, and continue several kilometers down the unpaved road through fields of lotus blossoms and rice paddies, Phnom Preseth is plainly visible from the road north of Phnom Penh off by Road No 5. The large new structure of the old of the mountain ridge is believed to be a new resting place of a Buddha relic formerly housed in a structure at the front of the Phnom Penh railway station. 35 kilometers south of Phnom Penh is the Tonle Bati, where local people as well as foreign visitors can visit Ta Prohm temple dedicated to Brahmanism and Buddhism. Beside this, Phnom Penh has reformed its face into fresh environment and colorful places along the road and bank of the river for visitors to relax and make exercise in the morning and afternoon, such as: This public garden located on a 5,500 sq meter was previously the parking space of NAGA ship and recently is the ferry port for Phnom Penh - Ary Ksat .

Further, Phnom Penh has connected the other Asean borders, such as

Corridor 1: NR5 and NR1 connecting Bangkok/Thailand with Ho Chi Minh City, Vietnam via Poi pet, Sisophon, Battambang, Phnom Penh and Bavet.

Corridor 2: NR7, NR6 and NR4 connecting of Southern port to Southern Lao via Phnom Penh, Kampong Cham, Kratie, Stung Treng and Voeun Kham.

Corridor 3: (NR 48) connecting NR4 with Thailand, eastern sea-board via Koh Kong Hat Lek/ Cham Yeam (Thai / Cambodia border) – Sre Ambel.

The road connected Route 4 and Kaoh Kong. The road has been rehabilitated to laterite pavement by Thai army support. There are four missing bridged on the route. The road is another important route directly leading to the Eastern Seaboard of Some airline companies have been flying directly to Phnom Penh Airport such as Air Asia, Angkor Airlines, Bangkok Airways, Cathay Pacific, China Airlines, China Southern Airlines, Korean Air, Malaysia Airlines, Shanghai Airlines Singapore Airlines, Thai Airways, and International Vietnam Airlines.

The Cambodian railway system consists of 621 kilometers of track, including a 385 kilometers Northern Line constructed between 1929 and 1942, which runs from Phnom Penh to Poipet in the north-west, and a 236 kilometers Southern Line built in the late 1960s, which runs from Phnom Penh to seaport at Sihanouk Ville Long-term development plans include the construction of a 225 kilometers line from Phnom Penh to Loc Ninh in Viet Nam, a 105 kilometers line from Sisophon to Siem Reap, the installation of modern repair and maintenance equipment, and human-resource development. The road is another important route directly leading

7. Tourist Traffic Trends and Use Patterns in Phnom Penh

The main purpose of this section is to present tourist traffic trends and use patterns in the study area, i.e., Phnom Penh.

The data analysis includes opinion of the tourists about main purpose of the trip, tourists interest for travelling to Phnom Penh, tourists consideration of Phnom Penh as the main destination, travel accompaniment of tourists, types of attraction tourists like to visit, tourists attraction in Phnom Penh and around, opinion of tourists towards the main attractions, tourists opinion towards the facility services, satisfaction and suggestions of tourists on facility services, impression of tourists about the trip and suggestions of tourists on various aspects for improvement.

7.1. Inflows of Tourists to Cambodia and Phnom Penh

Over the last one decade there has been a continuous increase in the number of tourists visited to Cambodia. In 2017, the total number of tourists visited was 16,339,645, whereas, it was 15,653,793 in 2016. Thus, there has been an increase of the visit of 685,852 tourists to the country in 2017 as compared to the previous year. Similarly, in 2017 an increase of 457,149 international tourists visited the country as compared to 2016 and as such the international tourists' arrival rose to 5,602,157. Further, in 2017, the number of domestic tourists rose to 10,864,368 from 10,642,081 in 2016.¹⁸ Thus, as shown in the statistics, over the last one decade, Cambodia has been able to attract more and more tourists from year to year. While a detailed discussion of the inflows of tourists to Cambodia has been carried out in the next chapter, in this section, inflows of domestic, foreign and total tourists have been made (Table 7.1)

Table 7.1.
Inflows of Domestic, Foreign and Total Tourists to Phnom Penh
(2000 to 2017)

Sl. No.	Year	Number of Domestic Tourists	Number of Foreign Tourists	Number of Total Tourists
1	2000	324,534	264,649	589,183

¹⁸ Department of Statistics, Ministry of Tourism, Royal Government of Cambodia, 2000-2015.

2	2001	431,152 (32.85)	274,689 (3.79)	705,841 (19.7)
3	2002	551,417 (27.89)	320,187 (16.56)	871,604 (23.48)
4	2003	441,134 (-19.99)	269,674 (-15.77)	710,808 (-18.44)
5	2004	1,330,000 (201.49)	316,748 (17.45)	1,646,748 (131.67)
6	2005	2,500,000 (87.96)	403,296 (27.32)	2,903,296 (76.30)
7	2006	3,898,100 (55.92)	523,670 (29.84)	4,421,770 (52.30)
8	2007	1,747,321 (-55.17)	691,428 (32.03)	2,438,749 (-44.84)
9	2008	1,785,442 (2.18)	849,642 (22.88)	2,635,084 (8.05)
10	2009	1,973,370 (10.52)	1,163,493 (36.93)	3,136,863 (18.66)
11	2010	2,001,850 (1.44)	1,203,033 (3.39)	3,204,883 (2.16)
12	2011	2,124,065 (6.10)	1,307,498 (8.68)	3,431,563 (7.07)
13	2012	1,984,612 (-6.56)	1,520,971 (16.32)	3,505,583 (2.15)
14	2013	2,204,573 (11.08)	1,972,879 (29.71)	4,177,452 (19.16)
15	2014	2,257,498 (2.40)	2,151,838 (3.53)	4,409,336 (5.55)

16	2015	2,273,150 (0.69)	2,650,368 (23.16)	4,923,518 (11.66)
17	2016	2,538,157 (11.65)	2,806,438 (5.88)	5,344,595 (8.55)
18	2017	2,656,869 4.67	3,144,875 (12.05)	5,801,744 (8.55)
Average Annual Compound Growth Rate (%)		34.07	21.86	28.21

Note: i. Total number of tourists is the sum of number of domestic and foreign tourists in a particular year under consideration.

ii. Figures in the parentheses represent change in percentage compared the previous year.

Source: Department of Statistics, Ministry of Tourism, Royal Government of Cambodia, 2000-2017 and Own computation.

7.2. Primary Data Analysis – Tourist Traffic Trends and Use Patterns

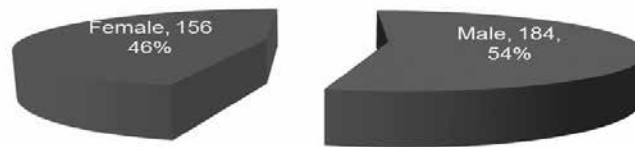
While in the first part, a detailed profile of the sample respondents has been presented, in the second part, purpose of the visit, travel accompaniment, mode of transport to Phnom Penh, accommodation facilities, tourist facilities and complexes, tourism promotional facilities and prices being charged are analyzed.

7.2.1. Profile of the Sample Respondents

7.2.1.1. Gender of the Sample Respondents

Among 340 selected respondents, the percentage of male respondents was found to be slightly higher than their counterparts. While the representation of male respondents in the survey was 54 percent, it was 46 percent for female respondents as shown in Figure 7.2.1.1.

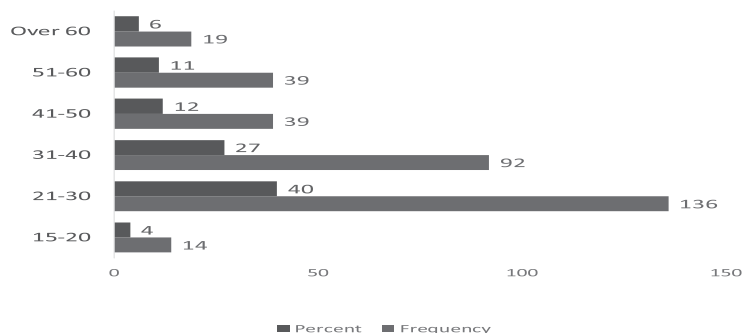
Figure 7.2.1.1.
Distribution of Sample Respondents as per their Gender



7.2.1.2. Age of the Sample Respondents

Among 340 sample respondents, the highest, i.e., 40 percent was in the age-group of 21-30, followed by 27 percent in the age-group of 31-40. The lowest percentage sample respondents, i.e., 4 percent belonged to 15-20 age group. The other age-groups such as 41-50, 51-60 and over 60 years had the representation of 12 percent, 11 percent and 6 percent respectively. Thus, among the sample respondents' majority were young tourists as shown in Figure 7.2.1.2.

Figure 7.2.1.2.
Distribution of Sample Respondents as per their Age-groups

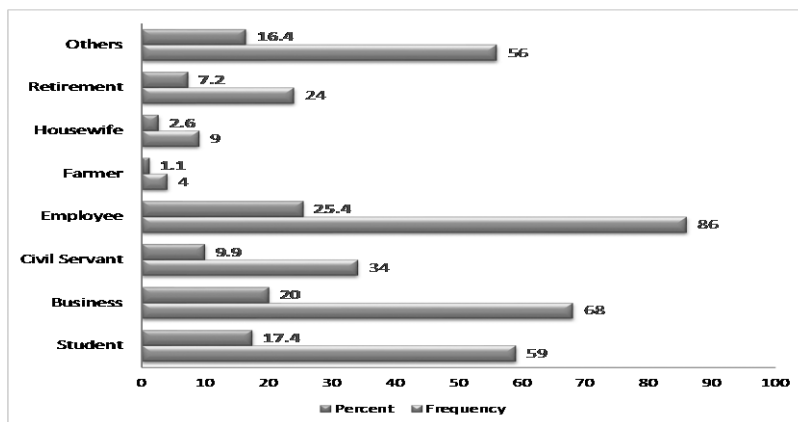


7.2.1.3. Occupation of the Sample Respondents

As revealed from the profile of sample respondents, the highest percentage, i.e., 25 percent respondents were employees followed by 20 percent involved in business activities. The remaining 17 percent undertook studies, 10 percent were

civil servants, 7 percent retired personnel, 3 percent were housewife, 1 percent was farmers and 17 percent were in other categories as shown in Figure 7.2.1.3.

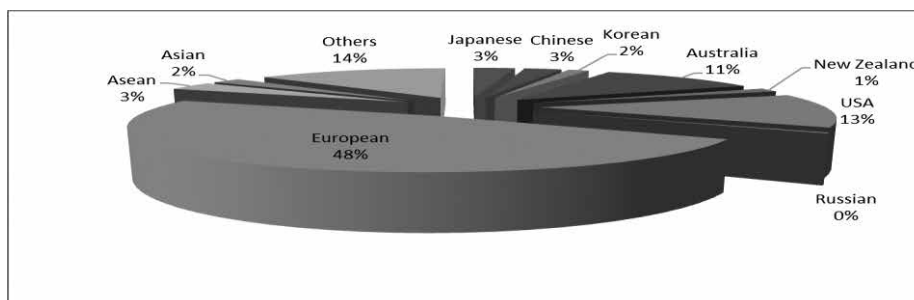
Figure 7.2.1.3.
Distribution of Sample Respondents as per their Occupation



7.2.1.4. Nationality of the Sample Respondents

So far, the nationality of the sample respondents is concerned, as shown in Figure 7.2.1.4 majority of the respondents, i.e., 48 percent belonged to European countries followed by around 13 percent from USA and 11 percent from Australia. However, the representation of other nations was quite limited. For example, around three percent each from ASEAN, China and Japan, two percent each from South Korea and other Asian countries, and one percent was from New Zealand. Also, the other countries representation was around 13 percent among the sample respondents.

Figure 7.2.1.4.
Distribution of Sample Respondents as per their Nationality



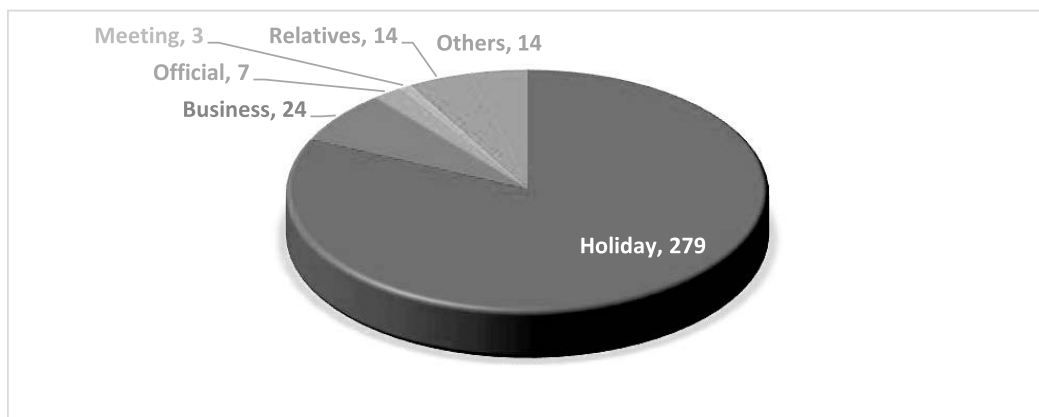
7.2.2. Tourist Traffic Trends and Use Patterns

To analyze tourist traffic trends and use patterns, the analysis focuses on the main purpose of the trip, the interest for travelling to Phnom Penh, tourists' consideration of Phnom Penh as the main destination, travel accompaniment, types of attraction tourists like to visit, tourists' attraction in Phnom Penh and around, opinion of tourists towards the main attractions, tourists' opinion towards the facility services, satisfaction of tourists on services, impression of tourists about the trip and suggestions of tourists on various aspects for improvement.

7.2.2.1. Main Purpose of the Trip

So far, the main purpose of the trip is concerned, the findings showed that the highest percentage sample respondents, i.e., 82 percent (279 respondents) visited Phnom Penh for 'holiday or to relax', followed by seven percent for business and four percent to meet their relatives. For official purpose, while two percent visited Phnom Penh, the lowest, only one percent sample respondents' visit to Phnom Penh was for 'meeting or seminar' purpose as shown in Figure 7.2.2.1

Figure 7.2.2.1.
Main Purpose of the Tourists' Trip

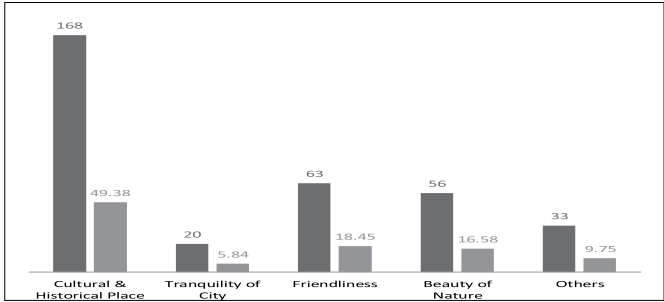


7.2.2.2. Main Interest for Traveling to Phnom Penh

Tourists normally travel to different destinations by keeping various interest in mind such as to visit historical place, tranquility of the place, friendliness of local people, beauty of nature and others. As shown in Figure 7.2.2.2, the survey revealed

that among 340 sample respondents, majority, i.e., 168 respondents' (around 49 percent) main interest of travelling to Phnom Penh was to visit the historical places, followed by around 19 percent for friendliness of local people and around 16 percent due to beauty of nature. The smallest percent respondents (around 3 percent) felt their visit to Phnom Penh is due to the tranquility of the city, whereas, the remaining around 10 percent for several other reasons.

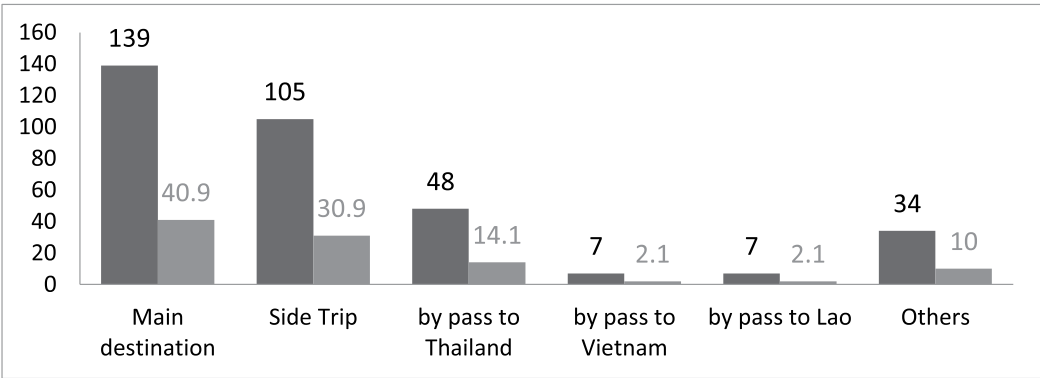
Figure 7.2.2.2.
Main Interest for Traveling to Phnom Penh



7.2.2.3. Tourists' Consideration of Phnom Penh as the Main Destination

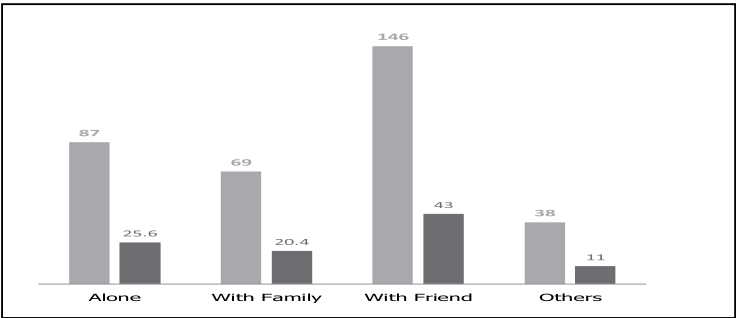
The survey revealed that majority of the tourists (41 percent sample respondents) visited Phnom Penh considering it as their main destination. While 31 percent considered Phnom Penh as a side trip, 14 percent and two percent each sample tourists travelled to Phnom Penh for passing to Thailand as well as Vietnam and Laos respectively as shown in Figure 7.2.2.3

Figure 7.2.2.3.
Tourists' Consideration of Phnom Penh as the Main Destination



7.2.2.4. Travel Accompaniment

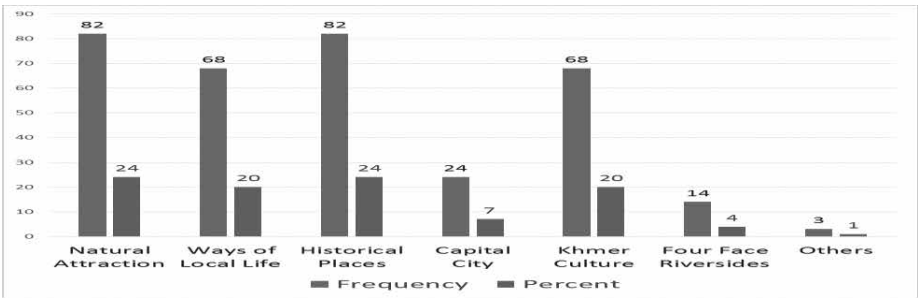
Relating to travel accompaniment, the analysis focuses on whether tourists’ like to travel alone, with family, with friends and others. The survey among 340 tourists revealed that majority of them, i.e., around 43 percent travelled to Phnom Penh with their friends, followed by around 26 percent tourists travelled alone and 20 percent with their families as shown in Figure 7.2.2.4.



7.2.2.5. Types of Attractions Tourists like to Visit

Different types of attractions like nature, ways of local life, historical places, capital city, Khmer culture, four face riversides, and others tourists like to visit. As per the findings of the survey, while most of the sample tourists expressed their likeness towards nature and historical places (each 24 percent), the lowest percent respondents, i.e., four percent felt four faces river sides attractions that they like to visit. Further, it is also observed from the Figure 7.2.2.5 that 20 percent of them each chosen the ways of local life and Khmer Culture as attractions that they like to visit.

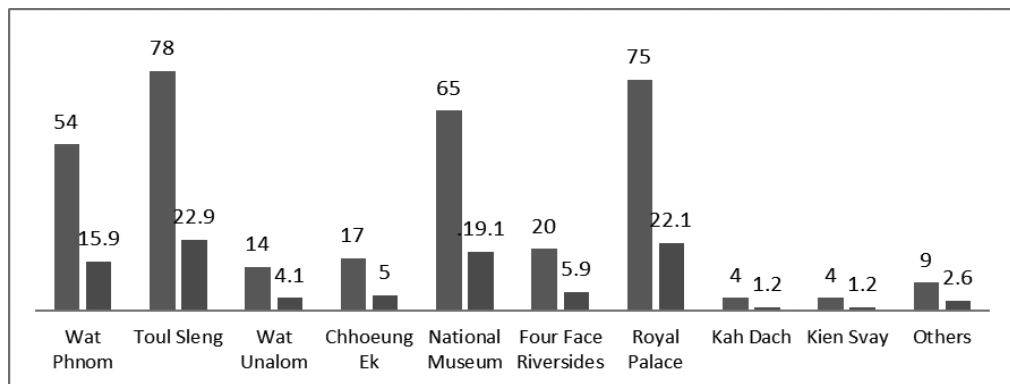
Figure 7.2.2.5.
Types of Attractions Tourists like to Visit



7.2.2.6. Tourists' attraction in Phnom Penh and Around it

From the responses of 340 sample tourists it is found that “Toul Sleng Genocidal Museum” was the most attractive as viewed by around 23 percent respondents, followed by 22 percent respondents’ favored Royal Palace, 19 percent chosen National Museum and for Wat Phnom 16 percent felt it as attractive. The lowest percent sample tourists opined “Kien Svay” and “Koh Dach” as attractive (Figure 7.2.2.6).

Figure 7.2.2.6.
Tourists' Attraction in Phnom Penh and Around



7.2.2.7. Tourists' Opinion towards the Main Attractions

To know about the opinion of the sample tourists towards the main attractions of Phnom Penh, the mean result shows that the values range from 2.92 to 2.45 indicating thereby the attractions were ‘good’ and ‘fair’ only. As the findings revealed, tourists considered attractions like Wat Phnom, National Museum, Royal Palace, Four Faces River, Toul Sleng, and others as ‘good’ and the remaining attractions such as Chhoeung Ek and Koh Dach tended to be ‘fair’ as shown Table 7.2.2.7 (A). Further, the sample tourists gave their suggestions on the tourists’ attractions as presented in Table 7.2.2.7 (B).

Table 7.2.2.7. (A)
Tourists' Opinion towards the Main Attractions

Types of attractions	$\bar{X}$	Interpretation
Wat Phnom	2.65	Good
National Museum	2.64	Good
Royal Palace	2.86	Good
Four faces of river	2.92	Good
Tual Sleng	2.77	Good
Chhoeng Ek	2.49	Fair
Kaoh Dach	2.45	Fair
Others	2.56	Good

4. Very good, 3. Good, 2. Fair, 1. poor

Table 7.2.2.7. (B)
Tourists' Suggestions towards the Main Attractions

Destination	Tourists' Opinion	Freq.	Destination	Tourists' Opinion	Freq.
Wat Phnom	- Shouldn't charge to enter the temple	43 (12.6)	Chhoeng Ek	- Too commercial	20 (5.9)
	- Need to clean	79 (23.2)		- More information	13 (3.8)
National Museum	-Guides are expensive	39 (11.5)	Toul Sleng Museum	-Poor Maintenance	111 (32.6)
	-More information is written for the objectives	111 (32.6)		-No action	25 (7.4)
Royal Palace	-Need better ticketing system	20 (5.9)		-More information about Khmer Rouge political ideology in English	42 (12.4)
	-Closed too early	119 (35)		-Equip hardware video	45 (13.2)

Riversides	-It's dirty, need to clean	70 (20.6)	Kah Dach	-Poor facilities	14 (4.1)
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7.2.2.8. Tourists' Opinion towards the Facility Services

To understand about the feeling of the tourists towards the services extended on different facilities, it has been revealed from the mean values as shown in Table 7.2.2.8 (A) that their opinion on these services ranged from 'fair' to 'good' level. While, about the guest house, hotel, food, guide, transportation, souvenir, and tourism personnel tended to be at 'good' level (mean values more than 2.5), communication and entertainment tended to be at 'fair' level (mean value below 2.5). In addition, sample tourists expressed their satisfaction as well as suggestions on different facility services as presented in Table 7.2.2.8 (B).

Table 7.2.2.8. (A)
Tourists' Opinion towards the Facility Services

No.	Services	$\bar{X}$	Interpretation
1	Guest house	2.66	Good
2	Hotel	2.61	Good
3	Food	2.72	Good
4	Guide	2.59	Good
5	Transportation	2.51	Good
6	Communication	2.40	Fair
7	Souvenir	2.93	Good
8	Entertainment	2.45	Fair
9	Tourism personnel	2.60	Good

Very good, 3-Good, 2- Fair, and 1- Need Improvement

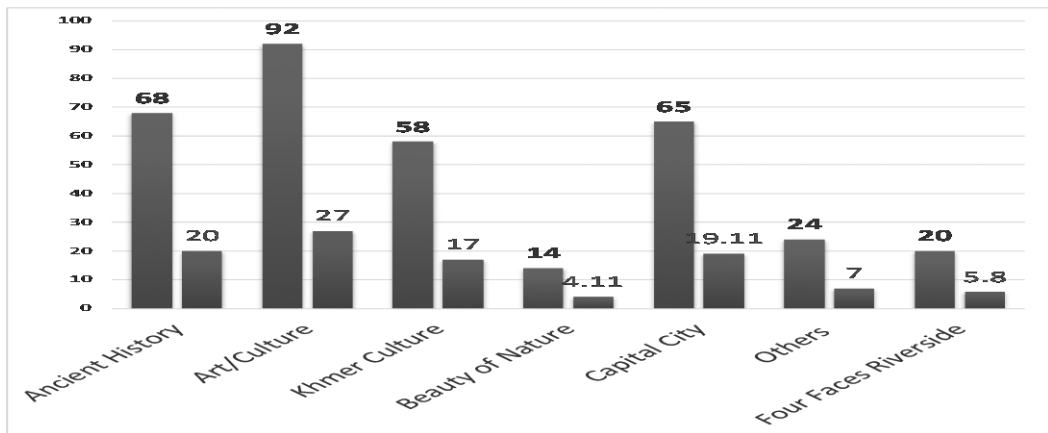
Table 7.2.2.8. (B)**Satisfaction and Suggestions of Tourists on Various Facility Services**

Services	Suggestions & Satisfaction	Freq.	Services	Suggestions & Satisfaction	Freq.
Guesthouse	- Lack of clean bathroom & toilet	18 (5.3)	Communication	-Only English, what about French?	17 (5.0)
	- Need transparency in information	16 (4.7)		-Improve English, language	15 (4.4)
	- Problem with water	26 (7.6)		- Slow internet	43 (12.6)
Hotel	- Need more improvement of services	20 (5.9)	Souvenir	-Trying to make too much money from tourists	57 (16.8)
Food	- More hygiene, sanitation	40 (11.8)		- Wrong price	45 (13.2)
Guide	-Difficult to understand their English	12 (3.5)		- Speaking lie	28 (8.2)
Transportation	-It's hard to travel, no public transport (bus, train) / Traffic Jam	70 (20.6)	Entertainment	- English sign	16 (4.7)
	-Expensive/ always try to take too much money	38 (11.2)		- Funny, but make afraid	41 (12.1)
	- Funny, but make afraid	30 (8.8)	Tourism personnel	-English Need to be improved	33 (9.7)

7.2.2.9. Impression of Tourists about the Trip

Tourists had different kinds of impression on their trip about art/culture, ancient history, beauty of nature, four face riversides, Khmer culture, capital city, and others. Most of the tourists (27 percent) impressed about ancient history, while the lowest percent (4 percent) respondents replied four face riversides. Besides, it is showed that 20 percent of them answered Art/Culture, 17 percent chosen beauty of nature, and only 7 percent interested on Capital City as shown in Figure 7.2.2.9.

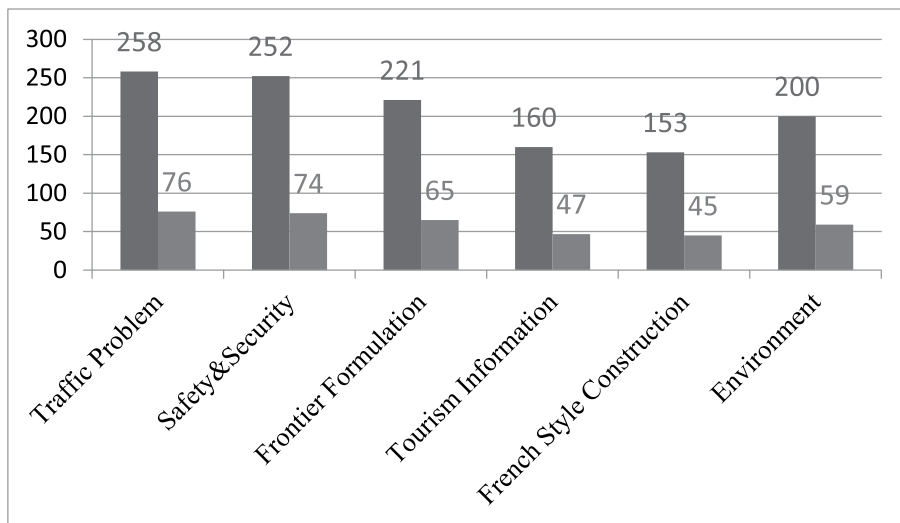
Figure 7.2.2.9.
Impression of Tourists about the Trip



7.2.2.10. Suggestions of Tourists on Various Aspects for Improvement

Tourists need improvement on various aspects including traffic problem, French style construction, tourism information, frontier formalities, safety and security, and the environment. The survey revealed that most of the sample tourists need improvement of the traffic problem (76 percent), followed by safety and security (74 percent) and frontier formulation (65 percent). Furthermore, tourists also felt the necessity of improving the environment (59 percent), tourism information (47 percent), and the last one is French style construction (45 percent) as shown in Figure 7.2.2.10.

Figure 7.2.2.10.
Suggestions of Tourists on Various Aspects for Improvement



7.3. Conclusion

The analysis performed in this chapter reflects significant light on the growth of the tourism sector in Phnom Penh, Cambodia. In addition, it discusses tourist traffic trends and use patterns in the study area. On the basis of the survey conducted among 340 sample tourists it is revealed that most of the tourists came to Phnom Penh for holiday purposes. Moreover, the types of attractions are historical and cultural which visitors like the most. Most of the tourists impressed on the ancient history and art and culture of Phnom Penh. Finally, majority of the tourists need improvement in traffic and security provisions in Phnom Penh. Thus, the policy makers should consider the above result for designing suitable plans and policies to bring Phnom Penh as one of the most attractive destinations in Southeast Asia.

8. Problems and Prospects of Tourism Development in Phnom Penh

8.1. SWOT Analysis

To understand the existing problems and prospects of tourism development in Phnom Penh, at first SWOT analysis has been carried out to know the strengths, weaknesses, opportunities and threats of tourism sector in the study area. The details of the analysis have been presented below:

8.1.1. Strengths

Phnom Penh is an ancient capital where rich and valuable cultural and historical places such as Wat Phnom Penh, National Museum, Royal Palace, Toul Sleng Museum, etc. exist. Besides, the ancient capital; some parts of territory become the modern building for market which contains diversity of items to serve tourists in shopping. More than two million people are living in Phnom Penh and most of them are employees in the private sectors and some are civil servants, and others make their own business.

8.1.2. Weaknesses

Phnom Penh has few limitations for grabbing the opportunities of attracting the tourists. One can experience several limitations in the city of Phnom Penh such as lack of public transportation in terms of adequate movement of buses, sky train, and others for tourists in the city cause traveling quite expensive.

8.1.3. Opportunities

The plan of starting the expansion of the national road No. 1, 4, 5, and 6 into highway of ASEAN can make the city more attractive for international tourists. The plan of one belt, one road of China, connecting 64 countries of Southeast Asia, Central Asia, South Asia, Europe, Middle East and North Africa can attract more tourists in future.

8.1.4. Threats

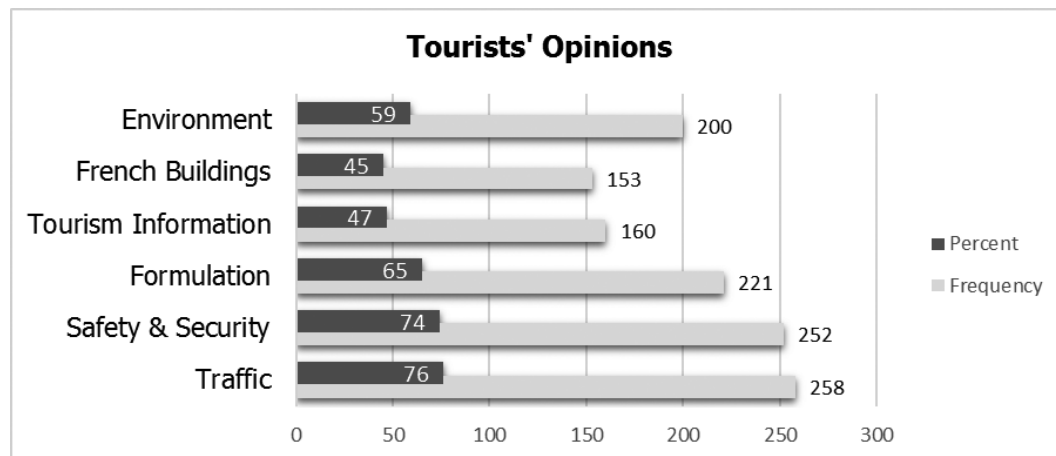
Even though the city has the rich natural and man-made assets for potential tourism development; Phnom Penh is faced with the threats from other challengers in the region that attract the tourists.

8.2. Problems of Tourism Development in Phnom Penh

According to the field survey carried out at the main destinations in Phnom Penh such as Wat Phnom, National Museum, Royal Palace, four faces Riverside, Toul Sleng Museum, etc. among the 340 tourists, 76 percent complaint for traffic problems such as traffic congestion and accidents in Phnom Penh followed by 74.4

percent complaint of security issues of the tourists such as street bag snatchers and robbery.

Figure 8.2.1.
Aspects of Problems of Tourism Development in Phnom Penh



8.3. Prospects of Tourism Development in Phnom Penh

Besides the current main destinations, Angkor Wat and Phnom Penh Capital; the Royal Government opens new attractive destinations including airport of the southern coastal city of Sihanouk Ville for spreading too many fresh island destinations.

Another destination zone is Mekong River where the government is also looking to open up more of the country to eco-tourism, capitalizing on natural resources such as mountains, rivers, lakes, waterfalls, and rare animal species like the Mekong dolphin and the colonial and historical buildings in Phnom Penh (MOT, 2016).

Table 8.3.
Characteristics and Prospects of Tourism Development in Phnom Penh

Characteristics		Number of Tourists		Prospects to Development
Mode of arrival to Cambodia	By Air	2,478,345	51.9	Improving infrastructure, Airport, National road link to ASEAN as well as Asia and Pacific
	By Land road	2,148,854	45.0	
Entry points to Cambodia	Thailand	1,953,069	40.9	
	Viet Nam	1,890,991	39.6	

Tourism information on Cambodia	Internet	2,459,244	51.5	Formulate official tourism website for Phnom Penh destination.
	Friend & Relative	959,821	20.1	
Purposes of visiting Phnom Penh	Holiday & Leisure	2,138,847	80.7	Improve cultural and historical places, Wat Phnom, National Museum, Royal Palace, Toul Slang Museum and other natural places along the river sides with good environment and cultural and historical sites around Phnom Penh.
Main interest of travelling to Phnom Penh	Cultural & historic place	1,306,631	49.3	
	Friendliness	487,668	18.4	
	Beautiful nature	450,563	17.0	

8.3.1. Infrastructure and Frontier Formulation

For Phnom Penh itself, the city Hall defines the perspectives for the increasing number of international tourists in near future, 2020. Some demands for facilities of the foreign visitors to attract and long stay in Phnom Penh include:

First, to solve the traffic congestion, the city hall should increase the public transportation and provision of sky train in the municipality. Moreover, the city hall should arrange the city by removing parking from the streets or roads. Second, need to create tourists' confidence on transportation, food, shopping by abolishing cheating, corruption, visa checking and by setting entertainments as well as social standard formulation.

8.3.2. Safety and Security

Maintaining safety and security for the international tourists from bag snatchers, robbers, thieves and others who sabotage and suffered the tourist are very important. In addition, it also needs to create effective information on weather, health, traffic congestion etc. by using specific social media of the city hall.

8.3.3. Cultural and Historical Places

The prospects of tourism development depend on conservation through maintaining of historical and cultural sites and French construction styles by

supporting architecture to ensure sustainable conservation. It also needs to create more leisure facilities in the city for the tourist attraction such as museum, galleries, and theme parks. For the public areas in the city such as parks, playgrounds and community centers need to be created. For natural features, it is required by decorating green and multicolor flower around river bank and lakes in the city.

8.3.4. Entertainment, Facilities and Environment

For sports facilities such as stadium, pitches, gyms, and health clubs need to keep with a good environment around them. Besides, other entertainment such as cinema, theatres and concert venues also attract visitors for their leisure at the holiday or weekend. Moreover, the green environment and multiple colorful flowers along the streets with a wide space for streetwalkers can attract tourists.

8.3.5. Tourism and Recreational Attractions around Phnom Penh

It is highly required to specifically plan for the development of the existing cultural and historical sites around Phnom Penh municipality including Longvek, Udong, Tonle Baty, Koh Dach, Wat Vihear Suar, Koh Uknhatey, Kien Svay, etc. The potential zone should prepare home stays by decorating and equipping Khmer ancient tools and instruments. Moreover, the potential destinations should prepare Khmer culture village exhibition and active example model of oxen and horse cart, boat carpentering, sculpture, ancient fishing equipment, fruit farms and actions in the rice field.

For the development of tourism, it is important to encourage the villagers in the tourism zones to construct their houses by Khmer style architecture through sponsoring some funds and technical engineering from the state. In addition, specific plan needs to be developed to create a tourism community by training them to understand about the concept and benefit of sustainable tourism development for their better standard of living. For example, homestay, food, transportation, entertainment should be separately supplied.

9. Conclusion, Policy Implications and Suggestions

9.1. Conclusion

From secondary data it has been revealed that the total number of domestic

tourists in Phnom Penh had reached 2,538,157 in 2016 from 324,534 in 2000 resulting an increase of 682.10 percent over a period of 16 years. Except the year 2003, there had been a continuous increase in the inflows of foreign tourists to Phnom Penh during the above period. On the basis of the survey conducted among 340 sample tourists it is revealed that most of the tourists came to Phnom Penh for holiday purposes.

9.2. Policy Implications and Suggestions

On the basis of the major findings of the study as presented above, the present section aims to provide policy measures for the development of tourism in the capital city. Thus, policy recommendations and suggestions of the study are as follows:

- i. The policy makers should continue to make possibly more alternatives of tourist travel modes in the governmental strategy that focus on a specific action plan for improving infrastructure and transportation. There is a need to improve the standard of Phnom Penh Airport for accommodating millions of tourists. In addition, the need is to improve the existing land road in a sustainable way, create railway lines from Phnom Penh to Vietnam and connect to Kunming, China, improve existing railway and equip new trains from Phnom Penh to Thailand and to strictly implement traffic rules to ensure safety of tourist.
- ii. Policy-makers and planners should appropriately design to improve the existing infrastructure, transportation and create more facilities as well as environment to attract more international tourists to enable them to stay for a longer time in Phnom Penh.
- iii. Tourist attractions, archaeological sites, churches, castles, guest houses architectural monuments need good access through roads and parking lots. Therefore, the necessity is to develop the existing infrastructure such as road along with traffic order. In addition, there is a need to arrange more facilities such as playground, garden, park and enhance the idea of promoting fresh green city and cultural and conservation of historical site.
- iv. Policy-makers should develop appropriate policies for conserving and protecting each of the cultural and historic places in Phnom Penh.

To attract more international tourists there is a need for destination diversification, including reinforcing Phnom Penh as an important tourism destination; development of rural/ ecotourism; support for performing arts and historic restoration; and development of backward linkages with the agricultural sector.

- v. It is useful for the city hall to continue and strengthen the existing traffic rules and prepare new plan to reduce traffic and road accidents in Phnom Penh. This would enhance the confidence level of the international tourists. In addition, the need is to prepare all the streets in order such as parking and space for street walkers. Strict legal actions should be taken against the persons violating traffic rules and parking on the streets. There is also the need to prepare and improve more infrastructure, sewage pipes, electricity in small streets and roads.
- vi. It is important to strengthen the safety and security to protect the international tourists from bag snatchers, robbery, theft, etc. by equipping security camera on the traffic light posts to catch the suspects. This is further to strictly instruct the hotel and guesthouse owners to keep guests' identification document to ensure safety and security.
- vii. Appropriate action plan needs to be prepared to eliminate the illegal entertainments and orient frontier formulation to avoid the tourists to suffer. There is a need to promote tourism update information in other sources of social media.
- viii. To facilitate foreign tourists about direction of their movement and traffic laws, there is a need to train traffic police officials in English language.
- ix. As tourists demand to view French style construction, policy-makers should develop policies to maintain the French style private and public constructions intact. This may further be through support and sponsor the owners who are living in the French style houses along with encourage to rebuild a new public French style construction.
- x. Phnom Penh city hall should prepare a specific action plan to enhance the beauty of the city along with ensuring better environment. The requirement is to practice sustainable waste management in Phnom Penh effectively, and collect as well as transport garbage by cleaning

- the place through water at night, especially at the traditional markets.
- xi. There is a need to improve promotion for tourism related activities focusing on enhancing and modernizing sources of information as well as maintaining a stable political, safety and security environment.
 - xii. To attract foreign tourists, the need is to assist farmers through providing short-term training about organic, standardized agricultural food techniques to supply tourism markets. It is also to manage the existing handmade textiles through assisting in techniques and financing for standardized products for tourism needs.

9.3. Scope and limitation for further Research and Concluding Remarks

On the basis of the limitations of the present study, the scope for further research is presented below:

- i. To understand tourism development in the city of Phnom Penh, only 340 tourists have been selected as a sample size. The study could have provided better results, had the size of the sample would have been larger.
- ii. Future researchers may consider to take into account other areas including Phnom Penh to assess the potentiality of tourism development in the country.

Thus, the limitations of the present study have provided the insights for further research in this field.

On the whole, the present study has made an attempt to analyze the potentialities of natural and man-made tourist resources in Phnom Penh, discuss the existing tourism patterns, arrivals and use patterns in the study area. In addition, the study attempts to identify and analyze the existing problems and prospects of tourism development in Phnom Penh.

The development of tourism sector depends on a clear strategic plan and willing to implement by both the government and private sector. For Cambodia, the first principal action plan is ensuring political stability; then improved infrastructure for transportation, competitive pricing of tourist services; developing the existing cultural and historic place, natural beauty, improvement in the man-made assets, etc. The policy-makers and planners should develop appropriate plans and policies to promote tourism assets in order to attract more international and domestic tourists to Phnom Penh

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TOURISM REVENUE FORECASTING: A CASE STUDY, CAMBODIA

Dr. Chhay Phang, and Dr. Sau Lay

Abstract

Travel and tourism generated US\$7.6 trillion (10% of global GDP) and 277 million jobs (1 in 11 jobs) for the global economy in 2014 (WTTC 2015). The tourism is one of the rapidly growing sectors of the world economy which is beyond doubt. But the growth is not steady, the number of international tourist arrival and tourist receipt as well, are highly volatile (GÖKOVALI and BAHAR 2006); therefore, tourist arrival forecasting is an essential analytical tool for tourism policy and planning. This study used semi-log trend adjusted regression to estimate the tourist revenue growth rate for sample period of 1995-2017 and the same model with adding AR(1) to improve problem of serial correlation, and then use the model forecast three-year future period.

Key terms: *tourist growth rate, growth at decreasing rate, trend, trend-square, AR(1), diagnostic checking, forecast evaluation.*

1. Introduction

The tourism is one of the rapidly growing sectors of the world economy which is beyond doubt. The development of the tourism sector not only increases economic growth directly, but also stimulates the growth of other sectors through backward and forward linkages and increases domestic incomes and effective demand (GÖKOVALI and BAHAR 2006). In 2015 Annual Economic Reports cover 184 countries and 25 regions of the world, including, for the first time, the Pacific Alliance, travel and tourism generated US\$7.6 trillion (10% of global GDP) and 277 million jobs (1 in 11 jobs) for the global economy in 2014 (WTTC 2015). Because of overwhelming contribution of tourism to economics, tourism industry has been attracted by many researchers around the globe, especially, number of internal tourists arriving at particular destinations from particular departure points, though some researchers have used tourist expenditure as a measure of demand (SON, LI et al. 2010), other studies have investigated the causes of variations in the tourist demand such as the income of tourists, prices in the destination country relative to those at home, tourism prices in competing destinations, and exchange

rates. International tourist arrival and tourist receipts as well are a highly volatile sector open to exposure by external factors and shocks (GÖKOVALI and BAHAR 2006), therefore, tourist arrival forecasting is an essential analytical tool for tourism policy and planning.

2. Objective of Study

The aim of this study is to estimate tourist revenue growth rate and forecast tourist revenue for three-year future period by using time series data of international tourist revenue from 1995-2017, which obtained from report of Cambodia's Ministry of Tourism. Before generalizing to three-year future, the model diagnostics and then forecast accuracy were also evaluated. Additionally, the study also clearly describes research process step by step until forecasting result.

3. Literature Review

In a recent paper, Song and Li (2008) reviewed research into tourism forecasting that had been published in 121 articles since the year 2000. They found that tourism demand modelling and forecasting research relies heavily on secondary data and they categorized the model construction and estimation into three forecasting techniques: time series models, the econometric approach, and other emerging methods such as Artificial intelligence (AI) techniques, no clear-cut evidence shows that any one model can consistently outperform other models in the forecasting competition. New attempts have been made recently to further enhance forecast accuracy through forecast combination and forecast integration of quantitative and qualitative approaches.

Because there is no clear-cut model which is preferred over another, some authors tried to use several models and then choose a better one. For example, Chaitip, Chaiboonsri et al. (2008) used a dozen both traditional and modern methods to forecast the number of international tourist arrival to Thailand from 2006-2010. The models include GMM, ARCH-GARCH, ARCH-GARCH-M, TARCH, EGARCH, PARCH methods, VAR, Holt-winter, ARIMA, SARIMA, and Neural Network methods and the Trend Extrapolation Models. Obtaining all results from those models, the authors compared and inducted to find the best one. Finally, they found that SARIMA (0,1,1) (0,1,4) is the best method based on the lowest value of MAPE of 16.73 percent. Similarly, Athanasopoulos, Hyndman et al. (2010) also used a

dozen forecasting models to compete forecasted result based on Mean Absolute Percentage Error (MAPE) principle.

Even though the tourist forecasting is popular and has done by many researchers, most of previous studies failed to describe clearly about research process and diagnostic checking before doing forecasting, focused only forecast accuracy. These issues may make reader suspect on the research result. Perhaps this research is seen useful for this regard.

4. Estimate Tourist Revenue Growth Rate

- Figure 1 shows tourism revenue from 1995-2017 in log form. From this figure it is noted that the time series has positive trend, the growth rate is high from 1995-2008, and the growth rate is slow from 2009-2017. Therefore, the following regression is proposed:

$$\text{logrevenue}_t = \beta_0 + \hat{a}_1 \text{trend}_t + \hat{a}_2 \text{trend}_t^2 + \varepsilon_t \quad (1)$$

Where:

$\ln \text{revenue}$ = the natural log of revenue

β_0 = constant or intercept

β_1 = coefficient of trend or time

β_2 = coefficient of trend or time square

ε_t = error term

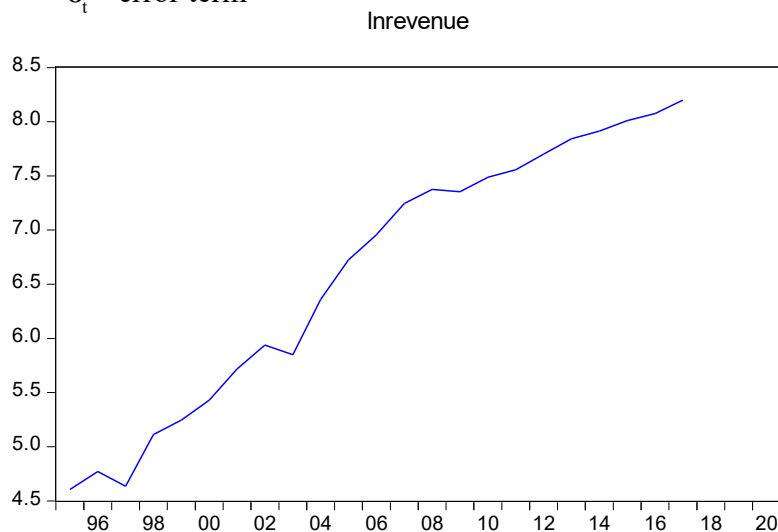


Figure 1. Tourist Revenue from 1995-2017

Regression result of equation (1):

$$\ln \text{revenue} = 3.4751 + 0.298 \text{trend} - 0.0043 \text{trend}^2$$

<i>se</i>	[0.1538]	[0.0248]	[0.00086]
<i>t</i>	(22.588) ***	(12.004) ***	(-4.9556) ***

F = 611.36 (p = 0.000); R² = 0.9839 DW = 0.9564

***p<0.01

The semi-log regression result of equation (1) is looked pretty well. F-test is highly significant; however, DW is low, which indicated that perhaps there is a serial correlation in residuals. Interestingly, coefficients of trend and trend² are highly significant. From 1995 to 2017, the revenue growth rate is about 30 percent per year and the growth rate is at decrease rate about 0.86 percent (2×0.0043) in recent years. This perhaps the tourism industry was slightly suffered from financial crisis in 2009.

5. Tourism Revenue Forecasting

To forecast tourism revenue, three steps were adopted from Brooks (2008).

- 1) **Identification** to identify forecasting model that fits this data, the following steps were further adopted:
 - **Graphical Method** from Figure 1, it is observed that the time series consists trend pattern, therefore, the about regression (1) is suitable to the time series data.
 - **Serial Correlation** LM test on residuals of equation (1) was conducted and resulted in Chi-square (with degree of two degree of freedom) of 0.23978 and p-value of 0.887, which indicated that the residuals have serial correlation, therefore, regression may not be used to forecast for future period.
 - **Correlogram** to solve serial autocorrelation problem, one possible solution is to add lags of dependent variable as regressor (Eview illustration). By observing the correlogram, the serial autocorrelation could be solved by addition AR(1) as regressor, and with some trial and error, the final model can be expressed as follows:

$$\ln \text{revenue}_t = \beta_0 + \beta_1 \text{trend}_t + \beta_2 \text{trend}_t^2 + \beta_3 \text{AR}(1) + \varepsilon_t \quad (2)$$

Where $\ln \text{revenue}$, β_0 , β_1 , β_2 and ε_t as previously defined,

$\text{AR}(1)$: lag one period of $\ln \text{revenue}$, and β_3 is its coefficient

Where $\ln \text{revenue}$, β_0 , β_1 , β_2 and ε_t as previously defined,

$\text{AR}(1)$: lag one period of $\ln \text{revenue}$, and β_3 is its coefficient

2) Estimation

Using ARMA Conditional Least Squares method in Eviews 9, we obtain the following regression results:

$$\begin{array}{lcccc} \ln \text{revenue}_t = & 4.423 & + 0.3571 \text{trend}_t & - 0.006 \text{trend}_t^2 & + 0.4545 \text{AR}(1) \\ se & [0.3675] & [0.0500] & [0.0.0015] & [0.1800] \\ t & (5.8.2046)^{***} & (7.1451)^{***} & (3.8832)^{***} & (2.5248)^{**} \\ F = 553.591 & (p = 0.000); & R^2 = 0.9892; & DW = 2.2430; & \text{Inverted AR root} = 0.45 \\ & ***p < 0.01, & **p < 0.05 \end{array}$$

The regression result indicated that F test is highly significant, Durbin-Watson statistics is improved and quite good.

3) Diagnostic Checking

Several authors such as Gujarati and Porter (2008), Brooks (2008), Wooldridge (2013) suggest that before making forecasting, diagnostics on residuals of regression should be conducted. For current study, Jarque-Bera test was used to test normality of the residuals. The test resulted in JB value of 0.2433 ($p=0.8854$) indicated that the residual is normal. Meanwhile, LM test for serial correlation also conducted and resulted in Chi-square (2 df.) value of 0.2397 ($p=0.8870$), which indicated that no serial correlation in residual. Additionally, White test was used to test for Heteroskedasticity. The test with Chi-square (5 df.) result in value of 4.8786 ($p=0.4309$), which indicated that no heteroskedasticity in residuals. Interestingly, Inverted AR root of 0.45, which lies within unit cycle, and all p-value of Q-statistic with twelve lags in correlogram squared residuals are greater than 5 percent. Those diagnostic checks indicated that AR process is stationary (Brooks 2008). Finally, Ramsey's RESET test as also used to check functional form. The test with one lag resulted in $F_{(1,17)}$ value of 0.1132 ($p=0.7406$), which indicated that no functional form problem in regression (2). Therefore, the regression (2) can be used to forecast

future period.

6. Forecasting Result

Using **dynamic** forecast method in Eviews 9 we obtain the following forecasting results in natural logarithm form and then manually covert those results into million dollars.

Table 2. Forecasted Tourism Revenue for 2018-2020

Year	Period	Ln(revenue) Forecast	Revenue (\$Million)
2016	24	8.113493	3339.222
2017	25	8.175145	3551.569
2018	26	8.224735	3732.133
2019	27	8.262264	3874.857
2020	28	8.287731	3974.806

Note: revenue in last column is obtained from antilogarithm (i.e., $3339.222 = e^{8.113493}$). The forecasted tourism revenues are 3732.133, 3874.857 and 3974.806 million dollar for 2018, 2019 and 2020, irrespectively.

7. Forecast Evaluation

Theil's U statistic is an average, or combination, of the individual forecasts may perform better than the individual forecasts themselves. It is decomposed into 3 proportions of inequality - bias, variance and covariance - such that bias plus variance plus covariance equal one. The scaling of U is such that it will always lie between 0 and 1. If U equals zero mean, all forecasts are perfect fit. Thei's U for current study was 0.0318, around 3 percent. Mean absolute percentage error (MAPE) was 1.40 percent in term of ln(revenue) forecast, and 8.74 percent in term of revenue forecast. This ratio is lower than MAPE (16.73 percent) of Chaitip, Chaiboonsri et al. (2008), who used dozen models to compete the best one. Therefore, forecasting result is really acceptable.

8. Conclusion

There are two purposes for current study. First is to evaluate the growth rate for the whole sample period and second is to forecast revenue for three-year future.

From the result of regression (1) we can conclude that the revenue growth rate is about 30 percent per year from 1995 to 2017, however this growth rate is at decrease rate about 0.86 percent in recent years. This perhaps the tourism industry was suffered from financial crisis in 2009.

Interestingly, regression (2) is conformed to all classical linear regression assumptions, especially normality assumption, errors are independent, errors are homoscedasticity, and no functional form problem. Additionally, forecast evaluation is quite good, Thei's U is only around 3 percent and MAPE is about 1.401 percent. Those factors make the forecast result are reliable.

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TOURISM DEVELOPMENT AND TAX REVENUE IN CAMBODIA: A COMPARATIVE ANALYSIS

Mr. Hay Chamroeun¹

Abstract

The country Cambodia has in the last recent years prospered as an international tourist destination and the tourism industry has become more recognized as a major source of income. The international tourist destination has therefore come to occupy an important role for the country's economic development. Concerning the fact that Cambodia is a Third World country the local community can be extremely vulnerable in relation to the consequences that international tourism can create. The aim of this study is consequently to investigate how tourism development can influence the social community and tax revenue in Cambodia. It will also focus on the Ministry of Tourism and their work attitude towards the same issue.

The result of the study shows that tourism development affects the tax revenue in many ways, both positive and negative. Tourism development can contribute to the community and create a sustainable social development if there is support, information, incentives or regulations for the tourists that interests them or controls them in a way that is beneficial for the local community and government tax revenue. the Ministry of Tourism agree that the main positive consequence of tourism development for the social community is the revenue that the tourism industry can generate.

Finally, it is concluded that support from the Ministry of Tourism is needed as it is believed that they possess the greatest power of change for the tourist destination Cambodia.

Key words: *Tourism Development, Tax Revenue, Comparative Advantage, Cambodia, ASEAN*

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1. Introduction

1.1. Statement of the Problem

In recent years, tourism has become a key factor, at times the only possible factor, in the revitalization of underdeveloped regions and the marginal zones because of its comparative strengths in income and employment generation; perceived environmental friendliness; and promptness to take off in even difficult situation. It has been adopted by various agents (public and private) and applied through various mechanisms (development plans, programs, urban planning, strategic planning, etc.), corresponding to the regional and sectoral policies drawn up for the development of these zones and the eradication of territorial marginality.

The Kingdom of Cambodia is a country of fascinating and breathtaking scenery with an ancient mysterious and captivating culture that has attracted curious visitors from all over the world in all times. But today it is not only the ancient past with the magnificent temples of the old empire Angkor that catches their attention, the recent gruesome history also interest questioning visitors that want to find answers to the horrors caused by the Khmer Rouge in the 1970's. Cambodia has recognized this interest from the outside world and the tourism industry has therefore rapidly flourished. As tourism is becoming a more recognized source of income it is necessary to take into consideration that Cambodia is a developing country with noticeable social differences concerning the local community. The country and its people can therefore be vulnerable towards a development of the country as a tourist destination.

The country has today a lot to offer the modern global traveler. The bustling busy city capitol of Phnom Penh with its magnificent Royal Palace, the lively social life in the city center and along the Sisowath Quay next to the Tonle Sap river. The smaller pleasant and welcoming town of Siem Reap situated close to the impressive stone temples and smiling stone faces of Angkor. And finally the somewhat unknown beautiful serene beaches of Sihanoukville along the country's coastal strip. These are the main attractions that are marketed and offered the international visitor during her stay in Cambodia.

The preservation and restoration of the temples of Angkor has for a long time been questioned because of the damage that tourists bring while visiting the country's main tourist attraction. The decay of the temples is of course due to weather and time but the process is speeded up by the stress caused by the behavior caused by tourists. A question that is not so often discussed is the stress caused

by tourists on the society as the consequences of tourism can be both positive and negative for the community and the social life. The tourism industry can lead to an economic development that can contribute to job opportunities, education, health care and international recognition on the world market. This however can only be achieved and continued with a sustainable tourism development. Without control and management, the positive outcome of tourism will fade away and negative outcomes will take over.

1.2. Research Problem

While there are still many debates on whether tourism is a solution to poverty, many governments, including the Royal Government of Cambodia, have pinpointed tourism as their direction for development.

The Cambodia Tourism Development it related to the Economic Growth included Tax Revenue in Tourism Sector.

The international tourism visit Cambodia was change from year to year, it impacts of Cambodia Tourism Development and income especially government tax revenue, that why this topic is important for this study.

1.3. Research Question

The main problem concerned in this study is how the change of Cambodia Tourism Development?

How can tourism promote development with impacts on the Economics and Tax Revenue?

Is tourism a viable and preferred option for developing Cambodia?

1.4. Objective of the Study

The objectives of this study can be summarized as follows:

1. To review the characteristic and history of Cambodia Tourism Development.
2. To explore the benefits of the Tourism Development on Cambodia Tax Revenue.
3. To discuss and comment on the adequacy of this study of tourism development and Tax Revenue in Cambodia.

1.5. Scope of the Study

The scope of this study is try to focus on the Cambodia Tourism Development to change of Cambodia's Tax Revenue since 2001 to the end of 2017.

2. Review Of Related Liturature

This is a study about tourism and development in LDCs. In this chapter, the literature in related areas is reviewed to provide a theoretical platform for the development of arguments and recommendations in the later parts of the study.

2.1. Tourism

“Tourism can become a vehicle for the realization of man's highest aspirations in the quest for knowledge, education, understanding, acceptance and affirmation of the originality of cultures, and respect for the moral heritage of different peoples ... Tourism has also made it possible for nations to develop strategies for the conservation of natural and cultural heritage of mankind. Planning for economic growth and development must go hand in hand with the protection of environment, enhancement of cultural life, and maintenance of rich traditions which contribute so greatly to the quality of life and character of a nation.” Giani Zail Singh, President of India, before the General Assembly of the World Tourism Organization in New Delhi on 3rd October 1983.

Tourism is not just a “continuation of politics” but also an integral part of the world's political economy and a tool for both economic and political purposes (Edgell, 1999). It has been promoted by nations and international organizations as a developmental agent (Richter, 1999; Dieke, 2000). It is a discipline with amulti disciplinary nature. It is a policy area, a programme under a particular Olicy36 or a trade that has impacts on the economy, foreign relations, and social fabric of most countries (Edgell 1999).

“While everyone seems to know something about tourism, the industry basically is poorly understood, and much is taken for granted in travel. A partial reason for this shortcoming is because there have not been in existence tourism policy guidelines that explain and demonstrate to policymakers why they should place special emphasis on the tourism industry as it becomes the largest industry in the world.” David L. Edgell, Sr. (1999).

Early definitions of tourist and tourism tend to focus on the spatial dimension. For example, the League of Nations Committee of Statistical Experts in 1937 defined a “foreign tourist” as someone who stays in a foreign country for not less than 24 hours. The definition was then broadened to address tourist behaviors, environment and the tourism system. Leiper (1981), for example, defined tourism as “an open system” which consisted of interacting elements, including tourists, the generating regions, transit routes, destination regions and the tourist industry, which operates in a boarder macro environment.

“Tourism is at the same time a local or community concern and a burgeoning global phenomenon, the magnitude of which is set to increase JJ (Robinson et ai, 2000).

Tourism is the world’s largest industry (Baud-Bovy and Lawson, 1998) and has become one of the most important industries for many societies (Croall, 1997). With advanced technology, travelling became faster, easier, cheaper and remote destinations more accessible. Economic development, together with the changes in family structure and size, lifestyle, living standard, and education level, fertilized a huge market. Tourism is the major export industry and earner of foreign exchange in many nations. In 1963, the UN identified tourism as a key sector that should receive first priority in technical assistance, owing to its importance as a means of strengthening the economic development policies of the developing countries. Tourism was credited for its ability to stimulate investments, generate foreign exchange earnings and create employment (OECD 1964). However, its social and political implications often neglected (see Croall, 1997 and Dieke, 2000).

2.2. Less Developed Country (LDC)

The concepts of the Third World and of less developed / underdeveloped countries have slightly different definitions and implications. The “third-world-ness” and the stage of being “less-developed,” however, have certain similarities in both political and socio-economic prospective (Haynes, 1997). This study selected an LDC as its subject. LDC is characterized by its stage of lacking in development; its highly imperfect commodity and resources markets, its shortage of information; and its prevailing “disequilibrium” (Todaro, 2000).

The lack of development in the newly globalize world might induce senous impacts to the LDC communities. Political conflicts and confrontation, civil turmoil and unrest, poverty, famine, illiteracy, marginalization and inequality are some of the

common features and underlying problems (see Hui, 2000). Economic calculations are, therefore, intermingled with social and political considerations (Todaro, 2000).

2.3. Development

“Development is freedom and the right to choice”. Oxfam S motto

Contrasted to backwardness is development. Development is intended to solve poverty and the associated socio-political problems (Haynes, 1996; Handelman, 1996). As the primary objective for most LDCs, development has divergent meanings. It is synonymous with wellness and prosperity. It is desirable, preferable and necessary. It is impossible for responsible political leaders to reject measures that can advance the living standard, lengthen the life, and improve the well being of their subjects (Rostow, 1990). Development and improvements in living standards in LDCs require rapid transformation of the economic, political, social and institutional mechanisms (Todaro, 1992). It also implies changes to the traditional way of living, customs, traditions and culture, which can intensify social conflict and disorganization (Weinberg, Rubington and Hammersmith, 1981).

2.4. Tourism Development

“Tourism development is one of the most commonly used, but least understood, expressions in the tourism lexicon. “ (Hall 1994)

There are basically four types of Asian economies: resources-poor, resources-rich, primarily agrarian and giant economies (Ichimura, 1988). Ichimura suggests that resources-poor economies should first develop labour-intensive light industries such as textiles and footwear, and try to increase productivity and export products. The trade surplus could finance the importation of capital items for improving productivity and quality, and enhance industrialization. After achieving some success in industrialization, governments could re-focus on agricultural development. He, however, failed to address some of the most critical LDC situations where even development of light industries is unattainable. The lack of capital, a supply-chain, government support, low productivity and protectionism retrain the development of domestic industries. The low-valued-added outputs and high-value-added imports intensify the trade deficits. LDCs, therefore, have to search for alternatives and tourism is often being identified as a promising option.

2.5. Tourism Development Models

Most of the tourism development models aim at deriving a life cycle that can be applied for tourism planning and management. These models attempt to address issues that include a lifecycle's common pattern and stages, the tactics for elongating lifecycles and a lifecycle's planning implications. Noronha (1976), for example, developed a three stage model incorporating discovery stage, development stage and institutional stage. This model focuses on business leverage and the transformation of the tourism industry. It, in fact, only covers the initial stages of the tourism development and almost neglects the later stages. It also has the weakness of presuming that a destination is discovered by a tourist and evolves naturally thereafter. In this model, development is market-led while government and business entities assume a responsive/reactive role.

Miossec's lifecycle model (1976) emphasizes a destination's physical changes, which began with the early developers' projects. Tourist awareness and arrivals are subject to promotion. With the arrivals of tourists, facilities and infrastructure will be established. It is assumed that the system will automatically adjust its supply to satisfy tourists' needs and wants. Again, the model is market-led.

2.6. Tourism Impacts

The impact of tourism has important implications to the development of tourism and the value of tourism as a development agent. This section summarizes some tourism impacts. More details are provided in the appendix.

"The combination of youthfulness ... with the pace of growth in demand has given tourism a Cinderella-like existence. International organizations support tourism for its contribution to world peace, the benefits of mixing peoples and cultures, the economics advantages which can ensue, and the fact that tourism is a relatively 'clean' industry. But as midnight strikes, tourism is uncloaked as a despoiler of destinations and a harbinger of adverse social change, and even the employment and monetary gains of tourism are seen to be illusory in many destinations." Cooper et al 1996.

While tourism seems promising in economic terms, it might bring negative impacts as well, such as deagrarianization, marginalization, inflation and possible economic leakages. Tourism, therefore, has to be managed sensitively to maximize its contributions and reduce its destructiveness (Laws 1995). Many studies on

tourism impacts focus on spatial and economic impacts of tourism development (selected examples included Wolfe 1951; Hills and Lundgren 1977~ Butler 1980; Mansfield 1990; Agarwal 1994; Burton 1994; Timothy and Butler 1995; Casado 1999). Recently, more attention has been given to social, cultural and environmental impacts (selected example included Dana 1998 Brunt and Courtney 1999; Davis 1999; Campbell 1999; McIntosh and Prentice 1999). Destination is not merely a “leitmotif for a geographic place. Rather, they are also social and cultural constructions whose meanings and values are negotiated and redefined by diverse people, and mediated by factors often related only tangentially to a particular tourist setting” (Squire in Ringer 1998:62). Destination is the home to the host (Briassoulis and Straaten, 2000).

3. Methodology

3.1. Methodology

This study uses Qualitative Method to discuss and explain the result of the data collection.

Our qualitative analysis is based on the theory of tourism development. Our analysis will focus on the relative cost and benefits of each arrangement, especially from the point of view of the tourism development and tax revenue.

This study uses the data analysis, providing an economic explanation of tourism development, to discuss international visitors, and the increase of tax revenue from tourism especially accommodation tax revenue. This study also investigates the changes of the competitiveness and complementarity of the member countries.

The major objective of this research is to investigate the potential and barriers to utilize tourism as a development agent in LDCs. This constituted the first part of the study. By capitalising on Cambodia as the subject of investigation, a system model of tourism was developed by induction.

The existing literature revealed the prevalence of the free-market (capitalistic) paradigm in developing tourism. In the design of this research, the researcher challenged this paradigm’s validity for development, especially in LDCs. The second part of the study is to test this proposition. In this chapter, the three basic elements of the research: ontology or theory, epistemology and methodology will be further elaborated in six sequential headings, viz., researcher and the researching subject; theoretical paradigms and perspectives; research strategies; methodologies for data collection and analysis; interpretation and presentation; and limitation and

delimitation.

3.2. The Sources Of Data

The important source of data in this Study is Tourism and Tax Revenue Statistics due to availability of continuous time series data.

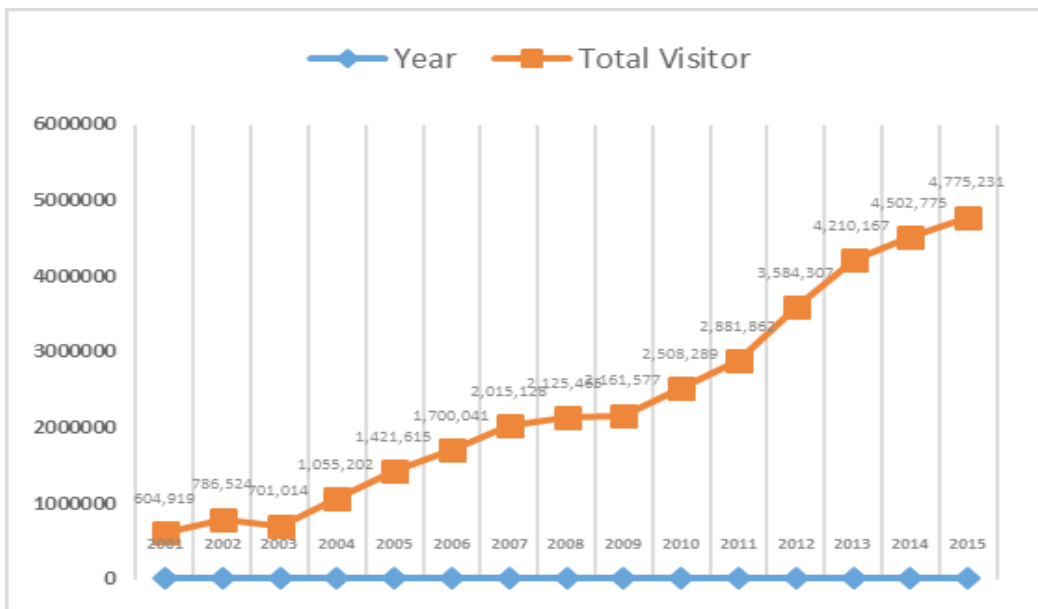
The important source of data in this Study is Commodity Trade Statistics due to availability of continuous time series data, IMF, Ministry of Tourism, ASEAN Statistic Year Book, and World Statistic Year Book World Bank. This study is almost based on the secondary data.

4. Finding And Discussion

4.1. Number of international visitor arrivals 2001-2015

Cambodia International Visitor has increased from year to year. It was high growth in **2006** about **1 700 041** people and **2015** about **4 775 231** people. While it was slowly decline in 2003 about 1 700 041 people.

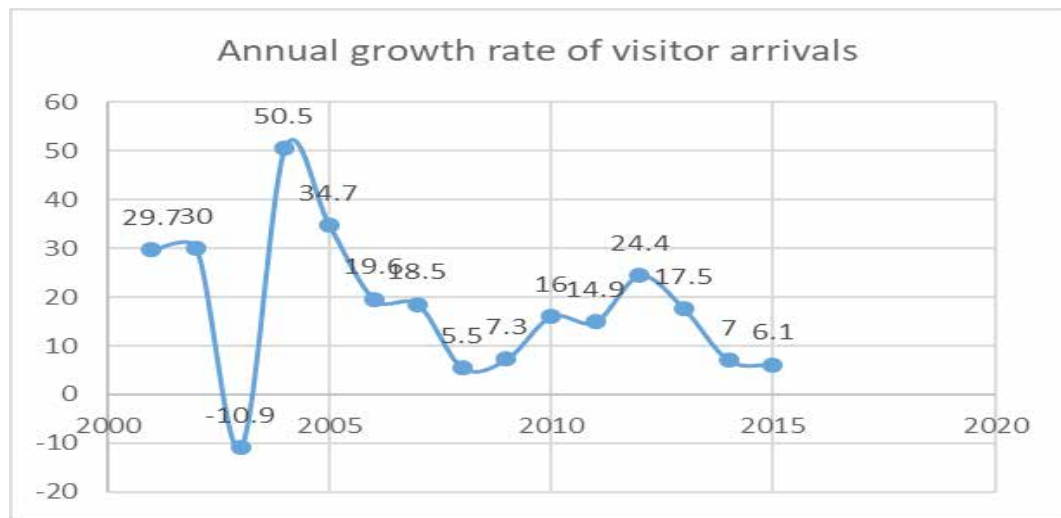
Figure 4.1 Number of international visitor arrivals 2001-2015



4.2. The Growth Rate of International Visitor Arrivals 2001-2015

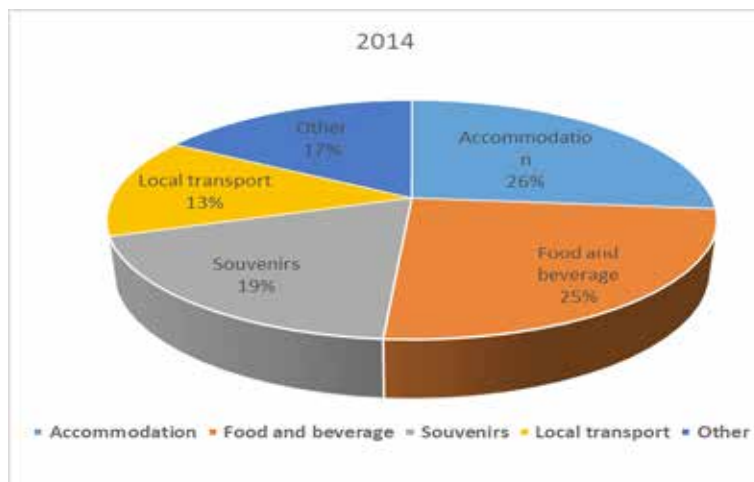
The Growth Rate of International Visitor in Cambodia has increased from year to year. It high growth in 2004 about 50.5 percent and 2005 about 34.7 percent. However, it was high decline in 2003 about -10.9 percent.

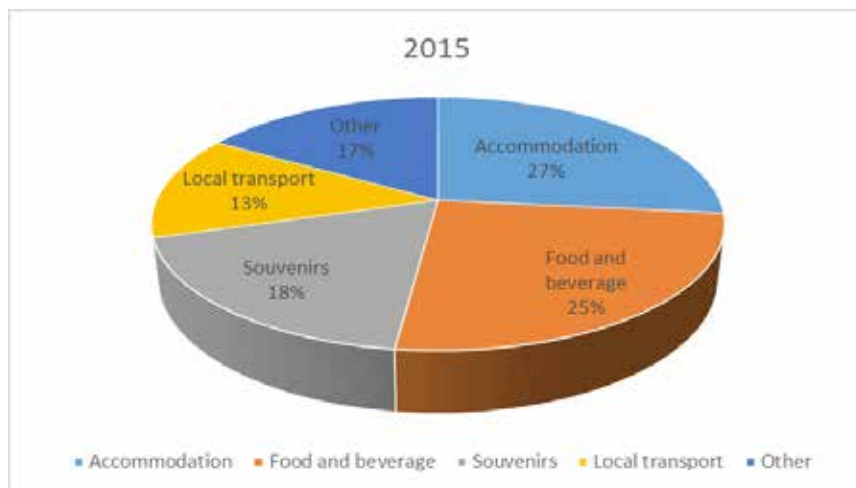
Figure 4.2 Annual growth rate of visitor 2001-2015



4.3. The Average expenditure of tourist by type of expenditure 2014 and 2015

The Large share of Tourist expenditure is Accommodation Expenditure, it was about 26 percent in 2014 and about 27 percent in 2015. The second type of expenditure is on Food and Beverage, it was about 25 percent in 2014 and 2015. While the small share of expenditure is Local Transport, it was about 13 percent in 2014 and 2015.





4.4. Number of international visitor arrivals and Accommodation Tax

The growth rate of tourist who visit Cambodia has increased from year to year.

It high growth in 2011 about 19.48 percent and 2012 about 26.62 percent. While it was Decline in 2014 about –8.22 percent.

However, the Accommodation Tax revenue was increase from year to year. It high growth rate in 2012 about 24.4 percent and in 2013 it was about 17.5 percent.

Figure 4.4 Number of international visitor arrivals and Accommodation Tax 2010-2015

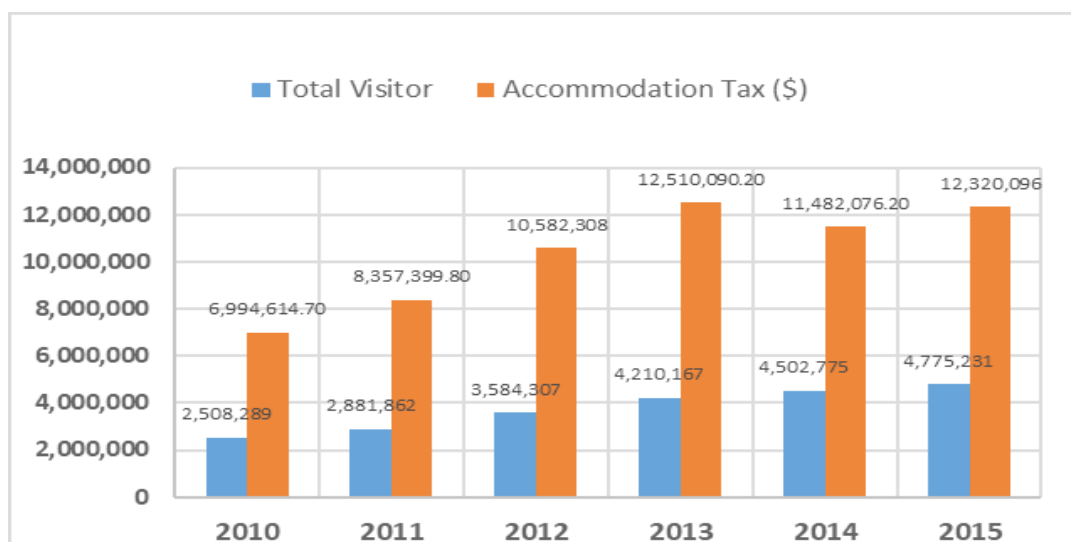
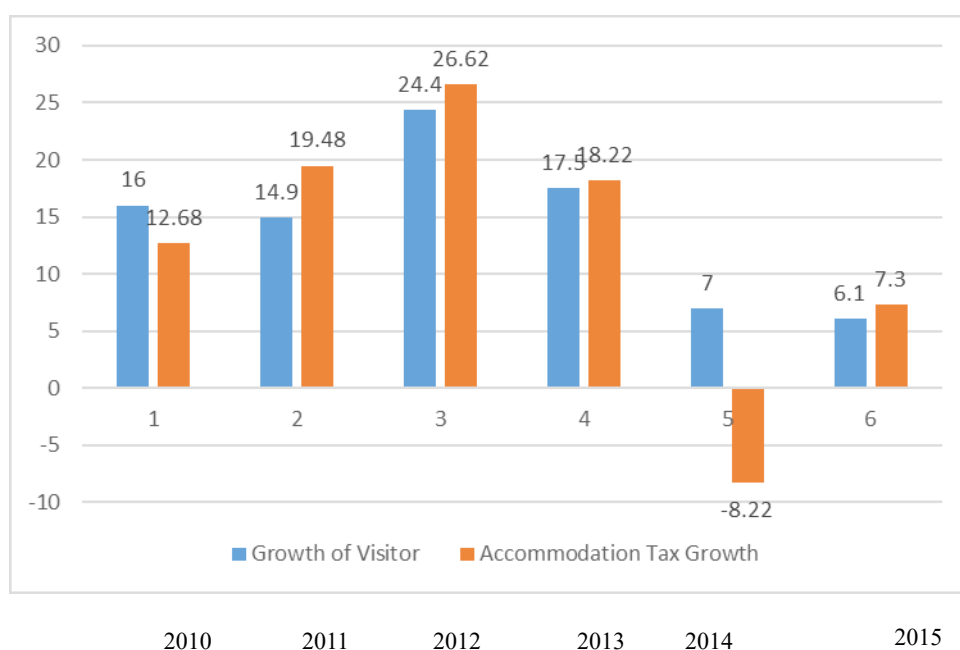


Figure 4.5 The Growth Rate of Visitor and Accommodation Tax 2010-2015



4.5. Conclusion

According to the study there are some remarked that:

Cambodia tourism was increase from year to year, it was high growth rate in 2014 about 50.5 percent and 2015 about 34.7 percent.

The Large share of Tourist expenditure is Accommodation Expenditure, it was about 26% in 2014 and about 27% in 2015.

The second type of expenditure is on Food and Beverage; it was about 25 percent in 2015.

However, Cambodia tax revenue was growth especially the Accommodation Tax about 26.62% in 2012 to certify increase in budget revenue.

The Tourism Development is more benefit on Cambodia tax revenue especially from Accommodation expenditure, Food and Beverage expenditure by Tourist.

Finally, Tourism development will push Cambodia economy growth.

4.6. Limitation and Future Research

This research faced on a few limitations. The data collection from 2001

to 2017 and the factor effect on tax revenue not just only from the tourism, but from the other factors. The better focusing on tourism development and tax revenue should more and deeply other factors and more period of sampling.

The future research can include of other modeling such as foreign real income, exchange rate between home currency and foreign currencies, price of goods and services, hotel services, restaurant services, transportation, environment.

One of this study's major limitations is the selection of the subject. As Jamieson (2017) observed, Cambodia is so unique that there is difficulty in generalizing a model for other LDCs. The tragic war background, the brutal rule of Pol Pot, the mass scale destruction of civil systems, the cultural wealth of Angkorean and the political tensions, for example, compose a unique setting. In its state of being one of the poorest nations, Cambodia also shares many other LDCs' commonalities. Similar social and economic problems, political tensions, ecological threats and contextual settings can be found in countries such as East Timor, Pakistan, Palestine, Croatia and Afghanistan. Consequently, the models and frameworks presented in this study can be applied to other LDC cases with modifications and adjustments.

The paucity of data and information regarding the subject and the uncooperativeness of some local respondents were barriers to this study. Although the plethora of information on politics, international relationship and social crisis compensated for part of the problem, the general shortage of documentation and creditable sources of intelligence are fundamental constraints. In response to this, the study has employed alternative sources and methodologies to rectify the situation and to fill the gaps in information.

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APPENDIX

Table 1. Number of international visitor arrivals 2001-2015

Year	Total Visitor	Annual growth rate (in Percent)
2001	604,919	29.7
2002	786,524	30
2003	701,014	-10.9
2004	1,055,202	50.5
2005	1,421,615	34.7
2006	1,700,041	19.6
2007	2,015,128	18.5
2008	2,125,465	5.5
2009	2,161,577	7.3
2010	2,508,289	16
2011	2,881,862	14.9
2012	3,584,307	24.4
2013	4,210,167	17.5
2014	4,502,775	7
2015	4,775,231	6.1

Source: Tourism Statistics Year Book 2017

Table 2. Number of international visitor arrivals and Accommodation Expenditure 2010-2015

Year	Total Visitors	Accommodation(\$)	Accommodation Tax (\$)
2010	2,508,289	349,730,735	6,994,614.70
2011	2,881,862	417,869,990	8,357,399.80
2012	3,584,307	529,115,399	10,582,308
2013	4,210,167	625,504,511	12,510,090.20
2014	4,502,775	574,103,812	11,482,076.20
2015	4,775,231	616,004,799	12,320,096

Source: Tourism Statistics Year Book 2017

Table 3. Rate of Growth of Visitor and Accommodation Tax, 2010-2015 (in percent)

Year	Growth of Visitor	Accommodation Tax (\$)	Accommodation Tax Growth
2010	14.9	6,994,614.70	12.68
2011	24.4	8,357,399.80	19.48
2012	17.5	10,582,308	26.62
2013	7	12,510,090.20	18.22
2014	6.1	11,482,076.20	-8.22
2015		12,320,096	7.3

Source: Calculation of Table 1 and Table 2.

TOURISM DEMAND MODEL IN CAMBODIA

Dr. Chhun Rady

Abstract

This paper investigates the significance of determinants of the tourism arrivals in Cambodia as a key in destination development, showing it to be part of the classical demand for international tourism functions. An application involving the Cambodia is presented, whereby total tourist arrivals are modeled in 32 countries over the period 2006 to 2015. The findings show that lagged tourism arrivals and the personal income have had positively significant with the tourism arrivals.

Key words: *Tourism demand, Trade-tie, Income, and Tourism arrivals.*

1. Introduction

Tourism is an important source of income for many countries—especially for those with less developed modern service/industrial based economies. The economic benefits accruing to both the producers of tourist products and the tourist originating economy at the local, regional and national level have been the subject of extensive studies by both tourism experts and multidisciplinary scholars. Therefore, tourism demand has been the subject of a number of studies and has been viewed from a number of perspectives. Despite the different perspectives, the concept of tourism demand originated from the classical definition of demand in economics, namely the desire to possess a commodity or to make use of a service, combined with the ability to purchase it. Tourism demand is usually regarded as a measure of visitors' use of a good or service (Frechtling, 2001). The significance level and repercussions of tourism demand provide a strong case for better understanding of the nature of the tourists' decision-making process (Sinclair and Stabler, 1997). Tourism demand is a special form of demand in that a tourism product is a bundle of complementary goods and services (Morley, 1992). Consumers instead of goods and services are transported, and tourism consumption occurs simultaneously with tourism production (Schulmeister, 1979).

Tourism demand models have been used extensively to analyze the demand behavior and demand management issues in addition to forecast the future levels of tourism demand. Song *et al* (2003a) argue that published studies on tourism demand

analysis can be divided into two groups. The first focuses on non-causal modeling approaches, while the second concentrates on causal techniques that pay particular attention to the factors which influence tourism demand. We introduce the panel data model and use annual data from 2006 to 2015. Vietnam, Thailand, Singapore, Philippines, Lao PDR, Malaysia, China, Japan, South Korea, Taiwan, Australia, United Kingdom, France, Germany, Canada, and United States are considered the major tourist-generating countries for Cambodia. The main results of this study are: (1) determinant of the factors affecting the international tourist arrivals to Cambodia; (2) to establish the direction of causal relationships the international tourist arrivals and some factors, (3) to construct a model for international tourism demand for Cambodia, and (4) empirical findings should provide useful information for decision makers and planners in Cambodia.

The rest of the chapter is organized as follows. Section 2 is devoted to describe the international tourist arrivals to Cambodia. Section 3 literature reviews. Section 4 describes the data and the econometric methods used for estimation. Section 4 presents the empirical results and their interpretation. Some concluding remarks are including in Section 5.

2. Tourism in Cambodia

The present section describes the characteristics of the tourism demand in Cambodia focusing on the tourists from 16 countries, described in section 1, because Cambodia have received the tourist from them larger than the rest of the world (tourism statistics report on 2016, Statistics and Tourism Information Department, Ministry of Tourism, Cambodia in table1).

Table 1. International Tourist Arrivals to Cambodia by Country

Country of Residence	2015	2016			Chang in %	
	Total	Purposes of Visit			Total	2016/15
		Holiday	Business	Others		
Viet Nam	225,600	170,910	14,438	32,516	217,864	-3.4
Thailand	71,572	72,660	4,968	8,031	85,659	19.7

Singapore	13,281	14,193	833	160	15,186	14.3
Philippines	16,708	18,856	2,767	4,505	26,128	56.4
Lao PDR	94,447	53,081	43	5,666	58,790	-37.8
Malaysia	32,107	29,581	2,834	579	32,994	2.8
China	187,126	186,622	28,056	2,535	217,213	16.1
Japan	57,478	49,246	5,849	664	55,759	-3.0
South Korea	159,897	126,646	4,052	850	131,548	-17.7
Taiwan (China)	29,009	23,390	4,466	32	27,888	-3.9
Australia	34,542	40,520	1,677	379	42,576	23.3
UK	48,387	49,019	1,998	568	51,585	6.6
France	47,056	45,907	2,100	671	48,678	3.4
Germany	34,270	45,477	648	715	46,840	36.7
Canada	21,227	21,803	629	212	22,644	6.7
USA	67,300	71,478	2,585	1,643	75,706	12.5

The international tourist arrivals from Vietnam, Lao PDR, Japan, South Korea, and Taiwan (China) in 2016 compare with 2015 decreased 3.4%, 37.7%, 3%, 17.7%, and 3.9%, respectively and most of them increased (tourism statistics report on 2016, Statistics and Tourism Information Department, Ministry of Tourism, Cambodia in table1).

The tourism receipts from 2006 to 2015 have increased from 1, 049 million dollar to 3,012 million dollar (tourism statistics report on 2016, Statistics and Tourism Information Department, Ministry of Tourism, Cambodia in table2) and the gross domestic products also have gone up from 7,275 million dollar US to 18,050 million dollar US (World Bank). Base on table 2, we see that the tourism receipts in 2015 are equal 16.69% of GDP. This indicates that the international tourist arrivals are a main source of revenue for Cambodia's economic growth.

**Table 2. International Tourist Arrivals, Average Length of Stays,
Hotel Occupancy & Tourism Receipts, GDP 2006 – 2015**

Int'l Tourist Arrivals		Average Length			Hotel Occupancy		Tourism Receipts Mil. US\$	
Years	Number	Change (%)	of stays (Days)	(%)		GDP (Million US\$)	Tourism Receipts/GDP (%)	
2006	1,700,041	19.6	6.50	54.8	1,049	7,275	14.42	
2007	2,015,128	18.5	6.50	54.8	1,400	8,639	16.21	
2008	2,125,465	5.5	6.65	62.7	1,595	10,352	15.41	
2009	2,161,577	1.7	6.45	63.6	1,561	10,402	15.00	
2010	2,508,289	16.0	6.45	65.7	1,786	11,242	15.89	
2011	2,881,862	14.9	6.50	66.2	1,912	12,830	14.90	
2012	3,584,307	24.4	6.30	68.5	2,210	14,038	15.74	
2013	4,210,165	17.5	6.75	69.5	2,547	15,450	16.49	
2014	4,502,775	7.0	6.50	67.6	2,736	16,778	16.31	
2015	4,775,231	6.1	6.80	70.2	3,012	18,050	16.69	

3. Literature Review

Most research on tourism demand focuses mainly on the modelling of tourist arrivals. Song and Li (2008) indicate that this is mainly due to the availability of data, since secondary data sources are most commonly used in these models. These authors affirm that using econometric models to explain tourism demand provides useful economic interpretations, policy recommendations as well as a measure to evaluate policy performance.

Few researchers have investigated the relationship between international trade and international travel. Kulendran and Wilson (2000) investigated the long-run equilibrium and short-run bidirectional causality relation between international trade and international travel, using data of bilateral travel and trade flows between Australia, the United States, the United Kingdom, New Zealand and Japan separately. They found that cointegrated and causal relations between international trade and international travel existed in some cases. Fischer (2004) explored the connection between bilateral food imports and bilateral tourist flows by using an

error correction model. The results show that, while aggregate food import demand is inelastic with regard to international travel, the estimated average elasticities for imports of certain food products (wine, cheese and processed/preserved vegetables) are consistently higher. Turner and Witt (2001) used the structural equation model to investigate the tourism demand of New Zealand from Australia, Japan, the UK and USA. The empirical results showed that international trade plays a major role in influencing business tourism demand.

Lim (1997) reviewed 100 empirical studies on tourism demand and concludes that the explanatory variables that are the most popular to be included are, in order of importance, income, relative prices, some qualitative factor and transport. In terms of tourism demand for South Africa, the focus has also been on tourist arrivals. Tourism demand for South Africa has been modelled by, among others, Saayman and Saayman (2008) and Seetanah *et al* (2010). Results from these studies indicated that income is the main determinant of arrivals, and that tourism to South Africa is relatively income elastic.

4. Model specification and methodology

This study uses inbound tourism flows to Cambodia for empirical study. Although some studies utilized various time series models to forecast tourist arrivals to Cambodia (Kulendran and Shan 2002, Witt and Turner 2002), only a few identified the determinants of such arrivals (Song and Fei 2007). Hence, this study represents one of the first attempts to model the factors influencing tourism flows to Cambodia.

4.1. Tourism demand model

Most tourism demand modelling published before the 1990s are classical regression analyses, with ordinary least squares (OLS) as the main estimation procedure and economic theory is used to recommend what variables should be included in the demand models. This study employs a panel data model to estimate the elasticities for tourists visiting the Cambodia. Panel data permit the use of a complete database in order to explain the influence of several variables in decisions made by tourists. From a theoretical point of view and the past results of research, the demand for tourism (DT from Statistics and Tourism Information Department, Ministry of Tourism, Cambodia) is a function of trade ties (TT - imports and exports

from UN COMTRADE statistics) between the Cambodia and origin countries and the real personal income (the GDP per capital is measured as the PC from World Bank) of the tourists. We apply it to a panel data set collected from 32 countries from 2006 to 2015. Specifically, the proposed tourism demand model is of the form:

$$TA_{it} = \beta_0 + \beta_1 TT_{it} + \beta_2 PC_{it} + \beta_3 DUM_t + \varepsilon_{it} \quad (1)$$

Where i denote the country of origin, t denotes the year of study. β_1 and β_2 are trade ties and income, respectively. According to demand theory, we expect that β_1 and $\beta_2 > 0$. TA_{it} is the annual international tourism arrivals from origin i to Cambodia at time t . Some dummy variables are included in the models to pick up the impacts of the political shocks that affected tourism in Cambodia within the period of study. A dummy variable takes a value of 1 when a shock occurs and 0 otherwise included in the original models. Given that the effect may be different between years, two dummies are specified to capture the influence of the national election crisis which arose in 2008, and continued into 2009. DUM_{2008} (= 1 in 2008 and 0 otherwise) detects the influence in 2008, and DUM_{2009} (=1 in 2009 and 0 otherwise) as well as 2013 influences 2014 (= 1 in 2013 and 0 otherwise) and (= 1 in 2014 and 0 otherwise) in the following year.

4.2. Trade ties

Bilateral trade relationships may be also facilitated the tourist flows between countries. Trade can serve as an informational knowledge platform between Cambodia and the origin countries. Following Phakdisoth and Kim (2007) and Leitao (2010), the trade value between Cambodia and each of the origin countries is computed as follows:

$$TR_{it} = \frac{EX_{it} + IM_{it}}{GDP_{CAM,t} + GDP_{it}}$$

Where refer to the annual exports of Cambodia to each tourist generating countries; is the annual imports of Cambodia from each origin countries; and of Cambodia and the tourist generating countries, respectively.

5. Econometric Model

This paper adopts the panel data regression approach for testing tourism demand model in Cambodia. Typically, panel data models will be used: fixed-

effects model (FEM), random-effects model (REM), and the generalized method of moments (GMM) procedure of Arellano and Bond (1991).

5.1. Fixed-effects model (FEM)

The fixed-effects estimation technique which can potentially control for unobservable heterogeneity under the assumption of strict exogeneity. It (FEM) allows for heterogeneous intercepts across cross-sectional individuals and/or over time using a differential intercept dummy. In applying a fixed-effects model, time-invariant explanatory variables (e.g., the industry classification of a firm) are not included, and failing to estimate such time-constant variables, the fixed-effects estimator has been criticized for ‘wasting’ very relevant information from the econometric specification (Owusu-Gyapong, 1986). Furthermore, fixed-effects estimation is a static panel data model, which means it does not allow for the lag of the dependent variables (firm financial performance) to be included as an explanatory variable in the econometric model (Wooldridge, 2012). This means that each cross-sectional unit has its own individual specific parameter, or so-called individual fixed-effects, as follows:

$$\text{LogTA}_{it} = \alpha_0 + \alpha_1 \text{LogPC}_{it} + \alpha_2 \text{TT}_{it} + u_i + \vartheta_t + \varepsilon_{it} \quad (2)$$

u_i is the individual fixed effects for country i , ϑ_t is the time specific effect, and ε_{it} is the error term that satisfies the standard properties.

5.2. Random-effects model (REM)

An alternative FEM model expresses the specific effects for time- or individual-invariant variables as random variables (error terms) in the equation, instead of expressing the fixed intercept as the unobserved effects in FEM. This is the so-called random-effects model (REM) or error components model (ECM).

An advantage of random effects is that you can include time invariant variables (i.e. gender). In the fixed effects model these variables are absorbed by the intercept. The basic formula of REM can be expressed as follows:

$$\text{LogTA}_{it} = \beta_0 + \beta_1 \text{LogPC}_{it} + \beta_2 \text{TT}_{it} + \alpha_i + u_{it} \quad (3)$$

In fact, the ideal random effects assumptions include all of the fixed effects assumptions plus the additional requirement that α_i is independent of all explanatory variables in all time periods. The unobserved effect, α_i has zero mean (without loss of generality) and it is uncorrelated with each explanatory variable in all time periods. It is common for all coefficients in REM to be derived by the feasible generalized

least squares (FGLS) method. Random effects assume that the entity's error term, u_{it} is not correlated with the predictors which allows for time-invariant variables to play a role as explanatory variables.

5.3. Hausman or Lagrange multiplier (LM) tests

When using the panel data model, the process includes the Hausman or Lagrange multiplier (LM) tests, which is part of the criteria for deciding whether to use FEM or REM. For example, Hausman (1978) devised a specification to test for orthogonality between the random effects by GLS and the fixed effects by OLS. The Hausman test needs the estimates from both fixed and random effects models.

Table 1. Results of Fixed effects and Random effects

LogTA	RE	FE					
	Model 1	Model 2	Model 2a	Model 2b	Model 2c	Model 2d	Model 2e
Constant	-1.55*** (0.39)	-0.87*** (0.364)	0.36 (0.30)	-2.79*** (0.36)	-2.81*** (0.37)	-2.78*** (0.37)	
LogPC	1.402*** (0.0862)	0.71*** (0.084)	1.28*** (0.082)	1.69*** (0.082)	1.69*** (0.0855)	1.69*** (0.086)	1.67*** (0.086)
TT	18.299 (16.302)	8.298 (14.861)	-4.96 (11.50)	7.74 (14.58)	9.13 (14.90)	9.43 (14.89)	10.002 14.83
Year 2008				-0.094*** (0.025)			
Year 2009					-0.022 (0.026)		
Year 2013						0.031 (0.027)	
Year 2014							0.049 (0.027)
Year effect			Yes				
Country effect			Yes				
# of countries	32	32	32	32	32	32	32
# of Observation	352	352	352	352	352	352	352
R^2	0.5647	0.5659	0.9779	0.5837	0.5668	0.5677	0.5706
Hausman test		86.84***					

***Significant at the 1% level; **Significant at the 5% level; *Significant at the 10% level.

The first set of results addressed here is the issue of fixed-versus random-effects models. As noted earlier (*table 1*- model 1 and 2), the random-effects model may be misspecified due to a correlation between a panel-specific component of error and the explanatory variables, from which fixed-effects models do not suffer. This can be verified by a Hausman test (p -value <5%).

Both country-specific and time-specific fixed effects (dummies) are included in model 2a, since they improved the fit ($R^2 = 97.79\%$) of the regression. That is, a two-way fixed-effects specification yielded the best fit. The results from the estimation of tourism arrivals (model 2a) indicates that it is significantly influenced by the personal income at 1% level, and the magnitude of the parameter (1.28). It means that when the personal income increases 1%, it causes the tourism arrivals increases 1.28%.

Base on model 2b, the National election event at 2008 also had been negatively affected the tourism arrivals, in size (coefficient = - 0.094).

5.4. Generalized method of moments (GMM)

When lagged dependent variables are included as regressors, the simple estimation procedures are asymptotically valid only when there are a large number of observations in the time dimension (T). It means that The GMM model controls for endogeneity by internally transforming the data and by including lagged values of the dependent variable. The current available response to this problem Arellano and Bond (1991), Holtz-Eakin (1988) and Hsiao (2003) implied that to remove the individual effects and then estimate by instrumental variables (IV), using as instruments the values of the dependent variable lagged two or more periods. This treatment leads to consistent but not efficient estimates, because it does not make use of all the available moment conditions (Garin-Munoz, 2007). In order to avoid the inconsistency problem in equation (1), we use the Generalized Method of Moments (GMM) estimators introduced by Arellano and Bound (1991). The GMM estimate also controls for endogeneity by using the lagged values of the levels of the endogenous and the predetermined variables are instruments. The GMM method yields unbiased estimators in dynamic models when the unobserved fixed effects are correlated with the regressors. Furthermore, the Arellano and Bond (1991) procedure is a two-step method. Arellano and Bond (1991) report simulations which show that the two-step standard error estimates in short samples ($T = 10$) are biased down wards, so that standard critical values of the t -statistic are

no longer valid. This bias decreased rapidly with the sample size so we therefore report the two-step estimates (GMM2) in all models. Therefore, we will use a bias-corrected robust estimator of the variance–covariance matrix for the two-step GMM estimator devised by Windmeijer (2005). In addition, a Sargan test of over-identifying restrictions and the Arellano-Bond test for serial correlation are presented. All the results from the panel estimation reported in this paper refer to two-step GMM estimates. The Generalized methods of moments estimators (first and second step) of Arellano and Bond (1991) will be estimated:

$$\log TA_{i,t} = \beta_1 \log TA_{i,t-1} + \beta_2 \log PC_{i,t} + \beta_3 TT_{i,t} + \gamma_i + \varphi + \vartheta_{i,t} \quad (4)$$

where $TA_{i,t}$ and $TA_{i,t-1}$ are the number of tourism arrivals from country i in year t and $t-1$ respectively. $PC_{i,t}$ is the personal income of country i at year t , $TT_{i,t}$ is the trade ties with country i at year t , γ_i is a vector of year dummies, φ is a vector of country dummies, $\vartheta_{i,t}$ is the error term, and Δ is a first difference operator. Unlike industry-specific effects, time-specific effects are not eliminated by the difference transformation of variables. Besides, Oppermann, M (2000) stated that the tourists could influence other tourists' traveling behavior in the country of residence through word-of-mouth (WOM) effects ($TA_{i,t-1}$).

Table 2. GMM estimations

Dependent variable: $\log TA_{i,t}$	One-Step GM	One-Step GMM	Two-Step GMM	Two-Step GMM
	Model 4a	Model 4b	Model 4c	Model 4d
$\log TA_{i,t-1}$	0.743*** (0.0274)	0.747*** (0.0288)	0.746*** (0.0051)	0.744*** (0.0124)
$\log PC_{i,t}$	0.481*** (0.076)	0.397*** (0.081)	0.474*** (0.0133)	0.397*** (0.0307)
$TT_{i,t}$	-1.319 (8.688)	-0.061 (8.706)	-2.430 (1.366)	-2.368 (3.632)
Year 2008		-0.0103 (0.0105)		-0.008** (0.0028)

Year 2009		-0.044*** (0.011)		-0.041*** (0.004)
Year 2013		0.0016 (0.0104)		0.0012 (0.0025)
Year 2014		-0.0138 (0.0106)		-0.014*** (0.0027)
Number of countries	32	32	32	32
Observation	288	288	288	288
Sargan test (<i>p-value</i>)	0.0000	0.0000	0.9261	0.9457
Autocorrelation				
1 st order	0.0000	0.0000	0.0503	0.0551
2 nd order	0.6906	0.5322	0.8157	0.7513

***Significant at the 1% level; **Significant at the 5% level; *Significant at the 10% level.

The results from estimating equation (4) using the Arellano-Bond (1991) first step generalized methods of moments estimator are shown in Table 2 (model 4a and 4b). The estimated equations for the tourism arrivals basically do not pass the Sargan over-identifying restrictions test and the Arellano-Bond 1st order autocorrelation tests.

But, the results from estimating equation (4) using the Arellano-Bond (1991) second step generalized methods of moments estimator are shown in Table 2 (model 4c and 4d). The estimated equations for the tourism arrivals basically pass the Sargan over-identifying restrictions test and the Arellano-Bond 1st order and 2nd order autocorrelation tests.

The results in Table 2 (model 4c and 4d) are consistent with those in Table 1 (mode 2a and 2b). The lagged tourism arrivals variable is positive in all two models, suggesting that Cambodia is an expanding destination over time. This finding is consistent with the recent research of Teresa Garin Munoz (2006 and 2007), William F. Maloney and Gabriel V. Montes Rojas (2005). A positive coefficient on lagged tourist arrivals also suggests the presence of repeat visits, which may be reflecting the positive experience of tourists with respect to its temples, excellent beach, and others.

Base on model 4d, the National election event at 2008 had been negatively influenced the tourism arrivals, in small size (coefficient = - 0.008) but it continued to negatively affected at 2009, in size (coefficient = - 0.041). Besides, the National election event at 2013 had not been influenced the tourism arrivals, but it caused to negatively affected at 2014, in size (coefficient = - 0.014).

6. Conclusion

The aim of this paper has been to explain the determinants of tourism to Cambodia, taking into account typical factors present within the continent, such as the previous tourism arrivals, personal income, trade ties, and political situation.

Because of the limitations of cross-sectional data, panel data techniques were employed to estimate the determinants of tourist arrivals in Cambodia. Panel data regressions such as fixed effects, random effects, and dynamic panel data regressions by using the Arellano–Bond first-step and two-step GMM estimator, were applied.

In the panel data (fixed effects) analysis, personal income is the factor affecting the tourism arrivals. Besides, in the dynamic panel data analysis, lagged tourism arrivals and the personal income also becomes significant with the sign of the positive coefficient.

To sum up, the study found that the word-of-mouth (WOM) tends to bring about positive effects on international inbound tourism flows. Consequently, their importance as links connecting foreigners should be emphasized. First, when they visit Cambodia, their high level of satisfaction should be guaranteed, to increase their loyalty and WOM effects on other residents when they return to their resident countries. Second, other strategies can be proposed to make the tourist more willing to promote other tourists as a possible travel. Based on results of this research, several marketing implications can be drawn for Cambodia's international tourism development.

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THE PERCEPTION OF INTERNATIONAL TOURISTS AND THEIR INTENTIONS TO VISIT CAMBODIA

Dr. Veasna UNG¹

Abstract

Visitor attractions (VAs) play a crucial role in the success of a tourism destination, where they act as key motivators for visits and as resources for local communities. A vital sector in the tourism industry can not be ignore the inbound tourists. It has a considerable influence on improvement of community living standard, on the local economy's development and on the image's publicity for nation. In Cambodia, has recently attracted lots of international tourists, and become a rapid growing activity in its economic, hence, experienced rectangle strategy programs of royal government and revitalizing strategies of ministry of tourism, such as open sky, target market analysis, to elevate the government economic and social impacts and peaceful factor in whole nation. Consequently, the research aims to determine the main dimensions that affect on foreign tourists to visit Cambodia and this study also was to investigate the perception of international tourists and the possible relationship between tourists' perception and their intentions to visit Cambodia. Specifically, the relationships among inbound tourists perception of eight dimensions (social; economic; historical and culture; environment; build form; value; entertainment; and accommodation and foods) and visit intention were explored. An objective achieved by applying both quantitative and qualitative approach with a self-structured and unstructured data collection questionnaire on international tourists in 2017 and 2018 to end up concluding that well-facilitated dimensions is the motivational factor for Cambodia visiting. A conceptual framework was proposed and more than 600 international tourists were surveyed. By conducting the particular qualification rules of valid questionnaires, a total of 63 questionnaires was selected to be used in this research. The major findings indicated the tourists have different important level of factors to make decisions to select Cambodian destination. The development of strategies plan for tourism in Cambodia should receive perceptions of inbound tourists and is regard as potentiality of the destination in being a tourist attraction.

Key words: *Inbound tourists, Affecting Factors, Tourist Intention, Cambodia*

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1. Introduction

In both developed and developing countries focus on tourism that it is the most attractive and the fastest growing sector (Othman, and Rosli 2011) and is considered the biggest and the most diversified industry (Egbali, et al. 2010). Each countries intend to flourish their tourism industry and try to attract most inbound tourists with many reasons like international tourists bring foreign currency to the host country; tourism sector is much more merciful toward environment than many industries producing goods; and growth in tourism industry accelerates other related industries (retail, entertainment and transportation) (Hanafiah and Harun, 2010) and also take a reasonable advantage of this dynamic industry as a major source for income, employment, private sector growth, and infrastructure development (Egbali, et al. 2010).

For two decades, factors of attracting tourists concentrate the destination image particularly in the tourism field (Mehri Yasami,2013) and as cited by author Esu,(2009), Long and Perdue, (1990), mentioned that a way of attracting and enhancing visitors have to develop and promote the cultural and heritage of the people for tourist destinations because of tourism of culture and heritage is being regarded as instrument to push domestic economy and has the potential to assist in the seasonal and geographical spread of tourism. The most income road to do business in a cultural event should be considered by cultural managers and organization. It is also to bridge to enhance competitiveness for culture managers for expanding the culture tourism part and improving attractive tourist destination (Codignola, and Mariani, 2017).

The tourism industry is deemed to be a very significant sector to the economy of Cambodia. The international arrivals trend has increased from 118,183 tourists in 1993 and 4,210,165 tourists in 2013 to 5,602,157 tourists in 2017 and 11.8% growth over the previous year. (source: Tourism Statistic Report, MOT, June 2018). Tourism is a significant and growing part of the Cambodian economy. In its October 2017 regional update, the World Bank said that tourism contributed 28.3 percent of Cambodia's GDP and 25.9 percent of employment (World Bank October 2017). Domestic tourist numbers were estimated at 10 million in 2016 (Hang Sokunthea, 2016). This shows a doubling over 10 years according to statistics from the Ministry of Tourism. The growth rate is estimated at 5–7 percent a year (<https://opendevelopmentcambodia.net/topics/industries/#return-note-76366-26>). The Tourism Ministry announced in early 2017 that it had

prepared a master plan for the development of the industry to attract investment in the sector and create more products for tourists (Chan 2017).

The countries that provide most of the tourists to Cambodia have changed over the last decade. While western countries were the top markets for foreign tourism in the early 2000s, they have been overtaken by tourists from China, Vietnam and other Asian countries. Over 1.2 million Chinese visitors arrived in 2017, an increase of 46% from the previous year. Three-quarters of international tourists today come from the Asia/Pacific region, with only 15 percent from Europe (<https://opendevelopmentcambodia.net/topics/industries/#return-note-76366-26>).

Therefore, tourism industry of Cambodia should exert a deep comprehending of potential tourists' perception toward different cultural, festivals, destination attributes of that country in order to predict tourist demand. It will provide the basis for more effective and efficient future strategic planning of the destination. The current paper objectives could be summarized in three ways; it draws the international tourists' perception towards Cambodia's dimensions upon surveys; it investigates the possible relationship between tourists' perception on factor of social, economic, culture and heritage, environment, build form, accommodation and food, entertainment and intentions to visit that country.

2. Literature Review

Tourism have been developing and growing and was regard as the world's largest industry (Ottevanger, 2007). More researchers identify the tourism products such as income in country of origin, the cost of travel, relative prices, exchange rate, tourism infrastructure, and the level of development in the destination country are among the most common determinants of arrivals in the literature (Khadaroo, J. and Seetanah, 2007).

Meanwhile, tourist's behavior connect with tourism sector, not consider about demand and supply only (Asbollah, et al. 2017) but the experiences, expectation and perceptions of tourists are also very important for learners or researchers to know about the behavior of visitors in tourism industry. For motivation and decision making of visitors on any destinations are involved with images that are constructed based on personal experience and education, recommendations and ideas of others and information provided by the media. Guide tourists to travel any attractive destination cannot be concentrate on tourists' perception of destination images in which focus on the tourists'

perception toward attractive destination available, and (Asbollah, and Hassan, 2017), and author Asbollah, et al. (2017) also pointed out the images developed depended on personal experience and knowledge, recommendations and opinions of others and information offered by the media are involved motivation and tourist decisions about destination and images that created and visited to many sites, and became a train of opinions to another object, places, cultures and people. In fact, visitors' perception towards attractions that available in the destination are the destination's image and also play key role to match tourist with attractive destination, and if images get positive and favorable sign then can push up competitive advantage and stay in a strong positioning of destinations on foreign tourism market (Puh, 2014) and this positive image motivate tourist think about choosing a destination (Pool, 2006). And researcher, Hashemi, et al. (2015) argued that exploring traveler's behavior and their travel decision involve to the motivation concept that is easy for tourism service provider know visitors' demand during their travel at particular destination. For attraction of destination refers to the ideas, beliefs, and emotion that a person understand a position had the ability to offer the level of satisfaction and is very important satisfy the tourist's demand (Hu and Ritchie, 1993). And Gao (1995) said that attraction as —a destination with distinctive aspect in which travelers are interested. And sector of culture, infrastructure, price levels, and attitudes toward to tourists affect on the destination attraction (Global Insight, Inc. June 2004).

Researcher of Endresen, (1999) mention that the diversity in attractions, destinations, and business characteristics are related to the core feature of tourism. Culture and natural heritage attraction are also vital dimension of destination attraction for visitors. Involving the features within the natural environment based on man-made buildings, structures and sites that were designed for a purpose other than attracting visitors, such as religious worship, but which now attract substantial numbers of visitors who use them as leisure amenities, and man-made buildings, structures, and sites that are designed to attract visitors and are purpose-built to accommodate their needs, such as theme parks, and special events. Actually, culture influence on tourism industry (Ottevanger, 2007), and tourist play a role to contribute to conserve the arts and they also constitute an important share of the audience for museums, galleries, theatres, and concerts, particularly in capital cities (Richards, 1996).

The infrastructure and technology factor are core feature that can enhance experience and they play an important role for attracting tourists to visit any

destination (Smith,1994), and infrastructure is used for tourists as they move around the city, visiting urban attractions, returning to their accommodation, and transport supply focus on a broad range of modes, from large infrastructures such as airports to bus network systems within cities (Albalade, and Bel, 2009), transportation was regarded as a powerful sector in access that affect on visitors to visit a destination and was regarded both of transport and destination as teeth and tongue. Spend enough money to develop infrastructure will make destination to grow (Pool, 2006).

Merwe, and Saayman (2008) point out destination attractions is a present of dimension of accommodation, brand of the park, climate of location and grew up with the park too. And the other hand, tourist attraction requires to consider the enhancing and raising in natural and man-made infrastructure (Homafar, et.al. 2011). In addition, Consumption for tourists are not only the sights and sound, but also the taste of place and all tourists eat and dine out (Shenoy, 2005) that food is not only for creating the destination revenues but also key variable for the tourist experience. (Jayaraman, et.al., 2010) and the other hand, traveling for food has taken an entirely new meaning from what it used to when voyages were undertaken for spice trade, but voyagers still carried dried food, as the local cuisines were looked upon with suspicion (Tannahill, 1988). And foods play a key role in tourism and influence much on their budget and planning and is also vital attraction and of tourism experience. While visitors arrival in a destination, travelers want to happy flavor of nation foodstuff for the next couple of days. In addition, tourists' behavior on accommodation is completely depend on motivation, economic ability, location and environment and it was regarded as one of the major key type of expenditures for visitors during their travel (Bhadra, undate).

Furthermore, decision making of tourist can not be considered about environmental quality in which focus on the quality of the natural features of the destination that can be worsened by human activities. Beautiful scenery, natural hydrologic structure, clean water, fresh air can suffer from pollution and lose their attraction are the parts of natural feature. In the new world, tourist are willing to spend more for getting a better environment (Pool, 2006)

Based on Global Insight, Inc.June (2004), four attraction categories for tourists also concentrate the arts and culture; environment and built form; and entertainment. But those factors that were considered how these dimensions affect visitors through marketing and promotion of the site. The marketer find the

main point for attracting the travelers through factors as below

- Promotion: Information available to the tourists prior to his departure, and the show of this information, is essential in making strong decision the destination for many visitors.
- Quality: The travelers is finding for a high-quality travel experience. Quality is shaped by all parts influencing the tourist at the place, and it is primarily by giving a high quality experience that destinations challenge.
- Entertainment: The —entertainment value of a destination is vital to many travelers—even at museums and other —cultural sites.
- Shopping Atmosphere: Shopping is a key element to a tourist, but it must help to offer the —atmosphere of the destination to the tourists.
- Tourism Infrastructure: The destination's tourism infrastructure (generally speaking, elements that ease the tourists access to the destination—hotels, transportation, attitudes of locals towards tourists, etc.) is vital contributor to the tourist's overall experience.
- Multiple Attractions: Complementary or interaction of different place at the destination is essential

Regarding to tourist intention can not be absent of international visitor motivation and satisfaction (Hashemi, et al. 2015), and return intention of tourist is the connection of destination satisfaction and travel motivation (Khuong, and Ha, 2014) and safety was considered as priority factor of selecting any destination (Jensen, 2017).

3. Research Methodology

3.1. Data Collection and Research Approach

The survey research was conducted by researcher. The tool of data collection through questionnaire that includes the five widely-used dimensions (social factor, economic factor, culture factor, environment factor, build form, value factor, entertainment factor and accommodation and food factor). A survey questionnaire is designed and distributed randomly to target respondents, who are traveling in Cambodia. The questionnaire is classified into three major parts. The first part of the questionnaire contains factors influence on tourists. In the second part, questions were asked to obtain respondents' visit intention.

Respondents were asked to respond to each item on the widely used five-point Likert-type scale in which is link to Sukwadi et al.,(2011). The three part of the questionnaire is used to get the information on the demographic information of the respondents. Researcher used self-completion questionnaires to collect the necessary primary data set, which focused on the opinions of the international tourists who are traveling in any attractive destination in Cambodia. Initially, 600 questionnaires were distributed to foreign tourists in Cambodia. The response rate was 76.83 percent. Following rounds of cleaning process of the collected data, a sample of 461 observations is considered usable for the analysis. Unstructured questions was conducted by researcher. The research approach was conducted in both qualitative and quantitative method.

3.2. Sampling Techniques

A non-probability sampling, purposive sampling, and probability simple random sampling were often used. For the international tourists, questionnaires were distributed to inbound tourists that were selected randomly from the Cambodian destination under study in different destination located either inside or outside the capital city of Phnom Penh. For purposive and random sampling, researcher through student volunteers visited very popular tourism destinations in Cambodia (like Phnom Penh city, Siem Reap province and Preah Sihanuk Province) and made interview with foreign tourists. For determining the sample size, table of sample size for a given population size is made available by Krejcie and Morgan (1970) who greatly simplified the sample size decision by providing a table that ensures a good decision model.

3.3. Survey Duration

The survey questionnaire was handed out directly to international tourists in Cambodia for approximately two years, starting from month of November to December of each year from year 2017 to the year 2018.

3.4. Pilot Study

Researcher also conducted a pilot test to detect weaknesses in design and instrumentation and to provide proxy data for selection of a sample. It, therefore,

draws subjects from the target population and simulates the procedures and protocols that have been designed for data collection (Cooper and Schindler, 2008). Following the best practices recommended by Churchill (1979) and Maholtra and Grover (1998), pilot data were collected to further purify measures. A sample of 80 tourists was asked to complete the questionnaires with foreign tourists only in the year of 2016.

3.5. Analytical Techniques

All data collected are fed into statistical packages, in particular the Statistical Package for the Social Sciences (SPSS 20) analysis. The statistical analysis of data includes descriptive statistics, and t-test analysis and correlation were conducted to analysis for finding relationship between each independent variable and dependent variable.

4. Finding

4.1. Profile of tourists

The profile of respondents shown in Table1 below. Of the 461 respondents was male and 54.4%; 45.6% female respectively, and the sample also reveals that age of the respondents (from 20 – 30 years old) are 52.3%, followed by 31 years – 40 years (19.1%); 41 years – 40 years (13.7%); under 20 years (8%) and over 50 years (6.5%), respectively. And nearly 65% of respondents are unmarried, and 35% married. Moreover, education level of respondents got bachelor degree was nearly 60%, followed by master (20.4%); senior high school (7.8%); junior college (4.8%), PhD (3.5%); and Junior high school (2.2%) respectively. Among of 461 tourists, his/her occupation were students (34.3%); followed by employees (24.1%); business people (16.5%); teachers (7.2%); civil servant (3.5%); and retired (2.4%), respectively, and income of respondents (from 200\$ to 400\$ per month) was 15.4%; in which followed by Over \$2000 per month (14.5%); \$1000-\$1500 per month (14.3%); \$800-\$1000 per month (14.1%). For travel behavior characteristic of tourists who visited Cambodia at the first time (67.2%), and revisit (32.5%), and most of them traveled

Cambodia without group tour (nearly 62%). Inbound tourists were invited to be surveyed by researcher were visiting Cambodia by family and relatives (nearly 29%); followed by friends and colleagues (27.3%); individual (20%);

other (17.1%); and classmate and teacher (6.3%), respectively. Respondents also known Cambodian destination through internet (54.9%); friends& relatives (31%); other (24.7%); travel agent (24.5%); travel magazine (13.2%); textbook (7.6%); other TV channel (6.7%); and CNN (5.6%), respectively. For respondents are from Europe countries were 28.2%); followed by ASEAN countries (24.3%); America (12.8%); Eastern Asia (6.5%); Australia (5.9%).

Table 1. Characteristic of the Respondents

<i>Respondent Characteristic</i>	<i>Frequency</i>	<i>Percentage</i>
<i>Gender</i>		
Male	251	54.4
Female	210	45.6
<i>Age</i>		
Under 20 years old	37	8.0
20-30 years old	241	52.3
31-40 years old	88	19.1
41-50 yaers old	63	13.7
Over 50 years old	30	6.5
<i>Marrital Status</i>		
Unmarried	299	64.9
Married	156	35.1
<i>Education Level</i>		
Junior high school	10	2.2
Senior high school	36	7.8
Junior college	22	4.8
Bachelor	276	59.9
Master's	94	20.4
Ph. D	16	3.5
<i>Occupation</i>		
Student	158	34.3
Employee	111	24.1
Public servant/official	16	3.5

Business people	76	16.5
Teacher	33	7.2
Retired	11	2.4
Other	50	10.8
<i>Income</i>		
Under 200	42	9.1
200-400	71	15.4
401-600	62	13.4
601-800	42	9.1
801-1000	65	14.1
1001-1500	66	14.3
1501-2000	35	7.6
Over 2000	67	14.5
Travel behavior characteristics: Frequency of visit		
First time	310	67.2
Revisit	150	32.5
<i>Group Tour</i>		
No	285	61.8
Yes	158	34.3
The type of visit to Cambodia		
Family and relative	133	28.9
Friend and colleagues	126	27.3
Classmate and teacher	29	6.3
Individuals	92	20.0
Other	79	17.1
Information sources:		
CNN TV	26	5.6
Other TV Channel	31	6.7
Facebook	35	7.6
Travel Agents	113	24.5
Travel magazine	61	13.2

Internet	253	54.9
Friends/Relatives	143	31
Other	114	24.7
The purpose of your visit to Cambodia		
Leisure/Holiday	343	74.4
Medical	4	.9
Business	81	17.6
Recreate	27	5.9
How long you stay in Cambodia		
Less than three nights	44	9.5
Three nights to five nights	128	27.8
Six to eight nights	101	21.9
More than eight nights	183	39.7
<i>Country of Tourists</i>		
Middle East	6	1.3
Americas	59	12.8
Africa	8	1.7
Europe	130	28.2
ASEAN	112	24.3
Eastern Asia	30	6.5
Australian	27	5.9
Southern Asia	19	4.1
West Asia	2	.4
Oceania	3	.7
Northern Europe	4	.9
Western Europe	40	8.7
Southern Europe	3	.7
Other	11	2.4

As table 2 below, in 5 highest average score, inbound tourists thought that factor of Angkor Wat temple, safe & securities, geographical landscape, and natural scenery, varieties of food and beverages tend to be important for them by

its mean score is around 4 point. In opposite, lowest average score refers to factor of casinos, amusement and theme parks, strong currency, amusement and theme parks, and theatre that its mean score are around 3, so that those factors tend to be normal for tourists.

Table 2. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Social Factor				3.92	
Cambodia's attitude toward tourism	461	1.00	5.00	3.93	.843
Traditional and normal value of Cambodians	461	1.00	5.00	3.98	.775
Safety and security	461	1.00	5.00	4.10	.945
Festival celebrations	461	1.00	5.00	3.68	.963
Economic Factor				3.59	
Strong currency	461	1.00	7.00	3.26	1.114
Exchange rate	461	1.00	5.00	3.42	1.004
Price of shopping	461	1.00	5.00	3.60	.947
Price of entertainment	461	1.00	9.00	3.58	.980
Price of fruits	461	1.00	5.00	3.50	.981
Price of food	461	1.00	5.00	3.70	.955
Price of accommodation	461	1.00	5.00	3.82	.886
Price of location transportation	461	1.00	5.00	3.84	.905
Culture & Historic Factor				3.72	
Angkor Wat temple	461	1.00	5.00	4.40	.812
Preah Vihear temple	461	1.00	5.00	3.85	.955
General History Museums	461	1.00	5.00	3.90	.816
Historic Sites	461	1.00	5.00	3.87	.856
Other Themed Museums	461	1.00	5.00	3.53	.816
Art Galleries	461	1.00	5.00	3.47	.983
Different culture	461	2.00	5.00	3.70	.873
Music and performances	461	1.00	5.00	3.55	.899
Notable history	461	1.00	5.00	3.61	.883
Human-made theme park	461	1.00	5.00	3.28	1.050

Environment Factor				3.81	
Pleasant climate	461	1.00	5.00	3.66	.792
Attractive scenery	461	2.00	5.00	3.91	.762
Clean city	461	1.00	5.00	3.70	1.062
Waterfronts & Beaches	461	1.00	5.00	3.71	.912
Parks and Green Spaces	461	1.00	5.00	3.68	.868
Natural scenery	461	1.00	5.00	3.99	.841
Geographical landscape	461	1.00	5.00	4.03	.826
Building Form				3.50	
Heritage ambience	461	1.00	5.00	3.75	.825
Shopping Areas	461	1.00	5.00	3.34	.918
Business Districts	461	1.00	5.00	3.27	1.053
General Building Architecture	461	1.00	5.00	3.56	.940
Specific Structures of Interest	461	1.00	5.00	3.58	.884
Value Factor				3.88	
Reasonable prices	461	1.00	5.00	3.86	.860
Value for the money	461	1.00	5.00	3.81	.947
Value for trip	461	1.00	5.00	3.91	.823
Value relative to Cambodia	461	1.00	5.00	3.91	.870
Entertainment Factor				3.40	
Amusement and Theme Parks	461	1.00	5.00	3.12	.990
Casinos	461	1.00	5.00	2.72	1.225
Nightlife	461	1.00	5.00	3.39	1.067
Cambodia Traditional					
Dancing/Singing	461	1.00	5.00	3.49	.970
Theatre	461	1.00	5.00	3.25	.982
Accommodation & Food				3.69	
Luxury Hotel Rooms	461	1.00	5.00	3.47	1.033
Variety of hotels/guesthouse	461	1.00	5.00	3.87	.777
High-End Restaurants	461	1.00	5.00	3.44	.988
Variety of foods/beverages	461	1.00	5.00	3.95	.845

Table 2 reports the average of each attribute score. Raw scores for the perceived level of tourists on factors influence on decision to visit Cambodia is on the five-point scale for attributes, which are considered to be important to inbound tourists. For each of the attributes, the perceived performance scores is calculated. The results reported in table 2 also can be summarized as follows. Tourists' perception is the highest for the dimension of social factor that those factor relate to Cambodia's attitude toward tourism, traditional and normal value of Cambodians, safety and security, and festival celebrations. And follow by the factor of *value factor*, which suggests that reasonable prices, value for the money, value for trip, and value relative to Cambodia; by the factor of environment in which focus on variable of pleasant climate, attractive scenery, clean city, waterfronts & beaches, parks and green spaces, natural scenery, and geographical landscape; followed by dimension of culture & historic factor that refers to Angkor Wat temple, Preah Vihear temple, general history museums, historic sites, other themed museums, art galleries, different culture, music and performances, notable history, and human-made theme park; sector of accommodation and food refers to variety of foods/beverages, variety of hotels/guesthouse; by factor of economic that base on Strong currency, exchange rate, price of shopping, Price of entertainment, price of fruits, price of food, price of accommodation, and price of location transportation; also followed by dimension of building form in which have variable of heritage ambience, shopping areas, business districts, general building architecture, and specific structures of interest; and last one, followed by the entertainment factor that focus on Amusement and Theme Parks, Nightlife, Cambodia Traditional Dancing/Singing, Theatre, and Casinos.

4.2. Reliability Check

Internal consistency for the scores on the scale and its sub-scales was estimated using Cronbach's coefficient alpha procedure. In this study, the coefficient reliabilities per scale were as follows: social factor, = 0.701; the economic factor, = 0.857; the culture & historic factor, = 0.786; Environment factor, = 0.757; Building Form = 0.749; value factor = 0.820; entertainment factor = 0.775; accommodation & food factor = 0.708; and destination intention = 0.750. Rely on estimated reliability coefficients, it is apparent that the all dimensions are good reliable instrument.

Table 3. Reliability of Individual Variable

Reliability Statistics Check				
Dimension	Number of Valid	%	Cronbach's Alpha	No. of Items
Social Factor	461	100	.701	4
Economic Factor	461	100	.857	8
Culture &History	461	100	.786	10
Environment Factor	461	100	.757	7
Building Form	461	100	.749	5
Value Factor	461	100	.820	4
Entertainment Factor	461	100	.775	5
Accommodation &Food Factor	461	100	.708	4
Tourist Intention	461	100	.750	4

4.3. Correlation

Based on Appendix A showed that all independent variable (social factor, economic factor, culture and historic factor, environment factor, build form factor, value factor, entertainment factor and accommodation and food factor) have positive and significantly relationship with tourist's intention to visit Cambodia.

4.4. Independent T-test analysis

Table 3. The results of t-test comparing the respondents view on.

	Traveler behavior characteristics	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>SE</i>	<i>F</i>	<i>P</i>
Social Factor	<i>First time</i>	310	3.869	.5590	.0318	4.141	.042
	Revisit	150	3.909	.6495	.0530		
Economic Factor	<i>First time</i>	310	3.561	.6972	.0396	.049	.825
	Revisit	150	3.662	.6700	.0547		

Culture & Historic Factor	<i>First time</i>	310	3.724	.4765	.0271	17.91	.000
	Revisit	150	3.715	.6171	.0504		
Environment Factor	<i>First time</i>	310	3.80	.5056	.03	10.22	.001
	Revisit	150	3.85	.51	.05		
Build Form	<i>First time</i>	310	3.45	.64	.04	2.28	.131
	Revisit	150	3.62	.67	.06		
Value Factor	<i>First time</i>	310	3.956	.63	.0378	1.78	1.82
	Revisit	150	3.722	.7633	.0623		
Entertainment Factor	<i>First time</i>	310	3.145	.7444	.0423	.162	.687
	Revisit	150	3.321	.7751	.0633		
Accommodation & Food Factor	<i>First time</i>	310	3.629	.5814	.0330	1.18	.278
	Revisit	150	3.807	.6529	.0533		

Notes: ***, ** and * denotes significance difference between Study level and Learning/value of teaching assessment at the 1%, 5%, and over 10% significance level, respectively

Table 3 presented that no significant level of study difference was found. It was evident that both first time visit and revisit of tourists share not the same feelings on economic factor; value factor; entertainment factor; and accommodation & food factor, but inbound tourists have same feeling on factor of social, culture & historic; and environment because of significant level of this study different was found.

4.5. Discussion on unstructured questions

Depend on the answer of all respondents would like to consider about environment factor that pile of garbage presents on the street and more plastic are on the air space, and help to clean community and any destinations. And they also suggest to create more and attractive festival or event for facilitating tourist to be happy. Furthermore, more serious problem that international tourists face is the accident and traffic jam in Cambodia, this factor impact the decision of tourists revisit Cambodia again. More inbound tourist accept the beautiful smile of Cambodian people and more natural attractive destination in Cambodia not yet develop and improve. Angkor Wat is empirical temple in the world that make tourists so strong interesting to visit Cambodia. Visitors regarded Cambodia as safe and security nation in the Asia country and is also an attractive destination for them.

5. Conclusion

This study intended to investigate the causal relationships among the social factor, economic, culture and historic factor, environment factor, building form factor, value, entertainment, food and accommodation factor and inbound tourist intention. Based on previous theoretical and empirical studies, the research conceptual framework and hypotheses were constructed. After analyzing collected data, all proposed hypotheses and model were accepted and this intention of traveler to visit Cambodia.

Most of respondents visited Cambodia first time and their purpose to visit are the leisure and holiday, and most of them like to travel in Cambodia without group tour and major visited with family member, friends, colleagues. They are came from Europe and ASEAN country and staying in Cambodia are more than eight night. Source of information that tourists got from Cambodia destination are through internet, travel agent, friends,

However, through average calculation on attributes, they found out some variable tend to be normal for foreign tourists' thinking like high-end restaurant, luxury hotel, dancing/singing, nightlife, theme park/amusement, business district, shopping area, human-made theme park, art galleries, strong currency, and exchange rate. But behavior of tourists considered variables tend to be important for them like Cambodia's attitude toward tourism, traditional and normal value of Cambodians, safety and security, festival celebrations, price of shopping, price of entertainment, price of fruits, price of food, price of accommodation, price of location transportation, Angkor Wat temple, Preah Vihear temple, general history museums, historic sites, other themed museums, different culture, music and performances, notable history, pleasant climate, attractive scenery, clean city, waterfronts & beaches, parks and green spaces, natural scenery, geographical landscape, heritage ambience, general building architecture, specific structures of interest, reasonable prices, value for the money, value for trip, value relative to Cambodia, variety of hotels/guesthouse, and variety of foods/beverages.

Furthermore, this research findings indicated that both first time visit and revisit of tourists have same feeling on factor of social, culture & historic; and environment factor, but not the same feelings on economic factor; value factor; entertainment factor; and accommodation & food factor, was found. Based on correlation analysis that researcher want to test the hypothesis on the relationship between independent variable (social factor, economic, culture and historic

factor, environment factor, building form factor, value, entertainment, food and accommodation factor) and dependent variable (inbound tourist intention) then it found that factors had significant effect and positive on tourists' intention.

Therefore, it was concluded that the intention degrees to a certain destination in Cambodia are much depended on culture and historic, social, economic, environment, value, build form, entertainment, and food and accommodation factor. In summary, the empirical results of this study about the causal relationship between independent variable and foreign tourist intention are summarized and presented in appendix 1. All research hypotheses were supported and accepted; therefore, they provided tenable evidences that the research's conceptual framework was considered statistically acceptable in the Cambodia.

6. Recommendation

The findings of this research proposed some constructive recommendations for ministry of tourism, tourism business organizations, destination marketers and managers, and related authorities in Cambodia in general.

First, based on the empirical research findings, this study provided practical evidences on the causal relationships between culture and historic, social, economic, environment, value, build form, entertainment, and food and accommodation factor and international tourist intention to Cambodia of foreign leisure tourists, and if government or involved authorities improve on any factors best then visitors will revisit Cambodia more and more. This research findings, it can be concluded that those factors have significant and positive influence on tourist's intention to visit or tend to be revisit Cambodia. So the involved authorities should pay attention on strengthening our currency, keep good exchange rate, enhancing price of shopping, price of entertainment, price of fruits, price of food, price of accommodation, and price of location transportation for satisfying tourists. And the other hand, should find space to develop shopping areas, business districts for tourists to shop something (like domestic products, khmer souvenir...), and also should conserve and repair heritage and ancient building form continuously for attracting visitors. For entertainment factor, should create variety of amusement for tourists and nigh club, pub street are also an important element for tourists enjoy, but Khmer traditional dancing and singing should conserve and try to show off all visitors in any events. And casino is not interested and important element for attracting and satisfying inbound tourists to visit Cambodia.

Furthermore, related authorities should enhance pleasant climate, attractive scenery, clean city, waterfronts & beaches, parks and green spaces, natural scenery, and geographical landscape. And we, all, should conserve Angkor Wat temple, Preah Vihear temple, general history museums, historic sites, other themed museums, art galleries, different culture, music and performances, notable history, and human-made theme park for satisfying and attracting more tourists to revisit Cambodia and also develop economic and nation. Conservation for development, development for conservation. Ministry of tourism and community should inform and publish to all restaurant, and hotel to develop variety of quality foods/beverages with hygiene, variety of hotels/guesthouse/boutique to meet the guests' needs. Actually, for tourism, factor of accommodation, foods, and transportation are a vital for tourists. Ministry also should have event to compete on hygiene and Quality Khmer foods and beverages in restaurant, challenge on service quality, decoration, comfortable in hotels, guest house, boutique or bungalow or... and then reward to best one.

For attracting tourists and want to sustain the tourism development can not be absent of factor of security, and safety. Government should keep existing peace and strengthening securities and safe in all destinations for ensuring foreign tourists. Royal government should take care and motivate Cambodia people to show about positive, friendly and smile attitude toward tourists, keep and conserve traditional and normal value of Cambodians, and initiate new and unique festival celebrations for satisfying visitors and also for taking an advantage competition to attract tourist with another countries. And tourism business organizations should set up reasonable prices, and government also should value for the money, value for trip, and value relative to Cambodia;

Second, Royal government should explain more and increase to advertise to people about keeping garbage, reducing the plastic usages and help to enhance the clean city, communities, and any destinations for him/herself healthy, for good image of nation and for health, and revisit of international tourists. Cambodian people should obey the land law seriously for reducing the accident and congestion and for contributing country development fast and also contribute to ensure mind securities for travellers and help cutting stressful for them. Inbound tourists will not revisit a nation or any destinations when that place fulfills of traffic jam and accidents because it impacts on the his/her life and vacation time for their visiting.

Third, tourism business organizations are a stakeholder for nation and economic development and also help to attract, keep, satisfy and re-visit tourists. So they should do research about demand, behavior of tourists from any countries to visit Cambodia on what they want. Different strategies should be used by tourism business sector like differentiate on tourism products, services differentiate, entertainment differentiate, price differentiate, value differentiate to attract visitors and will motivate them to re-visit Cambodia.

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Appendix A

Correlations

		Social	Economic	Culture	Value	Entertainment	Accommodation & Food	Environment	Building Form	Intention
Social	Pearson Correlation	1	.422 **	.447 **	.290 **	.289 **	.342 **	.429 **	.467 **	.277 **
	Sig. (2-tailed)									
Eco- nomic	N		.000	.000	.000	.000	.000	.000	.000	.000
	Pearson Correlation									
Culture	Sig. (2-tailed)	461	461	461	461	461	461	461	461	461
	N	.422 **		.442 **	.514 **	.285 **	.398 **	.461 **	.498 **	.373 **
Value	Pearson Correlation		1							
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000	.000	.000
Entertain- ment	N	461	461	461	461	461	461	461	461	461
	Pearson Correlation									
Accomm- odation & Food	Sig. (2-tailed)	.447 **	.442 **		.311 **	.353 **	.352 **	.500 **	.638 **	.350 **
	N	.000	.000		.000	.000	.000	.000	.000	.000
Intention	Pearson Correlation	.000	.000		.000	.000	.000	.000	.000	.000
	Sig. (2-tailed)	461	461	461	461	461	461	461	461	461
Building Form	N	.290 **	.514 **	.311 **			.270 **	.437 **	.343 **	.134 **
	Pearson Correlation				1	.080				
Intention	Sig. (2-tailed)	.000	.000	.000		.088	.000	.000	.000	.004
	N	461	461	461	461	461	461	461	461	461
Building Form	Pearson Correlation	.289 **	.285 **	.353 **			.450 **	.258 **	.464 **	.367 **
	Sig. (2-tailed)	.000	.000	.000	.088	.088	.000	.000	.000	.000
Intention	N	461	461	461	461	461	461	461	461	461
	Pearson Correlation	.342 **	.398 **	.352 **	.270 **	.450 **		.388 **	.467 **	.350 **
	Sig. (2-tailed)						1			
Building Form	N	.000	.000	.000	.000	.000		.000	.000	.000
	Pearson Correlation									
Intention	Sig. (2-tailed)	461	461	461	461	461		461	461	461
	N	.000	.000	.000	.000	.000		.000	.000	.000
Building Form	Pearson Correlation									
	Sig. (2-tailed)	461	461	461	461	461		461	461	461

Environment	Pearson Correlation	.429 **	.461 **	.500 **	.437 **	.258 **	.388 **	1	.604 **	.265 **
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000		.000	.000
	N	461	461	461	461	461	461	461	461	461
Building Form	Pearson Correlation	.467 **	.498 **	.638 **	.343 **	.464 **	.467 **	.604 **	1	.371 **
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000		.000
	N	461	461	461	461	461	461	461	461	461
Intention	Pearson Correlation	.277 **	.373 **	.350 **	.134 **	.367 **	.350 **	.265 **	.371 **	1
	Sig. (2-tailed)	.000	.000	.000	.004	.000	.000	.000	.000	
	N	461	461	461	461	461	461	461	461	461

** . Correlation is significant at the 0.01 level (2-tailed).

THE INBOUND TOURIST'S PERCEPTIONS ON KHMER CULTURAL FESTIVAL AND TOURISM

Dr. Heng Sopheap¹ and Dr. Ung Veasna²

Abstract

Cultural traditional and festival event are used as vital elements in tourism development. More opportunities for tourism promotion, commercial outcomes, increased inward investment in host regions, contribute to the extension of the tourism season and economic development are the part of important contribution of festivals and local special events. However, the attention of tourism development requires to consider the conservation of cultural heritage and traditions. As a motto mentions conservation for development, development for conservation.

In the paper, being shown on domestic festival In this regard, based on a survey among inbound tourists participating in festivals, the degree of authenticity of local traditions in Phnom Penh was predicted. With the main purpose – identification and establishment of opportunities for sustainable economic, social and cultural development of those regions, preserving and handing the existing heritage, and khmer festivals and traditional events to future generations.

Key words: *Inbound tourist perception, Cambodian cultural festival, tourism development, Phnom Penh Destination, Cambodia*

1. Introduction

Today festivals are considered to contribute significantly to the cultural and economic development wealth of many countries (Blesic, Pivac, dordevic, Stamenkovic, & Janicevic, 2014). Bottyan (2015) stated festivals have major impacts on the development of cultural tourism to the host communities. The festival organisers are now using the historical and cultural themes to develop the annual events to attract visitors and create cultural image in the host regions by holding festivals in the community settings (Burger & Labuschagne, 2016). The desire for festivals and events is not specifically designed to address the needs for any one particular group. The hosting of events is often developed because of the tourism and economic opportunities.

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additional to social and cultural benefits. Many researchers have contested that local communities play vital roles in developing tourism through festivals.

Events have the potential to generate a vast amount of tourism when they cater to visitors from other generating zones plus the potential for grants, or sponsorships, (Çelik & Çetinkaya, 2013) either by direct or indirect intent. The government now support and promote events as part of their strategies for economic development, nation building and cultural tourism. The events in turn are seen as an important tool for attracting visitors and building the image within different communities. According to Coelho and Brázio (2014), the economic impact of tourism arises principally from the consumption of tourism products in a geographical area. According to Egresi and Kara (2014), tourism related services, which include travel, accommodation, restaurants, shopping are the major beneficiaries of the event.

As far as events and tourism is concerned, the roles and responsibilities of governments as well private sector and society in general have significantly changed over the last decade (Coelho & Brázio, 2014). The situations have been changed where the state had the key responsibility for tourism development and promotion to a world where the public sector is obliged to reinvent itself by relinquishing its traditional responsibilities and activities in favour of provincial and local authorities (Congcong, 2014). This indicates the growing influence on the behaviour of governments and business in general of development of event and tourism industries. This suggests that festivals impact on the host population and stakeholders in a number of ways. These factors are primarily concerned with a plethora of impacts, social, cultural, physical, environmental, political and economic all of which can be both positive and negative.

2. Literature Review

This initially reviews literature related to cultural tourism and the role of festivals in the creation of opportunities for community orientated events and festivals which contrast with tourist orientated events which have tenuous links with local communities (Burger & Labuschagne, 2016). Moreover, we will argue that community based events and festivals provide an opportunity for the celebration of local identity and community empowerment and create tourism for the local area.

2.1. Cultural Tourism

Cultural tourism is defined by international Cultural Tourism Charter professionals as “ Domestic and international tourism continues to be among the foremost vehicles for cultural exchange, providing a personal experience, not only of that which has survived from the past, but of the contemporary life and society of others..”

Reverté and Pérez (2017) has pointed the culture is an identity and the importance that individual people place on local and national social organizations, such as local governments, education institutions, religious communities, work and leisure. Cultural tourism describes tourist who take part in the cultural activities while away from their home cities. Cultural tourism is that form of tourism whose purpose is to discover heritage sites and cultural monuments on their travels. Blesic et al. (2014) has an address to best described cultural tourism by saying, “We need to think about cultural tourism because really there is no other kind of tourism. It’s what tourism is...People don’t come to country for our airports, people don’t come to country for our hotels, or the recreation facilities.... They come for our culture: high culture, low culture, middle culture, right, left, real or imagined -- they come here to see our country.”

The theme of culture has grown over the last two decades but no clear definition of culture has been accepted by the community as whole. Culture in modern day terms is seen as a product by governments, large organizations and individual people to develop their own standing in the given market. Wyman states that culture plays important part in the society: “...In an economic climate where we hear so much about crisis in health and education, it is important to remember that culture, too, is an essential element of a healthy society. It’s not an either-or situation. Health is necessary for life; culture makes life worth living....”

Moreover, cultural tourism relates to those individual groups of people who travel around the world, individual countries, local communities and individual events that seek to experience heritage, religious and art sites to develop knowledge of different community way of life. This can include a very wide range of cultural tourist experiences. It can include, for example, performing arts, festivals, visits to historic sites and monuments, educational tours, museums, natural heritage sites and religious festivals.

2.2. Development of Cultural Tourism Through Festivals

Festivals have changed over the years, before festivals were associated with key calendar moments, linked specifically to particular seasons and heritage sites. Over the last decade these have been changed and developed upon, there is now a broad and diverse range of festivals events taking place all over the world (Burger & Labuschagne, 2016). Burger and Labuschagne (2016) introduces festivals events as a: “Events constitute one of the most exciting and fastest growing forms of leisure, business, and tourism-related phenomena.”

The revolution in festivals has been stimulated through commercial aspect to meet the changing demand of local community groups and increasing business opportunities for the event organizers and local businesses (Yuan & Chong, 2007). Festivals play a major part in a city and local community. Festivals are attractive to host communities, because it helps to develop local pride and identity for the local people (Reverté & Pérez, 2017). In addition, festivals have an important role in the national and host community in context of destination planning, enhancing and linking tourism and commerce. Some aspects of this role include: events as image makers, economic impact generators, tourist attractions, overcoming seasonality, contributing to the development of local communities and businesses, and supporting key industrial sectors (Stankova & Vassenska, 2015).

Festival organizers are now using historical and cultural themes to develop annual events to attract visitors and creating cultural image in the host cities by holding festivals within community settings (Raj & Vignali, 2010). Festivals provide an opportunity for the local people to develop and share their culture, which create a sense of values and beliefs held by the individuals in a local community. Festivals provide the tourist the opportunity to see how the local communities celebrate their culture and help the visitors to interact with the host community and help people to enjoy and meet their leisure needs.

Getz (2008) stated that the peoples and communities that host the festival provide the visitors with a vibrant and valuable culture. In addition, culture is the personal expression of community heritage, community perspective, it provides cultural opportunities for the visitors to enjoy and experience local illumination and culture. The festivals also provide support to those who pursue economic opportunity related to sharing community culture with the broader world. Congcong (2014) suggest that cultural tourism is boosted through the development of festivals and events. Tourism can add to the vitality of communities in many

ways. One example is that events and festivals of which local residents have been the primary participants and spectators are often rejuvenated and developed in response to tourist interest.

2.3. Impact of Cultural Festivals on Host Community

Getz (2008) suggested that event organizers do not take into account the social and environmental impact into consideration. It is argued that there is a clear need to adopt a holistic approach: “In any location, harmony must be sought between the needs of the visitor, the place and the host community.”

Host communities play a major role when running a major sporting event or any other large scale event. Also, sporting events play a major role in host communities. The work of Getz (1997) was concerned with the event manager gaining support and resources from the host area community, while also looking at the local benefits and costs, cultural meanings of their event and also the political factors. If all this is taken into consideration then it can lead to a good event and even a good relationship between events and the local community.

A problem a host community may have with the event is the influx of people and it being unable to cope. This may have a knock on effect in terms of traffic congestion, crime and vandalism. Also Getz and Page (2016) tells of how the socio-cultural impacts result from the interaction between „hosts“ and „guests“. A number of factors may contribute to difficulties in this relationship. The transitory nature of a visit to a historic center may be too short to allow any understanding to be established. Repeat visits may be more positive in this context. Visitors, especially those on day visits, have temporal constraints and become more intolerant of „wasting time“, for example in finding somewhere to park. Spontaneity may break down as „hospitality“ becomes a repetitive transaction for the host (Hertanu & Boitor, 2012).

The impacts of events can greatly affect the quality of life of the local residents. Therefore, it has been argued that strategies need to be adopted to take into account the social and environmental impacts of festivals into analysis when carrying out economic impact of the each individual event (Yuan & Chong, 2007). The event organizers only takes into consideration the economic implications and ignores the residents perceptions, which provide important non- economic dimension for gauging how events benefit or impinge on the host community (Sahoo, 2013).

Cultural festivals have both positive and negative impacts on their host cities, but emphasis is often focused on the economic analysis. Getz and Hall (2008) suggests that the ability of major events perceived to attract economic benefits often provide the official justification for why the event is to be hosted. “Economic analysis of events provides one aspect of why events are held and the effects that they have on a region. However, while many of the economics impacts of events are quite tangible many of the social are not.” (Çelik & Çetinkaya, 2013)

The community cultural festivals now play a significant role in income generation for the local businesses and create tourism for the local area (Congcong, 2014). The festivals are becoming more and more tourist attractions over the last 10 years, which have great economic impact on the host communities. This tradition has changed over the last decade, due to the fame and the size of the event. The event industry has developed over the years, due to the expansion of information technology and media network. The festival organisers now utilise these new communication tools to advertise their event to wider audience (Getz & Page, 2016). “The process is speeded up by the technology and the media, which have the power to bring significant local events to a worldwide audience, overcoming the barriers of national and cultural differences.”

Raj and Vignali (2010) have said cultural festivals now attract visitors from all over the country and including people from other countries. The festival organizers now able to target wider audience through use of technology and media, this has considerable economic impact on the host community, which creates tourist to visit the area and stay longer in the area. Sahoo (2013) believes that “Some communities use these events to boost tourism during the low or off-season and others focus primarily on weekends to appeal to leisure travellers.” Economic values are often placed on the benefit of publicity obtained for the event, which may occur before, during and after its occurrence. Column inches and advertising costs are used to quantify such impacts (Egresi and Kara, 2014).

Coelho and Brázio (2014); Egresi and Kara (2014) suggested the expenditure in the local economy is more likely to support supplier jobs in tourism-related sectors of the economy rather than *create* new jobs, however, many other factors will also have an impact. Getz and Page (2016) believe that a critical mass of events taking place in a local economy over a sustained period, is more reasonable to suggest that a job creation effect was linked to economic growth through events.

According to Getz (2016) economic impact assessments often include a multiplier calculation to demonstrate that incremental tourist expenditure has direct, indirect and induced benefits for the local economy. At the most basic level, economic impact analysis techniques estimate average spend per person, multiplied by the total number of visitors/users to determine the direct spending associated and then applied multipliers to estimate secondary or indirect economic effects. The multiplier usually used in tourism impact studies is the “income multiplier” which is basically a coefficient which expresses the amount of income generated in an area by an additional unit of tourist spending (Raj & Vignali, 2010).

2.4. Conclusion Remark

The findings of this review show us that the cultural festivals have contributed in the development of cultural tourism. Cultural festivals attract culture tourists to local community events to promote cultural exchanges between tourists and resident. Cultural tourism brings benefits to the host local region, these benefits are not being analyzed in greater depth.

The review suggests, there is no doubt that tourism festivals have major impacts on the local economy directly and indirectly. That the spending by visitors on local goods and services has a direct economic impact on local businesses and also these benefits pass more widely across the economy and the community. On the other hand, cultural tourism does not take into account the loss of local beauty, environmental degradation and effects it creates on the local people of the host communities through their direct and indirect involvement with tourists.

The review also found that some leading authors, argue that the festival organizer and local government only take into account the economic impacts and ignore the implications of social impacts of festivals. They argue that greater attention should be paid to the social impacts of festival.

This review has also suggested that cultural tourism has been increased through development of local cultural festivals and provided greater economic and cultural benefits to the local area. It was found that social and economic factors contributed to culture tourism growth in these cultural festivals. Nevertheless, only an in-depth study can help us to understand the level of economic and social impacts the cultural festivals bring to local businesses and community in a wider scenario.

3. Research Methodology

3.1. Data Collection

Researcher conducted both qualitative and quantitative research approach. The information related to perception of foreign tourist on Cambodian cultural festival was obtained by mean of survey conducted in Phnom Penh city to get the needed information for basic data analysis.

The questionnaire was organized using the 46 selected items. The survey method was adopted to administer the questionnaires with a sample of 287 international tourist visiting are considered usable for the analysis in located inside and outside the Phnom Penh city, Cambodia. The questionnaire is classified into three major parts. The first part of the questionnaire contains foreign tourist" perception on Cambodian cultural festival, and respondents were asked to respond to each item on the widely used five-point Likert-type scale. The second part of the questionnaire is used to get the information on the demographic information of the respondents. And the third sector, three open questions was conducted for collect data from inbound tourists visited in Cambodia.

A pilot test was conducted in the item verification stage to assess the reliability of attributes and to ensure that the wording, format, length and sequencing of questions were appropriate. Reliability analysis was employed to test the internal consistency of the questionnaire. The reliability coefficient cronbach"s alpha for the user perception scale is more than 0.7 to be reliable. To this end, almost 300 questionnaires were distributed to foreign tourist. The rate of the responses was about 95.66%. Following cleaning process of the data, a sample of 287 respondents is considered usable for the analysis. Data collection work took approximately 2 months from October to November, 2018.

3.2 Analytical Techniques

Statistical Program for the Social Sciences (SPSS 20.) was used for analysis after data collected and cleaned. The statistical data analysis of descriptive statistics (such as frequency, average and cross-table). Responds from Open question was analyzed by summary method.

4. Basic Data Analysis and Findings

4.1. Basic Statistics (Frequency and percentage)

Before presenting the estimation results, it may be useful to present

the demographics of the respondents included in the survey instrument. Table 1 presents characteristics of respondents. It is found that the sample consists of more females (61.00%) than males (39.00%). And also shows that classified the collected data into married status groups, it is found the majority of respondents is married (57.8%), accounting for single 42.20 percent. It is also found that, of the 287 respondents, 40.40% are the age of under 20 year. With respect to frequency of education, 33.4 % of respondents got university. The data set also reveals that 40.80% of the respondents are student, followed by employee (29.90%), and businesspeople (more than 23.30%). With respect to frequency of visit, the majority of the respondents visited Cambodia first time (81.50%), and followed by revisit (18.50%); and visit type of inbound tourists reveal that 31.70% are family and relative, followed by the friend and college (24.00%); classmate and teacher (19.90%), and individual (12.90%), respectively.

The purpose of the inbound tourists also found that 64.50% of respondents are leisure and holiday (64.50%), followed by business (24.70%), recreational (08.00%), and medical (02.80%) respectively. Moreover, time spending of foreign tourists to stay in Cambodia are more than eight nights 47.70%, that followed by six to eight night (26.50%); and three night to five night (22.60%), respectively.

Table 1. Characteristics of the Respondents

	<i>Frequency</i>	<i>Percentage</i>
Gender		
Male	112	39.00
Female	175	61.00
Age		
Under 20 years	116	40.4
20 – 30 years	103	35.9
31 – 40 years	41	14.3
41 – 50 years	20	7.0
Over 50 years	7	2.4

Marital Status		
Single	121	42.2
Married	166	57.8
Education		
Junior High School	83	28.9
Senior High School	48	16.7
Junior College	27	9.4
University	96	33.4
Master	27	9.4
Ph. D	6	2.1
Occupation		
Student	117	40.80
Employee	85	29.90
Public Officer	63	22.00
Businesspeople	67	23.30
Teacher	58	20.20
Retire	09	3.10
Other	100	34.80
Frequency of visit		
First time	234	81.50
Revisit	53	18.50
Group tour		
No	132	46.00
Yes	155	54.00

Type of visit		
Family and Relative	91	31.7
Friend and college	69	24.0
Classmate and teacher	57	19.9
Individual	37	12.9
Other	33	11.5
Purpose of visit		
Leisure and Holiday	185	64.5
Medical	8	2.8
Business	71	24.7
Recreational	23	8.0
Length of visit to Cambodia		
Less than three night	9	3.1
Three nigh to five night	65	22.6
Six to eight night	76	26.5
More than eight nights	137	47.7

4.2. Basic Statistics (Average and Standard Deviation)

As table2 below, for 5 items for high score in average, attribute of Cambodia cultural heritage is important by average score 4.01, followed by item of Angkor Sankran festival is important factor for priority in tourism (4.00); Cambodia cultural heritage help to promoting high culture, e.g. during art festivals (3.92); The Khmer culture festival increases the trade potential of Khmer (3.91); and The Khmer culture festival helps introduce Khmer to other Cambodian citizens (3.89), respectively. For 5 lower mean score refers to item of The Khmer culture festival popularizes Khmer (2.55); followed by tourism destroys the traditional Khmer culture (2.69); tourism development is negatively

altering the traditional beliefs and local cultural values in the Cambodia (2.96); tourism is the major cause of artwork leakage in the “Cambodia Country”? (3.21); some features of the Khmer culture are being degraded with the development of tourism and need protection (3.41), respectively.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Cambodia cultural heritage attract new visitors to material heritage facilities, such as museums or galleries	286	1.00	5.00	4.0140	.76764
Cambodia cultural heritage offers the possibility to cultivate and develop the local and regional cultural heritage	286	1.00	5.00	3.7657	.82357
Cambodia cultural heritage enable tourists to have contact with	286	1.00	5.00	3.8392	.68211
Cambodia cultural heritage help to promoting high culture, e.g. during art festivals	287	1.00	5.00	3.9233	.78070
Tourism development has a positive influence on the traditional beliefs and local cultural values in the Cambodia?	287	1.00	5.00	3.7526	.83506
Tourism development is negatively altering the traditional beliefs and local cultural values in the Cambodia?	287	1.00	5.00	2.9582	.95986
Some features of the Khmer culture are being degraded with the development of tourism and need protection?	285	1.00	5.00	3.4105	1.06970
Tourism is the major cause of artwork leakage in the “Cambodia Country”?	286	1.00	5.00	3.2168	1.02351
The main reasons for organizing a festival for local products / traditions are associated with improving location’s image, promoting local products and traditions and supporting tourism activities thus raising the local cultural awareness.	287	1.00	5.00	3.8467	.77832
All traditional celebrations which include the participation of the whole community are potentially suitable for staging a festival and attracting tourists.	287	1.00	5.00	3.7108	.89090
Khmer Food festivals should be a priority in tourism	286	1.00	5.00	3.6294	.94908
Khmer new year, Chhum Ben, and water festival should be a priority in tourism	287	1.00	5.00	3.7840	.82912

Angkor Sankran festival should be a priority in tourism	287	1.00	5.00	4.0035	.82994
Sea and river festival should be a priority in tourism	287	1.00	5.00	3.5958	.95550
Tourism destroys the traditional Khmer culture	285	1.00	5.00	2.6912	1.09870
True culture adapts over time to the needs of tourism	287	1.00	5.00	3.5436	.83876
Culture is seen as a commercial resource	286	1.00	5.00	3.4965	.88158
Tourism impacts on local character of the community	287	1.00	5.00	3.5540	.95513
Tourism impacts on the region's cultural identity	287	1.00	5.00	3.6655	.77974
Tourism increased local interest in the region's culture and history	287	1.00	5.00	3.8467	.76928
Tourism increased local awareness of the cultural activities available	287	1.00	5.00	3.6132	.81522
Tourism increased local awareness of the cultural activities available	287	1.00	5.00	3.6829	.74830
The Khmer culture festival helps the city's residents socialize	287	1.00	5.00	3.7108	.73617
The Khmer culture festival helps the people originating from Khmer but living in other cities or abroad socializes with Khmer's current residents	287	1.00	5.00	3.6585	.75386
The Khmer culture festival increases the collaborations among local institutions and firms.	287	1.00	5.00	3.7003	.81126
The Khmer culture festival helps introduce Khmer to other Cambodian citizens.	286	1.00	5.00	3.8916	.81141
The Khmer culture festival helps introduce Khmer to international tourists.	287	1.00	5.00	3.8606	.74895
The Khmer culture festival helps introduce Khmer to international tourists.	287	1.00	5.00	3.7073	.78761
The Khmer culture festival helps promote Khmer as an international tourism attraction.	287	2.00	5.00	3.5993	.79974
The Khmer culture festival helps promote Cambodia abroad.	287	1.00	5.00	3.7317	.84527
The Khmer culture festival helps introduce local culture and tourism products to international tourists.	287	2.00	5.00	3.6551	.74056
The Khmer culture festival helps promote local products and services abroad.	287	1.00	5.00	3.8362	.75564
The Khmer culture festival increases the trade potential of Khmer.	287	1.00	5.00	3.9094	.81000
The Khmer culture festival popularizes Khmer.	287	1.00	5.00	2.5470	1.22776
Valid N (listwise)	279				

4.3. Summary Data Analysis

Most of inbound tourist like Khmer culture festival like water festival, Khmer New Year, Pchum Pen and Angkor Sangkran and they know that tourism growing in Cambodia not impact negative on Khmer tradition and culture. Cambodia people have to identify clearly about what is the Khmer products and culture, should not show western's culture, tradition, song and music to western tourists. Cambodia also must conserve and develop a long heritage culture, temple, tradition, Khmer dressing for attracting visitors and contributing the economic and tourism growing. And the other hand, Cambodia should initiate to create new unique event and find more Khmer tradition, culture heritage and then to advertise to tourists. Advertisement of them in the internet and facebook are good point for travellers.

5. Conclusion and Managerial Implications

This is the first comprehensive study ever undertaken to investigate the tourist's perception on relationship between Cambodian cultural festival and tourism. Decision managers in development tourism industry in Cambodia may find the discovering of this study useful, particularly in identifying the dimensions that help promote tourism through Khmer cultural events. The exploratory research was conducted by researcher with structure and unstructured questions. Judgment non-probability and simple random sampling also used for this research. Basic statistic and summary data analysis were done by researcher. The majority of respondents is married, and of respondents got university. The data set also reveals that the respondents are student, followed by employee and businesspeople. Majority of the respondents visited Cambodia first time and visit type of inbound tourists are family and relative, followed by the friend and college. The purpose of the inbound tourists are leisure and holiday. Moreover, time spending of foreign tourists to stay in Cambodia are more than eight nights.

Based on the findings, related authorities or community should enhance and advertise Angkor Sankran or Sangkran festival broadly, and take action this event in any destination, city, province, commune, district, village and also should develop and conserve Cambodia cultural heritage, Khmer culture festival that they are the most important factor or "heart" for predicting tourism growing. Tourism development has a positive influence on the traditional beliefs and local

cultural values in the Cambodia. And Khmer New Year, Chhum Ben, and water festival also should be a priority in tourism.

Moreover, attractive development of tourism in Cambodia could not be absent of Khmer cultural events. The Khmer culture festival helps promote local products, services, and Cambodia abroad, it is associated with improving location's image, promoting local products and traditions and supporting tourism activities. For Cambodia cultural heritage offers the possibility to cultivate and develop the local and regional cultural heritage. The Khmer culture festival increases the collaborations among local institutions and firms. All traditional celebrations which include the participation of the whole community are potentially suitable for staging a festival and attracting tourists. The Khmer culture festival helps the city's residents socialize. So royal government and all Khmer people should conserve cultural event and search for heritage event that we do not find out before to show off tourists.

All traditional celebrations which include the participation of the whole community are potentially suitable for staging a festival and attracting tourists. Khmer Food festivals should be a important factor in tourism that we, all, are Khmer should have responsibility initiate and advertise Khmer foods to international tourists. Another one, full moon event, tourism business organizations should organize in their place for attracting visitors and make them enjoy it.

Community or involved sectors should not show western's culture, tradition, song and music to western tourists, should show off Khmer identity products to them. Cambodia also should conserve and develop a long heritage culture, temple, tradition, Khmer dressing for attracting visitors and contributing the economic and tourism growing. And the other hand, Cambodia should initiate to create new unique event and find more Khmer tradition, culture heritage and then to advertise to tourists, it should advertise on the internet and facebook.

The current study, however, has few limitations. First, the researcher used purposive sampling method of non-probability sampling for data collection thus the sample may not be true representative of population. Secondly, the study focused only on inbound tourists. The results of the study, therefore, may be applied with caution to other types of attractive tourism development. Third, sometime, researcher feel to be hard to collect information from relevant authorities. The future research may be conducted in other types of tourism destinations and other geographical area of Cambodia, and construct the new model of the relationship between Khmer traditional festival and tourism development. Next researchers

may study some important factors such as environment, infrastructure and social factor and tourism development in Cambodia.

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COMMUNITY-BASED TOURISM FOR SUSTAINABLE TOURISM DEVELOPMENT AT SOMBO PREI KUK HERITAGE SITE, KAMPONG THOM PROVINCE, CAMBODIA

Dr. Kim Bunnara¹ and MA. Kang Santran²

Abstract

The objective of this research were 1, To study the interest level of Community participation for Sustainable Tourism Development at Sombor Prey kuk heritage site. 2, To study the significant level of community motivations that influence participation for sustainable tourism development at Sombor Prey kuk heritage site. 3, To propose an effective model of community based tourism for sustainable tourism development at World Heritage Site. The result from the study indicated that the respondents could be classified 4 groups. Those were 19 local authorities, 32 home stay owners, 106 tourism services providers, and 131 local residents. The residents who had mean score of heritage tourism and sustainable tourism knowledge higher than 0.75 (P- stand of knowledge) was 78.57 %, respectively. More than a half of the respondents well recognized heritage tourism and sustainable tourism; especially the local authorities were the most knowledgeable. Respondents were the appropriate the dependable in respond to the questionnaire.

The finding indicated that overall 288 respondents of local authorities, home stay owners, and tourism service providers had “high level” of interesting participations. All groups of respondents ranked the “High” level of significant among participation. The respondents selected the benefit gaining in the “High level of interest” as the significance that influenced the participation for sustainable tourism development then, followed by implementation, decision making, planning, problem solving and evaluation. The respondents’ appropriate time participated for sustainable tourism development was “Whenever Necessary”. The respondents’ social role tended to affect their interest level of participation. Older respondents tended to have high interest in the benefit gaining than younger respondents did.

The local residents ranked the highest significant level of motivation, followed by local authorities, homestay owners, and local residents. The social role of respondents tended to affect their important level of motivation. The older

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respondents gave high important than the younger did. The respondents who education in “Higher Bachelor’s degree” presented the higher important than other levels.

According to the research results, 3 recommendations could be presented as follows.

Firstly, Sambo prey kuh should carry out the proposed model of community participation in tourism plan for Sustainable tourism development. Local authorities should be the leader to provide the tourism education, especially to the residents who were in between 18-25 years old because they tended to have higher interest than other age groups did. Local authorities should provide human resource and financial support to Sambo Prey Kuh residents as well.

Secondly, the environmental benefits should be raised as the priority important motivation for Sustainable tourism development, and then followed by the economic and socio-cultural benefits in order to influence the higher participation level. Finally, Sambo Prey Kuh residents should be provided sufficient tourism information in the form of group discussion, group meeting or appropriate training.

Key words: *Participation, Motivation, Sustainable tourism development, Sambo Prey Kuk*

1. Statement of the Problem

Over the decades, tourism has experienced continued growth and deepening diversification to become one of the fastest growing economic sectors in the world. Modern tourism is closely linked to development and encompasses a growing number of new destinations by UNWTO, (2017)

Today, Tourism continues to be one of the best positioned economic sectors to drive inclusive socio-economic growth, provide sustainable livelihoods, foster peace and understanding and help to protect our environment. In December 2015, the United Nations General Assembly declared 2017 (UNWTO, 2016)

Travel & Tourism is a key sector for economic development and job creation throughout the world. In 2016, Travel & Tourism directly contributed US\$2.3 trillion and 109 million jobs worldwide. Indirect and induced impacts into account, the sector contributed US\$7.6 trillion to the global economy and supported 292 million jobs in 2016. Equal to 10.2% of the world’s GDP, 1 in 10 of all jobs. (WTCC 2017)

The Cambodia's Sombor Preykuh Temple site was inscribed on the World Heritage List in Krakow City, the Republic of Poland on July 8, 2017. The Sombor Preykuh Temple site is the third Khmer heritage of universal value after the Angkor Site was inscribed on the World Heritage List in Santa Fe City, New Mexico State, the United States of America on December 14, 1992 and the Scared Site of Preah Vihear Temple was inscribes on the World Heritage List in Quebec City, Canada on July 7, 2008. (MOT2017)

The increasing numbers of tourist and visitor, as well as the number of establishment in Sombor Preykuh Temple site are not only promoting benefits, but there are also drawbacks. Resources overuse and not consider sustainable tourism development may arise and these are the tourism drawbacks. In order to maintain the economic, environment, and socio-culture benefits and eliminate the tourism drawbacks, local people participation in tourism development is key tool to sustain the tourism resources and those benefits.

As a result, they are reluctant to participate. A locally appropriate model of participation in tourism plan for sustainable tourism development is a special need at the local level. This model can be accomplished if the local residents are motivated by tourism benefits and are given the appropriate direction and supports.

2. Objectives of the Study

The research project will therefore seek to explore and investigate the following:

1 To study the interest level of Community participation for Sustainable Tourism Development at Sombor heritage site.

2 To study the significant level of community motivations that influence participation for sustainable tourism development at Sombor Preykuk heritage site.

3 To propose an effective model of community based tourism for stainable tourism development at World Heritage Site.

3. Significance of the Study

The proposed model of community participation for sustainable tourism development is able to enhance the effectiveness community based tourism of the for sustainable tourism development. The information and the results obtained

from this research can utilize as information for all stakeholder in decision-making in the tourism development plan.

4. Scopes of the Study and Limitation

This study is specified at Sombor Preykuk Temple heritage site, Prasat Sombor District, Sombor Commune which composes of 3 villages. There are tourism activities, popularity in home stay, Sombor Preykuk Temples and natural tourism attraction.

5. Research Methodology

5.1. Sampling Method

The number of the sample was obtained by Yamane method (Year 1973) as follows:

$n = N / (1 + Ne^2)$ When n was size of sample N was size of population
 e was the level of precision (A 95% confidence level and $\pm 5\%$ precision levels were assumed)

Then $n = 1032 / [(1) + 1032 (0.05)^2]$ $n = 288.26$

The researcher decided to use 288 as a sample size from 1,032 households. Those were in 3 villages in the Prasat Sombo commune.

5.2. Data Analysis

The data was analyzed by IBM SPSS statistics²². The statistics used in this research decided to use the frequencies, Percentages, Means, Pearson's Chi-Square, One-Way ANOVA, Independent Samples T-test, "P-Standard of Knowledge", and "Principal Component Analysis" method.

6. Results

The results from this research were as follow:

1, Demographic Characteristics 2, Classified groups of respondents 3, Heritage tourism and sustainable tourism knowledge among classified groups of respondents 4, Interest levels of community participation 5, Important levels of community motivation 6, Recommendations from respondents, The 288

questionnaires were distributed, 288 sets obtained and useable. analyzing based on the 288 questionnaires.

6.1. Demographic Characteristics of Respondents

The demographic characteristics of respondent were analyzed individually in to frequency and percentage. There was gender, age, education level, occupation, monthly income, their home town, and social rote. From the study, the demographic characteristics of respondent could be described as follows:

1- Gender: The majority of respondents were female that contributed 50.7% or 146 persons and the rest of 49.3% or 142 persons were male. This result was compatible with the general information of SomboPreiKuh commune, that the majority of local residents were female.

2- Age Group: The majority of respondents were in the range of : 18-25 years old, 135 persons or 46.9% ,26-40 years old, 99 persons or 34.4% ,41-55 years old, 51 persons

18-26 or 17.7%, Over 55 years old, 3 persons or 1.0%

The reason was that when the researcher survey and distribute questionnaires to the sample households, the questionnaires were carried out with adult family members who were community residents, at least 18 years old and not too old, and were able to respond the questionnaires effectively. When there were more than 1 adult in the family presented times of survey, the family was free to choose the representative to answer questionnaire. The majorities of respondents were in the 18-25 years old and 26-40 years old group. Rest of age 41-55 years old, 51 persons or 17.7%, more than 55 years old, 3 pax or 1.0%.

3- Education level education level: The majority of respondents had education bachelor degree, 103 persons or 35.8%, and vocational educational, 76 persons or 26.4%. On the hand, the primary school, 46 persons or 16.0% and the secondary school, 43 persons or 14.9%. The small amount of group residents had non educational level, 14 persons or 4.9% and rest of the group higher bachelor's degree 6 persons or 2.1%.

4- Occupation: the majority of respondent was worker and labor worker. There were 62 persons or 21.5% of total respondents. The reason was that occupation because beside doing farming, they seeking for work as migration to another region or local work as labor worker.

Secondly, Fishery and Agriculture is considered as the profitable business in this region. There were 58 persons or 20.1 %. Thirdly, there were students 53 persons or 18.4% whereas the commercial personnel were 42 persons or 14.6%. The reason why the number students were higher than the commercial personnel person because students were the representative of the households and they are knowledgeable and willing to contribute in community participation for sustainable tourism in Sombo Prey Kuh commune. The fourth range was government officer or state enterprise, 27 persons or 9.4% while the company officer employee were 24 persons or 8.3 %. The reason were these two occupations because most of them are teacher, police, government worker, microfinance worker and other departments of public worker. Lastly, the other occupations were 19 persons or 6.6% and smallest number of unemployment retired were 3 persons or 1.0%.

5- Monthly income: the majority of respondents earned 300,001-500,001 riel per month, 106 persons or 36.8%. This was compatible with the majority of occupation that were fishery, agriculture, farmer, labor and worker. The next range of salary 500,001-1,000,000 riel per month, 105 persons or 36.5% and over 1,000,000 riel per month, 39 persons or 13.5 % which were compatible with group of respondents who were micro-finance officer, teacher, police, government worker and other departments of public worker. The later range of salary 200,001-300,000 Reil per month, 16 persons of 5.6% and 200,000 riel or lower, 6 people or 2.1% which word compatible with group of respondents who were students, unemployment or retire and labor worker. the smallest amount of 15 pax or 5.2% first person who not yet earned their salary.

6- Hometown: the majority of respondent lived in Prasat Sambo commune, 113 persons or 39.2 %. The other were 96 people or 33.3% live in other sub-district/ district in Kampong Thom. The rest was people who were from other province 79 people or 27.4%

7- Social Role: (within community) the majority of respondent were the local resident who were without social role or did not join any group Within the community. Those respondents were 173 persons or 60.1%. However, the other 115 persons or 39.8% participate in the social role and joined the community.

6.2. Classified Groups of Respondent

The 288 attained questionnaires were from 288 different households, the respondents were classified into 4 main groups for the expedient analysis and

comparison. They were homestay owners, local authorities, Tourism service provider, and Local residents. Their different degree of involving in tourism may depend on their occupation and their social role.

Homestay owner group was defined as the respondents themselves who worked for homestay and the respondents whose family members worked in homestay. They were classified into homestay owner group. Question number 9 and 10 in Part 1 of Questionnaire identified them.

Local authority group was defined as the respondents who undertook the social role related to local authorities. Question number 6 in Part 1 of Questionnaire identified them. Local authorities who also in to homestay group or others, they were classified into Local authority group.

Tourism service provider group was defined as the respondents themselves who work in the hospitality or tourism industry, but excluded homestay owner group. Question number 9 in Part 1 of Questionnaire identified them.

The result showed that the majority of the respondents 131 persons, or 47.22 % of all respondent. They not relate to the tourism sectors. The tourism service providers were 106 persons or 36.80% of all respondent. They were the people who work in hotels, restaurants, operators, transportation, and related services. The homestay owners were 19 or 6.60%. They were familiar with community-based tourism especially heritage tourism that was developed within the community since 2017. Some of them were working in local authorities, the researcher focused on their familiarity in tourism, and then they were classified into homestay group. The local authority respondents were 27 persons or 9.36% . This minority group was the group that recognized the tourism development in the community as well. This group consists of village headman, mayor, chief of sub-district administration organization and government officials.

Table 4.2. Classification of Respondents

Group of Respondent	Frequency	Percentage
Homestay Owner	19	6.60
Local Authority	32	9.36
Tourism Service Provider	106	36.80
Local Resident	131	47.22
Total	288	100

6.3. Heritage Tourism and Sustainable Tourism Knowledge among Classified Groups Respondents

The degree of knowledge on Heritage tourism and sustainable examined among groups of respondents, they were groups of homestay owners, local authorities, tourism service providers and local residents. There were 5 indicators of ecotourism knowledge and 5 indicators of sustainable tourism knowledge indicators. The respondents answered “Right” or “Wrong” through these indicators in questionnaire (Appendix C).

The overall tourism knowledge of the respondents was over 0.75 P standard. For the same reason, more than a half of respondents in each group well recognized tourism. They had a little better recognition in sustainable tourism knowledge than the heritage tourism, except the homestay owner group. This was indicated by their average mean score. The respondents presented their average mean score of sustainable tourism knowledge at 0.79 and heritage tourism knowledge at 0.78.

Homestay Owners had the highest mean score and P-standard, in both heritage tourism and sustainable tourism, among groups of respondents. The result was that, they had 1.30 mean score and 78.57 % P - standard, therefore they well recognized in heritage tourism. Their sustainable mean score was 1.32 and P-standard of 92.86 % therefore, they well recognized in sustainable tourism.

The latter group was Local Authorities, their mean score of sustainable was 1.25, and their P -standard was 52.38 %. It could say that 52.38% of Local Authorities well recognized in sustainable tourism. The 66.67 % of people in Local Authorities group well recognized in sustainable tourism at 1.25 mean score. Local Authorities was the only group that had the higher mean score of heritage tourism knowledge than the sustainable tourism knowledge. This may be because they arranged the community-based tourism that made them have more knowledge to heritage than sustainable tourism.

Table 4.3. Degree in heritage tourism and sustainable tourism among classified group respondents

Groups	Homestay Owner	Local Authorities	Tourism Service Providers	Local Resident	Total and Average
Stat. Test					
Frequency	19	32	106	131	288

Mean					
HTI ¹	1.30	1.31	1.23	1.26	1.26
SIT ²	1.32	1.25	1.20	1.22	1.22
P-Standard3(>0.75)	78.57 %	52.38 %	51.58 %	51.56%	53 %
HTI1	92.86 %	66.67 %	71.58 %	68.75%	70.33 %
SIT2					

Remarks: **1: HTI=** Heritage tourism knowledge indicators
 2: STI= Sustainable knowledge indicators
 3: P-Standard= Percentage of residents who have mean score over 0.75

6.4. Interest Levels of Community Participation

In this part, the interest level of community participation for sustainable tourism development at Prast Sambo Prey Kuh commune were examined by comparing the interest level among the classified group of respondents in the key participative indicator of planning, decision- making, problem solving, implementation, evaluation, and expectation in tourism benefits.

Interval Scale	Mean Scores	Interest Level of participation
5	4.21 - 5.00	The Superlative interest
4	3.41 - 4.20	High interest
3	2.6 1- 3.40	Moderate interest
2	1.81 - 2.60	Low interest
1	1.00 -1.80	Not interest

6.4.1. The Interest Level of “Key Participative Indicators in Sustainable Tourism Development among “Classified Group of Respondents”

Each classified group of respondents were examined their interest level of participation in the issue of planning, decision-making, implementation, problem solving. Evaluation and tourism benefit gaining for sustainable tourism development. The 5 components in each key participative indicator were as follows:

“Planning” components were, propose the rules and regulations for tourism activities, propose ideas in the meeting, plan the tourism activities, prepare and

organize the plan, corporate with other related sectors.

Decision-making” components were; assign the plan or project, set up the rules and regulation to development activities, assign the solution to the problems, arrange persons to work and select the tourism activities. The decision-making was emphasis on set up and activities for sustainable tourism development.

“Problem solving” components were; investigate the cause of problems, survey and collecting data, analyze the problems, possibility survey the problem solving, and cooperate with other related sectors. “Implementation” components were; involving in the committee team, involve in tourism activities.

“Evaluation” components were; evaluate the tourism development activities, evaluate the committee’s performance, evaluate the problem in development activities, create the method to improve the performance and direct the rules and regulations of the activities.

“Benefits gaining” components were; the local culture and way of life would be well recognized by visitors, to be the local tour guide, Each key participative indicator comprises of 5 components. Those 5 components were grouped into a single one variable, by Principle Component Analysis method, in order to simplify the analysis among groups (Appendix D). Therefore, the 6 keys participative.

The results (Table 4.4) showed that among those 6 key participative indicators, the respondents were presenting “High” interest in Planning, Problem Solving and Evaluation” and they presenting “High” interest in “Decision-making, Implementation and Benefit Gaining”.

The classified groups of respondents had “High” interest in benefit gaining, implementation, and decision-making respectively. This may be because the respondents feel that benefit gaining was the most advantage issue of participation. The participation in implementation required less skill and knowledge then,

The different groups of respondents presented the statistic significant difference in levels of interest among key participative indicators. It could be identified by the P-value that was not over 0.05.

Table 6.4. Statically Comparisons of “Key Participative Indicators” among classified group of respondents

Classified Groups of Respondents	Key Participative Indicators						Level of Interest
	Benefits Gaining	Implement	Decision Making	Plan	Problem Solving	Evaluate	

Homestay Owners	3.87	4.06	3.92	3.53	3.84	3.57	High
Local Authorities	4.00	3.97	3.95	3.56	3.83	3.53	High
Tourism Service Provider	4.15	4.02	4.10	3.67	4.12	3.67	High
Local Residents	4.14	4.02	4.07	3.62	4.02	3.66	High
Average Mean Score	4.11	4.18	4.05	3.62	4.02	3.64	High
Level of Interest	High	High	High	High	High	High	
P-Value (ANOVA)	0.013	0.619	0.014	0.091	0.000	0.443	

6.4.2. Classification of Significant Group of Respondents

From table 4.4, the results showed that homestay owners, local authorities, and tourism service providers had “High” interest level in participation while local residents had “Moderate” interest level. Table 6.5: Demographic characteristics of significant Groups of Respondent

Demographic Characteristics	Significant Group of Respondent			
	Group 1		Group 2	
	Frequency	Percentage	Frequency	Percentage
1. Gender				
Male	82	52%	60	45.8%
Female	75	48%	71	54.2%
Total	157	100%	131	100%
2. Age Group				
18-25 years old	66	42%	69	53%
26-40 years old	62	39%	37	28%
41-55 years old	27	17%	24	18%
Over 55 years old	2	1%	1	1%
Total	157	100%	131	100%

3. Education Level				
Non-education				
Primary school				
Secondary school	10	6%	4	3%
Vocational	26	17%	20	15%
educational	28	18%	15	11%
Bachelor's degree	38	24%	38	29%
Higher Bachelor's degree	50	32%	53	40%
	5	3%	1	1%
Total	157	100%	131	100%
4. Income				
200,000 Riel or Lower				
200,001- 300,000 Riel	4	3%	2	2%
300,001 - 500,000 Riel	7	5%	9	15%
500,001 - 1,000,000 Riel	59	39%	47	36%
Over 1,000,000 Riel	56	37%	49	37%
	25	17%	14	11%
Total	151	100%	121	100%
Missing System	6		10	
5. Social Role				
Without any Social role				
Undertook Social Role	145	92%	110	88%
	12	8%	20	15%
Total	157	100%	131	100%

Remarks

1: Group 1= Homestay owners, local authorities and tourism service providers.

2: Group 2 = Local residents

These 2 groups were separately analyzed among 6 key indicators of participation in tourism development with their demographic characteristics. The indicators of participation were the in planning, decision-making, problem solving, implementation, evaluation, and expectation in tourism benefits. Their demographic characteristics were gender, age group, education level, monthly income, and social role.

6.4.2.1. Statistical Comparisons of Key Participative Indicators between “Male” and “Female” of Group Respondents (Homestay Owner, Local Authorities, Tourism Services Provider and Local Residents)

“Gender” of respondents was to identify the interest level in participation activities for sustainable tourism development classified by their gender. Male had “High” interest in “Benefit gaining” as well as female. Their mean score was 4.12. The lowest mean scores of both male and female were in “Planning” and “Evaluation”. Male had “High” interest at 3.64 mean scores and female had “High” interest at 3.65 mean scores in “Evaluation”. Similarly, male and female had similar interest level in participation activities.

Table 4.6. Statistical Comparison of “Key Participative indicators” between “Male” and Female of Group Respondents (Homestay Owner, Local Authorities, Tourism Services Provider Local Residents).

Key Participative Indicators	Demographic Characteristic: Gender		Summary of Test Result
	Male	Female	
1. Planning	3.66	3.60	T-Value ¹ = 1.885, d.f. ² = 286, P-Value ³ = 0.60
2. Decision-Making	4.02	4.09	T-Value = -1.784, d.f. = 286 P-Value = 0.75
3. Problem Solving	4.05	4.00	T-Value = -1.244, d.f. = 286 P-Value = 0.215
4. Implementation	4.01	4.02	T-Value = -0.437, d.f. = 286 P-Value = 0.662
5. Evaluation	3.64	3.65	T-Value = -0.172, d.f. = 286 P-Value = 0.864
6. Benefit gaining	<u>4.12</u>	<u>4.10</u>	T-Value = 0.361, d.f = 286 P-Value = 0.718

Remark:

- 1: T-value = Independent-Samples T-Test (computed) value
- 2: df (degrees of freedom) = the amount of information from the sample data that has been used up
- 3: P-value = Level of statistically significant (2-tailed)
- 4: The underlined numbers showed the indicator with the highest mean score within a group

6.4.2.2. Statistical Comparisons of “Key Participative Indicators” among “Age Groups” of Group Respondents (Homestay Owner, Local Authorities, Tourism Services Provider and Local Residents).

“Age group” of respondents identified the interest level in participation activities for sustainable tourism development classified by their age group. The test results of F-value, and P-value of one-way ANOVA (statistically significant) were used to indicate the significant difference among age groups and key indicators.

Respondents who were 18-25 years old had 4.08 as the highest mean score or “High” interest in “Decision Making” among key participative indicators. Respondents who were 26-40 years old had “High” interest in “Problem-Solving” at 4.07 as the highest mean score. Respondents who were over 41 years old had “High” interest in “Benefit gaining” at 4.14 as a highest mean score among key participative indicators.

The lowest mean scores of respondents, 18-25 years old, were in “Evaluation” at 3.63 mean scores or “High” interest in participation. The respondents, 26-40 years old, had mean scores at 3.59 or “High” interest in “Planning” as the lowest mean scores in its age group. Respondents who were over 41 years old had mean score of 3.58 or in “High” interest in “Evaluation” the lowest mean scores among key participative indicators.

Their P-values of the last 3 key participative indicators (implementation, evaluation and benefit gaining) were over 0.05. Therefore, the interest level in participation indicated the statistically significant difference among age group of Group respondents in implementation, evaluation, and benefit gaining. Similarity, the respondents in different age groups presented the different level of interest in implementation, evaluation, and benefit gaining. Moreover, the older respondents presented the fewer mean score than younger respondents did (Table 4.7).

Table 4.7. Statistical Comparison of “Key Participative Indicators” among “Age group” of Group Respondents (Homestay Owner, Local Authorities, Tourism Services Provider and Local Residents).

Key Participative Indicators	Demographic Characteristics Age Groups (years old)			Summary of Test Result
	18-25	26-40	41-55	
1. Planning	3.65	3.59	3.63	F-Value=1.156 P-Value= 0.327

2. Decision-Making	4.08 (High)	4.04	4.01	F-Value=0.672 P-Value=0.570
3. Problem Solving	4.00	4.07 (High)	3.98	F-Value=1.182 P-Value=0.317
4. Implementation	4.02 (High)	4.01	3.99	F-Value=0.779 P-Value=0.507
5. Evaluation	3.63	3.69 (High)	3.58	F-Value=1.290 P-Value=0.278
6. Benefit gaining	<u>4.09</u>	<u>4.11</u>	<u>4.14</u>	F-Value=0.391 P-Value=0.759

Remark:

- 1: F-value = One-Way ANOVA (computed) Value
- 2: P-value = Level of statistically significant (2-tailed)
- 3: The underlined numbers showed the indicator with the highest mean score within a group

6.4.2.3. Statistical Comparisons of “Key Participative Indicators” among “Education Level” of Group Respondents (Homestay Owner, Local Authorities, Tourism Services Provider and Local Residents).

“Education level” of respondents was to identify the interest level in participation activities for sustainable tourism development classified by their education levels. The test results of F-value, and P-value of one-way ANOVA (statistically significant) were used to indicate the significant difference among education levels and key indicators.

“Group respondents whose education level was in primary school, they had the highest mean score at 3.13 among key participative indicators or “High” interest in “Benefit gaining”. Respondents whose education level was in secondary school, they had “High” interest in “Benefit gaining” at 4.12 as the highest mean score. Respondents who were in education level of Higher Bachelor’s degree, they had “High” interest in “Decision Making” at 4.23 as a highest mean score among key participative indicators.

Table 4.8. Statistical Comparisons of “Key Participative Indicators” among “Education Level” of Group Respondents (Homestay Owner, Local Authorities, Tourism Services Provider and Local Residents).

Key Participative Indicators	Demographic Characteristics Education Level (years old)				Summary of Test Result
	Primary School	Secondary School	Bachelor’s degree	Higher Bachelor’s degree	
1. Planning	3.57	3.64	3.62	3.63	F-Value = 1.156 P-Value = 0.327
2. Decision-Making	4.05	3.98	4.08	<u>4.23</u>	F-Value = 0.672 P-Value = 0.570
3. Problem Solving	3.99	4.00	4.01	4.13	F-Value = 1.182 P-Value = 0.317
4. Implementation	3.95	4.05	3.99	4.13	F-Value = 0.779 P-Value = 0.507
5. Evaluation	3.78	3.60	3.65	3.36	F-Value = 1.290 P-Value = 0.278
6. Benefit gaining	4.13	4.12	4.11	3.93	F-Value = 0.391 P-Value = 0.759

6.4.2.4. Statistical Comparisons of “Key Participative Indicators” among “Monthly Income” of Group Respondents (Homestay Owner, Local Authorities, Tourism Services Provider and Local Residents).

“Monthly Income” of respondents was to identify the interest level in participation activities for sustainable tourism development classified by their monthly income. The test results of F-value, degrees of freedom (d.f.), and P-value of one-way ANOVA (statistically significant) were used to indicate the significant difference among monthly income and key indicators.

Table 4.9. Statistical Comparisons of “Key Participative Indicators” among “Monthly Income” of Group Respondents (Homestay Owner, Local Authorities, Tourism Services Provider and Local Residents).

Key Participative Indicators	Demographic Characteristics Monthly Income (Reil)				Summary of Test Result
	200,001-300,000	301,000-500,000	500,001-1,000,000	Over 1,000,000	
1. Planning	3.66	3.64	3.58	3.61	F-Value=0.685 P-Value=0.635

1. Decision-Making	4.00	4.03	4.07	4.06	F-Value=0.491 P-Value=0.783
2. Problem Solving	4.06	4.02	4.03	4.00	F-Value=0.717 P-Value=0.611
3. Implementation	4.00	3.99	4.01	4.06	F-Value=0.550 P-Value=0.738
4. Evaluation	3.67	3.61	3.65	3.67	F-Value=0.526 P-Value=0.756
5. Benefit gaining	4.03	4.08	4.13	4.17	F-Value=0.384 P-Value=0.384

3: The underlined numbers showed the indicator with the highest mean score within a group

6.4.2.5. Statistical Comparisons of “Key Participative Indicators” among “Social Roles” of Group Respondents (Homestay Owner, Local Authorities, Tourism Services Provider and Local Residents).

“Social Roles” of respondents was to identify the interest level in participation activities for sustainable tourism development classified by their social roles. The test results of t-value and P-value of (statistically significant) were used to indicate the significant difference among their social role and key indicators.

Table 4.9. Statistical Comparisons of “Key Participative Indicators” among “Social Roles” of Group Respondents (Homestay Owner, Local Authorities, Tourism Services Provider and Local Residents).

Key Participative Indicators	Demographic Characteristic: Social Roles		Summary of Test Result
	Without Any Social Role	Undertaken the Certain Role	
1. Planning	3.59	3.84	T-Value = -4.67, F-Value = 3.41 P-Value = 0.00
2. Decision-Making	4.05	4.05	T-Value = -0.046, F-Value = 0.209 P-Value = 0.964
3. Problem Solving	4.02	4.07	T-Value = -0.702, F-Value = 0.001 P-Value = 0.483
4. Implementation	4.02	4.02	T-Value = -0.28, F-Value = 2.991 P-Value = 0.978
5. Evaluation	3.62	3.63	T-Value = -2.373, F-Value = 0.290 P-Value = 0.018
6. Benefit gaining	<u>4.08</u>	<u>4.29</u>	T-Value = -2.808, F-Value = 1.842 P-Value = 0.005

6.5. Significant Levels of Community Motivation

In this part, the important levels of motivations for participating in sustainable tourism development based on tourism benefits and information gathering by comparing the interest level among the classified group of respondents (Homestay Owner, Local Authorities, Service Providers:

Interval Scale	Mean Scores	Interest Level of participation
5	4.21 - 5.00	The Superlative interest
4	3.41 - 4.20	High interest
3	2.61 - 3.40	Moderate interest
2	1.81 - 2.60	Low interest
1	1.00 - 1.80	Not interest

6.5.1. The significant Level in “Key Motivational Indicators” of Sustainable Tourism Development among “Classified Groups of Respondent”

Comparison of mean scores among “Classified groups of respondents” was to identify the important level of motivation to participate in sustainable tourism development activities. The key motivational indicators based on tourism benefits, those were socio-culture; environment and economic benefits, and information gathering. One- way ANOVA at 0.05 significant level was used to identify the significance of group difference. Each issue of key motivational indicators comprised of 5 components and were examined as follows:

“Socio-cultural” components were; the opportunity to learn and exchange the culture with tourists, create relationship with tourists and other people within community, pride in unique culture, preservation of the cultural heritage and to be recognized among local residents.

“Environmental benefits” components were; cleanliness of community, systematic of physical environment, environmental conservation regulation was promoted to carry out, tourism attractions were conserved and tourist’s carrying capacity was created.

“Economic benefits” components were: local employment, increase revenue, quality of life was enhanced, local economic was stimulated and diversify and the investors were attracted into community.

“Information gathering” components were; involve in training and meeting, involve in tourism exhibition, public relations through medias, directly noticed

from the responsible person and directly noticed from neighbors.

Each key motivational indicator comprises of 5 components. Those 5 components were grouped into a single one variable, by Principle Component Analysis method, in order to simplify the analysis among groups (Appendix D). Therefore, the 4 keys motivational indicators were gotten and used for analyzing among groups of respondents.

6.5.2.1. Statistical Comparisons of “Key Motivational Indicators” between “Gender” of Respondents (homestay owners, local authorities, tourism service providers and Local Residents)

“Gender” of respondents was to identify the important level of participation in sustainable tourism development activities classified by their gender. The test results of independent samples T-value, degrees of freedom (d.f.), and P-value (statistically significant) were used to indicate the significant difference among genders and key indicators.

Table 4.11. Statistical Comparisons of “Key Motivational Indicators” between “Gender” Respondents (homestay owners, local authorities, tourism service providers and)

Key Motivational Indicators	Demographic Characteristic: Gender		Summary of Test Result
	Male	Female	
1. Social Culture	4.52	4.53	T-Value = -0.359, d.f = 286 P-Value = 0.720
2. Environment Benefits	<u>4.48</u> (Superlatives)	<u>4.49</u> (Superlatives)	T-Value = -0.606, d.f = 286 P-Value = 0.545
3. Economic Befits	4.59	4.61	T-Value = -1.313, d.f = 286 P-Value = 0.190
4. Information Gaining	4.46	4.48	T-Value = -0.460, d.f = 286 P-Value = 0.646

6.5.2.2. Statistical Comparisons of “Key Motivational Indicators” among 3 “Age Groups of Respondents (homestay owners, local authorities, tourism service providers and local residents)

“Age group” of respondents was to identify the important level of motivation in sustainable tourism development activities classified by their age group. The

test results of F-value, degrees of freedom (df), and P-value of one-way ANOVA (statistically significant) were used to indicate the significant difference among age groups and key indicators.

The highest mean scores of all age groups were in “Economic Benefits”. The mean score of respondents, who were 18-25 years old, was 4.63 or in the “Superlative” important level. Respondents, who were 26-40 years old, had mean score of 4.56 or “Superlative” important level. Respondents, who were 41-55 years old, had mean score 4.58 or the “Superlative” important level of “Economic Benefits” motivation

Table 6.12. Statistical Comparisons of “Key Motivational Indicators” among 3 “Age Groups of Respondents (homestay owners, local authorities, tourism service providers and local residents)

Key Participative Indicators	Demographic Characteristics Age Groups (years old)			Summary of Test Result
	18-25	26-40	41-55	
1. Social Culture	4.58	4.46	4.48	F-Value = 4.432 P-Value = 0.005
2. Environment Benefits	4.48	4.47	4.52	F-Value = 0.939 P-Value = 0.422
3. Economic Befits	4.63	4.56	4.58	F-Value = 3.297 P-Value = 0.021
4. Information Gaining	4.44	4.50	4.52	F-Value = 1.051 P-Value = 0.370

6.5.2.3. Statistical Comparisons of “Key Motivational Indicators” among “Education Levels” of Respondents (homestay owners, local authorities, tourism service providers and Local Residents)

“Education” of respondents was to identify the important level of motivation in sustainable tourism development activities classified by their education level. The test results of F-value and P-value of one- way ANOVA (statistically significant) were used to indicate the significant difference among education level and key indicators. The highest mean scores among 4key motivation indicators, the mean score of respondents, their education level was in primary school was 4.57 or in the range of “Superlative” important level.

Table 6.13. Statistical Comparisons of “Key Motivational Indicators” among “Education Levels” of Respondents (homestay owners, local authorities, tourism service providers and Local Residents)

Key Participative Indicators	Demographic Characteristics Education level				Summary of Test Result
	Primary School	Secondary School	Bachelor’s degree	Higher Bachelor’s degree	
1. Social Culture	4.46	4.51	4.56	4.46	F-Value = 1.452 P-Value = 0.206
2. Environment Benefits	4.57	4.52	4.50	4.60	F-Value = 1.654 P-Value = 0.146
3. Economic Befits	4.55	4.60	4.64	4.66	F-Value = 2.020 P-Value = 0.76
4. Information Gaining	4.54	4.46	4.45	4.70	F-Value = 2.262 P-Value = 0.49

6.5.2.4. Statistical Comparisons of “Key Motivational Indicators” among “Monthly Income” of Group Respondents (Homestay Owner, Local Authorities, Tourism Services Provider and Local Residents).

The highest mean scores among 4key motivation indicators, Respondents whose monthly income was 200,001-300,000 riel had highest mean scores in “Economic Benefits” and their mean scores were 4.58 or superlative. Respondents whose monthly income were 3,000,001-500,000 riel to over 1,000,000 riel their highest mean score was 4.60-4.61in “Economic benefits” or” Superlative” interest in tourism benefits gaining.

Table 6.14. Statistical Comparisons of “Key Participative Indicators” among “Monthly Income” of Group Respondents (Homestay Owner, Local Authorities, Tourism Services Provider and Local Residents).

Key Participative Indicators	Demographic Characteristics Monthly Income (Reil)				Summary of Test Result
	200,001-300,000	301,000-500,000	500,001-1,000,000	Over 1,000,000	
1. Social Culture	4.53	4.51	4.49	4.50	F-Value = 1.097 P-Value = 0.362
2. Environment Benefits	4.43	4.49	4.46	4.49	F-Value = 0.561 P-Value = 0.730

3. Economic Befits	4.58	4.60	4.58	4.61	F-Value = 1.778 P-Value = 0.117
4. Information Gaining	4.30	4.46	4.50	4.49	F-Value = 1.176 P-Value = 0.321

6.5.2.5. Statistical Comparisons of “Key Participative Indicators” among “Social Roles” of Group Respondents (Homestay Owner, Local Authorities, Tourism Services Provider and Local Residents).

“Social Roles ” of respondents was to identify the interest level in participation activities for sustainable tourism development classified by their social roles. The test results of t-value and P-value of (statistically significant) to indicate the significant difference among their social role and key indicators.

Table 6.15. Statistical Comparisons of “Key Participative Indicators” among “Social Roles” of Group Respondents (Homestay Owner, Local Authorities, Tourism Services Provider and Local Residents).

Key Participative Indicators	Demographic Characteristic: Social Roles		Summary of Test Result
	Without Any Social Role	Undertaken the Certain Role	
1. Social Cultural Benefits	4.50	<u>4.71</u>	T-Value = -4.162, F-Value = 3.460 P-Value = 0.000
2. Environment Benefits	4.49	4.43	T-Value = 1.626, F-Value = 2.577 P-Value = 0.105
3. Economic Benefits	4.61	4.52	T-Value = 2.468, F-Value = 0.329 P-Value = 0.014
4. Information Gathering	4.48	4.45	T-Value = 0.342, F-Value = 1.574 P-Value = 0.733

7. Conclusion and Suggestions

This chapter entailed a summary of the essential finding of the study. The concept of sustainability was always considered in every development plan including within the tourism development. With the aim of maintaining tourism benefits, those were the economic, environment and social-culture benefits as well as eliminating the tourism drawbacks. Participation from local people was the key tool to tourism development at Prasat Sambo Commune had an unclear direction of participation for the host community. As a result, the researcher decided to propose

the model of community participation in tourism plan for sustainable tourism

7.1. Conclusion

The researcher had reviewed the related concepts and theories then the research methodology was designed. The data collection period was in July to September 2018. In this study, the sample size was 288. There were local residents who were at least 18 years old. The researcher used questionnaire to collect the primary data. The data was collecting from 19 home stay owners, 32 local authorities, 106 tourism service providers, and 131 local residents. They were classified by their occupations and social statuses. SPSS version 22 analyzed the data collected. The statistics used in this research were related to the objectives of the analysis and the characteristic of the data. Therefore, the frequencies, percentages, means, One-Way Anova and Independent Samples T-Test were used.

7.1.1. Demographic Characteristics of Respondents

The findings of demographic characteristics of respondents were as follows. The majority of the respondents were female. The respondents were mostly in age group of 18-25 years old and obtained education level in Vocational educational and bachelor's degree that they think was sufficient for their occupation. More than half of total respondents earned 300,001 - 500,000 Riel per month. This was compatible with their occupations. Their main occupation was fishery or agriculture, such as growing vegetable and rice, because of the geography of the community and they did so from generation to generation. More than 47.22 percent of them were local residents.

7.1.2. The classified Group of Respondents

The groups of respondents were classified after data collection by their occupation and their social role. There were 4 classified groups of local residents, tourism services providers, homestay owners, and local authorities. Local resident group was the majority of the respondents. They did not take any social role and their occupations and their families did not directly relate to tourism. More than 30 percent of total respondents were tourism service providers. They directly involved in tourism business.

7.1.3. Heritage Tourism and Sustainable Tourism Knowledge among classified Group of Respondents

There were 5 indicators of ecotourism knowledge and 5 indicators of sustainable tourism knowledge. The heritage tourism and sustainable tourism knowledge were percentage examined among classified group of respondents. P-standard was set to indicate of respondents who had mean score more than 0.75 (P-Standard of Knowledge). Those respondents were defined that they well recognized in ecotourism or sustainable tourism. The overall result was that the groups of respondents well recognized in sustainable tourism than Heritage tourism, except the Local Authorities group. Sustainable tourism was the common tourism and was easier to understand than ecotourism, which was more specific the results by classified group of respondents were that, more than a half of total respondents well recognized the Heritage tourism and more than 70 % of total respondents well recognized the sustainable tourism.

7.1.4. The Interest Level of Community Participation for Sustainable Tourism Development at Sombor Preikuh Temple site

Among groups of respondents presented the “High” interest in participating sustainable tourism development activities of benefit gaining, implementation, and decision-making. The respondents presented the “High” interest in participating in other activities, those were planning, problem solving, and evaluation. The different group of respondents presented the different interest in each sustainable tourism development.

7.1.5. The significant levels of community motivation that influence Participation for Sustainable Tourism Development at Sombo Preikuh Temple site

Motivation that influence Participation for Sustainable Tourism Development at Sambo PreiKuh Temple Site. The respondents were reclassified into the homestay owners, local authorities, and tourism service provider and local residents. All groups of respondents presented the “Superlative” important in all motivations of tourism benefits and information gathering. Those were the environmental benefits, economic benefits, socio-cultural benefits, and information gathering respectively.

7.2. Discussion

7.2.1. Objective 1: The Interest Level of Community Participation for Sustainable Tourism

Development at Sombor Preikuh Temple site Interest Level and Participation Activities

Interest Level and classified Group of Respondents

The majority of the respondents had “High” interest level of participation. Among the classified group of respondents, local residents had higher mean score than other groups. This may be because of their social role, they were always seen as the leader of the activities so they had to participate in some of tourism development activities within the community.

7.2.2. Objective 2: The significant Level of Community Motivations influence Participation for Sustainable Tourism Development at Sombor Preykuk Temple site Significant Level and Motivation

The key motivational indicators were based on tourism benefits, socio-cultural benefits, environmental benefits, economic benefits, and information gathering. The important level of motivation ranged from the superlative to not important level. The result showed that all group of respondents indicated the “Superlative” important different tourism benefits and information gathering. The respondents selected the environmental benefits as the most important motivation that influenced the participation for sustainable tourism development. It was indicated by the highest mean score in environmental benefits. Similarity.

Significant Level and classified Group of Respondents

The different groups of respondents presented statistically different results in each motivational indicator. Among classified group of respondents, Local residents had higher mean scores than others. This may be because of their occupation were directly involved in tourism business. They may recognize the tourism benefits and directly gain the tourism benefits and tourism information. Therefore, they were sensitive to the motivation in tourism benefits and information gathering.

7.2.3. Objective3 : A proposed Model of Community Participation in Tourism Plan for Sustainable Tourism Development at Sombo Preikuh Heritage site

In order to enhance community participation at Prasat Sambo commune for sustainable tourism development, there must be the community participation model that mainly implemented by the local residents. This model identified the components for enhancing the effectiveness of community participation in implementing the tourism plan for sustainable tourism development.

At local level, the nature of community participation in tourism plan was often seen no more than a form of “Induce Participation”. Similarity, the decisions or the directions of decision had already been prearranged by government and people participated by being told what has been decided. However, there was a small group of villager at Prasat Sambo commune that had “Spontaneous Participation”.

Figure 5.1. The proposed model of community based tourism in Tourism Plan for Sustainable Tourism Development at Prasat SomboPrei Kuh Commune

7.2.3.1. Composition of the propose Model at Community Participation in Tourism Plan for Sustainable Tourism Development

The 4 parts of this model were inputs, processing, outputs and improvement. They were clarified as follows:

Part 1: Inputs

There were tourism education and resources support. The model started with this part. All the components were equally important and related to each other. This part should be top-down management. The local authorities should manage and controlled this part because this group had more interest.

1) Tourism Education

One of the reasons from Prasat Sambo PreiKuh Commune respondents for their minor or no participation for sustainable tourism development was their lack of tourism knowledge. Although, more than a half of respondents recognized the ecotourism and sustainable tourism, they should have principle knowledge of tourism especially in maintaining tourism benefits and decreasing negative impacts as well. The targeted residents in tourism education were the representatives from every group of Prasat Sambo PreiKuh Commune residents such as local residents, tourism service providers, and homestay owners. Especially to the residents in between 18-25 years old, who had higher participation than other age groups. The local authorities should provide the qualified educators.

2) Resources Support

It was essential to have the resources support for participation in accordance with the model. The respondents recommended that the government authorities' support could influence the participation for sustainable tourism development. The important supported resources for Prasat Sambo residents should be the financial resource and human resource.

The Financial resource was the budget that may come from the central government, funding from relevant NGOs, or from the community tourism revenue. The point was that, it must be transparently managed. The responsible people should be arranged to manage the budget. The local authorities and the representatives from other groups of respondents should respond to budget management.

Part 2: Processing

The processing part was the implementation of tourism plan. This part was bottom-up management. The respondents had "High interest in participating in implementation. Therefore, all groups of local residents were the key people to process the tourism plan. They recommended that the arrangement of the right and willing people could influence the participation. Therefore, the local residents who interested in participation could be the volunteers or the arranged persons who have appropriate skill to the specific activity. There would be the activities in the implementation part that went beyond the tourism plan.

Part 3: Outputs

After accomplishing the processing part, the respondents can participate in implementation and benefit gaining. Its outputs were the participation by residents at Prasat Sambo community and the sharing of tourism benefits.

1) Participation

Participation was one of the expected outputs. This refers to the participation of local residents at Prasat Sambo. They were local authorities, homestay owners, tourism service providers, and local residents. If there were more numbers of participants and effectiveness of residents' participation, there will be more achievement of the sustainable tourism development. Moreover, participation should be use to evaluate the practicality of the tourism plan. If the tourism plan was practicable, the implementation would be smooth.

2) Tourism Benefits

Tourism benefits and participation interrelated to each other. The tourism benefits were the result from the participation in implementing the tourism plan. In addition, the tourism benefits could influence the further participation in sustainable

tourism development. The tourism benefits created in the tourism plan should have the environmental benefits as their priority. It was because Prasat Sambo residents were more sensitive to environmental benefits than other benefits. The latter important benefits were economic benefits and socio-cultural benefits.

Part 4: Improvement

1) Evaluation and Problem Solving

The last part was evaluation part and it related to the inputs, processing, and outputs. It was because the results from the evaluation will be used to improve those parts of the model. In this part, the local residents were fully participated in evaluation and problem solving.

2) Planning and Decision-Making

After evaluation, Prasat Sambo residents who involved in evaluation part should continue participation in planning and decision-making in order to prepare the plan for improving the tourism at Prasat Sambo Commune. The residents had “High” interest in planning but “High” interest in decision-making. However, they recommend the tourism education and the arrangement of meetings for inducing participation in planning. The residents already had principle knowledge of tourism.

7.3. Suggestions

7.3.1. Motivation for participation in Sustainable Tourism Development

The result of data analyzing showed that, the majority of the respondents had high interest in participation and had high motivation in environmental benefits. The recommendation for influencing community participation was to raise the environmental benefits as the priority important for sustainable tourism development then, followed by the economic benefits and socio-cultural benefits.

Environmental Benefits

The conservation of the environment was the major interest for Prasat Sambo residents. Therefore, the local government together with the representatives from the community should do a survey of the sensitive areas and then identify them as conservation areas. They may limit the numbers of tourist introduce conservation rules in order to prevent the over using minimize the negative impacts to environment.

Economic Benefits

The respondents believed that if there was the increasing number of tourists, In order to increase the number of they would have more economic benefits from

tourism tourists, marketing at the destination must be a consideration. The Tourism Authority of Thailand should support more on promoting Prasat Sambo PreiKuh international tourists.

Socio-Cultural Benefits

Prasat Sambo was the Buddhism community , 98 % of total population was Buddhist. They strictly followed Buddha moral codes of conduct so they believe that their socio-culture will not be harmed by tourism. However, they still wanted to strengthen their socio-culture within the community and especially to the group of teenagers. Therefore, the rules of interaction between local residents and visitors must be proposed and then strictly practiced. The local residents must propose the rules by both of those directly involved and those who did not involve in tourism business.

7.3.2. Tourism Information

From the results, the majority of respondent preferred the tourism information through meeting and training. It was the two-way communication between educators and local residents. Therefore, the form of the information gathering should be group discussion, group meeting or appropriate training. The tourism information should be provided to different groups of local residents, in particular to different age groups and education levels. The information should be easy to understand because the majority of the respondents had education in primary school or lower.

7.3.3. Suggestion for further Research

The research focused on the study of interest level of community participation and the significant level of community.

1. Sustainable Tourism Development is concerned with different stakeholders in the develop destinations such as government sector, private tourism business, tourist, host community and adjoining community. However, this study evaluated the planning and management of sustainable development at local community level. Therefore, further research should emphasize on other related tourism stakeholders.

2. Should create the national Ecotourism policy and Community based tourism Policy in Sambor Preikuk heritage site which is very important to contribute for Preservation and conservation with sustainability.

3. Development of Ecotourism Products (Accommodation, Transportations,

Foods and Beverages, sites, arts and Ecotourism Events).

4. Developing Ecotourism Products need Participation of CBT.

5. Finding Market for selling of Ecotourism Products which considers on Target markets, Geography, demography, behavior of Tourists, International and national markets with discussion with Tourism Operators and also promote them by media especially travel agencies.

6. Participation from CBT in all development must Take care and control all development activity, with creating initiative CBT's concept closely.

7. Authority and CBT should be measure the security, safety and Make sure the tourist lives.

8. Should be investment by Local and international for infrastructure which replies to the increasing of International and domestic tourists.

9. Developing Human resources in Sambor Prei Kuk heritage site (Capacity building and Training CBT) in order provide services to Tourists with efficiency, Quality and sustainability).

10. Promote the cooperation between Government, local authority, NGOs, CBT and Private sectors to contribute, Support, Protect and Conservation for develop Sambor PreiKuk heritage site with increasing and sustainability.

Conclusion: What we raise above is very important in using to contribute Ecotourism for Cambodia with quality, efficiency, sustainability in poverty reduction for Community Based Tourism for Sustainable Tourism Development.

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TOURISM GROWTH RATE, SEASONALITY FACTORS AND INTERNATIONAL TOURIST FORECASTING: CASE STUDY OF CAMBODIA

By Dr. Lay Sau

Abstract

Many governments around the world, especially the Government of Cambodia, have recognized tourism industry is an important factor driven Gross National Product (GDP). The important factor has encouraged the Government of Cambodia to issue many subsequent policies since 2016 to support the growth of this industry. Unfortunately, the world financial crisis may weaken this growth rate. The aims of this study are to investigate tourism growth rate, how the world crisis and responded policies of the government impact on the growth rate, and finally is to determine the pattern of internal tourist arrival and adopt an appropriate model to forecast the number of tourists for last four quarter. Using annual data from 1993-2016 along with log-lin growth model, the study found that the number of tourists was increased, on average, is about 16.67 percent per annum, but at a decreased rate about 0.5 percent per annum. Additionally, using 53 quarters data (2004-I to 2017-I) along with dummy season OLS, trend and dummy break beginning 2009-IV, the study found that the world financial crisis had a little impact on this industry for a short period of time. Fortunately, the growth rate of the crisis after the crisis was higher than that before the crisis, on average about 12,782 people per quarter. Furthermore, the study also found that there is a pure seasonal pattern of the tourist arrival in this industry. Finally, the study found that using dummy season OLS with interaction term, together with ARMA (1, 4; 3) to solve serial correlation in the competing models have been thoroughly investigated, produced mean absolute percent error (MAPE) of 8.12.

Key words: Log-lin growth, seasonal dummy, dummy break, interaction term, the Frisch–Waugh Theorem, ARMA (p , q), CLRM assumption, and international tourist forecasting.

1. Introduction

Tourist industry has been long well known main domain, which produces large contribution to the economy by most governments in the world. It generates employment opportunities, creates linkages – in particular with agriculture and service-providing sectors – and stimulates the development of basic infrastructure through the construction of roads, port and airport facilities and the provision of financial services from which the economy as a whole can benefit (UNCTAD 2013). The Cambodian Government has also declared the importance of the tourism sector. Several policies and strategic plans have been developed and implemented, particularly, in 2006, The Government introduced an electronic system in 25 languages to facilitate tourists' online visa applications (OECD 2013). It is also seeking to encourage more visitors and longer stays. In 2008, the Government launched tourist campaign “Cambodia: Kingdom of Wonder” and promoted “Clean City, Clean Resort and Good Services” (Neng 2013), and in 2012 the Royal Government of Cambodia adopted “Tourism Development Strategic Plan of 2012-2020”, which identified six potential tourist areas: Angkor Wat and its peri-zone, Phnom Pend and its peri-zone, Coastal zone, Northeast, Tonle Sap peri-zone, and Areas along Tonle Mekong, and Tonle Bassac (RGC 2012). As a result, the industry provides direct jobs to several sectors such as hotels, airlines, airports, travel agents and leisure and recreation services that deal directly with tourists. For example, the tourism industry of Cambodia provided directly 2,252,500 jobs or 25 percent of a total employment and directly supported in 2016 (WTTC 2017). Besides directly supported jobs, the industry also provides indirect and induced impacts on the economy. The indirect contribution includes tourism investment spending, government ‘collective’ spending-e.g. tourism marketing and promotion, aviation, administration, security services, resort area security services, resort area sanitation services, etc.; and domestic purchases of goods and services by the sectors dealing directly with tourists. In term of GDP, this industry contributed totally 28.3% (USD5.5bn) of GDP in 2016 (WTTC 2017). Even so importantly, a lack of research which was conducted to determine effective implementation of the policies, the growth rate and formal econometric model for implementing, forecasting the international tourist arrival in this industry.

2. Research Objectives

The tourism industry of Cambodia has potentially grown since 1993, unfortunately, the growth rate has been experiencing setbacks since the global financial crisis in 2009 (Jalilian, Sophal et al. 2009). Therefore, the first research objective is to investigate annual growth rate by using annual data. Second, it is to determine whether there is a significant difference of tourism growth rate before the crisis and after the crisis. Third, it is to determine whether there is a seasonality factor in the industry, and finally it is to forecast the number of tourist arrivals in the last four quarters.

3. Research Questions

Research question is an important tool to address research objectives. The current study is sought to answer the following questions:

- *Research Question One:* What is the annual growth rate of international tourist arrival in Cambodia?
- *Research Question Two:* Is there any seasonal factor in tourism industry of Cambodia?
- *Research Question Three:* Is there any structural change in quarterly data?
- *Research Question four:* What is forecasted number of tourist arrivals in the last four quarters?

4. Literature Reviews

Forecasting methodology is not new, broadly speaking; there are five approaches for economic forecasting based on time series data: (1) exponential smoothing methods, (2) single-equation regression models, (3) simultaneous-equation regression models, (4) autoregressive integrated moving average (ARIMA) models, and (5) vector autoregression (VAR) models (Gujarati and Porter 2008). Some models are more complicating than the others, but some authors prefer using simpler traditional one. For example, Malhotra and Yadav (2017) used a traditional model exponential smoothing to forecast number of tourists arrived in India. As a result, the authors found that smoothing constant, $\alpha=0.6$ provided the best result. In contrast, Loganathan and Ibrahim (2010) used modern model-ARIMA model to forecast international number of tourist in Malaysia. In extreme, Chaitip,

Chaiboonsri et al. (2008) used a dozen both traditional and modern methods to forecast the number of international tourist arrival to Thailand from 2006-2010. The models include GMM, ARCH-GARCH, ARCH-GARCH-M, TARCH, EGARCH, PARCH methods, VAR, Holt-winter, ARIMA, SARIMA, and Neural Network methods and the Trend Extrapolation Models. Obtaining all results from those models, the authors compared and inducted to find the best one. Finally, they found that SARIMA (0,1,1)(0,1,4) is the best method based on the lowest value of MAPE of 16.73 percent. Similarly, Athanasopoulos, Hyndman et al. (2010) also used a dozen forecasting models to compete forecasted result based on Mean Absolute Percentage Error (MAPE) principle. Three pure time series approaches (Forecast Pro, ARIMA and exponential smoothing based algorithms), two method-specific approaches (the Theta method and the damped trend), and five general frameworks that incorporate explanatory variables (static and dynamic regression, autoregressive distributed lag models, time varying parameter models and vector autoregressions) were employed. Finally, the authors conclude that pure time series approaches forecast tourism demand data is more accurate than methods of pure time series forecasting approaches. Forecast Pro, ARIMA and ETS consistently forecast more accurately than the seasonal Naive approach for seasonal data (both monthly and quarterly), while the damped trend method performed extremely well for quarterly. Interestingly, Saidi, Scacciavillani et al. (2010) used univariate ARIMA, and OLS with seasonal and erratic factor. Finally, the authors found that simple OLS regressions with seasonal and erratic factors have proven to be more accurate than ARIMA forecasts. In contrast, Loganathan and Ibrahim (2010) found that the best fitted ARIMA (1,0,1) with seasonal effects or well known as SARIMA approaches has been suggested for forecasting number of international tourist demand in Malaysia.

In sum, no forecasting model is preferred over other; it may depend on pattern of data set in hand. That is a reason why some authors like to use trial and error method with a dozen forecasting models, then choose the best one, which is based on the forecasting accuracy, whereas other authors like to use simple forecasting techniques, but failed to clarify the reason why they chose them. Additionally, most of the authors in the literature reviews also failed to conducted diagnostic tests before generalizing or making inferential statistics. According to Brooks and Tsolacos (2010), in general the consequences for the model if an assumption is violated but this fact is ignored, the coefficient estimates ('s) are wrong; the associated standard errors are wrong; and/or the distributions that were assumed for the test statistics are

inappropriate. Therefore, Classical Linear Regression Model (CLRM) assumption is a very important tool to make forecasted results reliable.

5. Research Methodology

The forecast method is based on three steps: 1) plot the series and then observe their pattern, 2) choose appropriate model to fit data and then the residuals of this model are also examined, and the model is also modify to satisfy CLRM and Ramsey's RESET test, 3) finally, if the model satisfied all CLRM, then it would be adopted for forecasting at the same time, the forecasted accuracy such as MAPE and RMSE, and Theill's U statistics are also reported

6. Research Findings

6.1. Descriptive Analyze

Cambodia is a main international tourist market; the number of international tourist arrivals have grown every year, particularly, from year 2010 to 2012 after the world financial crisis, the growth rates were 16 percent, 15 percent, 24 percent and 17 percent, respectively. However, these increased rates were decreased recently, especially, for the last three years (see Table 1).

Table 1. Number of International Tourist Arrivals from 2006-2016

Year	Number of Tourist	Change (%)
2007	2,015,128	
2008	2,125,465	0.05
2009	2,161,577	0.02
2010	2,508,289	0.16
2011	2,881,862	0.15
2012	3,584,307	0.24
2013	4,210,165	0.17
2014	4,502,775	0.07
2015	4,775,231	0.06
2016	5,011,712	0.05

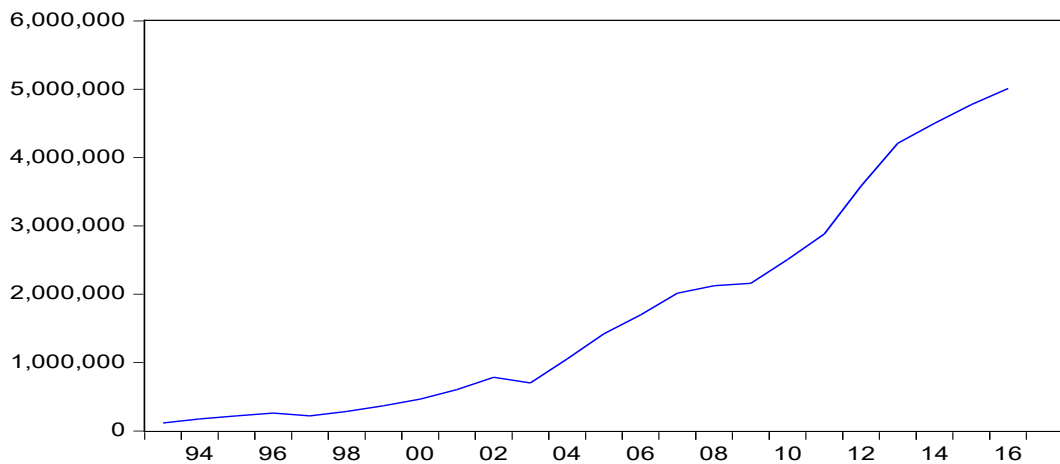
Source: Adapted from MOT (2017)

6.2. Fundamental Analysis

- **Research Question One:** What is the annual growth rate of international tourist arrivals in Cambodia?

Figure 1 represents annual number of international tourist arrivals in the period of 1993-2016. From this Figure, it is noted that the highest growth period is between mid-2009 to mid-2013; and after that the growth rate is slow.

Figure 1 Number of Tourist Annually Arrived in Cambodia, 1993-2016



To answer research question one, the following two regressions are proposed:

$$\ln \text{tourist} = B_1 + \beta_2 \text{Trend} + u_t \quad (1a)$$

where

$\ln \text{tourist}$ = Natural logarithm

Trend = measure in year

u_t = error term

$$\text{tourist} = B_1 + \beta_2 \text{Trend} + \beta_3 \text{Trend}^2 + u_t \quad (1b)$$

where :

$\ln \text{tourist}$ = Natural logarithm

Trend = measure in year

Trend^2 = Trend square

u_t = error term

Equation (1a) is used to determine a constant growth rate and equation (1b) is used to determine whether the growth rate is at increased or decreased rate.

Using annual tourist data from 1993 to 2016, we obtain the following results:

Table 2. a Regression Results of Equation (1a)

Variable	Coefficients
Intercept	11.73877 (164.8417)***
Trend	0.166716 (33.45145)***
R ² =0.98, F=1118.999 (p=0.00), DW=0.707597 ***p<0.01 Note: t-test is number in parentheses	

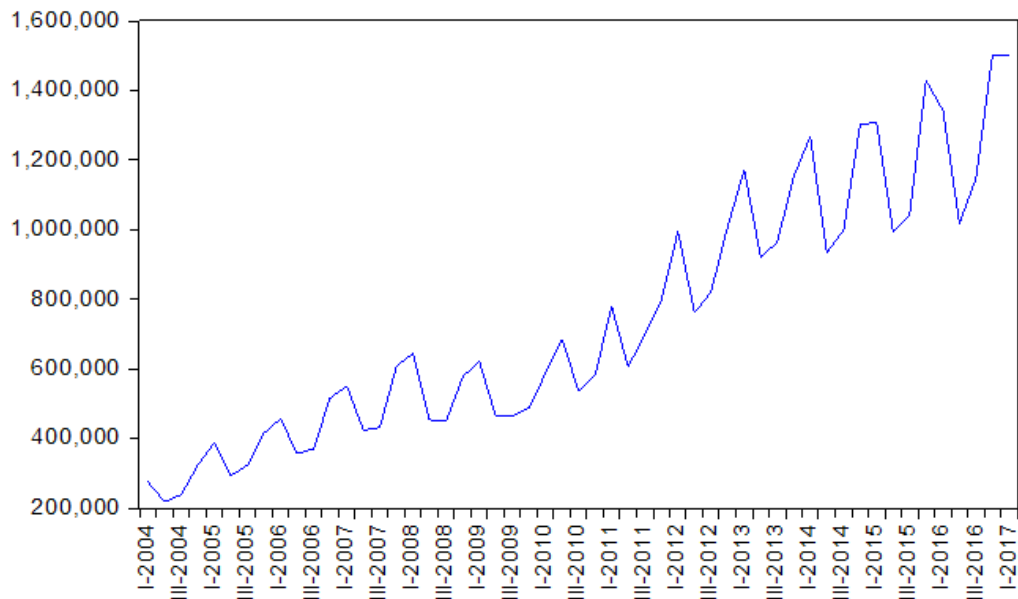
Table 2. b Regression Results of Equation (1b)

Variable	Coefficients
Intercept	11.47140 (131.0792)***
Trend	0.22842 (14.16127)***
Trend ²	-0.002468 (-3.940229)***
R ² =0.99, F=936.6697 (p=0.00), DW=1.1214 ***p<0.01 Note: t-test is number in parentheses.	

The results of the regression (1a) show that the slope coefficient of 0.1667 is highly positively significant. Therefore, the compound growth rate of international tourists is about 18.14 percent [$\text{antilog}(0.1667)-1$] over 1993-2016 periods. Interestingly, the coefficient of trend-square in regression (1b') is negative (-0.002468), and also highly significant. It can be concluded that the international tourist arrivals increased, but it is at decreased rate of about 0.5 (2×0.002468) percent per year.

Research Question Two: Is there any seasonality factor in tourism industry in Cambodia?

Figure 2 Number of Tourist Arrival in Cambodia from 2004q1 to 2017q1



To answer this question, data 53 quarters (2004q1 to 2007q1) are plotted, and then observed their pattern. Figure 2 suggests that perhaps there is a seasonality effect in the series associated with the various quarters and upward trend. Additionally, the trend moved forward to the middle and then its slope from that point to the last. To counter this situation in hand, ONS (2007) recommends that when a long series may have discontinuities or large changes in seasonal pattern, it is necessary to have a seasonally adjusted series for the whole of a long span, it is generally better to adjust all of the data than to divide them into separate sections. Additionally, **Frisch–Waugh Theorem** (as cited in Guajarati, 2012) suggested that introducing the seasonal dummies in the model can deseasonalize all the time series used in the model. The theory allows us not only to remove the seasonality in regressand but also the seasonality, if any in regressor. So to speak, we kill (deseasonalize) two birds (two series) with one stone (the dummy technique).

To see if this is the case, the following model is proposed:

$$Tourist_t = \beta_1 + \beta_2 D_{2t} + \beta_3 D_{3t} + \beta_4 D_{4t} + \beta_5 Trend + u_t \quad (2)$$

where :

Tourist=Number of international tourist arrival

$D_{2t} = 1$, for quarter two, and 0 otherwise

$D_{3t} = 1$, for quarter three, and 0 otherwise

$D_{4t} = 1$, for quarter four, and 0 otherwise

Trend = Measure in quarter

u_t = error term

Using quarterly data from 2004q1 to 2017q1, the following regression results were obtained:

Table 3. Regression Result of Equation (2)

Intercept	Coefficients 267942.6
D2	(7.541421)*** -202614.4
D3	(-5.343728)*** -196219.7
D4	(-5.176484)*** -47815.27
Trend	(-1.261074) 21537.99 (24.34635)***
R ² =0.93, F=161.7775 (p=0.00), DW=1.007182 ***p<0.01 Note: t-test is number in parentheses.	

From the results of the regression in Table 3, it is noted that there are two differential dummy intercepts -quarter two and quarter three are highly significant, whereas the quarter four is not. These mean that the numbers of international tourist arrivals in quarter two, and quarter three, on average, about 202614 people, and 196220 people are less than that in quarter one, irrespectively. Whereas the number of international tourist arrivals in quarter four, on average, is not significantly different from quarter one. Notably, the highest season is quarter one, which account for, on average, 267943 people per quarter. Interestingly, the coefficient of trend is also highly significant, suggesting that, on average, the number of international tourist arrivals is grew about 21538 people per quarter over the sample period.

Research Question Three: Is there any structural change in quarterly data?

From Figure 2, it is further noted that addition to seasonal pattern, the trend moved slowly forward to the middle series (2009) and then its slope from that point to the last. There is perhaps a structural change in quarterly data, especially from quarter three 2009 to the last. To counter this situation in hand, ONS (2007) recommends that when a long series may have discontinuities or large changes in

seasonal pattern, it is necessary to have a seasonally adjusted series for the whole of a long span, it is generally better to adjust all of the data than to divide them into separate sections. Further noted that, the structural change may lead to changes both in intercept and slope coefficient in equation (2b). Therefore, the following regression has been suggested.

$$Tourist_t = \beta_1 + \beta_2 D_{2t} + \beta_3 D_{3t} + \beta_4 D_{4t} + \beta_5 Trend + \beta_6 D09_{6t} + \beta_7 Trend * D09_{6t} + u_t \quad (3)$$

where :

$Tourist_t$ = Number of international tourist arrival in periodt

D_{2t} = 1, for quarter two, and 0 otherwise

D_{3t} = 1, for quarter three, and 0 otherwise

D_{4t} = 1, for quarter four, and 0 otherwise

Trend = quarter

D09 = 1 for period beginning in quarter three 2009, and 0 for period before 2009

Trend * D09 = interaction term

u_t = error term

If coefficient of D09 is significant, the intercept is changed from the beginning of quarter three in 2009 and otherwise is not. Similarly, if the coefficient of “Trend*D09 is significant, the slope coefficient is changed from the beginning of quarter three in 2009, and otherwise is not.

Using quarterly data from 2004q1 to 2017q1, we get the following regression results:

Table 4. Regression Result of Equation (2)

Variable	Coefficients
Intercept	352429.5 (9.224024)***
D2	-197024.0 (-6.564568)***
D3	-185558.3 (-6.176708)***
D4	-39461.82 (-1.314684)
Trend	15643.34 (5.974995)***
D09	-389165.7 (-5.547134)***
D09*Trend	13329.13 (4.369358)***

$R^2=0.9586$, $F=177.6785$ ($p=0.00$), $DW=1.686576$

*** $p<0.01$

Note: t-test is number in parentheses.

As prior expectation, the results of the regression (3) show that both coefficients of intercept (D09) and the slope coefficient (Trend*D09) are highly significant. These can be concluded that there is a structural change, both intercept and slope, in number of international tourist arrivals from quarter three of 2009 to the last period. For period before quarter three of 2009, the number of international tourist arrivals, on average, increased by 15643 people per quarter, and for period from quarter three 2009 to the last, the number of international tourist arrivals, on average, increased by 13329 people per quarter, higher than that before quarter three of 2009. Surprisingly, the intercept of the beginning in quarter three of 2009 is dropped by 389165.7 people from the intercept before quarter three of 2009 of 352429.5, leaving a negative intercept of 36736.2 as one might be expected from Figure 2, which reveals that there may be two intercepts, one is positive, whereas the other is negative. Here, this negative intercept has no economic meaning.

Research Question Four: What is forecasted number of tourist arrival in last four quarters?

The results of the regression (2) clearly indicate that there is seasonal factors, vary from quarter to quarter, but the regression assumes that the slope coefficients of trend remains constant. Therefore, it is possible to investigate whether there are different slope dummies in the regression (2). To do this, the differential slope dummies in log-linear are introduced as follows:

$$\log(\text{Tourist}_t) = \beta_1 + \beta_2 D_{2t} + \beta_3 D_{3t} + \beta_4 D_{4t} + \beta_5 \text{Trend} + \beta_6 D_{2t} * \text{Trend} + \beta_7 D_{3t} * \text{Trend} + \beta_8 D_{4t} * \text{Trend} + u_t \quad (4a)$$

where : D_2 , D_3 , D_4 , Trend and u_t as early specified

$D_{2t} * \text{Trend}$, $D_{3t} * \text{Trend}$, and $D_{4t} * \text{Trend}$ are interaction terms

$\log(\text{Tourist}_t)$: log of tourist

The results of the regression (4a) show that none of different slope dummies variables are significant. Therefore, interaction terms in equation (4a) could be dropped from analysis, leaving the regression equation the same equation (2), which assumes that no different slope (constant slop) in the regression. However, the regression results of regression (2) seems to be suffered serial correlation as in

dictated by Durbin Watson of 1.686576, and Breusch-Godfrey test with a $\chi_{(2)}$ value of 6.929294 ($p=0.0314$). To counter the issue of serial correlation, Startz (2013) suggests that either autoregressive (AR) or moving average (MA) or both could be used to remove serial correlation. With assistance from correlogram of residuals of the regression (4a) and with some trial and errors are thoroughly investigated and along with Aikaike Information Criterion (AIC) for model selection, the following regression is suggested:

$$\log(Tourist_t) = \beta_1 + \beta_2 D_{2t} + \beta_3 D_{3t} + \beta_4 D_{4t} + \beta_5 Trend + AR(1) + AR(4) + MA(3) + u_t \quad (4b)$$

where : D_2 , D_3 , D_4 , Trend and u_t as early specified

AR(1) and AR(4) are autoregressive order 1 and 4 of regressand

MA(3) is moving average order 3

u_t is stochastic or error term

Using Eviews9 with ARMA Conditional Least Squares method provides the results of the regression (4b) as presented in Table 5.

Table 5. Regression Result of Equation (4b)

Variable	Coefficients
Intercept	12.87613 (79.16633)***
D2	-0.270089 (-7.198549)***
D3	-0.263288 (-5.552062)
D4	-0.069933 (-1.901630)*
Trend	0.026398 (6.436611)***
AR(1)	0.345647 (2.546631)**
AR(4)	0.313176 (2.487327)**
MA(3)	0.338346 (2.252622)**
$R^2=0.969$, $F=184.3089$ ($p=0.00$), $DW=1.842526$ *** $p<0.01$, ** $p<0.05$, * $p<0.10$ Note: t-test is number in parentheses.	

From table 5, it is noted that after adding AR(1), AR(4) and MA(3) variables

as regressors to the regression (4a), it seems to be improved its estimation; Durbin-Watson statistic closes to two, and Inverted AR Roots of 0.85 lie within unit cycle. The coefficient estimate for AR(1), AR(4) and MA(3) are statistically significant at 5 percent. Additionally, correlogram of residuals with 24-lag shows that all Q-statistics are insignificant (p-values are larger than 5 percent). This initially indicates that the time series is no longer suffered from serial correlation. Even so, these statistical tools are quite good; other diagnostics tests were also needed to be conducted before forecasting. For the current study, dynamic forecast method is used and the forecasted actual tourist number and diagnostic tests have been conducted by Eviews9. Table 6 shows the forecasted results, forecasted accuracy, and diagnostic tests in first, second and third parts, respectively.

Table 6. Forecasted Results, Accuracy and Diagnostic Tests

	Regression (4a)
Date	Mean Forecasting
2017q2 1625806	
2017q3	1274207
2017q4	1317232
2018q1	1640980
Forecasting Accuracy (Actual tourist number)	
Root Mean Square Error (RMSE)	78046.92
Mean Absolute Error (MAE)	60887.00
Mean Absolute Percentage Error (MAPE)	8.119866
Theil Inequality Coefficient	0.046269
Bias Proportion	0.009250
Variance Proportion	0.0633595
Covariance Proportion	0.927155
Diagnostic Tests	
BG Serial correlation LM Test	=1.160362(p=0.5598)
Heteroskedasticity Test: ARCH	=0.001161 (p=0.9728)
Unit Root (residuals): ADF test	t-stat.= -6.327300 (p=0.000)
Stability Check	AR root =0.85

From last part of the Table 6, it is noted that the regression (4b) satisfies important CLRM assumptions. First, the assumption of “no serial correlation of any order in residuals” is not rejected as indicated by Breusch-Godfrey Serial Correlation LM test ($p=0.5598$). Second, assumption of “no heteroskedasticity” is not rejected as indicated by Auto Regressive Conditional Heteroskedasticity (ARCH) test ($p=0.9728$). Third, assumption of “residual has unit root” is rejected as indicated by Augmented-Dickey Fuller (ADF) ($p=0.000$). Fourth, correlogram of residual diagnostics reveals that no Q-statistics are significant at 5 percent. This could be concluded that the residual is stationary. Therefore, the result of the regression (4b) could be used for forecasting.

Interestingly, the first part of Table (6) represents the forecasted result of the last four quarters. Quarter one of 2018, on average, is about 1640980 tourists, the highest number, followed by the quarter two of 2017, on average, the forecasted number is 1625806 tourists, meanwhile, the forecasted number for quarter four of 2017, on average, is 1317232 tourists, and the quarter three is 1274207 tourists, which is the lowest number of forecasted tourists.

In terms of forecasted accuracy, the second part of Table 6 reveals that the mean absolute percentage error (MAPE) is about 8.12 percent, which is the smallest error among several models which have been investigated. Additionally, Figure 2 indicated that the number of tourist arrival for last twenty one quarters (2012q1-2017q1) was much fluctuated, the MAPE is about 8.12 percent is really acceptable. To make the forecasted result more reliable, stability check also is examined, AR root of 0.85 lies within unit cycle, which indicates that the model is stable for forecasting.

7. Conclusion

Characteristic of internal tourist arrivals in Cambodia is really followed seasonality in the sample interval; the highest number is Quarter one followed by Quarter four, and the lowest number is Quarter two followed by Quarter three. Besides seasonality, there was a structural break, especially in 2009. This break might be suffered from financial crisis in 2009. Fortunately, the crisis just lasted for a short period of time. After the final crisis, the number of international tourist arrival increases, on average, about 13,329 people, higher than that before the crisis. In the other word, it is a great success, which might resulted from the efforts of Cambodian Government, such as launching tourist campaign “Cambodia: Kingdom

of Wonder” and promoted “Clean City, Clean Resort and Good Services” in 2008 (Neng 2013), and 2012 the Royal Government of Cambodia adopted “Tourism Development Strategic Plan 2012-2020”, which newly identified several potential tourist areas (RGC 2012). However, the international tourist growth rate increased, but at decreased rate of about 0.5 percent per year. It is likely that the growth rate is at pre-maturity state or slow growth.

8. Implication for Practices

The Cambodian Government has recognized the importance of the tourism industry in economic development through putting several subsequent policies. The policies, such as information technology adoption for introducing an electronic system in 25 languages to facilitate tourists’ online visa applications (OECD 2013), launching tourist campaign “Cambodia: Kingdom of Wonder” and promoting “Clean City, Clean Resort and Good Services” (Neng 2013), are the most appropriate framework and best practices for implementing sustainable tourism development in this country. Due to the internal tourist increased at a decreased rate, the government should put more control on the implementation of those policies and expand more policies such as boosting of advertising, enlarging and adding the necessary infrastructure to tourism zones, enhancement of eco-tourism, lowering of fees at tourist sites, boosting of budget and direct flights, especially from European countries creating a competition system for the most beautiful and clean domestic cities (CDRI 2009)

Both Government agency and business practitioners in tourism industry should bear in mind that the number of international tourist arrivals in Cambodia is purely followed the seasonality factor. Knowing the seasonal forecasting numbers allow them to arrange or plan the number of hotel, transportation, security and human resources training to support this industry easily.

9. Limitations for Future Research

There are several limitations for current study. First, the analysis is based on the whole industry, the future research should firstly break down the industry to specific sectors or areas such as air, land and waterway transports, or Phnom Penh and surrounding, Siem Reap Angkor, coastal and Eco-tourism areas, because the advantages of more specific study would provide best strategic plan than the

whole one. Secondly, future research may try to use other models to see the best forecasting one.

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CHALLENGES OF TOURISM IN CAMBODIA

Dr. Heng Sopheap¹ and Mr. Bou ChanSerey²

Abstract

Cambodia has been cut in the center of accumulated issues in the Tourism sector which have being in existence for over a decade now, Tourism in Cambodia has passed through some many rigorous process from the government to the operators and investors, the Cambodia Tourism sector has been operated on who can perform. Therefore, the challenges of the Cambodia Tourism sector did not just exist, but has growth. Therefore, recommended that government should at various levels in tourism units and position of use majors in the area of tourism and hospitality to build and rebuild the dilapidated tourism sectors in Cambodia; as much as enacting indigenous tourism friendly policies, to regulate the activities of investors.

Key words: *Tourism and Tourism development, Challenges in Cambodia Tourism*

1. Introduction

Tourism industry is the largest industry and the highest source of economic development and income generation of many counties, Cambodia processing wealth of natural resources to offer to the tourists. Cambodia is one among the most best countries of the world for tourism industry it has been shown the strengths' of tourism and the ways of improve it , weakness' and the ways of improve it, opportunities and the ways of catching it and the threats and its ways to decrease it for tourism industry. Since Cambodia is moving towards on other resources rather than relying on agriculture and garment, tourism has gained special attention by government since then. However, many difficulties is faced in this tourism sector. Therefore, the main focus of the study is to look into the challenges and obstacles which are facing tourism in Cambodia trying to overcome it to achieve highest level of satisfaction for the tourists, by evaluating the current status of this sector and comparing it with the desired standard. The study will focus on the needs of

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tourism sector and how to manage it to help it boost the economy of the Kingdom in the long-run to compensate and support the current economy sources.

Tourism as practiced in less developing countries, is essentially an economic endeavor, whereas in developing countries it is mainly about leisure consumption as path to development (Jenkins, 1980). Lack of strategic alignment between the expectations and needs of tourists is a key area of concern, in view of needs mutually beneficial relationships between the challenges of tourists and services provided by tourism industry to meet these needs and reach to the high level of customer satisfaction.

Tourism was highly regarded as a developmental strategy for economic growth due to its potential for generating macro and micro benefits to host countries. Developing countries could use tourism to yield much needed foreign exchange which would contribute to economic development. Therefore tourism was embraced and promoted by many developing countries, including those nations in the South East Asia region.

As a growing sector in the economy it faces several challenges. Among them human resource issue is one of the critical challenges which has been highlighted by various commentators from time to time. For this reason by realizing the present opportunities in tourism sector we need to concentrate more on tourism sector if we want to earn more foreign currencies.

2. Objectives of the Study:

The study is undertaken with the following objectives.

- a) To study the problems and prospects of Cambodia tourism.
- b) To study the tourism competitiveness in the region.
- c) To suggest policy recommendations in the light of the findings of the study.

3. Methodology and Data Based:

This study is based on secondary data. Published books, journals and reports have been used as relevant information and data. The impact study has been made by analyzing the extent of foreign tourist's arrival to Cambodia, Cambodia's foreign exchanges earnings, and domestic tourist visits in Cambodia. Percentage has been widely used in the study. The study period has been taken from 2008 to 2018.

4. Review of Literature

The definition of tourism has no universal form. It is still now defined by various people by different ways based on their own justification. Tourism means going out and visiting place for religious purpose, gathering knowledge and having pleasure, fun, or for economic benefit. Tourism is travel for recreational, leisure or business purposes.

The definition of tourism is not static still now. There is no consensus available regarding the definition of tourism. According to UNWTO definition, tourism comprises the activities of persons traveling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes.

Tourism asset are the most important indicator for developing tourism. An increasing number of international tourists are arriving in developing countries, improving transportation access, develop tourist attractions, facilities and services and became a desirable known tourist destination.

Tourism is a human experience, a social experience, a geographical phenomenon, a resource value, and a business industry. It is a major social phenomenon of the modern society with enormous economic consequences. Its importance as an instrument for economic development and employment generation, particularly in remote and backward areas, has now been well recognized the world over. The industry today is globally recognized as a major economic contributor and employment generator. The investment flows into this field are constantly on the increase (WTO, 2011).

5. Cambodia Tourism Overview

Situated in the Southeast Asia, Cambodia is bordered by Vietnam on the East and Southeast, by Lao People's Democratic and Thailand on the North and West and by the Gulf of Thailand on the South. Thanks to its good location, Cambodia has a natural accessibility advantage; it is easy to reach the country by boat, road and air.

The Cambodia's advantage to develop tourism and economy is road. According to Cambodia annual tourist statistic report, in 2008, there were around 33 percent of total international tourist arrivals in Cambodia by road and this number increased nearly 40 percent in the first quarter of 2009. The international tourists

going to Cambodia by road increase more and more thanks to the improvement of roads, means of transportation and visa process on the border check-points.

Entering in the Association of South East Asian Nations (ASEAN) on 30th April 1999 and becoming a member of World Trade Organization (WTO) on 13th October 2004 (3 years earlier than Vietnam), Cambodia still remains one of the less developed countries in the region. However, in these recent years, Cambodia has attained a lot of unbelievable achievements. From a civil-war-devastated country, Cambodia has become one of “must visit” destinations in Asia. From “number zero” in terms of economic growth rate in the years 1980’s or 1990’s, the Cambodia’s economy has recorded remarkable figures and has relatively high economic growth rate in these recent years.

The Cambodian government gave priority to develop the six key sectors: agriculture, infrastructure, electrical power, labor intensive and export oriented industries, tourism and human resource development. The Cambodia’s government has attached special importance to the three key sub sectors: garment, tourism and construction which have currently driven the Cambodia’s economic growth rate and greatly contributed to reducing poverty process in Cambodia. For instance, the gross domestic product (GDP) from Cambodia’s garment industry in 2008 reached \$US 2.9 billion and from tourism was \$US1.4 billion. However, decades of civil wars made Cambodia’s economy collapse and despite the recent visible economic achievements, Cambodia’s economy remains heavily dependent on the international assistances.

Being one of the six countries of the Greater Mekong Sub-region with a strategic location in the Indochina peninsula, Cambodia has many natural and cultural advantages to favor the tourism development. Inheriting a world heritage of magnificent and legendary Temples of Angkor Empire built since 9th century, Cambodia has become a “must visit destination” in Asia and worldwide.

International tourist arrivals in Cambodia increase sharply during these recent years. According to Cambodia tourism statistics, there were 286,524 international tourist arrivals in Cambodia in 1998 while this number was triple in 2003 (701,014 foreign visitors) and it reached 2,125,465 international tourist arrivals in Cambodia in 2008. It is clear that the international tourist arrivals in Cambodia increase in average by 23.9 percent per year and after ten years, the number of foreign tourists in Cambodia in 2008 increased 641.81 percent compared with the one in 1998.

Despite its richness and diversity of natural, historical and cultural heritages, monuments, Cambodia’s tourism is still unknown and behind within the world’s

tourism. Lack of infrastructure, tourism facilities and qualified labor force is the key restraints preventing Cambodian tourism development.

Cambodia's tourism sector earned US\$3.63 billion in revenue last year, an increase of 13.3%, according to the latest figures from the Ministry of Tourism (*Bangkok-Post-news*, 14 Feb 2018).

In 2017, international travellers visiting the kingdom spent 5.6 million, 11.8% more than in 2016, according to Kong Sophearak, director of the statistics department at the Ministry of Tourism. This is increase in tourist numbers and revenue to the increasing number of air connections linking Cambodia to the region, particularly China. China tops the list for most travellers by nationality, with 1.2 million Chinese tourists visiting the kingdom in 2017. It was followed by Vietnam, Laos, Thailand and South Korea. Cambodia was expected to welcome at least 6 million international tourists in 2018, 7 million by 2020, and 10 million by 2025. "China ready" strategy has been very successful in luring visitors, and mentioned concrete achievements like the increase in Chinese-speaking tour guides.

5.1. Current state of tourism

In 2018 Cambodia experienced the third largest increase in international tourists in Asean, behind only Vietnam and Indonesia, according to data recently released by the Ministry of Tourism (*Khmer-Times*, January 22, 2019). In 2017, the number of international tourists visiting the Kingdom grew by 11 percent, a rate surpassed only by Indonesia, where foreign tourist arrivals grew by 11.6 percent, and Vietnam, who saw a 19.9 increase.

A total of 6.2 million foreign visitors travelled to the Kingdom in 2017, making Cambodia the seventh most visited country by international tourists in 2018. Laos, Myanmar, Brunei ranked eighth, ninth and tenth, respectively. Thailand was the top destination for international tourists in the region, with 38 million visitors, followed by Malaysia (23 million), and Singapore (16 million).

International tourists to Asean grew by 7.4 percent for a total of 129 million visitors. In Cambodia, Chinese tourists continue to top the list of visitors by nationality. 1.9 million Chinese nationals visited Cambodia last year, a whopping 70 percent increase, Thong Khon recently said. The minister added that by 2020 the government expects at least 3 million Chinese tourists a year, projecting that the total number of international tourists will reach 7 million that year. "Chinese tourists are number one thanks to efforts to promote the country to Chinese citizens," "The

policies of the Ministry of Tourism have been successful and effective.”

Cambodia’s tourism sector earned \$3.63 billion in revenue last year, an increase of 13.3 percent, according to the latest figures from the Ministry of Tourism (*Khmer-Times, February 14, 2018*).

Tourism sector worth \$3.6 billion in 2017, international travellers visiting the kingdom spent 5.6 million, 11.8 percent more than in 2016.

5.2. Cambodia’s ambitious tourism plans

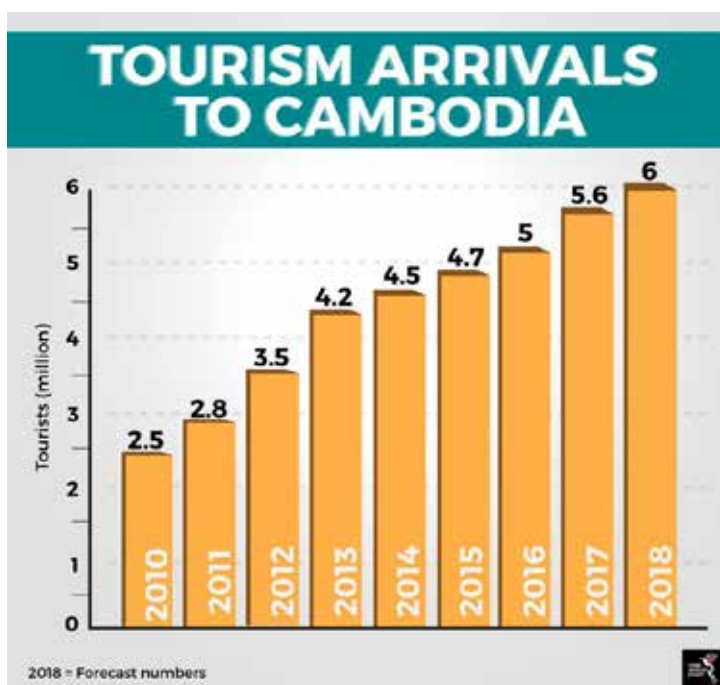
In the week before 7 December 2018, Cambodian Prime Minister Hun Sen claimed that the number of tourists visiting Cambodia had increased substantially over the years and now the country is expecting 12 million tourists by 2025. The prime minister also claimed that Cambodia expects to welcome as many as six million tourists the year of 2018 (*The-ASEAN-POST, 7 December 2018*).

According to official statistics from Cambodia’s Ministry of Tourism, six million tourist arrivals in 2018 is a logical enough number. In 2017, Cambodia was already close to that figure with 5,602,157 tourist arrivals. In 2016, it was 5,011,712; in 2015, it was 4,775,231; in 2014, it was 4,502,775; in 2013, it was 4,210,165; in 2012, it was 3,584,307; in 2011, it was 2,881,862; and in 2010, it was 2,508,289.

However, looking at the numbers from 2010 to 2017 or even 2018’s forecast, questions arise whether the country will be able to reach its ambitious number of 12 million tourists by 2025, which is seven years away. Looking at the previous seven years from 2010 to 2017, the total difference in the number of tourists between those years is 3,093,868.

If trends continue then that number, added to the current forecasted six million tourists only makes up a little more than nine million tourists by 2025; still three million shy of the 12 million goal.

Be that as it may, Prime Minister and the Cambodian government seem confident enough in achieving their targets. Advances in future technologies including ease of travel may actually help the country meet its goal. With regards to “ease of travel”, the Cambodian government has plans in place to make it easier for tourists to enter the country.



Cambodia has big plans to boost tourism, most of which revolve around a massive influx of visitors from China. In Cambodia, these groups, like the many that will follow it, are indicative of the changing face of an evolving industry. Tourism is a key driver of Cambodia’s economy, contributing 12.2% of GDP last year, according to a report from the World Travel and Tourism Council (*SOUTHEAST-ASIA-GLOBE*, October 16, 2017).

Once a destination popular with adventurous Western visitors, when Cambodia’s government looks ahead nowadays its focus is increasingly placed on one nation: China. Whereas many Europeans are tightening their belts when it comes to spending, China has millions of people who, for the first time, have the money and desire to get out and see the world. In 2017, China overtook Vietnam to become the number one source of visitors to the Kingdom. And given its close relations with Beijing, Cambodia is in a prime position to cash in.

According to Cambodia’s Ministry of Tourism, the country welcomed close to 830,000 Chinese visitors in 2016 alone, up almost 20% from the previous year and almost halfway to the government’s goal of attracting two million Chinese tourists annually by 2020. Figures from the China Outbound Tourism Research Institute (Cotri), an independent research organization based in Hamburg, estimate that about 270,000 Chinese tourists visited Cambodia in the first quarter of 2017.

“Through the strong relationship of both countries, it brings together the Chinese investors and Chinese tourists in Cambodia.” “So we have to catch this

opportunity to attract more tourists and tourism investment.”

All signs point to a significant increase in tourist traffic coming into the country, but all visitors are not equal when it comes to the money and time they spend, and adapting to a Chinese-driven market could mean major changes to an industry that has been largely built around the demands of visitors from the West.

“Chinese and European tourists are different,” “The Chinese come to Cambodia for four days. They stay in Angkor Wat for three days and Phnom Penh for may be one. The Europeans spend longer and spend more.” “The Chinese are the biggest source of the growth of global tourism figures, but this does have negative effects,” “Chinese tourists pay money to Chinese tour operators.” If the tourist dollars are, as often happens, also funneled into Chinese-owned hotels and souvenir shops, this often minimizes the benefits to the local economy while simultaneously making the destination less attractive to visitors from other countries, who no longer feel catered for.

Cambodia’s tourism industry has evolved in leaps and bounds in the last few decades. As it becomes an increasingly important economic pillar for the Kingdom. Being able to wonder around iconic Angkor Wat without battling the crowds that flock there seems unimaginable today, but it wasn’t that long ago that the ancient religious site was reserved for adventurous tourists wanting to lace their travels with a dose of danger – a very different story from the one that stands today (*AsiaLIFE*, November 5, 2017).

As well as sitting at the center of Khmer culture, Angkor Wat stands at the center of the country’s exploding tourism sector, symbolizing its rapid growth.

According to figures from the Ministry of Tourism (MoT), in the mid-1990s – as the country was starting to open up after decades of civil war – about 7,500 international visitors explored the site annually. Last year, this figure almost hit 2.2 million.

“The change has been quite dramatic,” says Andrew Carroll, founder of Exotic Voyages. “On my first visit to Siem Reap, all the streets were dusty paths from the airport to the town and the hotel options were limited, especially further away from the temples. Now, you have a vibrant and popular town, with exceptional restaurants and bars, streets with local designer boutiques, and hotels that are among the finest in Asia.”

While Angkor remains the top draw for tourists, as the country’s infrastructure has developed, along with the range of activities and accommodation available, more remote areas of the country have opened, paving the way for new markets,

such as ecotourism, luxury travel and adventure trips.

With the MoT having set its sights on attracting 7.5 million foreigners by 2020 and Siem Reap hosting the inaugural Cambodia Travel Mart this month, *AsiaLIFE* traces back the industry's evolution and looks at the challenges ahead.

As Cambodia enters peak tourist season, industry insiders say they expect foreign visitor numbers to continue to rise after a record-setting 2017, but exhort a need to keep up with infrastructure improvements and adapt to the needs of a now significantly Asia-centric visitor base (*Phnom-Penh-Post*, 03 January 2018).

Cambodia welcomed a landmark 1 million Chinese tourists over the course of 2017, with the numbers of Chinese visitors climbing by over 45 percent in a single year. In the first 10 months, the Kingdom welcomed nearly 5 million tourists, a 10 percent increase in foreign visitors from the same period in 2016, according to a report from the Ministry of Tourism.

5.3. Tourism boost for Cambodia

Cambodia is to take advantage of the Chengdu Initiative on Tourism Cooperation under the Belt and Road Initiative (BRI) as it can help promote sustainable tourism. The initiative was approved by the World Tourism Organization of the United Nations (UNWTO) during the body's 22nd General Assembly in Chengdu, China.

The Chengdu Initiative for Belt and Road Tourism Cooperation will strengthen tourism cooperation through policy coordination, harmonization of procedures, joint media promotion, personnel exchanges as well as joint security risk responses(*Khmer-Times*, September 26, 2017).

Cambodia's Tourism Minister Thong Khon said that through the initiative the tourism sector in Cambodia and all the BRI's member states will be improved rapidly. He said the development of infrastructure such as roads, rail, bridges, expressways and airports will be improved as they will link to tourism destinations, "promote ecotourism, cultural tourism and coastal tourism".

The Belt and Road Initiative was endorsed by Chinese President Xi Jinping in 2013 and is aimed at benefiting all participants by promoting unimpeded trade, financial integration, infrastructure connectivity and closer people-to-people exchanges. Taleb Rifai, secretary-general of the United Nations' World Tourism Organization, said he welcomes the BRI's tourism cooperation as China is going to be the biggest tourism market in the world. He said that by 2020, at least 200 million

Chinese tourists will be outbound and they will spend up to \$420 billion.

5.4. Cambodia Destination Report

As one of the fastest growing tourism destinations in Southeast Asia, Cambodia's rich heritage, culture and natural resources offer a full range of culture and eco-tourism sites that are both dynamic and sustainable. Highlights include Phnom Penh, the Angkor Wat and the Mekong River Dolphins, just to name a few (*Southeast-Asia, Country Article*).

The Kingdom's capital is a dynamic city where visitors are in the mood for shopping, dining, sight-seeing and more. As Cambodia hub for commerce, politics and tourism, Phnom Penh is also home to many important institutions and monuments such as Wat Phnom, the Royal Palace and the National Museum. Rural Cambodia is highlighted by the magnificent Angkor Wat, Heritage of Humanity and World Wonder- arguably the most exotic tourist destination in the world, (Cambodia Bays (were inaugurated into The Most Beautiful Bays in the World Club), the Tonle Sap Biodiversity area, natural attraction zones, the coastal zone, and ecotourism zones in the northeast and southwest part of Cambodia as well as very rare Mekong River Dolphins.

Tourism plays an increasingly important role in Cambodia's national, economical and social development. It is the country's top priority to build and develop the necessary tourism infrastructure to help drive this industry forward. We have sensibly invested in pro-poor, sustainable and responsible community-based tourism development projects in northeastern provinces in partnership with international organizations and development partners such as ADB, UNWTO and SNV. It will create positive results analogous to global and regional tourism development trends for the present and in the future.

With tourism's increasing important role in Cambodia's national, economic and social development, it is the country's priority to build and develop the necessary tourism infrastructure to help drive this industry forward. Cambodia has invested sensibly in pro-poor, sustainable and responsible community-based tourism development projects in northeastern provinces in partnership with international organizations and development partner such as the ADB, UNWTO and SNV as a means of securing current and future global and regional tourism development viability.

Cambodia's tourism development will be focused on cultural and heritage sites, building on customs, traditions, hospitality, and variety of beautiful natural views in Cambodia with further marketing campaigns to promote the nation internationally. A focus will also be emphasized on the improvement on the value chain in the tourism sector by strengthening links between farmers, local producer and private sector hotels, guesthouses, restaurants and tour operators. It is important that this partnership remains particularly, transparent, un-exploitative and mutually beneficial.

A Memorandum of Understanding (MOU) on Tourism Bilateral Cooperation was signed on 4 September 2012 in Dubai, United Arab Emirates between the Ministry of Tourism, Kingdom of Cambodia represented by HE Dr. THONG Khon, Minister of Tourism and the Department of Tourism and Commerce Marketing, the Government of Dubai represented by HE Mr Khalid Ahmed Bin Sulayem, Director-General. The MOU focuses agreement upon the following: 1) to strengthen bilateral cooperation in the tourism sector; 2) to encourage and facilitate development (investment) of tourism infrastructure and facilities; 3) to participate in tourism marketing and promotion; 4) to exchange official visits and tourism professional experience on natural, cultural and historical tourism development management and to collaborate with each other in building professional capacity by encouraging attendance at workshops, seminars and conference including tourism events organized by both parties; 5) to encourage and promote air-linkages and national airlines and to organize familiarization trips (FAM trips) and to promote cruise tourism and tour packaging between the two countries.

It is clear that tourism will continue playing a major role as the central-pillar of long-term national economic growth. In addition, the Ministry of Tourism has established a National Tourism Development Strategy 2012-2020 aimed at ensuring that Cambodia becomes a tourism destination with highest quality and warmth hospitality for tourists (in line with the spirit of ASEAN Tourism Strategic Plan 2011-2015) and strengthening the role of tourism sector in supporting national economic growth. In the means time, with the cooperation and support of UNWTO to the Ministry of Tourism of Cambodia, Cambodia will organize a regional conference in 2013 in Siem Reap and hope to host the UNWTO General Assembly 2015 in Cambodia.

The policy and strategy of the Royal Government of Cambodia is to ensure the country to full peace, safety and security. The Open Sky Policy adopted by the Government allows foreign airline companies to fly directly to Siem Reap and the

Angkor Temples, offering greater accessibility to a broader spectrum of visitors. The emergence of low-cost carriers in the region also makes traveling to Cambodia much more convenient and affordable. Recently, low cost carriers such as Air Asia launched direct flights to Phnom Penh and Siem Reap, as well as Tiger Airways launched direct flight from Singapore to Phnom Penh. This signal is a potential increase in the number of visitors flying into Cambodia's main tourist destinations.

5.5. The Weakness of Tourist Industry in Cambodia

Since the end of the Second World War, tourism has been growing rapidly. By means of the stability of the world harmony, the advance of technology, and the improving of the world economy, people are able to go everywhere they prefer to spend for their holiday. Nowadays, tourism plays an important role in expanding the country's economy. The same as others, Cambodia—titled “The Kingdom of Wonders” in the tourist sector—is gaining a lot of benefits from this industry such as providing jobs for people and increasing the income for the whole country. Nevertheless, a few weaknesses that Cambodia does not receive a lot of visitors as it could are being considered (*kmvathna*, June 6, 2013).

One of the major weaknesses leading to this problem is Cambodia is lacking human resources. As a matter of fact, every sector needs human resources to be developed. The same, tourism must need professional innovators to push its growth. However, nowadays, those people whose jobs are related to tourism are still in a limit number that cannot completely fulfill the demand of tourists. The need of tour guides for Korean tourists, for example, is still a problem that The Ministry of Tourism is confronting due to this need. Thus, Cambodia requires those innovators who are able to create new ideas to initiate new things to attract more tourists; likewise, those professionals such as planners, hotel managers, architectures, and other play a crucial role to standardize and monitor the tourist sites in the country.

Another weakness of this industry in Cambodia is service that comprises of security, accommodation, and infrastructure alongside with transportation. The security is considerably unreliable for the tourists because there have been many crimes concern with the tourists such as mugging, robbing, stealing, rapping, and so on. To illustrate, in November, 2008, while cycling in the area, a female tourist was almost raped by two culprits in Rattanakiri (Visal, 2008). In addition, accommodation in Cambodia remains insufficient to welcome millions of guests in various tourist locations. According to the Ministry of Tourism, Cambodia consists

of only 575 hotels, 725 guest houses, and 204 of other types of accommodation nationwide, which are believed to be few to achieve the capacity of a large number of tourist both foreign and native (Ministry of Tourism of Cambodia). More importantly, the majority of the accommodations are enduring unreachable to the level of world-class standard being required to charm high class tourists. Furthermore, infrastructure and transportation share the part of the problem, too. Currently, Cambodia has no railway travel, and the traffic is so dangerous that the tourists' safety cannot be ensured. Also, Cambodian air flight is scarcely used in the country since it is fairly expensive. There are, likewise, very few direct flights from foreign countries to Cambodia; travelers touch down in other regional countries first before carry on to Cambodia, so a number of tourists are tend to be attracted in those countries already.

Finally, the other weakness of the non-smoking industry is the role of the government to standardize the tourist spots. Interestingly, ones are not considered in the level of world class compare to other countries since they still need to be transformed and modernized. In fact, Cambodia comprises of many tourist sites in different locations, still only few sites are famous and crowded such as the Angkor Wat sites and the beach. However, a large number of sites have yet to be developed to accomplish the tourists' desire. Simultaneously, the advertisement of the tourist is not reachable to many countries in the world; consequently, people hardly know what Cambodia can truly provide them.

In conclusion, Cambodia still has some noticeable weaknesses thwarting the country from attracting a lot of tourists. Those problems needs not only time to be dealt with, but it also need a large amount of money to be spent on to retaliate to the requirement of the tourists. If these issues were to be solved, Cambodian non-smoking industry would charm more and more guests.

Cambodia “least tourism-friendly country” in Southeast Asia: WEF

The Travel & Tourism Competitiveness Index 2017:

Enabling environment						
Country/Economy	Global rank	Business environment	Safety and security	Health and hygiene	Human resource and labour market	ICT readiness
SOUTH-EAST ASIA						
Singapore	13	6.1	6.5	5.5	5.6	6.1
Malaysia	26	5.4	5.8	5.2	5.2	5.2
Thailand	34	4.7	4.0	4.9	4.9	4.8
Indonesia	42	4.5	5.1	4.3	4.6	3.8
Sri Lanka	84	4.7	5.5	5.3	4.5	3.7
Vietnam	67	4.4	5.6	5.0	4.9	4.2
Philippines	79	4.3	3.6	4.8	4.8	4.0
Lao PDR	94	4.7	5.4	4.3	4.6	3.1
Cambodia	101	3.7	5.1	4.0	4.1	3.6
South-East Asia Average		4.7	5.2	4.8	4.8	4.3

T&T policy and enabling conditions					Infrastructure			Natural and cultural resources	
Country/Economy	Prioritization of T&T	International Openness	Pricing Competitiveness	Environmental Sustainability	Air Transport Infrastructure	Ground and port Infrastructure	Tourist Service Infrastructure	Natural Resources	Cultural Resources & Business Travel
Singapore	6.0	5.2	4.7	4.3	5.3	6.3	5.4	2.4	3.1
Malaysia	4.7	4.1	6.1	3.5	4.5	4.4	4.7	4.1	2.9
Thailand	5.0	3.8	5.6	3.6	4.6	3.1	5.8	4.9	2.8
Indonesia	5.6	4.3	6.0	3.2	3.8	3.2	3.1	4.7	3.3
Sri Lanka	5.2	3.1	5.6	3.9	2.6	3.9	3.2	4.1	1.6
Vietnam	4.0	3.0	5.3	3.4	2.8	3.1	2.6	4.0	3.0
Philippines	4.8	3.4	5.5	3.6	2.7	2.5	3.4	4.0	1.9
Lao PDR	4.7	3.0	5.7	3.8	2.1	2.4	3.5	3.0	1.3
Cambodia	5.1	3.5	5.1	3.3	2.1	2.4	2.9	3.2	1.6
South-East Asia Average	5.0	3.7	5.5	3.6	3.4	3.5	3.9	3.8	2.4

Source: Travel and Tourism Competitiveness Report, World Economic Forum

The World Economic Forum’s “Travel & Tourism Competitiveness Report 2015” provided a reality check for Cambodia as it ranked 105 out of 144 countries overall, despite the government placing tourism at the center of its plans to diversify the country’s economy (*Investvin, Southeast Asia’s Business News Site*).

Scoring countries for their potential to bring economic and social benefits through sustainable travel and tourism, Cambodia’s low score was not surprising.

Last year, Cambodia placed near the bottom of the region in the Forum’s broader “Global Competitiveness Report,” in which it came in 88 out of 144 countries taking into account a wide range of industries.

Cambodia’s performance in the tourism report was a mixed bag—on a number of indexes, it comes close to last, such as its 112 ranking when it comes to health and hygiene. However, for prioritization of travel and tourism, Cambodia ranked 37.

6. The current major obstacles and constraints of Cambodia tourism development SWOT analysis of Cambodian tourism:

Strengths

- Political stability
- Location in a region with the strongest tourism growth in the world
- Important regional market nearby
- The treasure of Angkor Wat and Preah Vihear Temples make Cambodia become “must visit” destination
- Tonle Sap Lake is the largest freshwater lake in South East Asia and an ecological hot spot, the UNESCO biosphere zone since 1997
- Home of the very rare Freshwater Irrawaddy Dolphins from Mekong River
- Rich, variable and attractive tourism resources in archaeological, historical and cultural heritages
- The Khmer culture and people with general ambiance of Cambodia are most attractive
- The annual tourism growth rate in Cambodia is among the highest in the world
- The economic growth rate is very high
- Ease in combining Cambodia with neighboring countries (Thailand, Vietnam...)
- Increase of tourism facilities’ quality

Weaknesses

- Poor and old technology equipment
- Lack of accessibility to the country
- Major population is in poverty
- Lack of education that many of the older generations possess
- UNICEF has identified the country as the third most land mined in the country
- Poor international image
- Perceived danger to tourists with some bad images like prostitution, children sex abuse
- Poor infrastructure, facilities & standards
- Poor Information and Communications Technology infrastructure
- Poor ground transportation services

- Lack of tourism professional skills and human resource training facilities
- Lack of information about Cambodia in tourism market
- No support from domestic tourists
- Lack of destination promotion in the world tourism map
- Weak of private investment
- Big difference between cities & countryside

Opportunities

- Great opportunity for attracting and expanding the regional strategies in the ASEAN countries which have been less seriously impacted by the global financial crises or in new markets in Asia like China, India, Korea, Japanese, Taiwan, Australia
- Taking advantages of a highly favorable regional tourism market
- Develop animated advertising
- Develop cultural and eco-tourism in Cambodia and in the region
- Enhance its competitive position in the market thanks to its quality of services.
- Develop golf tourism combining natural and historical discovery

Threats

- The high increase of competitive levels: the other countries' tourism in the region have developed or have been developing with very high level
- High price of electricity and water and air fare decrease price competitiveness
- Sharp business decrease because of the global financial crises
- Unfavorable relation with Thailand
- Confronted with a succession of truly and seriously exceptional negative events, including wars, terrorist attacks and as well as political problems in Thailand, in Myanmar and so on.

According to The World Bank (September 2013) Tourist arrivals during the first five months of 2013 reached 1.79 million, or 19 percent year on year increase. Tourist arrival numbers, as a proxy for the tourism sector performance, has shown a quick recovery, and now continues its high growth trajectory. Tourist arrivals reached 3.58 million visitors, representing 24 percent year on year growth in 2012, compared to 15 percent growth in 2011 (*The-World-Bank, September 2013, The Cambodia Economic Update*). Successful diversification of tourism markets, attracting arrivals from Eastern Europe, East Asia and the Pacific regions, has

resulted in continued high growth in the tourism sector. Establishing new direct flights from the different regions of the world also supports a higher year on year growth of arrivals by air (which is seen as “quality growth” tourism), from 13.5 percent in 2011 to 16.3 percent in 2012. High growth in the tourism sector allows trade, hotel, and restaurant subsectors combined to contribute more than 15 percent to the total real growth during 2010 – 2012 period (*The-World-Bank, September 2013, The Cambodia Economic Update*).

Due to the recent political turmoil in Thailand and the tensions between Vietnam and China, tourist arrival growth has moderated, reaching only 5.2 percent during the first half of 2014, compared with 19 percent during the same period last year. Chinese and South Korean tourist arrival growth has slowed significantly while arrival growth from Japan has been sustained. This appears to reflect a recent development that Cambodia has become more attractive to Japanese tourists and investors (*The-World-Bank, October 2014, Cambodia Economic Update*).

The tourism sector has experienced a slowdown. Cambodia’s total tourist arrivals decelerated with total arrivals of 4.5 million, or a year-on-year arrival growth rate of only 6.9 percent in 2014, compared with total arrivals of 4.2 million, or a year-on-year arrival growth rate of 17.5 percent, in 2013, due largely to slower growth of arrivals from the two largest markets, Vietnam and China (*The-World-Bank, April 2015, The Cambodia Economic Update*). Tourism sector growth in 2014 was driven by arrivals from ASEAN countries and China. In 2014, while arrivals from Vietnam and China continued to capture the first and second largest shares, accounting for 20.1 percent and 12.4 percent of the total arrivals, respectively (*The-World-Bank, April 2015, The Cambodia Economic Update*).

The tourism sector in Cambodia continues to underperform, despite some recovery in regional activity. Tourist arrivals during the first half of 2015 grew by only 4.6 percent year-on-year (reaching 2.3 million visitors), compared with 6.9 percent in 2014. Arrivals by air moderated most, increasing by 7.3 percent year-on-year during the first half of 2015, compared with 12.7 percent in 2014 (*The-World-Bank, October 2015, Cambodia Economic Update*).

After experiencing double-digit arrival growth since 2010, the tourism sector started to ease in 2014, when it grew by only 6.9 percent with the average length of stay decreasing to 6.5 days from 6.8 days in 2013. Consequently, the average hotel occupancy rate shrank to 67.5 percent in 2014 down from 69.5 percent 2013. Average daily expenditure per tourist also contracted to US\$93.4 in 2014 from US\$120.7 in 2013. Despite this easing in Cambodia, it is worth noting that world

tourism receipts increased. The contribution to real growth in 2014 by the hotel and restaurant sector which is mainly influenced by tourism arrivals also eased (*The-World-Bank, October 2015, Cambodia Economic Update*) (Table 1). Arrivals from Vietnam, China, and South Korea continue to lead. All three markets combined accounted for more than 45 percent of the total arrivals. Thai national tourist arrivals to Cambodia rose by 30.8 percent year-on-year during the first six months of 2015, boosted by improving stability in the neighboring country, compared with 2014 (*The-World-Bank, October 2015, Cambodia Economic Update*).

The tourism sector has eased. Tourist arrivals in 2015 grew by 6.1 percent year-on-year (reaching 4.8 million visitors), compared with 6.9 percent in 2014 (*The-World-Bank, April 2016, The Cambodia Economic Update*). Arrivals by air moderated most, increasing by 8.9 percent year-on-year in 2015, compared with 12.7 percent in 2014. However, the initial recovery of regional tourism activity, particularly in Thailand, is expected to have a positive impact on arrivals to Cambodia (*The-World-Bank, April 2016, The Cambodia Economic Update*).

Easing tourist arrivals in 2015 slowed revenue collection at the Angkor Archaeological Park, the largest tourist attraction site in Cambodia. In 2015, the number of tourists visiting the park increased by only 2 percent to 2.1 million and its revenue rose by merely 1.2 percent to US\$60.05 million (*The-World-Bank, April 2016, The Cambodia Economic Update*). Asia has become the major source of tourists, contributing almost 85 percent of the total gain in arrivals to Cambodia over the past five years. Cambodia has been successful in attracting foreign tourists, with the number arrivals in 2015 at 4.8 million, almost double the 2.5 million arrivals seen in 2010 (*The-World-Bank, April 2016, The Cambodia Economic Update*). Increasing tourist arrivals to Thailand (including arrivals by air) bode well for improving arrivals to Cambodia, given the dependence of Cambodia's relatively new tourism sector on Thailand's more developed tourism sector (*The-World-Bank, April 2016, The Cambodia Economic Update*).

While continuing to grow, international arrivals decelerated in the first half of 2016. Total tourist arrivals in first of half 2016 eased to a 2.6 percent year-on-year increase. This is compared with a 4.6 percent increase during the same period last year (*The-World-Bank, October 2016, Cambodia Economic Update*). Diversification of tourist attraction sites beyond the Angkor Wat complex may be necessary to restore strong arrivals growth that Cambodia had witnessed until 2013. Unlike Thailand, where 80 percent of tourists prefer sea-sun-sand and nature-based destinations, arrivals to Cambodia continue to be largely attracted by the Angkor

Wat complex although the country is endowed with countless historical, cultural and natural destinations (*The-World-Bank, October 2016, Cambodia Economic Update*).

Arrivals from Vietnam and China continue to be ranked first and second, commanding 19.6 percent and 16.0 percent of the total arrivals, respectively. The countries comprising Cambodia's top ten tourist markets remain almost unchanged over the past several years (*The-World-Bank, October 2016, Cambodia Economic Update*). However, dynamics within the top ten countries have shifted toward continued rising arrivals from China while visitors from South Korea and Lao PDR have been on the decline since 2014 although their large shares remain. A recent initiative, the "China Ready", focusing on attracting more Chinese visitors introduced by the authorities appears to exactly take advantage of the shift (*The-World-Bank, October 2016, Cambodia Economic Update*).

Efforts have been made by the authorities to revitalize the sector by establishing more connecting flights from Japan and other countries (regions), the "China Ready" initiative aiming at attracting 2 million Chinese visitors by 2020 and "Two Kingdoms, One Destination", a joint tourism initiative with Thailand with single visas. Tourist products in Cambodia also remain to be diversified. Appreciation of the US dollar has also made tourists' trips to Cambodia more expensive (*The-World-Bank, October 2016, Cambodia Economic Update*).

Tourist arrivals growth eased further, registering a 5.0 percent year-on-year increase, compared with 6.1 percent in 2015 (Figure 10). International arrivals by air grew by 9.2 percent year-on-year in 2016, similar to the increase seen in 2015 (*The-World-Bank, April 2017, The Cambodia Economic Update*). Asia continued to be the major source of tourists and the top five Asian countries which, similar to 2015, accounted for about 60 percent of the market share in 2016. Vietnam, China, and Thailand are the main countries of origins, accounting for 19.1 percent, 16.6 percent, and 7.8 percent of the total share, respectively (*The-World-Bank, April 2017, The Cambodia Economic Update*).

There are signs of a gradual recovery in the tourism sector in early 2017. Arrivals from Western Europe and North America have picked up, although Asia continues to be the main tourism market for Cambodia (*The-World-Bank, April 2017, The Cambodia Economic Update*). Diversification of tourist attraction sites beyond the Angkor Archeological Park is important. Currently, international arrivals remain largely driven by the Angkor complex located in the northeastern province of Siem Reap, despite the fact that Cambodia is endowed with countless

historical, cultural and natural tourist destinations (*The-World-Bank, April 2017, The Cambodia Economic Update*).

Efforts to attract international tourists, especially from China, by the authorities seem to be paying off, with a swift recovery of tourist arrival growth (*The-World-Bank, October 2017, Cambodia Economic Update*). Tourist arrivals from China now outpace those from Vietnam, making them the number one group to visit Cambodia. Chinese tourists accounted for 20 percent of total international arrivals by mid-2017, up from 16.6 percent in 2016. Arrivals (mostly by air) from China skyrocketed, rising by 40 percent (y/y) or 0.52 million tourists by mid-2017, up from 12.4 percent during the same period last year. It is likely that Cambodia could receive as many as 1 million Chinese tourists by the end of 2017. If the rapid Chinese tourist arrival growth continues for the next few years, the authorities' target of reaching 2 million Chinese tourists by 2020 seems feasible (*The-World-Bank, October 2017, Cambodia Economic Update*).

During the first half of 2017, Vietnam, Lao PDR, the Republic of Korea, and Thailand were the main countries of origins for international tourists after China, accounting for 14.7 percent, 8.4 percent, and 6.3 percent of total arrivals, respectively. While Asia continues to be the major source of tourists, arrivals from Western Europe and North America have picked up, rising by 24.7 percent and 18.4 percent, respectively (*The-World-Bank, October 2017, Cambodia Economic Update*).

Despite of initial success in diversifying destinations, the Angkor temple complex remained the main attraction site in Cambodia. While there has been progress in diversifying destinations, especially to the coastal region, the potential for ecotourism remains untapped. In addition, given the recent construction expansion, helping other emerging urban areas (beyond Phnom Penh and Siem Reap) to become more tourist-friendly destinations by improving tourism infrastructure, facilities, and accessibility, would help support diversification in tourism destinations. There are several new and rising attraction sites such as Sihanoukville, Battambang, and Kampot (*The-World-Bank, October 2017, Cambodia Economic Update*).

The recovery of the tourism sector, which started early last year continued unabated. Underpinned largely by arrivals from China, growth in total tourist arrivals for 2017 reached 5.6 million or 11.8 percent, up from 5.0 percent in 2016. Importantly, tourist arrivals by air have increased significantly, rising by 22.5 percent, the highest in a decade, thanks to the efforts by the authorities to expand and deepen regional connection flights, especially between Cambodia and China. In-land con-

nectivity together with clean and green campaigns to further attract and diversify tourist destinations beyond the Angkor temple complex is underway (*The-World-Bank, April 2018, The Cambodia Economic Update*).

Accommodated in part by the introduction of the “China Ready” initiative, tourist arrivals from China now outpace those from Vietnam, making them the number one group to visit Cambodia. Chinese tourists accounted for over 1.2 million visitors or 21.6 percent of total international arrivals in 2017 or a whopping 46 percent increase. If the rapid growth in Chinese tourist arrivals continues for the next few years, the authorities’ target of reaching 2 million Chinese tourists by 2020 is feasible (*The-World-Bank, April 2018, The Cambodia Economic Update*).

Cambodia’s share of the combined tourist arrivals to three countries (Cambodia, Thailand and Vietnam) has declined, and potential is untapped. Those newly developed projects seem to partly respond to a thriving tourism industry as visitor arrivals grew to 3.0 million, or a 13.6 percent (y/y) increase in mid-2018, compared with an 11.8 percent increase at the end of 2017 (*The-World-Bank, October 2018, The Cambodia Economic Update*).

An abrupt slowdown in FDI from China due to a change in Chinese investor confidence therefore poses a risk. This can negatively affect investment and growth. Challenges in doing business continue as Cambodia is currently ranked 138th out of 190 countries in Doing Business ranking in 2019, declining from 135th in 2018 and 131st in 2017. While the country is ahead of Lao PDR (154th), it is far behind many regional countries such as Indonesia (73rd), Vietnam (69th) and Thailand (27th). In the latest Investment Climate Assessment, while acknowledging the significant progress made, the assessment concludes that the current investment climate hampers improvements in productivity, diversification, and the development of a dynamic local private sector (*The-World-Bank, October 2018, The Cambodia Economic Update*).

A thriving tourism industry, as visitor arrivals grew to 3.0 million or 13.6 percent (y/y) by mid-2018. Efforts by the authorities to attract Chinese tourists have paid off. Chinese tourists are ranked first (followed by Vietnamese, Lao, and Republic of Korea visitors) and their number skyrocketed, growing by 80 percent y/y, accounting for 30 percent of total arrivals (higher than in Thailand, where 27 percent of foreign visitors are Chinese). Travel by air now accounts for almost 70 percent of total arrival numbers, increasing from just 50 percent a few years ago. While Siem Reap International Airport continues to attract the largest share, capturing 51 percent of all travel by air, arrivals via Phnom Penh International

Airport have surged, expanding at 40 percent y/y by mid-2018 and accounting for 45 percent of total arrivals by air (*The-World-Bank, October 2018, The Cambodia Economic Update*).

Nevertheless, Cambodia remains far behind Thailand and Vietnam in attracting foreign tourists. In 2017, Cambodia attracted only 5.6 million foreign visitors, whereas Thailand and Vietnam received 35.4 million and 12.9 million visitors, respectively. Looking at the combined tourism markets in its two large neighbors, Cambodia obtains only a small (and declining) fraction. As a share, Cambodia captures only 10 percent of the combined tourist arrivals to Thailand and Vietnam in 2017, down from 12 percent in 2014. This reflects substantial untapped potential as the country has not been very successful in luring tourists who visit its neighbors to come to the country (*The-World-Bank, October 2018, The Cambodia Economic Update*). More than 80 percent of foreign tourists to Cambodia are first-time visitors. Due to limited tourist destinations and product diversification, only 16.5 percent of foreign tourists coming to Cambodia are returning tourists, compared with more than 50 percent in Thailand (*The-World-Bank, October 2018, The Cambodia Economic Update*). Lessons learned from Vietnam may be applicable to Cambodia. Vietnam has done exceptionally well as, since 2016, foreign tourist arrivals there have grown by almost 30 percent y/y. Key issues such as far-reaching reform including implementation of a tourism law, preferential policies encouraging investment in tourism, prioritizing capital for tourism human resources, and enhancing tourism promotion work are among key policy measures that have helped propel Vietnam's tourism sector (*The-World-Bank, October 2018, The Cambodia Economic Update*).

Only 5 percent tourists visiting Vietnam and 13.5 percent of tourists coming to Thailand extended their visits to Cambodia. In this regard, it is important to have a policy to make inroads into this growing market located at Cambodia's doorstep. The policy may involve looking at the demand segments beyond what are being offered in Thailand and Vietnam. (*The-World-Bank, October 2018, The Cambodia Economic Update*).

The number of Chinese visitors has already reached more than 2 million, a target set for 2020. Growth of international tourist arrivals was sustained at 10.7 percent year-on-year in 2018, slightly lower than 11.8 percent in 2017, thanks mainly to the rising number of Chinese visitors. Arrivals from China are number one; its 2.03 million visitors account for 32.6 percent of total visitor arrivals (*The-World-Bank, May 2019, Cambodia Economic Update*). This means the authorities

achieved their target two years earlier. Under its China Ready strategy, which was issued in 2016, the authorities targeted receiving 2 million Chinese visitors by 2020 (*The-World-Bank, May 2019, Cambodia Economic Update*).

In 2018, almost a quarter of arrivals from China reported coming to Cambodia for business purposes. Thanks to the rapid increase in air travel, the three main international gateways —Phnom Penh, Siem Reap and Sihanoukville airports—served more than 10 million passengers or a 25 percent increase in 2018 (figure 8). In 2018, the three airports received more than 4 million foreign travelers, or 65.8 percent of total international arrivals, and served 89 destinations of which 57 are within China (*The-World-Bank, May 2019, Cambodia Economic Update*). Only 5 percent of tourists visiting Vietnam, and 13.5 percent visiting Thailand, extended their visits to Cambodia. However, substantial untapped potential remains, given that only about 5 percent of tourists visiting Vietnam and 13.5 percent visiting Thailand, extended their visits to Cambodia. In 2018, while Cambodia received 6.2 million foreign tourists (a 10.7 percent year-on-year increase), Thailand received 38.3 million (an 8.2 percent year-on-year increase) and Vietnam 15.5 million (a 20 percent year-on-year increase) (*The-World-Bank, May 2019, Cambodia Economic Update*).

7. Selected Issues Cambodia Calling: Maximizing Tourism Potential

According to *The-World-Bank (October 2017, Cambodia Economic Update)* in Cambodia calling: maximizing tourism potential (pages 41-60), It is essential to enhance the tourism sector's readiness to reap more benefits, taking advantage of the recent surge in tourist arrivals. The tourism sector is one of the largest industries in the world and a vehicle for job creation and shared prosperity. As a source of foreign investment, tax revenue, job creation, and economic growth, tourism may offer an alternative to traditional export-led sources of growth and addresses poverty reduction directly. The sector generates jobs and opportunities along its value chain, including the primary sector, which occupy most of the region's poor. Moreover, tourism can be a tool to develop lagging regions where opportunities for industrial development are often limited.

Demographic, economic, and technological shifts are fueling growth and creating opportunities for tourism. Millennials (Millennials are the generation aged 15 to 34) travel more than any other generation, including baby boomers, and they will likely travel more as their incomes and financial standings grow. To realize the

developmental effects of those trends, countries need to improve the competitiveness of their tourism markets. The 2017 World Economic Forum's Tourism and Travel Competitiveness Index highlights some of the challenges faced by the sector in the region. The region hosts only one of the world's top 20 markets, with China ranked 15th, followed by Malaysia (26th) and Thailand (34th). But the region also suffers from poor performance on environmental sustainability, health and hygiene, tourism service infrastructure, transport infrastructure, and ICT readiness, among others.

Cambodia has globally significant resources for tourism that are diverse and well placed to be a pillar for socioeconomic development as identified by the government. Cambodia experienced a rapid expansion of the tourism sector until recently, thanks mainly to its historical and cultural heritage. International arrivals grew at an average rate of 12.2 percent per year during the period after the 2008–09 global financial crisis. Its “open sky” policy has attracted considerable investment in international travel and tourism. Siem Reap and Phnom Penh, centers of Cambodia's cultural and historical heritage are the most popular destinations, but tourism in the coastal zone is also growing, capturing about 15 percent of total arrivals.

After steadily decelerating during the last few years, international arrival growth has rapidly recovered since early 2017. Chinese tourists contributed to more than half (56 percent) of total international arrival growth in 2016. Due to the authorities' policy to facilitate visits by Chinese tourists after the introduction of “China Ready” initiative, arrivals from China are now number one.

International tourists visiting Cambodia are multinational, but Asian tourists continue to be the largest group, accounting for about two-thirds. Cambodia, as well as several regional countries that are newly “open” to tourism and in transition to market economies, received only small fractions of total regional arrivals in 2015.

While the country continues to attract a growing number of international tourists, average daily spending across all international overnight markets has declined. The average length of stay of foreign tourists visiting Cambodia has also gradually declined. While there have always been large differences in visitor arrivals between the peak months of December/January and the low season months of May/June, Cambodia exhibits much wider variation. The direct and indirect contribution of tourism to Cambodia's GDP is reportedly substantial. The tourism sector's direct contribution as a percentage of GDP is 12.2 percent (Cambodia's own statistics show an even higher contribution of 16 percent of GDP) which is much higher than

that of many other countries, including Thailand where a more developed tourism sector has existed for decades. However, the sector's contribution in percent of GDP has been declining since 2013. This seems to be consistent with the gradual deceleration of international arrival y/y growth, which declined from 24.4 percent in 2012 to 17.5 percent in 2013, 7.0 percent in 2014, 6.1 percent in 2015, and 5.0 percent in 2016.

To accommodate rising international arrivals, the number of accommodations including hotels and guesthouses and travel agents has increased significantly during the last decade. Hotels are predominantly present in the four urban hubs of Phnom Penh, Siem Reap, Sihanoukville, and Battambang zone. Except for several international hotel chains, most hotels and guesthouses are owned by domestic investors. However, the growth of accommodations such as hotels and guesthouses and travel agencies has eased gradually in line with the overall tourism sector development downward trend.

Cambodia's "open sky" policy has attracted considerable investment in international travel and tourism. To meet growing air traffic demand, the Phnom Penh and Siem Reap airports were expanded to double passenger capacity in 2016. The extension and renovation of Sihanoukville airport is supporting booming growth, with a 66 percent increase in air traffic in 2016. By 2018, the capacity of the airport's existing terminal will be expanded to accommodate 0.5 million passengers per year, tripling its current annual capacity.

In Cambodia, both demand and investment spending grew at a broadly comparable rate over the last decade, but the quality of infrastructure is still regarded as short of most ASEAN destinations. Connectivity infrastructure, especially, one of the key enabling facilities supporting tourism development, is insufficient in Cambodia. Insufficient transport infrastructure and weak environmental services hold back sustainable and more inclusive tourism growth, as many secondary destinations are unable to attract private investment in quality tourist service infrastructure.

Tourism is a labor-intensive industry, and Cambodia has benefited substantially from the rapid expansion of the industry more than its regional peers. The tourism industry currently generates almost 1 million in direct employments. If direct, indirect and induced employments are combined, the industry provides up to 2.2 million jobs. It is projected that with continued rapid growth in tourists, nearly 700,000 additional new direct jobs will be created by 2027. The new jobs are largely created by diverse small and medium-sized enterprises that provide goods

and services consumed by visitors. Industry stakeholders report that the need for quality human resources far outstrips supply, and the lack of well-trained workers is one of the main barriers to improving tourism service quality and competitiveness.

Even more important is the composition of influence of international tourism expenditure on Cambodia's economy. Where substantial parts of destination expenditure are spent on imports or where Cambodia's supply capacity of the destination economy is too limited to meet additional & dispersed demand, income multiplier effects will remain low and foreign exchange "leakage" high, resulting in suboptimal net income contributions to the country's economy. Foreign exchange leakage factors were earlier estimated at 40 percent for Cambodia (equal to Lao PDR, and Myanmar), higher than Vietnam at 35 percent.

Cambodia's preparedness for and competitiveness in tourism is modest, which implies unfulfilled potential. Currently, the main drivers underpinning Cambodia's travel and tourism competitiveness are the authorities' overall policy and strategy. Those include its prioritization of travel and tourism (ranked 29th), price competitiveness (51st), international openness (58th), natural resources (62nd), and cultural resources (76th). Nevertheless, Cambodia's performance lags behind in environmental sustainability (130th), business environment (125th), human resources and labor market (110th), health and hygiene (109th), ground infrastructure (108th), and tourist service infrastructure (102nd).

A comparison of travel and tourism competitiveness across several regional countries indicates that Cambodia is behind its peers, although the country is endowed with natural and cultural assets. While in terms of natural and cultural resources Cambodia is only second to Vietnam, Cambodia's overall tourism competitiveness ranking of 101st is behind Lao PDR, Vietnam, and Thailand, which are ranked 94th, 67th, and 34th, respectively.

The tools used to measure competitiveness within specific market segments show mixed results for Cambodia. The country is home to two UNESCO cultural heritage sites (one being the Angkor archaeological site within the destination of Siem Reap), but no natural heritage sites. Regarding adventure tourism, Cambodia ranked 96th among 163 countries in the Adventure Tourism Development Index (ATDI) in 2015. This, however, represents a notable improvement from its ranking of 107th in the first edition of the ADTI in 2008. As for the meetings market, Cambodia placed 87th in the 2015 International Congress and Convention Association (ICCA) rankings, having hosted nine major international meetings that year, below Vietnam (55th) and Thailand (27th). Finally, cruise tourism has

increased dramatically in Cambodia over the last three years (by 118.8 percent). Yet the total number of port calls it received in 2016 (35) was still the lowest among the East Asia Pacific economies featured in the Cruise Lines International Association's Asia Cruise Trends study.

Underpinning the importance of tourism development, regional and national strategic plans have been adopted. A 10-year ASEAN Tourism Strategic Plan was adopted in 2015, which lays out two strategic directions. The first is to enhance the competitiveness of ASEAN as a single tourism destination by intensifying promotion, diversifying products, attracting investments, and raising human capital with the implementation of ASEAN tourism standards. The second is to ensure that ASEAN tourism is sustainable and inclusive by upgrading local communities and public private sector participation, and ensuring the safety/security/protection of heritage sites and the environment. Cambodia is actively driving the rollout of ASEAN tourism standards as a national agenda and as lead member across the ASEAN community.

At the national level, Cambodia has formulated the Tourism Development Strategic Plan 2012–2020. Promoting the “Cambodia: Kingdom of Wonder” and “Clean City, Clean Resort, Good Service” campaigns is one of its objectives. Improving and developing tourism infrastructure to help drive the industry forward (roads, airports, water supply, electricity) is critically important. To take advantage of regional integration, the national strategy also is envisaged to endorse SEAN tourism agreements, especially visa exemption agreements between Cambodia and ASEAN.

The China Ready initiative represents Cambodia's effort to capitalize on the rapid growth in Chinese inbound tourism. The five-year initiative targets 2 million Chinese tourists per year by 2020. With the recent surge in Chinese tourists, it is likely that Cambodia will receive at least 1 million Chinese tourists by the end of 2017. Clearly, continued successful implementation of this initiative will enable the authorities to reach 2 million Chinese tourists, or nearly a third of the total projected 7.5 million visitors by 2020. The initiative discusses steps to facilitate visits by Chinese tourists, such as providing Chinese signage and documents for visa processing, encouraging local use of the Chinese yuan, and ensuring that food and accommodation facilities are suited to Chinese tastes.

The Clean City initiative aims at improving awareness of the importance of sanitation and hygiene in everyday life for urban residents. It was introduced to help change urban dwellers' behavior on generating, reusing, recycling, and disposing

of waste to make homes, cities, and communities clean. The initiative also supports tourism by allowing visitors to explore more and stay longer. “Clean City, Clean Resort, Good Service and Best Hospitality” is the theme of Cambodia’s Clean City Program.

8. Recommendations for Cambodia’s tourism development:
The-World-Bank (October 2017, Cambodia Economic Update) has provided the following key messages

Based on recent and expected demographic, economic, and technological trends, tourism growth will only accelerate in the coming years. This should generate increased opportunities to develop tourism destinations and capture the economic benefits of tourism. At the same time, this growth, if not properly managed, will place greater pressures on the sector’s economic, social, and environmental sustainability. Therefore, Cambodia must address key market and policy failures to properly manage and benefit from the expected growth.

There is room to maximize the potential contribution of Cambodia’s tourism sector to the economy. Note also that the total GDP multiplier of tourism is found to be highest among service sectors. Given Cambodia’s relatively low average expenditure per visitor compared to its peers (table S6), increasing length of stays and average expenditure per day is feasible. However, doing this will require additional tourism products to entice more tourist daily expenditures, and diversification of tourism sites to prolong length of stays. Cambodia’s total (public and private) investment in the tourism sector may also need to be boosted, while reducing leakages due to the fact that a large proportion of tourism products and services are imported.

There are several areas that require active intervention or close monitoring if Cambodia is to fully capture its socioeconomic development potential from tourism.

a. There are considerable opportunities for the development of new markets, products, and services. As stated above, other countries with similar portfolios for tourism have emerged from conflict and shown two- and three-fold increases in the value of their tourism industry in the 5 to 15 years following the end of conflict. This indicates the potential to expand the sector over a relatively short time frame, notably in the following segments and subsectors:

- Protected area tourism: There is considerable potential to develop nature tourism; despite the fact that a large percent of the land area is covered by national parks and reserves, the vast majority of visitors are currently focused on only a small number of these areas.
- Domestic tourism: Little attention is paid to domestic tourism in Cambodia but, given that its contributing value across ASEAN is estimated to be at least equal to international tourism, it also offers a potential source of growth. In 2016, Cambodia's domestic tourism statistics showed Cambodian and foreign visitors accounted for 10.6 million and 6.0 million visitors, respectively.
- High-value products: There is space for the development of high-value tourism products. For example, areas are suitable for development as wildlife viewing destinations, and high-value services can be established around existing products.
- Business and events tourism could be developed in several areas, building on the steady flows currently witnessed. All areas with good air access would be ideal destinations, if destination facilities could be improved.
- The internet is having a major impact as a source of information for tourism. Internet-based electronic commerce offers considerable opportunities for firms to expand their customer base and enter new product markets in more cost-effective ways. The potential for e-commerce development is significant in Cambodia. The number of citizens with regular internet access is projected to almost double to 9.5 million (60 percent of the population) by 2020.

b. It is important to improve destination level management if these markets are to be tapped. Annex 2 presents a matrix on the importance of destination-level management, national investment, and the environment for high-value services. If action is taken on these, the sector can guarantee growth and inclusion by better development and protection of key assets, and through improved use and redistribution of tourism revenues. By doing this, Cambodia creates a solid diversity of source markets. While the recent recovery of international arrivals, boosted largely by arrivals from China, is encouraging, it is crucial to maintain the momentum in other markets to reduce seasonality and reliance, and to attract higher-paying visitors.

c. Given Cambodia's very low score and ranking on ground infrastructure, addressing infrastructure and connectivity deficiency is a priority. Growing urbanization and tourism mean that the city needs to have better infrastructure and transportation in place to accommodate needs, curb potential traffic issues, and build resilience. Transforming emerging urban areas resulting from a construction boom to become more tourist-friendly destinations by improving tourism infrastructure, facilities, and accessibility will support destination diversification. Connecting those destinations with each other and with the main urban centers ("hubs") that act as gateways to other tourist destinations will enhance connectivity. This can be developed by employing two possible approaches from a destination perspective:

- **Hub-and-spoke.** First, enhance access to and mobility in and around the urban centers, or hubs. Then develop the "spokes"—rural locations closely linked to the urban hubs that represent great tourism potential. This approach establishes new itineraries for tourists in a way that disperses tourism-related socioeconomic benefits to people in areas currently bypassed by tourism. For instance, Cambodia's main tourism hubs may include Phnom Penh, Siem Reap, and Sihanoukville. Establishing spokes for each hub will allow tourists to explore more than one area surrounding the hub. In this regard, linking (packaging) attractive destinations in Preah Vihear, Battambang, Banteay Meanchey, and Pailin provinces to Siem Reap hub (panel A in figure S8) can be one of the several options to attract tourists to stay longer.
- **Circuits.** An alternative approach involves developing multideestination itineraries that integrate a variety of visitor experiences across a region or zone, based on a variety of themes and primary travel motivations. As with the hub-and-spoke model, any connectivity issues that might exist between destinations within a circuit are addressed. For instance, a circuit may include Siem Reap, a cultural and religious site of the Angkor Wat temple complex, which can be linked to nature-based and ecotourism sites in Tonlesap region (Kompong Thom and Kompong Chhnang provinces), Mekong region (Stung Treng and Kratie provinces), and historical sites (the capital city of Phnom Penh) (panel B in figure S8).
- **More road networks,** while improving the existing ones, are needed to improve the backward and forward links across economic sectors and provinces. The industry sector and the service industry, including the tourism sector, would further benefit from public investment in road infrastructure. Without proper

destination management, this will put future tourism growth at risk and cause environmental degradation, economic losses, and inconvenience for residents. As discussed, Cambodia has the highest dependency on tourism as part of its GDP (12.2 percent), so any fluctuation in tourism arrivals, length of stay, and expenditure will impact the country more severely than its neighbors.

d. Addressing tourism leakages can be initiated by assisting producers (and providers) of food, crafts, and other local goods (and services) to access tourism value chains, which could boost overall spending in destinations. For example, the souvenir market in Siem Reap, where imported items account for the majority of its inventory, generates about US\$50 million to US\$70 million per year. However, tourists report they would spend an additional US\$60 million per year if Cambodia-made products that match market demand were available for purchase. It is also important to adopt an eco-sustainable approach—organic and low-water-dependent crops (vegetables instead of rice), while protecting wildlife to increase the natural attractiveness of the tourist destinations. Establishing associations among farmers and food processors to supply domestically produced foods to hotels will be necessary (see also Box S3: Thailand/Vietnam—the value of food as destination brand ambassador). This will help Cambodia generate and retain more income from tourism, better balancing the distribution of benefits. By reducing large foreign exchange leakages (compared with Thailand, where this is only 5 percent!), there is excellent potential for an enhanced net income contribution of tourism by 2020 under two scenarios (table S7). The first assumes no further reductions in the foreign exchange leakage factor during 2015–20 (benchmarked at 24 percent). The second assumes leakage drops to 18 percent in 2020, resulting in US\$270 million more in net income for Cambodia.

e. Expanding and upgrading skilled workers, while strengthening public-private partnerships. A set of intervention measures could be introduced in main hubs such as Siem Reap and Sihanoukville. In this regard, the Ministry of Tourism has introduced training programs on hospitality including adoption of the ASEAN standards for tourism professionals in close partnership with the private sector, mainly tourism-related associations. Those include building human resources and skills developments such as tour guides, massage service providers, service experts at restaurants, hotel services, and travel services, aiming at improving service

quality and proper hospitality in line with the campaign “Clean City, Clean Resort, Good Service and Best Hospitality”. In this regard, leveraging the 2017–25 National Policy for Technical and Vocational Education and Training (TVET) and public-private partnerships to provide and improve access to quality training for youth and women from poor communities to get the right skills and knowledge and maximize their potential for employability will help. Improved collaboration among (better-trained and well-organized) local workforces, farmers, small and medium-sized enterprises, and tourism-related associations such as the Cambodia Association of Travel Agents, Cambodia Hotel Association, and Cambodia Restaurant Association, will underpin resilient tourism and, in particular, reduce leakages.

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