THE PERCEPTION OF GOVERNMENT CIVIL SERVANTS ON THE IMPACTS OF TOURISM ON THEIR QUALITY OF LIFE

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ABSTRACT

The objective of this study is to determine the perceptions of civil servants in Kota Bharu on how tourism impacts are associated with their quality of life (QoL). A logistic regression is employed where one hundred participants took part in the survey. Chi-square and binary logistic regression analyses are the techniques used in this study. The results show that quality of life is significantly influenced by the economic and social impacts of tourism.

JEL Classification: H70, I31, 053

Key words: Quality of life, Tourism, Government civil servants, Perception, Logistic regression

1. INTRODUCTION

Tourism is of great economic significance for a country (Turtleanu, 2005). Income generated by domestic and international tourism is important in many countries. These incomes and receipts from tourism spending not only generate public and private sector earnings through inter-industrial linkages, they also provide employment, investment and business opportunities to the locals; tax revenues for government besides assisting growth of small and medium enterprises for countries, regions and communities (Ryan et al., 1998; Choi and Sirakaya, 2005; Dyer et al., 2007). The common
belief is that the whole process will in turn boost economic activities, generate economic growth, and provide a better standard of living and quality of life of the nation. However, some authors have also warned about the negative consequences of unfettered tourism growth (Seers, 1979; Morris, 1980) such as overcrowding, traffic and parking problems, increased crime, increased cost of living, friction between tourists and locals, and changes in the local way of life that might be detrimental to the community’s life satisfaction (Ap and Crompton, 1993; Bastias-Perez and Var, 1995; McCool and Martin, 1994; Ross, 1992; Tooman, 1997).

Tourism impact on local communities differs from one location to another. The same situations and circumstances of tourism impacts may be perceived differently by different stakeholders. It is suggested that the best method of studying the perspective of individuals is by using Quality of Life (hereafter QoL). QoL studies are typically concerned with the way these impacts affect individual or family life satisfaction such as community, neighborhood and personal satisfaction (Allen, 1990). Regardless of positive or negative impacts as a result of tourism growth, this study examines how these impacts affect the QoL of the community based on their perceptions. QoL for the individuals is very important. In this case, it shows the satisfaction which makes people happy with tourism activities. And this can be linked to individual work productivity. As a consequence, it may contribute to the country’s economic growth and harmony.

Civil servants are usually seen as agents upholding the rule of law and implementing government policies. They have to have high standards of integrity and are entrusted to carry out their jobs. They work in hierarchical organizations, went through very specific recruitment procedures, holding specific ethical obligations, are often perceived to be working less hard than private sector employees, and require less innovation related tasks. Besides these characteristics, they enjoy fixed income and need not depend on the volatile business environment. Perceptions of civil servants might differ from the private sector employees due to the different cultures in working condition and working life. As they are part of the population in the state, they play an important role in giving feedback on tourism impact on economic, social, cultural and environment assessment. No doubt there are many stakeholders in the state, and all of them are important in giving their views on tourism impact toward their QoL. We are curious to find out how this specific group (civil servants) in Kota Bharu perceive tourism impacts on their QoL. Thus far, many
studies have been found in this area but specifically there are few on civil servants’ perception pertaining to this issue. According to Moscardo (2008), understanding tourism impact is important for a country’s development. The findings of this study are set to have considerable implications for tourism planning and development once the relationship between tourism impacts and quality of life is examined and understood.

Tourism Impact on QoL has been investigated in several areas in Malaysia such as in Tioman Island (Adanan, 2009; Hanafiah and Jamaluddin, 2013), Redang and Perhentian Island (Ghani et al., 2011), and Pulau Melaka (Akmal et al., 2013). While others measured local community attitudes toward tourism development in Tioman Island (Abas and Hanafiah, 2013), Georgetown (Ling et al., 2011) and Langkawi Island (Marzuki, 2011). Chung et al. (2009) measured tourism impacts on the social and visual qualities of Tioman Island. As far as we know, there is no research on tourism impacts on QoL of civil servants in Kota Bharu yet. Thus this research is carried out with the following research objectives:

1. To determine the association between various tourism impacts and QoL among civil servants in Kota Bharu, and
2. To determine the significant relationship between various tourism impacts on QoL among civil servants in Kota Bharu.

2. BACKGROUND OF THE STUDY

Malaysia, with geographical size of 329,847 square kilometers (127,350 sq mi), consists of 13 states and three federal territories, has been engaging in tourism since the early 1970s. Contribution to Malaysian economy from tourism is clear and convincing. Malaysia, with its tropical, warm and humid climate all year round with temperatures ranging from 21 to 34 degree Celsius, is currently the leading Southeast Asia market based on tourist arrivals. This is generally due to visitors from neighboring Singapore and Indonesia. Tourist receipts have grown speedily too. It is projected that the increase in tourism receipts is in line with the increase in tourist arrivals. Table 1 shows the number of international tourist arrivals and tourism receipts from 2002-2012. Moreover, this sector is the second largest in terms of foreign exchange earnings after manufacturing.

Kelantan, with its capital Kota Bharu, is an agricultural state located in the northeast corner of the peninsula. It is not only well-
known for its paddy fields, fishing villages and long wide beaches but also famous for its culture, nature and rural beauty. The tourism activities offered here are river cruises, river rafting, bird watching, home-stays, shopping and jungle trekking. These attracted many domestic and international tourists to the state.

TABLE 1
Tourist Arrivals and Tourism Receipts in Malaysia

<table>
<thead>
<tr>
<th>Year</th>
<th>Tourist Arrivals (million)</th>
<th>Tourism Receipts (RM billion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>13.29</td>
<td>25.9</td>
</tr>
<tr>
<td>2003</td>
<td>10.58</td>
<td>21.3</td>
</tr>
<tr>
<td>2004</td>
<td>15.70</td>
<td>29.7</td>
</tr>
<tr>
<td>2005</td>
<td>16.43</td>
<td>32.0</td>
</tr>
<tr>
<td>2006</td>
<td>17.50</td>
<td>36.3</td>
</tr>
<tr>
<td>2007</td>
<td>20.97</td>
<td>46.1</td>
</tr>
<tr>
<td>2008</td>
<td>22.05</td>
<td>49.6</td>
</tr>
<tr>
<td>2009</td>
<td>23.65</td>
<td>53.4</td>
</tr>
<tr>
<td>2010</td>
<td>24.58</td>
<td>56.5</td>
</tr>
<tr>
<td>2011</td>
<td>24.71</td>
<td>58.3</td>
</tr>
<tr>
<td>2012</td>
<td>25.03</td>
<td>60.6</td>
</tr>
</tbody>
</table>

Source: Tourism Malaysia.

TABLE 2
Tourist Arrivals in Kelantan

<table>
<thead>
<tr>
<th>Year</th>
<th>Tourists Arrivals</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>5,130,867</td>
</tr>
<tr>
<td>2006</td>
<td>4,886,251</td>
</tr>
<tr>
<td>2007</td>
<td>5,953,682</td>
</tr>
<tr>
<td>2008</td>
<td>4,937,742</td>
</tr>
<tr>
<td>2009</td>
<td>4,803,041</td>
</tr>
<tr>
<td>2010</td>
<td>5,388,034</td>
</tr>
<tr>
<td>2011</td>
<td>4,873,427</td>
</tr>
<tr>
<td>2012</td>
<td>5,077,027</td>
</tr>
</tbody>
</table>


The tourist arrivals to Kelantan are shown in Table 2. It can be generalized that tourist arrivals in Kelantan are increasing yearly. This has prompted the study to investigate the impact of tourism in affecting the QoL of the local community. Many studies have concentrated on the perception of local community such as households, business owners, and so forth pertaining to this issue.
This study, however, is interested in examining the perceptions of the civil servants on this matter.

3. LITERATURE REVIEW

The main purpose of QoL study in a community is to understand the well-being of the community from both objective and subjective perspectives. The former is external to the individuals such as economic measure (GDP or income), while the latter is regarding the individuals’ feelings and perceptions. This study employs the second perspective.

Defining QoL is difficult because it is a subjective experience dependent on individuals’ perceptions and feelings. It is a multidimensional and interactive construct covering many aspects of people’s lives and environments (Schalock and Siperstein, 1996). Impact of tourism on QoL refers to people’s satisfaction of life and feelings of contentment or fulfillment with the experience in tourism activities. The same situations and circumstances may be perceived differently by different people.

As mentioned before, tourism effects can be positive or negative in influencing the community. However, it is not known how true this is and to what extent. To understand tourism’s role in the communities’ quality of life, residents’ perceptions of tourism impacts must be evaluated (Andereck and Jurowski, 2006). These perceptions are based on economic, social, cultural and environmental tourism impacts. A brief discussion on those impacts will now follow.

Several researchers have examined local residents’ perceptions of the economic, social, cultural and environmental impacts of tourism. Economic impacts refer to the gross increase in the residents’ wealth resulting from tourism activity. The effects of wealth are traced through residents’ income, employment, businesses and government sector income increase. According to Cooper et al. (1993), the major tourism benefit for a country is economic as it provides an opportunity for job creation and revenue generation at local, national and international levels. A number of past studies have found that tourism could provide: positive impact to the host destination in local economies (Allen et al., 1988; Perdue et al., 1990); increased income and standard of living (Tosun, 2002; Weaver and Lawton, 2001; etc.); employment (Tyrrell and Spaulding, 1984; Weaver and Lawton, 2001); revenue to local
business (Liu et al., 1987; Prentice, 1993); investment (Akis et al., 1996; Belisle and Hoy, 1980); development and infrastructure (Belisle and Hoy, 1980; Hin, 2010; Ibrahim, 2010; Liu and Var, 1986; McCool and Martin, 1994) and increased tax revenue (Haralambopoulos and Pizam, 1996; Milman and Pizam, 1988; Tyrrell and Spaulding, 1984).

On the other hand, tourism also brings negative economic effects to the locals. The major ones are higher cost of living and inflation in goods and services. These are supported by many researchers such as Belisle and Hoy (1980), Haralambopoulos and Pizam (1996), Husbands (1989), Liu et al. (1987), Liu and Var (1986), Pizam (1978), Ross (1992), Tosun (2002), Weaver and Lawton (2001). In this study context, it is uncertain whether economic impact from tourism activities could affect the quality of life of government servants or not at all. Thus, in the alternative hypothesis of the study, it is hypothesized that, H1a: civil servants’ QoL is related to economic tourism impact.

Social and cultural impacts refer to changes to residents’ everyday experiences as well as to their values, way of life and intellectual and artistic products such as: arts, artifacts, customs, rituals and architecture. Social and cultural impacts are strongly interrelated and not limited only to the host population (Glasson et al., 1995). A large number of tourists arriving at a given place can have significant cultural and social impacts on a host community. This might eventually result in changes in societal behavior and local culture.

As for positive social impact, tourism can encourage an increase and improvement in cultural awareness, facilities and related activities (Brunt and Courtney, 1999). Tourism brings more opportunities to upgrade facilities such as outdoor recreation facilities, parks, and roads (Lankford and Howard, 1994; Liu and Var, 1986). On the other hand, tourism increases traffic congestion and crowdedness in public areas, and brings social problems such as increased sale or consumption of drugs and alcohol. Tourism also contributes to social ills such as begging, gambling, drug trafficking, and prostitution, uprooting of traditional society, and causes deteriorating of the traditional culture and customs of host countries (Ahmed and Krohn, 1992; Var and Kim, 1990). Thus, it is hypothesized that, H2a: civil servants’ QoL is related to social tourism impact.

Cultural impact studies consider tourism as a cultural exploiter (Fanon, 1966; Greenwood, 1977; Pearce, 1996; Young,
Tourism has frequently been criticized for disrupting traditional social structures and behavioral patterns (Butler, 1975; Kousis, 1989), for causing decline in traditions and loss of local cultures. However, tourism has also been viewed as a means of revitalizing cultures when dying customs are rejuvenated for tourists (Witt, 1990). Thus, it is hypothesized that, H3a: civil servants’ QoL is related to cultural tourism impact.

Environmental impacts occur as a result of tourism development in many world regions as communities struggle to find an optimal balance between development and conservation. Recently, it has been found that tourism activities are highly dependent on the environment. Research has shown the impacts that tourism has on natural resources (Green, Hunter and Moore 1990). Most research has focused on the negative impacts of tourism on natural resources after the damage has taken place. Thus, tourism is always blamed for resource degradation (Farell and McLellan, 1987), environmental damage through pollution and habitat destruction. Tourism can also have positive environmental effects. It increases investment in natural resources to improve facilities, access and enable development and helps to conserve the environment for sustainable tourism (Zaie and Zaie, 2013). Thus, it is hypothesized that, H4a: civil servants’ QoL is related to environmental tourism impact.

Several articles have covered tourism impact and QoL in Malaysia. For example, Ghani et al. (2011) on QoL in Pulau Redang and Pulau Perhentian, Terengganu using objective and subjective QoL. Education, employment, family life and welfare support are among the factors which influenced the objective (actual) and subjective (perceived) QoL on both islands. Both the perspectives are at the medium level. The findings based on Pearson correlation also revealed that the objective and subjective QoL were significantly correlated. This means that for most of the people on both islands, the higher their objective QoL, the better their subjective QoL.

Adanan (2009) examines the perception of residents toward tourism development and its impacts to their quality of life in Tioman Island, Malaysia. There is a positive and negative relation between tourism development and residents’ quality of life. Most of the residents view their quality of life in both positive and negative perspectives. While welcoming more tourists and tourism development, the residents are not very comfortable with the
resulting higher cost of living, the depletion of greenery, and other pollution impacts. The result of the assessment can give valuable contributions to the field of sustainable tourism and sustainable community development.

Ling et al. (2011) explain residents’ perception towards tourism development in Georgetown using social exchange theory. A positive and significant relationship exists between personal benefit gained from tourism development, perceived positive impacts and support for tourism development. The only finding inconsistent with social exchange theory is perceived negative impact towards support for additional tourism development where no significant relationship is found. Briefly, residents who benefit from tourism development in Georgetown perceived greater positive impact than those who receive less benefit or do not receive any benefit at all. The positive impact that residents perceived has a positive relationship with their support for tourism development.

Akmal et al. (2013) adopted Ap and Crompton’s (1998) framework to investigate the level of awareness and determine tourism innovation impact on economic, social, cultural, and environmental to QoL of 282 residents residing along the Melaka River. The results revealed that the residents’ quality of life was related to tourism innovation with particular life domains significantly, and their satisfaction with particular life domains influenced their overall life satisfaction. The environmental impact of tourism and the satisfaction with community well-being were strongest among the other factors to the community residents.

Marzuki (2011) did a household survey to identify the respondents’ perception of the impacts of tourism development in Langkawi. Based on stratified random sampling, 392 questionnaires are analyzed using principal component analysis. Findings show that tourism development in the Langkawi Islands has contributed both costs and benefits. Local residents received more benefits than costs of tourism development especially in terms of socio-economic perspectives such as employment, business opportunities, improved local infrastructure and entrepreneurial opportunities. However, greater social and environmental costs were major concerns as there was evidence of cultural deterioration and negative physical development impacts. Nevertheless, the majority of local residents believed that tourism development in Langkawi has significantly improved their QoL. Findings from data analysis suggested that tourism development in Langkawi has provided more benefits than costs to the residents.
Among the empirical studies discussed earlier, research associated with Malaysia tourism impact can be found in Terengganu, Penang, Melaka, and so forth but the studies on Kota Bharu are quite limited. Tourist arrivals to Kelantan are around 5 million per annum (Kelantan Darul Naim Facts and Figures, 2011). It is very important to study tourism impacts and to clarify their extent based on specific community groups in Kota Bharu. We chose civil servants as our specific group.

This study has potential contribution to the body of knowledge on the effects of mass tourism on the town that previous researchers have not focused on; other important communities in the tourism sector are housewives, self employees, private employees, unemployed, students, and retirees. As civil servants are the backbone of Kelantan state and as such bear the weight of society’s demands, thus their views should never be neglected.

The profiles of government servants vary in terms of age, educational qualification and income levels. The heterogeneity of public employment in terms of characteristics and personalities makes it interesting to find out their views. Moreover, civil servants are seen as government stakeholders and are always related to drafting and formulating strategies to help boost the tourism sector. Governments have the responsibility to satisfy both the expectations and desires of tourists, and to improve the quality of life of residents. However, limited studies are found on identifying civil servants’ views on the socio economic impact of tourism. The assessment of public opinion could point to desired policy changes that might minimize the negative impacts and maximize the positive ones. This study is intended to fill the mentioned research gap by specifically focusing on the Kota Bharu civil servants’ perceptions on tourism activities that impact their QoL.

4. METHODOLOGY

The study measures four variations of tourism impacts based on Ap and Crompton’s (1998) framework of QoL. The study is modified to investigate the four tourism impacts that could affect their QoL as perceived by civil servants’, as illustrated in Figure 1. The QoL indicators are developed by the researchers based on the literature review done pertaining to the four tourism impact dimensions. Discussion on tourism impacts in the literature review shows that tourism is associated with a host destination positively or negatively.
Therefore, the main concern of the study is to hypothesize whether the various impacts of tourism would lead to some impacts (either positive or negative as stated in the alternative hypothesis) or none at all to civil servants’ QoL.

**FIGURE 1**
Hypothetical model

![Hypothetical model](image)

The study is conducted in Kota Bharu. Respondents are selected from several government civil offices such as Jabatan Pelajaran Negeri Kelantan, Majlis Perbandaran Kota Bharu, Mahkamah Majistret Kota Bharu, Pejabat MARA Negeri Kelantan, Pejabat Setiausaha Kerajaan (SUK) Negeri Kelantan and Pejabat Lembaga Penduduk dan Pembangunan Negeri Kelantan (LPPKN).

The population of the study is 8162. They come from all levels of management. This is the preliminary test conducted using a simple random technique. As a rule of thumb, the sample size determination by Roscoe (1975) and Sekaran (2003) is to multiply the number of variables by ten (10). This study has four variables; therefore the minimum sample size required is 40. Moreover, Roscoe (1975) recommended that sample sizes larger than 30 and less than 500 are appropriate for most studies.

Questionnaires are designed in six sections namely section A – profile of respondents; Section B – economic tourism impact; Section C – social tourism impact; Section D – cultural tourism impact; Section E – environment tourism impact; and Section F –
QoL. From Section B to F, a five-point Likert scale ranging from 1 ‘strongly disagree’ to 5 ‘strongly agree’ is used.

Data analysis was carried out using SPSS and the analysis techniques are reliability test, chi-square and binary logistic regression analyses. Reliability test is conducted to show how well the questionnaire items are interrelated with the quality of life as the dependent variable. Chi-square is used to establish the association between each of the independent variables and dependent variable. Finally, binary logistic regression is adopted to test the relationship between QoL and its independent variables namely economics, social, cultural and environmental. In the binary logistic regression, dependent variable and independent variables measurement level are altered by reducing the 5-point Likert scale to a two-level scale: 1 = agree (4 to 5, agree and very agree) and 0 = otherwise (1, 2 and 3, very disagree, disagree and neutral respectively). Prior to running the binary logistic regression, the two-level scale is tested to check whether the data is amenable to such a statistical technique. According to Field (2009), linearity, independence of errors and no high correlation between independent variables are required in logistic regression. The Hosmer and Lemeshow (1989) test is passed as the significance level of the interaction is greater than 0.05. Durbin-Watson (D-W) test is analyzed to check the independence of errors. The rule of thumb is between 1.50 to 2.50 and this study’s D-W statistic is 1.797. Multicollinearity is tested by tolerance levels (TOL) and variance inflation factors (VIF) statistics, the statistics show $0.5 < \text{TOL} < 1$ and $1 < \text{VIF} < 2$ respectively. This indicates that the necessary assumptions are met and thus the binary logistic regression can be carried out in this study. Corresponding to the hypothetical model in Figure 1, the model of the study is given in equation (1):

$$\begin{align*}
P(Y = 1) &= \frac{1}{1+e^{-z}} \\

\text{where} \\

Z &= \beta_0 + \beta_1 \text{Eco}_i + \beta_2 \text{Soc}_i + \beta_3 \text{Cul}_i + \beta_4 \text{Env}_i + e_i \\

Z &= \text{Quality of life (QoL)} \\

\end{align*}$$
\( E_{\text{co}} \) = tourism impact on economy
\( S_{\text{oc}} \) = tourism impact on social
\( C_{\text{ul}} \) = tourism impact on culture
\( E_{\text{nv}} \) = tourism impact on environment
\( e_i \) = error terms

\[ \{ 1 \text{ agree}, 0 \text{ otherwise} \} \]

5. FINDINGS AND DISCUSSION

This section starts with discussing the overall profiles of respondents (as shown in Table 3).

<table>
<thead>
<tr>
<th>Table 3</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Demographic Profile of Respondents</td>
<td>Frequency</td>
<td>Percentage (%)</td>
</tr>
<tr>
<td>Gender</td>
<td>Male</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>63</td>
</tr>
<tr>
<td>Age</td>
<td>Below 20 years old</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>21 to 30 years old</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>31 to 40 years old</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>41 to 50 years old</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Above 50 years old</td>
<td>18</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>Malay</td>
<td>95</td>
</tr>
<tr>
<td></td>
<td>Indian</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Chinese</td>
<td>2</td>
</tr>
<tr>
<td>Education Level</td>
<td>PMR</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SPM</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>Certificate</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>STPM</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Diploma</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Degree</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Master</td>
<td>1</td>
</tr>
<tr>
<td>Income Level</td>
<td>Less than 1500</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>1501 to 3000</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>3001 to 4500</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>4501 to 6000</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>7501 to 9000</td>
<td>1</td>
</tr>
</tbody>
</table>

The respondents are: male (37%) and female (63%), 4% are below 20 years old, 30% are 21-30 years old and 31-40 years old, and 18% are 41-50 years old and above 50 years old. The majority of respondents are Malay (95%), followed by Indian (3%) and Chinese (2%). Their education level: secondary school 29%, STPM and certificate 25%, diploma 25%, degree 20% and masters 1%.
Breakdown by level of income: 26% earned less than RM1500, 44% RM1501-RM3000, 22% RM 3001 to RM4500, 7% RM4501-RM6000, and 1% RM7501 to RM9000.

TABLE 4
Summary of Reliability Analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cronbach’s alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of life</td>
<td>0.660</td>
</tr>
<tr>
<td>Tourism impact on economy</td>
<td>0.808</td>
</tr>
<tr>
<td>Tourism impact on social</td>
<td>0.763</td>
</tr>
<tr>
<td>Tourism impact on cultural</td>
<td>0.562</td>
</tr>
<tr>
<td>Tourism impact on environment</td>
<td>0.746</td>
</tr>
</tbody>
</table>

The Cronbach’s alpha value is used to test item reliability measuring each variable: quality of life, tourism impact on economy, social, cultural and environment. It is a reliability measure coefficient that reflects how well items in a set are positively correlated to one another. Generally, based on the rule of thumb about Cronbach’s alpha coefficient size, reliability less than 0.60 is considered poor, in a range of 0.60-0.70 moderate and acceptable, range between 0.70-0.80 is good and reliable and more than 0.80 is considered as very good (Hair et al., 2003). The results obtained are as shown in Table 4. All the values are greater than 0.60 except for ‘Cultural Impact’.

TABLE 5
Chi-square Test of Association Results

<table>
<thead>
<tr>
<th>Variables</th>
<th>Chi-square</th>
<th>p-value</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tourism impact on economy</td>
<td>16.234***</td>
<td>0.000</td>
<td>Significant</td>
</tr>
<tr>
<td>Tourism impact on social</td>
<td>3.509*</td>
<td>0.061</td>
<td>Significant</td>
</tr>
<tr>
<td>Tourism impact on cultural</td>
<td>8.208***</td>
<td>0.004</td>
<td>Significant</td>
</tr>
<tr>
<td>Tourism impact on environment</td>
<td>12.705***</td>
<td>0.000</td>
<td>Significant</td>
</tr>
</tbody>
</table>

***Significant at 1% level, *significant at 10% level.
When the association of each of the independent variable is tested against the dependent variable, it is found that all of them are associated with quality of life. As shown in Table 5, tourism impacts on economy, culture and environment are significant at the 1% level while tourism impact on social is significant at the 10% level.

**TABLE 6**
Binary Logistic Regression Results

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficients</th>
<th>Wald</th>
<th>Odds Ratio</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0.980***</td>
<td>9.988</td>
<td>0.375</td>
<td></td>
</tr>
<tr>
<td>Tourism impact on economy</td>
<td>1.510*** (0.463)</td>
<td>10.635</td>
<td>4.528</td>
<td>Reject H1o</td>
</tr>
<tr>
<td>Tourism impact on social</td>
<td>–0.343 (0.643)</td>
<td>0.284</td>
<td>0.710</td>
<td>Do not reject H2o</td>
</tr>
<tr>
<td>Tourism impact on cultural</td>
<td>–0.310 (0.672)</td>
<td>0.213</td>
<td>0.733</td>
<td>Do not reject H3o</td>
</tr>
<tr>
<td>Tourism impact on environment</td>
<td>1.648*** (0.627)</td>
<td>6.912</td>
<td>5.196</td>
<td>Reject H4o</td>
</tr>
</tbody>
</table>

Log Likelihood: 112.84

Hosmer and Lemeshow: 0.896

Cox and Snell $R^2$: 0.220

Nagelkerke $R^2$: 0.293

Classification Table: 0.73

Note: ***Significant at 1% level; H1o, H2o, H3o and H4o represent null hypotheses.

Binary logistic regression is conducted to determine the tourism impacts on economic, social, culture and environment on quality of life of civil servants in Kelantan. The results are reported in Table 6. The chi-square statistic (df = 2) is 24.79, $p < 0.05$, indicating that the model is significant where there is at least one significant predictor in the logistic model. Cox and Snell and Nagelkerke are Pseudo $R^2$ that shows the proportion of variation in the response variable explained by the predictors. In this study, Cox
and Snell $R^2$ and Nagelkerke $R^2$ are 0.220 and 0.293, respectively. This shows that there is a modest association in the model. The Hosmer-Lemeshow goodness of fit test is insignificant ($p > 0.05$) with chi-square value of 0.896, meaning that the null hypothesis cannot be rejected. This also indicates that the logistic regression model fits the data. Besides, the prediction power of the model also observed a correct prediction in 73% of cases.

Next, the coefficients results show that two variables are significant predictors in the model: they are economic ($Wald = 10.635, p = 0.001$) and environment ($Wald = 6.912, p = 0.009$) impact of tourism. The odds ratio for tourism impact on economy is 4.528. This shows that the civil servants are 4.5 times more likely to agree that economic factor as a result of tourism has impacted their quality of life. Meanwhile, the odds ratio for tourism impact on environment is 5.196. This also implies that the civil servants are five times more likely to agree that environment due to tourism has impacted their quality of life. Thus, the conclusion based on the findings is to reject $H_1$ and $H_4$.

6. CONCLUSION

Tourism activities give impact to economic, social, cultural and environmental conditions. Each individual has different perception on each impact. Thus the study examines the perception of civil servants in Kota Bharu on how the tourism activities are associated with their QoL. These findings are crucial as they help us to understand the relationship between several tourism impacts and the QoL. As a result of tourism activities in Kelantan, the chi-square shows that an association exists between each of the independent variables and dependent variable among the civil servants. This has enabled the logistic regression analysis to be carried out. The findings suggest that tourism impact on economic and environment are significantly related to QoL of civil servants in Kelantan.

The result shows the civil servants perceived economic tourism impact as positive and significantly related to their QoL even though they are fixed income earners and do not depend on tourism income. They see tourism activities contributing to businesses, creating job opportunities, attracting investment, improving infrastructure and stimulating economic growth. This is consistent with the findings from Tyrrell and Spaulding (1984), Weaver and

Besides, the study also finds that environmental tourism impact has positive association with civil servants’ QoL. This means that they do not find the tourist arrivals are related to nature and causing various kinds of pollution that may degrade environmental quality. In contrast, they perceive that the increase in tourists may lead to more attention given to wildlife and natural habitat protection. This is parallel to the studies done by Belisle and Hoy (1980), Lieu et al. (1987), Lieu and Var (1986) and Zaie and Zaie (2013), and Nkemngu (2015). As tourist arrivals increase annually, the authorities must not be complacent but plan wisely for tourism development as well as further enhance the community QoL. This can be done by improving the accommodation, food and beverage, and transportation services; upgrading public infrastructure such as toilets, roads and other public facilities; as well as maintaining the natural parks and beaches along the coastal areas. These are suggested to prevent tourist arrivals over-flow that might negatively affect the tourism industry and at the same time, and more importantly, to ensure that the community in Kota Bharu is satisfied with their QoL.

In conclusion, this study is a good insight into measuring QoL among civil servants in Kota Bharu based on different backgrounds. Given the current political, social and economic scenario, the perceptions of respondents from the government sector in this Islamic city of Kota Bharu, Kelantan, are that tourism impacts on economic and environment have positive influence on their QoL. Since they are part of the community, their perceptions on the impacts of tourism should not be ignored.

For future research, impacts on other stakeholders in Kelantan such as business, enterprises, local councils, and households are necessary to determine their views and perceptions on this matter. These different views can be compared to gain better insight into tourism impacts on QoL among Kelantanese as a whole.

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