Indigenous Entrepreneurs and Ecotourism Product: Success or Collapse?

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Abstract

Sarawak consists of various indigenous groups that in return promotes vast diversity in culture ethnicity and enriched the tourism industry of Sarawak. Nonetheless, the interdependency of these groups with the nature has create an opportunity to established themselves as a distinguish entrepreneur, utilizing the ecotourism as their source of income. The study identify the awareness of ecotourism within these groups in realizing the importance of business opportunities related to ecotourism, factors that influenced indigenous to become an entrepreneur, and also the factors that affect their income. Descriptive and factor analysis was used to identify the awareness, plus the influenced factors of the entrepreneur. The study found that most of them realized that ecotourism offered a platform for them to market their products, and the main reason why they become an entrepreneur is their own interest and self-realization in sustaining the nature. The study has created a platform for this indigenous group to identify their strength and weakness and so does the society in appreciating the ecotourism products.

Keyword: Ecotourism, Entrepreneur, Income, Indigenous

Introduction

The widespread interest in ecotourism among tourism players is due to its direct linkage to the greater prospects for sound and sustainable tourism development with strong possibilities for appropriate local participation and shared responsibility for preserving the environment, cultural heritage and people's way of life. More specifically, the value added of ecotourism industry comes from the different ethnicity in which their lifestyles blend with the nature.

Ecotourism is increasingly seen as a key community development tool which can help transform indigenous group in a positive manner for the best quality of life. It has been argued that local community participation or community-based ecotourism is the essence of sound and ethical ecotourism programmer. Since the local communities are the direct recipients from ecotourism, it is only relevant that local communities play an active role in the planning,

development and management process which involve in creating ecotourism business and employment, increasing cultural awareness, and providing a range of entrepreneurship development programmer opportunities. The challenges of the indigenous entrepreneurship is in identifying, measuring and articulating entrepreneurship in cultural and heritage tourism ,is because of the unchanging canons of traditional rituals and restrictions that work against modification and innovation.

"Indigenous entrepreneur is as indigent person who shows practical creativity and managerial ability in effectively combining resources and opportunities in an effort to provide produce goods and services appropriate to the needs of local community and at the same time generating sufficient income to help themselves, their family and the community in general (Hailey,1992,p."

Sarawak strategic location in Borneo is seen as one of the world best ecotourism destinations the world has to offer. The tourism industry is keeping pace with various other industries due to the improved transportation and communication services based on information technology, and increasing global demand .This strategic advantage endowed to Sarawak, provides great opportunities for entrepreneurship development within the ecotourism sector. According to Sarawak Tourism report (2013), the sector will be extended to rural areas as in Belaga, Ulu Baram because of the potential heritage, nature, beautiful environment and rich culture preserved.
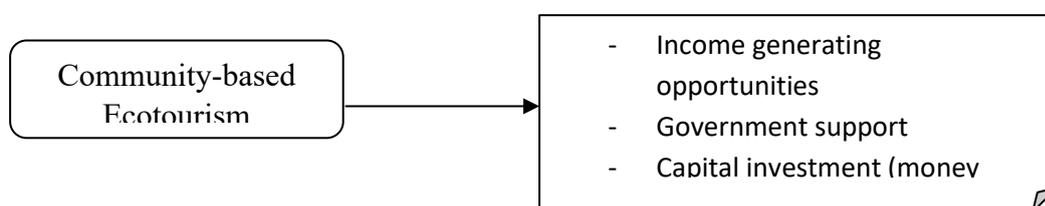
"The availability of hydropower projects and dams there will accelerate these areas and ecotourism will be enhanced and evolved further. This shall accelerate the development of Sarawak's eco-tourism sector particularly and indirectly affecting the standard of living of society surrounding."

In general, the relationship between the tourism industry & entrepreneurship always being taken for granted particularly when focusing on the entrepreneurship of the indigenous group, which is the limelight as part of value-added industry. This study seeks to identify the opportunities available in the Sarawak ecotourism sector and to engage the respective local community to participate in the tourism industry. However, the difficulty lies for each sub tourism sector in differentiating its own travel products, since the tour sites, resorts, hotels, and infrastructures of separate cities & nations are becoming more standardized. To deal with the challenges, it is important to focus on the brand image development by putting more weight on some peculiar cultural heritage, the local people's hospitality, & superior customer service. Parallel with this, the importance of entrepreneurship awareness and participation of the indigenous group on these value added should be embedded and enhanced. Using the actual ethnicity, social status, and network indigenous entrepreneur innovate, develop new product and expand the cultural economy of traditional heritage to suits the demand of the burgeoning tourism. Thus the study aim to evaluate the existing levels of awareness of entrepreneurship and ecotourism potential activities. Most of these indigenous groups are lacking of proper training and motivation. Merely, they were just continuing the legacy of the family business without future planning and creativity in expanding the business.

Community-based Ecotourism (CBE)

Kersten (1997) who defined CBE as a kind of nature tourism whereas the local community maintains full (or major) control over the management and the profits of the project, which it contribute in one of the ecotourism framework. This strategy highlights community development and participation of the indigenous groups rather than on regional or national development.

CBE could provide these indigenous people **opportunities to generate income** while protecting the local environment and conserving biodiversity. It creates new platform whereby indigenous communities are discovering that they can market their own knowledge, their own traditional medical knowledge, their indigenous philosophy, the awareness about nature and survival, and their oral culture (including story-telling) as part of the CBE experience offered to the tourist (Wesche, 1996).

Community-based Ecotourism

- Income generating opportunities
- Government support
- Capital investment (money

Source : Kersten (1997); Wesche (1996); Sproule (1996); & Lumpkin (1998)

Figure 1 : Community-based Ecotourism Framework

The factors influencing an indigenous people becoming an entrepreneur by recognizing the role of community-based ecotourism (CBE) are been illustrated in Figure 2. CBE basically related with the creation of job opportunities (income generation opportunities), support by the government. CBE required money capital and for sure, infrastructure to be started with.

With the existence of CBE, indigenous people, means the local resident of the area will play a significant role to the establishment of the ecotourism site. Indigenous people tend to see the business opportunities from the ecotourism sector. Thus, the intention to become an entrepreneur started to gleam.

In addition, with the determinants of entrepreneurial, such as the business is been inherited from their family, it is their own interest to do business, also, they might be influenced by their friends, they do it as a hobby,

Literature Review

Shane (2003) defines an entrepreneurial opportunity as a situation in which individuals can create a completely new purposed framework by reassembling resources that they believe will increase a profit. Before acting on opportunities, these opportunities must be identified by individuals (Krueger, 2000; Shane & Venkataraman, 2000). Shane and Venkataraman (2000) have been identifying entrepreneurial opportunity identification as a core attribute of entrepreneurship. Indeed, many definitions of entrepreneurship have increasingly focused on opportunity identification as central to understanding

entrepreneurial behavior (Stevenson & Jarillo-Mossi, 1986, 1990; Stevenson, Roberts, & Grousbeck 1989; Shane & Venkataraman 2000; Stewart 1991).

However, given the same set of situations and opportunities, not all people can identify a given entrepreneurial opportunity (Shane, 2000; Shane & Venkataraman 2000). Some people are able to identify opportunities that others fail to notice (Hayek, 1945; Kirzner, 1973). In dealing this interesting but challenging research question as to why some people and not others are able to identify entrepreneurial opportunities, prior studies lend support to the view that possession of prior knowledge, social networks, and superior cognitive capabilities (Fraboni & Saltstone, 1990; Gaglio & Katz, 2001; Kaish & Gilad, 1991; Mitchell et al., 2002; Shane, 2000;.

The methods included in-depth interviews and purposive sampling technique, the observance of public behavior and participation in various festivals, events and ceremonies Respondents will be selected to provide a cross-section of the main ethnic groups in each country, with participants surveyed in two clusters divided into Sothern region and northern region of Sarawak. Southern region (Bako and Sri Aman) and Northern region (Niah) have been chosen to reflect any differences in each region, and 200 respondents will be surveyed in order to allow for meaningful statistics to be calculated from responses.

Methodology And Discussion

In this study, exploratory factor analysis was adopted. It is the technique for extracting factors that try to take out as much common variance as possible in the first factor and the following factors are, intended to account for the maximum amount of the remaining common variance until, hopefully, no common variance remains (Suhr, n.d.).

The first step is to look at the inter-correlation between variables. If any of the correlations are too high (say above 0.9), it is necessary to remove one of the variables from the analysis, as the two variables seem to be measuring the same thing.

The second step is to look the reliability of questionnaire. In this research, Cronbach Consistency Reliability test were adopted. A common acceptable rule of thumb for describing the internal consistency using Cronbach's Alpha. (Gandhi, 2012). To conclude, the reliability for all the factors is between 0.5 - 0.8 which indicates that this research is quite reliable. In this study, there are 5 factors that been rejected through reliability test, and only 7 factors are pass to the next step (to convert into Index form).

Dependent Variable	Independent Variable
Log Gross Income (GI)	Index 1: Facilities & Communication Ability
	Index 2: Products & Services
	Index 3: Foreign Tourist & Ecotourism
	Index 4: Product Contribution
	Index 5: Government's Help
	Index 6: Model & Supply Problems
	Index 8: Ecotourism Product & Packaging in Promotion

Table 1: Input Variables for SPSS Regression

In the next section, an Indexing method will be perform in order to do the regression in measuring the variable of perception of respondents. To get the perception index, the formula below will be used:

Where,

X	=	Likert scale (1, 2, 3, 4, 5)
i	=	Question's number
n	=	No. of questions

$$\text{index}_i = \frac{\sum X_i}{n}$$

The KMO of this questionnaire is 0.788 which can be classified as "good", because it is greater than 0.5. This is the KMO for multiple variables. In addition, Bartlett's test is highly significant (0.00, it is less than 0.05) and based on this finding, it is confident to say that factor analysis is appropriate for these data and it is reliable.

The third step is to look at the number of the components. In this study, twelve components can be made since SPSS only extracts factors with an eigenvalue higher than 1. All the remaining factors are not significant. This is supported by the screen plot which has a point of inflexion after twelve factors.

The final step is the principal component analysis. It consists the rotated component matrix which is a matrix of the factor loadings for each variable onto each factor. In other words which question belongs to particular factors.

The following hypotheses have been tested with the help of statistical tools:

i. Index$_1$: Facilities & Communication Ability
   H$_0$: There is **no significant** between gross income and facilities & communication ability.

ii. Index$_2$: Products & Services
   H$_0$: There is **no significant** between gross income and products & services.

iii. Index$_3$: Foreign Tourist & Ecotourism
   H$_0$: There is **no significant** between gross income and foreign tourist & ecotourism.

iv. Index$_4$: Product Contribution
   H$_0$: There is **no significant** between gross income and product contribution.

v. Index$_5$: Government's Help
   H$_0$: There is **no significant** between gross income and government's help.

vi.   Index$_6$: Capital & SupplyProblems

vii.

    H_0: There is **no significant** between gross income and capital & supplyproblems.

viii. Index$_7$: Competition

    H_0: There is **no significant** between gross income and competition.

ix. Index$_8$: Ecotourism Product & Packaging

    H_0: There is **no significant** between gross income and ecotourism product & packaging.

x. Index$_9$: Youth Potential

    H_0: There is **no significant** between gross income and youth potential.

xi. Index$_{10}$: Continuous Supply & Promoting Area

    H_0: There is **no significant** between gross income and continuous supply & promoting area.

xii. Index$_{11}$: Local Resident's Participation

    H_0: There is **no significant** between gross income and local resident's participation.

xiii. Index$_{12}$: Product Competitiveness

    H_0: There is **no significant** between gross income and product competitiveness.

In order to regress the data, all of the factors that been extracted from factor analysis has to change the original form to index form.

Assumptions

    Before the data in index form is regressed, it should be tested with few assumptions and it must "passed" all the assumption to make it possible to be regress. The assumptions that should be tested are:

i.   Variables are normally distributed

    Based on the normal Q-Q Plot below, all the variables are normally distributed, except for Gross Income. Thus, it is proper if this research proceed with Gross Income in log form.

Index 1   Index 2   Index 3

Index 4   Index 5   Index 6

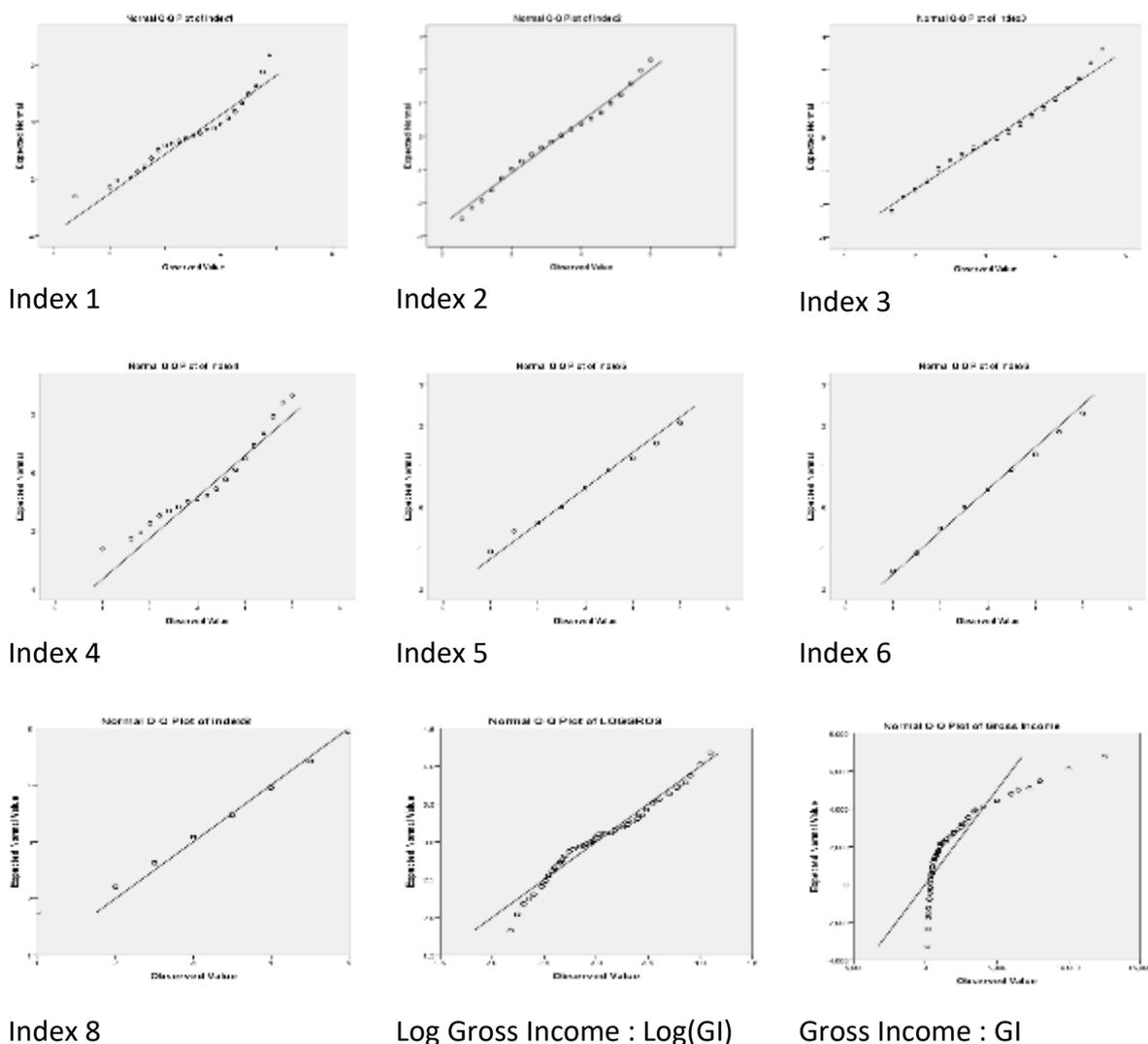Index 8   Log Gross Income : Log(GI)   Gross Income : GI

Figure 2: Normal Q-Q Plot<u>Linear relationship between the independent and dependent variable(s)</u>

The relationship between dependent and independent variables in standard multiple regression only can be estimate, if the relationships are linear (Osborne & Waters, 2002). Result will be under-estimated the true relationship, if the relationship between independent variables and dependent variable is non-linear. From Figure 3, the first scatter plot seems to indicate dependency between the residuals and the fitted values. While, the second plot seems to indicate that the residuals and the fitted values are uncorrelated. The pattern of points in the residual plot (second plot in Figure 4.5) does not show an obvious curve indicating non-linearity. The assumption of linearity is satisfied.

ii.   <u>Assumption of homoscedasticity.</u>
This assumption can be checked by visual examination of a plot of the standardized residuals (the errors) by the regression standardized predicted value. The second plot in Figure 3 shows that it is linear, plus it is homoscedastic model with normally distributed error. The pattern of points in the residual plot (second plot in Figure 3) shows equal spread across the standardized predictions of "Index 1, Index 2,

Index 3, Index 4, Index 5, Index 6 and Index 8". The assumption of equal variance is satisfied.
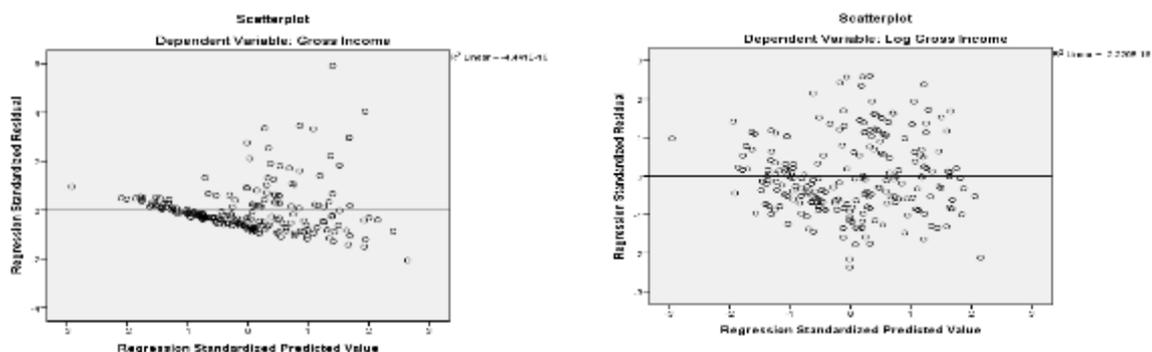

Figure 3: Scatter Plot of Standardized Residuals by Standardized Predicted Values

Results and Discussion

$$(7.84)^* \qquad (-1.56) \qquad (0.16) \qquad (4.73)^*$$

$$LogGI = 1.794 + 0.254 Index_1 - 0.073 Index_2 + 0.006 Index_3 + 0.160 Index_4$$
$$- 0.139 Index_5 + 0.028 Index_6 + 0.035 Index_8$$

$$(-6.80)^* \qquad (1.21) \qquad (1.12)$$

R-square	=	0.459	Durbin-Watson		=	1.301
F-test	=	26.663 (0.000)				

Note: Value in parenthesis refers to t-value.
   Asterisk (*) indicates that it is significant at 0.05 significant level.

Where,

GI	=	Gross income (in log form)
$Index_1$	=	Facilities & Communication Ability
$Index_2$	=	Products & Services
$Index_3$	=	Foreign Tourist & Ecotourism
$Index_4$	=	Product Contribution
$Index_5$	=	Government's Help
$Index_6$	=	Capital & Supply Problems
$Index_8$	=	Ecotourism Product & Packaging in Promotion

The R-square indicates that, there are around 45.9 percent of the explanatory powers of the independents used. Other words, it is evident that the independent variables explained 45.9 percent of the Gross Income. The other remaining percentages (54.1 percent) are explaining by other rejected factors, that's why the result for R-square is quite low.

The value for F-test is 26.663 is lesser than alpha (0.05), therefore, there are enough statistical evidence to reject the null hypothesis indicating the model is significant at 95% confident level. Thus, indicates that all the slope coefficients are statically significant simultaneously (the whole model are fit).

Durbin-Watson value is 1.501 which is within the acceptable range, indicating no problem of autocorrelation.

ANOVA T-test

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.794	.194		9.226	.000
index1	.254	.032	.420	7.836	.000
index2	-.073	.047	-.107	-1.562	.120
index3	.006	.040	.010	.155	.877
index4	.160	.034	.259	4.728	.000
index5	-.139	.020	-.366	-6.798	.000
index6	.028	.023	.062	1.213	.226
index8	.035	.031	.063	1.116	.265

a. Dependent Variable: Log Gross Income

Table 2: Anova Output

By referring to the probability value (p-value) of t-test for each variable, it must lower than significant level of 5 percent / alpha (0.05). From the computed regression model above, $Index_1$, $Index_3$, $Index_4$, $Index_6$ and $Index_8$ shows a positive impact on Gross Income whereas $Index_2$ and $Index_5$ show negative impacts on gross income.

To summarize, only Index 1, Index 4 and Index 5 are significant at 5 percent significant level, thus, influencing factor the indigenous entrepreneur's income. The remaining indexes are not significant

From the table, the coefficient for Index 1 is 0.254 thus by holding all other independent variables constant, when the Facilities & Communication Ability increases by 1 unit, the Gross Income will increase by 25.4 percent. The positive relationship between Gross Income and Facilities & Communication Ability shows that when the Facilities & Communication Ability increases, Gross Income will increase, while, when Facilities & Communication Ability decreases, Gross Income is decreases(vice versa).

The positive relationship between Gross Income and Product Contribution shows that when the Product Contribution increases by a unit, Gross Income will increase by 16 percent. Meanwhile, the coefficient for Index 5 is -0.139 indicating the Gross Income will decrease by 13.9 percent with the increase of a unit of Government's Aids. The negative relationship between Gross Income and Government's Help shows that when the Government's Help increases, Gross Income will decrease. Interestingly, the study hypothesize a positive relationship yet, the result is contradict. Factors that might lead to such scenario might due

to the misused of the government aids, particularly in terms of monetary for personal purposes and lacking of conscience in utilizing the assistance appropriately. The study also indicates that lack of proper financial management might lead to the negative results between income and government assistance.

Conclusion

Tourism provides an opportunity of economic gains for indigenous communities. This study was set out to explore the relationship between indigenous entrepreneur and ecotourism. It was also sought to know the factors that influence the indigenous people become to become an entrepreneur. From this study, it shows that there are 82.89 percent from the respondents aware about the importance of the ecotourism. The factors that influenced them to become an entrepreneur are their own interest, potential of business contribution to family's income, as a hobby, they can't find other suitable job, awareness of business contribution to residents and tourist, inherited family business, friends affluence, and awareness of potential business contribution to people surrounding the business area and other factors. Facilities & communication ability, product contribution and government's help are significant, while the rest are not influencing the gross income of indigenous entrepreneurs.

Based on the respondents, the interest to do business is the most significant factor in influencing them to become an entrepreneur. It needs a high self confidence to run a business due to many risks that they may faced despite lacking of formal training and exposure. Yet, support from government as well as NGO's may help those entrepreneurs with the establishment financial management center to guide them in solving their financial problem and assist them to manage their capital properly. Continues monitoring and guidance on the development and progress of the entrepreneurs is crucial to enable them in identifying the present problems from time to time. Lastly, and most importantly, mass media could play a significant role in promoting the ecotourism products. Thus, advertisements that promote the ecotourism products are strongly suggested to introduce the existence of the indigenous product which usually represents their particular ethnic. Clearly from the study, the social media need to be acknowledged on the importance of this exposure, and thus disseminate the information aggressively. Plus, the creativity of indigenous people in making their unique product such as *sumpit*, *rattan mat* and musical instruments can be commercialize by helping them to sell it in common market. This can be done by collecting all the products from remote area and market it to tourism spot area and establishing a centre in promoting their ethnicity, skills and thus their products. Overall. the government should emphasize on the importance of the existence of these indigenous groups and its heritage for it is the root of one's culture and identity. Moreover, to be distinguished is thus to be different from others.

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