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FACULTY OF BUSINESS MANAGEMENT, UiTM MELAKA

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Analysis Of Factors Contributing To The Poverty Of The Orang Asli : A Multinomial Logit Model

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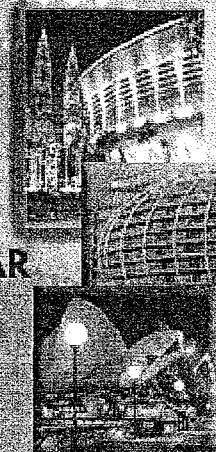
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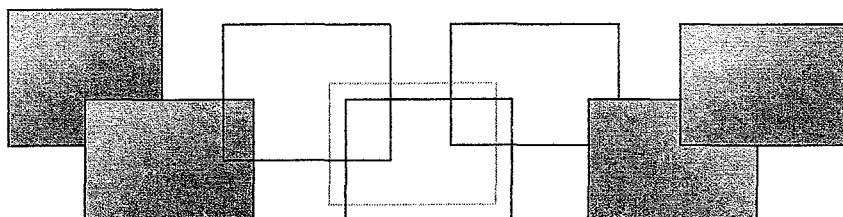
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By
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ANALYSIS OF FACTORS CONTRIBUTING TO THE POVERTY OF THE ORANG ASLI : A MULTINOMIAL LOGIT MODEL

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Hj A.Gani Osman ²

ABSTRACT

Poverty among the Orang Asli is a serious matter. The 1999 poverty level of the Orang Asli as reported in the Eighth Malaysia Plan is 50.9%. This means that one out of every two Orang Asli is poor. This level is significantly higher compared to the national level of 8.1%. This paper intends to study the factors that have contributed to poverty of the Orang Asli and subsequently analyse them. For this purpose nine Orang Asli settlements in Perak are visited. The settlements involved are in remote, rural and urban areas. The study reveals that the poverty level in the settlements studied is 54.0%. There are six factors that have contributed to this: classification of areas, age of household heads, size of households, education levels of household heads, types of employment and gender. The research concludes that all the six factors have contributed significantly to the poverty of the Orang Asli.

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INTRODUCTION

This paper attempts to study in general and subsequently analyse the factors that have contributed to the poverty of the Orang Asli. However, before the factors are discussed in great detail, the general background of the Orang Asli and the conditions of their poverty will first be reviewed. This to provide a better understanding of the Orang Asli communities.

BACKGROUND OF THE ORANG ASLI

The term "Orang Asli" refers to an ethnic group which is the first inhabitants of Malaysia. This is a Malay term with an English equivalent "aborigines." For the reason that the word aborigines bears a negative undertone of backwardness, undeveloped and primitive, the Malaysian government, since the setting up of the Jabatan Hal Ehwal Orang Asli in 1954, has institutionalized the term "Orang Asli" to refer to this group of people (Carey 1976). During the colonial English government period, these people were referred to as "Sakai". "Sakai" is a Malay word which means slave (Kim 1984). This word also means "a group of dirty primitive people who are backward and living in the depth of the jungle" (Shamsul Amri 1978). The term "Sakai" is not well accepted by the Orang Asli because of its negative connotation (Hunt 1952). Other than that, the Orang Asli are also referred to as "Orang Darat" and also "Saudara Lama."

TRIBES AND ETHNIC GROUPS OF THE ORANG ASLI

The Orang Asli in Peninsular Malaysia are not a homogenous society. Each tribe has its own language, traditional values, world outlook and history. Anthropologists have categorized the Orang Asli into three principal groups: the Negrito, Senoi and Proto Malays (Hunt 1952). These groups can be subdivided into eighteen smaller ethnic groups (Diagram 1). These groupings were made based on the following details: physical appearance, language, culture, traditional practices and to some extent to their economic roles. On the other hand, ethnologists would group the Orang Asli according to their traditional lifestyles. Negritos are nomadic, while the Senoi and the Proto Malays are farmers (Dentan 1968).

DISTRIBUTION OF THE ORANG ASLI

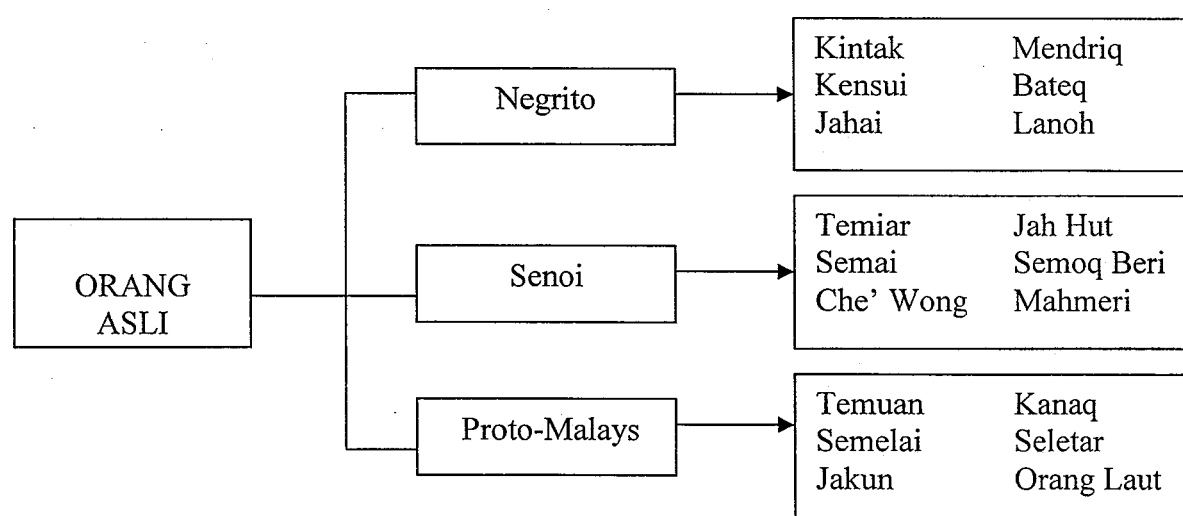
The Orang Asli are sparsely distributed in all the states of Peninsular Malaysia except Perlis and Penang. The Senoi are found in Perak, Kelantan and Pahang, the Negritos in Kedah, Perak, Pahang, Kelantan and Terengganu whereas the Proto Malays are mainly found in the southern states of Pahang, Selangor, Negeri Sembilan and Melaka (Table 1).

TABLE 1: Distribution of Orang Asli Population by State and Group 2003

States	Negrito	Senoi	Proto-Malays	Total
Pahang	657	22,609	31,027	54,293
Perak	2,131	45,093	363	47,587
Kedah	232	-	-	232
Selangor	-	3,758	10,403	14,161
Kelantan	953	9,701	-	10,654
Terangganu	28	640	-	668
N.Sembilan	-	-	7,624	7,624
Melaka	-	23	1,228	1,251
Johore	-	2	10,940	10,942
Total	4,001	81,826	61,585	147,412

Source: JHEOA

Diagram 1: Principal Tribal Groups and Ethnicity of the Orang Asli in Peninsular Malaysia



Source: Statistical Department Malaysia 1999

THE POVERTY CONDITIONS OF THE ORANG ASLI

Poverty among the Orang Asli is a serious matter. The 1999 poverty level of the Orang Asli is 50.9% and the hardcore poor level is 15.4%. The poverty and the hardcore poverty levels of the Orang Asli are significantly higher than the 1999 national levels of 7.5% and 1.4% respectively (Eight Malaysia Plan). This can also be explained by comparing it with the average monthly income of all the ethnic groups in the nation. The official figure released by the government shows that the average monthly income of the Orang Asli for the year 1999 is RM666.00. This figure is significantly lower than average of all the other

ethnic groups (refer to Table 2). This proves that the Orang Asli are experiencing the most acute poverty problem. The majority of them are poor. They are, comparatively, even poorer than the poor.

TABLE 3: Comparison of Average Monthly Income between
The Orang Asli and Other Ethnic Groups
In Malaysia (1999)

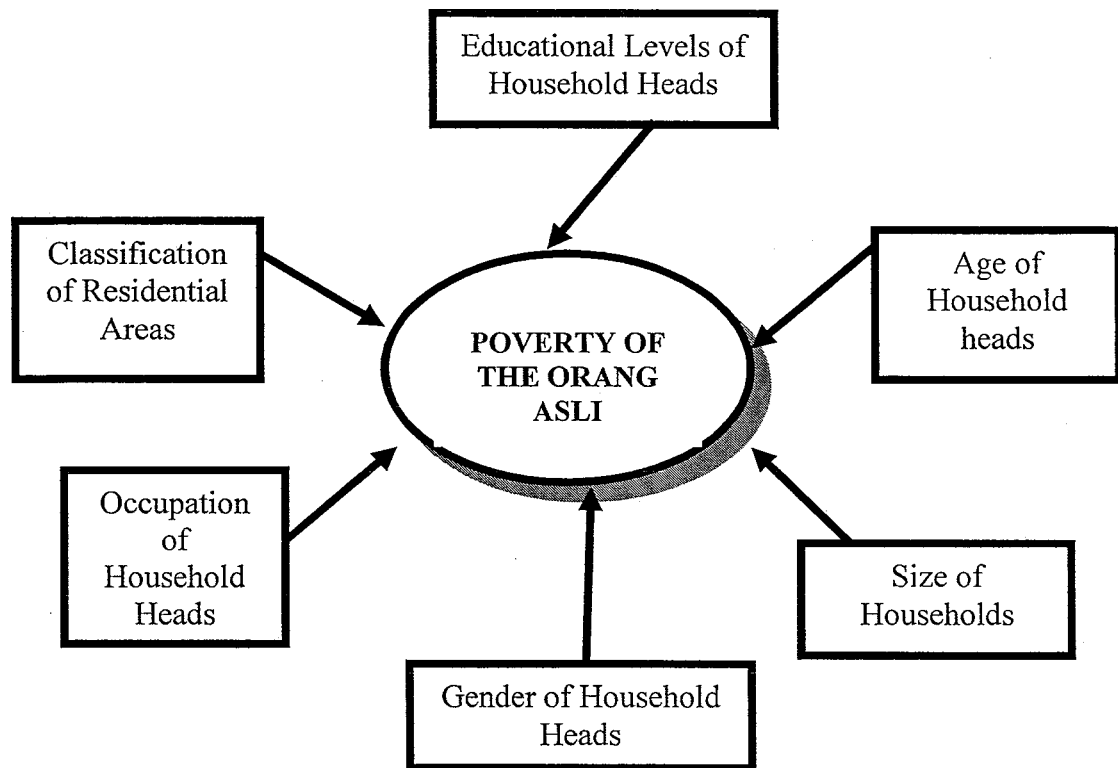
Ethnic Groups	Average Monthly Income (RM)
Orang Asli	666.00
Chinese	3456.00
Indians	2702.00
Bumiputera	1984.00
Others	1371.00
Malaysians	2472.00

Source: Malaysia Statistical Department 1999

POVERTY FACTORS AND CONCEPTUAL FRAMEWORK

The poverty factors that will be analysed in this research are residential areas, types of occupation, educational levels of household heads, gender of household heads, age of household heads, and number of family members. These are the factors that have been identified in research on poverty. The conceptual framework of factors affecting the poverty of the Orang Asli is based on the above factors.

TABLE 2: Conceptual Framework of Factors Affecting Poverty of Orang Asli



METHODOLOGY

The research was initiated in 2004 and completed in 2006. It involves interviewing two hundred and two respondents from nine Orang Asli settlements in the state of Perak. The settlements chosen are situated in the remote, rural and urban areas. A proportional-random sampling method is used where each Orang Asli individual from each of the nine settlements has the same probability to be chosen as a respondent. The number of samples is proportional to the population of each settlement. By using this method the samples chosen would represent the target population.

The size of the sample is in ratio of 0.3 to the total population. With the cooperation of the JHEOA 202 respondents are accessible. This figure is significantly bigger than the actual size (please refer to Table 4). For the purpose of analysing the relationship between the poverty of the Orang Asli and the factors contributing to it a logit model is used.

TABLE 4: Research Area and Sample Size

Research Areas	Classification of Areas	Number of Respondents	Actual Sample Size	Achievement (%)
Kg Sg Banun	Remote	17	6	283.3
Kg Sg Raba	Remote	21	7	300.0
Kg Sg Kejar	Remote	12	6	200.0
Kg Tumboh Hangat	Rural	29	16	181.3
Kg Gedung Batu	Rural	20	8	250.0
Kg Sg Perah	Rural	30	30	100.0
Kg Suak Padi	Rural	26	14	185.7
Kg Batu Berangkai	Urban	22	17	129.4
PGA Bidor	Urban	25	50	50.0
Total		202	54	131.2

Source: Mohd Fauzi 2006

MULTINOMIAL LOGIT MODEL

For the purpose of analysing the relationship between the poverty of the Orang Asli and the factors contributing to it the following multinomial logit model is used:

$$Y_i = b_0 + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6 + e$$

based on the following:-

Y_i	dummy variable with value of "1" (poor) if household income is less than RM529.00 and value of "0" (not poor) if household income is more than RM529.00
X_1	size of household
X_2	age of household heads
X_3	dummy variable with value of "1" if household head is a male and "0" if household head is a female
X_4	dummy variable with value of "1" if respondent is illiterate and "0" if respondent used to go to school
X_5	dummy variable with value of "1" if respondent is self employed and "0" if respondent is a wage earner
X_6	dummy variable with value of "1" if settlement area is remote and "0" if area is either urban or rural
$b_0, \dots, b_6$	coefficient
e	random variable

RESEARCH RESULT

The research concludes that the poverty rate of the Orang Asli in the settlements studied is 54.0%. The research also construes that all the six variables studied are statistically significant in clarifying poverty of the Orang Asli (Please refer to Table 5).

TABLE 5: Results of Multinomial Logit Model Analyses of Poverty of Orang Asli with Contributing Factors

	B	S.E	df	Sig	Exp(B)
Constant	6.447	1.457	1	0.000	630.810
Occupation	1.165	0.449	1	0.010	3.204
Areas	2.793	0.860	1	0.001	16.323
Household head Gender	-1.375	0.708	1	0.052	0.253
Education	2.518	0.679	1	0.000	12.399
Age of Household Heads	-0.122	0.026	1	0.000	0.885
Size of Family	-0.363	0.130	1	0.005	0.696

Nagelkerke R Square = 0.585

Source: Mohd Fauzi 2006

Research result also shows that regressive value of factors on settlement locations, education and types of occupation are positive whereas the values for gender and age of household heads and family size are negative. The positive regressive value for occupation means that Orang Asli who are self-employed are more vulnerable to poverty than those who are wage-earners. The positive regressive value for settlement locations means that an Orang Asli from the remote areas has a higher possibility to be poor than someone from the rural or urban areas.

In addition, the positive regressive value for education means that Orang Asli who are illiterate have actually contributed adversely to their own poverty as compared to those who have received education. On the other hand, negative regressive value for gender indicates that female household heads play a higher role in contributing to the poverty than do male household heads. On factor pertaining to age, the negative regressive value implies that younger household heads contribute more the poverty of the Orang Asli compared to the older ones. Finally, the negative regressive value for the factor on family size suggests that the smaller the size of a family the more it contributes to the poverty. On the whole, the factors identified have been able to explain 58.5% of the poverty of the Orang Asli.

The research reveals that the Orang Asli living in the remote areas have actually contributed to their own poverty. This is supported by the findings that show that 96.0% of Orang Asli who live in remote areas are poor as compared to 56.2% living in the rural areas and 4.3% living in urban areas. In relation to education, the study discloses that

86.0% of Orang Asli who never go to school are poor as compared to 56.8% of those who go to primary school and only 10.4% who receive secondary education. In terms of occupation 70.5% of the Orang Asli who are self-employed are poor whereas only 32.2% for those who work for others.

The research also discovers that female household heads contribute significantly to the poverty of the Orang Asli. The finding which supports this conclusion is the fact that 64.7% of the Orang Asli female household heads are poor as compared to 53.0% of male household heads. In addition, it is proven that young household heads would also contribute significantly to this situation. Findings show that all household heads who are twenty to twenty-five years of age are poor. Poverty level of household heads of 26 to 30 years of age is 82.7% and that of 31 to 35 years old is 60.7%. Poverty rate decreases inversely with the age of the household heads. However, rate increases when the household heads reach 60 years old and above. (Please refer to TABLE 6).

TABLE 6: Poverty Levels of Orang Asli Household Heads According to Age Category

Age of Household Heads	Poverty Level (%)
20 to 25 Years Old	100.0
26 to 30 Years Old	82.7
31 to 35 Years Old	60.7
36 to 40 Years Old	54.3
41 to 45 Years Old	37.5
46 to 50 Years Old	20.8
51 to 55 Years Old	14.3
56 to a 60 Years Old	37.5
More than 60 Years Old	64.7

Source: Mohd Fauzi 2006

Finally, it was found that family size also contributes to the level of poverty of the Orang Asli. Findings show that a family with a size of one to three members has a poverty level of 72.0% and this level decreases proportionally with the number of family members (Please refer to Table 7).

TABLE 7: Poverty Level of Orang Asli Household Heads
According to Family Size

Size of Family	Poverty Level (%)
1 to 3 persons	72.0
4 to 6 persons	50.4
7 to 9 persons	39.0
More than 9 persons	50.0

Source : Mohd Fauzi 2006

CONCLUSION

This research has clarified that all the six factors discussed are significant in contributing to the poverty of the Orang Asli. The findings also show that the location of the Orang Asli settlements in remote areas, their illiteracy, their conditions in terms of being self employed, female household heads, young household heads, and size of houses have all contributed to the poverty of the Orang Asli. In conclusion, it is necessary that the government look into these factors first in its effort to eradicate poverty of the Orang Asli.

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