FACTORS THAT INFLUENCE HAPPINESS IN SABAH

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ABSTRACT

The ultimate goal in economics of happiness is to improve the living conditions of people in their everyday life. Thus, it is very important to know that how happiness can be influenced by the circumstances of lives and societies. The study involves 250 respondents chosen based on two stage cluster sampling method. Initially 30 respondents were questioned for pilot study. The dependent variable in this study is happiness in Sabah which is measured by the Happiness Index meanwhile the independent variables are family relationship, financial situation, work, community and friends, health and public policy. The study will be initially analyzed using a descriptive study to describe the profile of the respondents as well as the score values (mean, standard deviation) of the respondent. This will be followed by the Factor Analysis Test as well as the Reliability Test. Finally, a Multiple Regression Test will be conducted to prove the hypothesis. The validity of model will be further tested using Normality Test and Multicollinearity test.

Keywords: economic of happiness, happiness, family relationship, financial situation, work, community and friends, health, public policy

1.1 Introduction

The term economics comes from the Ancient Greek that means household management. It explains how human allocated resources that are limited to fulfill unlimited human wants. Unlimited human want can create dissatisfaction or unhappiness but if human able to manage the resources well, it can create happiness or satisfaction. The ultimate goal of economics is to improve the living conditions of people in their everyday life. When living conditions improve quality of life will increase their leading to happiness.

There are many ways to measure quality of life. GDP is one of the standard indicators used. But unfortunately, GDP is found to be a weak indicator. As the world moves into globalization, other factors should also be included as a more reliable factor. The factors like population, leisure hours, inflation rate, unemployment and so on. Praag and Carbonell (2011) claims that these macroeconomic variables are more towards forecasting and can be used as an indicator whether the economy is healthy in a nation. Economist suggest that an individual needs to balance his or her life. This is supporting by the study conducted by Jeffrey Sachs (2012). To obtain a balance in life, other factors like social support, personal freedom, effectiveness of public policy, safety, spirituality, mental well-being, family relationship, work environment, health, community and friends should be included to determine the quality of life that gives the happiness. In short, happiness should complement income (GDP).
Of late, there has come into life a branch of happiness economics and it is this field that will be our concern. Actually, not only economists are interested in quantifications of happiness but also researchers in other disciplines. According to Graham (2008), happiness economics can be described as quantitative and theoretical study, positive and negative affect, well-being, quality of life, life satisfaction and related concepts, typically combining economics with other fields such as psychology and sociology. A study of happiness comes under behavioural economic. Happiness economics represent one new direction that combines utility and welfare. In the 20th century, it was impossible to measure happiness empirically. Praag and Carbonell (2011) claims that with glowing number in the body of economics, happiness is quantifiable. It is not a replacement for income but it express preference. This is strongly supported by Veenhoven (1993) that it is now possible to approximate individual utility in a satisfactory way using representative surveys with the help of single question or several questions. These can be used as an indication of individuals evaluation of their life satisfaction or happiness. Behind the scores indicates a person's judgement to what extent their general quality of life is judged in a appreciative way. Veehoven (1993) claims that the measurement is consistent and reliable.

1.2 Problem Statement

In Malaysia, people are provided with basic need such as food, shelter and comfort. It is harmonious country with no war. Survival is not an issue. An economic growth rate between 3 to 4% annually. With the New Transformation Economics programme, it is believed to convert Malaysia into a high income country by 2020. However, World Happiness Report 2016 reported that Malaysia is currently experiencing a decline in happiness from 2010 to 2014 which makes our country fall from the 56th place to the 61st place out of 158 countries. Helliwell, Layard and Sachs (2016) claims that this is due to our nations rapid development that focus on material well being. This progress has lead to imbalance in both material and spiritual life. The researchers also claim that material well being does not guarantee happiness.

Jeffrey Sachs (2012) claims that a nation needs strength of social support, personal freedom and absence in corruption to be happy. This is supported by the report from Global Corruption Barometer (2013). The report revealed that households in Malaysia perceive lack of accountability by the government. Study by Kilpatrick (2000) also revealed that public policy is aimed to resolved public problem not to create social unrest.

Moreover as Malaysia is entering into the arena of globalization by joining trade agreements, it can create single markets controlled by the transnational companies. This companies will be influencing the government, dictate economic policy and change people world view. It can also force social unrest in the country, low wages and neglect the ecosystem. Globalization also encourages discrimination that eventually causes crime to increases. Malaysia Crime and Safety Report (2015) reported that increasing number of crime and Assault in Malaysia.

In addition, according to Helena Norberg-Hodge (2010), younger generation are now exposed to consumer culture and start discriminating their own culture. Lack of spirituality practices has lead these youths not to feel grateful. They become too materialistic, they have trouble to sustain relationship which causes stress and unhappiness. Eventually, it has led to depression and mental illness. This is confirmed by the national survey conducted by Ng Chong Guan (2014) that shows 8 to 12% of Malaysian citizen in Malaysia has depression.

Thus, this study aims to identify the factors that influence happiness in Sabah. The study chooses Sabah as the scope because it is a state with the 2nd largest poverty rate, with its own tradition, culture and biodiversity. Several measures to increase the standard of living among the Sabahans. Doubt arises that
whether Sabahans are happy due to the government policies introduced by the government to sustain their economic well-being or they are rich in their tradition and culture, that family relationship, health, community and friends and working environment creates happiness for them.

1.3 Research Questions

The overall research question of their study is as follows:
What are the factors that influence the happiness in Sabah?

The specific research questions of this study are as follows:
1.3.1 Does family and relationship influence the happiness in Sabah?
1.3.2 Does financial situation influence the happiness in Sabah?
1.3.3 Does work influence the happiness in Sabah?
1.3.4 Does community and friends influence the happiness in Sabah?
1.3.5 Does health influence the happiness in Sabah?
1.3.6 Does public policy influence the happiness in Sabah?

1.4 Research Objectives

The overall objective of this study was to identify the factors that influence Happiness in Sabah. The specific objectives were as follows:

1.4.1 To identify whether family relationship influences the happiness in Sabah.
1.4.2 Does financial situation influence the happiness in Sabah.
1.4.3 Does work influence the happiness in Sabah.
1.4.4 Does community and friends influence the happiness in Sabah.
1.4.5 Does health influence the happiness in Sabah.
1.4.6 To measure whether public policy can influence the happiness in Sabah.

1.5 Scope of Study

This research aims to analyze the factors that influence the happiness in Sabah society. According to Sabah State Government (2016), Sabah's population is made up 33 indigenous groups and the Chinese comprise the main non-indigenous group of the population. Besides that, the economy activity of Sabah were mainly based on agriculture, forestry, manufacturing and petroleum. Aside from that, the tertiary sector such as tourism and services were growing vastly, and it was rapidly becoming the main source of economy in Sabah. However, petroleum, palm oil and cocoa still as the three of the most exported commodities from the state. Department of Statistics Malaysia (2014) reported that Sabah GDP shared by Services (40.9%), Agriculture (25.3%), Mining & Quarrying (21.8%), Manufacturing (8.6%), and Construction (3.1%).

Before 2000, Sabah's GDP being the third richest after Selangor and Kuala Lumpur because of its rapid development on primary sector. However, by 2000, Sabah started to become the poorest state comparing to those secondary sector producer states because dependent solely on natural resources as its main source of income. Thus, to increase Sabah GDP, Sabah Development Corridor (SDC) was established in 2008 to develop its infrastructures and target to eradicate poverty. Recently, Sabah experienced a slower growth due to disappointing performance on the old and gas sector but its GDP still contributed 6.5% percents to the national economic followed by Selangor (22.4%), WP Kuala Lumpur (15.1%), Sarawak (10.1%), and Johor (9.3%). The reason Sabah was chosen in this study because it appeared to be one of the states that still preserve its own tradition, cultures, and commodities in Malaysia. However, federal government
continues to promote globalization in Sabah to boost its GDP by bringing in a lot of big corporate companies that aim to maximize profit as a sign of globalization. Nevertheless, the GDP of Sabah is increasing but does it mean the happiness among the Sabahan is increasing too?

The data that used in this study were collected using a two-stage cluster sampling of citizens in Sabah. Sabah is located in Malaysia's Eastern most part which is separated from the Malaysian Peninsula states and it is also known as the second largest state in Malaysia. Sabah consists of five governmental divisions, which were in turn divided into twenty-five districts as shown below:

<table>
<thead>
<tr>
<th>Division Name</th>
<th>Districts</th>
</tr>
</thead>
<tbody>
<tr>
<td>West Coast Division</td>
<td>Kota Belud, Kota Kinabalu, Papar, Penampang, Putatan, Ranau, Tuaran</td>
</tr>
<tr>
<td>Interior Division</td>
<td>Beaufort, Nabawan, Keningau, Kuala Penyu, Sipitang, Tambunan, Tenom</td>
</tr>
<tr>
<td>Kudat Division</td>
<td>Kota Marudu, Kudat, Pitas</td>
</tr>
<tr>
<td>Sandakan Division</td>
<td>Beluran, Kinabatangan, Sandakan, Tongod</td>
</tr>
<tr>
<td>Tawau Division</td>
<td>Kunak, Lahad Datu, Semporna, Tawau</td>
</tr>
</tbody>
</table>

Sources: General Books LLC (2010)

The study uses happiness as its dependent variable. Happiness was calculated using the Happiness Index designed by Happiness Alliance in 2015. The independent variables chosen in this study are family relationship, financial situation, work, community and friends, health and public policy. Questionnaire adopted and modified from Happiness Alliance was used as an instrument tool. A five point Likert Scale was used to measure the response of the respondent. 5 refers to very satisfied, 4 as satisfied, 3 refers to neither satisfied nor dissatisfied, 2 as dissatisfied and 1 as very dissatisfied. Around 500 questionnaire was distributed only 385 was returned representing 77% of the total questionnaire distributed.

1.6 Significance of Study

In this study, it is significance to know that how happiness and well-being are influenced by the circumstances of lives and societies. A low happiness score does not necessarily mean peoples are unhappy but could mean there is imbalance in their life and indicate peoples may need to pay more attention to that particular aspect of their personal wellbeing.

Aside from deepening peoples understanding of happiness, it is very useful for government of Malaysia to increase GNH by tracking changes of GNH over time. In general, there are two mechanisms by which public policy action can be directed so as to increase GNH. For example, it can either increase percentage of people who are happy or increase the percentage of domains in which not yet happy people enjoy sufficiency.

Eventually, the government can implement policy to help who are not-yet-happy and look at the areas where peoples lack sufficiency. By doing this, it can reduce the discrimination in Malaysia and reduce the effects of social comparison which resulting in a rat race approach to income gains and to work, the most immediate consequence will be reducing of happiness. Policies that only aim to raise economic growth may not be very effective and give fairly little value. Government should highly value happiness and implement the effective policies to improve the well-being of the nation in Malaysia.
2.0 Literature Review

2.1 Measuring happiness in economics

According to Stone et al. (1999), happiness is a subjective matter that measures the well-being of an individual or a community, even a nation. Researchers have used single or multi-item survey questions to measure one's satisfaction. The emotional aspects are measured based on moment to moment affect. In psychology, information on individuals' actual experience in real time in the natural environment was conducted. But recently, a new approach was developed combining economics and psychology known as Day Reconstruction Method (DRM). Respondents will be asked to reflect what they felt the episodes they went through the previous day. Compared to the life satisfaction method, DRM can give description of the respondents' emotional state and well-being.

Question arises, can happiness be related to welfare? Before the term welfare is explained in detail, assumptions need to be made that an individual will pursue his or her ideal of a good life. When individual judges his or her life, it can be used as a proxy for individual welfare. Kelman (2005) stresses that whether a person has a good or a bad life must be based on a standard and stable evaluation to produce consistency. This is because some individual will look at life from a distance or future outlook. They have a positive outlook in life. Every experience is looked at positively. In contrast, there are individuals who look has moment to moment outlook in life. Thus the distant outlook should be measured life's happiness based on reflection but as for the moment to moment outlook individuals, DRM would be the most appropriate approach.

2.2 Theory of happiness

In the early 1970s, Richard Easterlin (2004) was the first modern economist to revisit the concept of happiness. A better theory of happiness proved that social comparison and adaption influences utility less in the non-monetary than monetary domain. Individuals tend to allocate an excessive amount of time to earn money and overpass non-monetary domain such as health and family life, causing unhappiness. Easterlin (2007) supported the view by claiming happiness will create well-being. Well-being relied on real-life circumstances. Real-life circumstance can be defined as variables in the empirical studies done on happiness in economics. The real-life circumstances variables are income, job, health, marital status, and so on.

The word happiness is synonymous to quantify of life or welfare. Aristotle 2300 years ago indicates that a person will be happy when he reaches his goal. This supports the Nicomachean Ethics Theory. In contrast, Bremner (2011) claims that there are two theories, life-satisfaction and desire-satisfaction. Life satisfaction supports Aristotle's view that when one fulfills their life's goal, they will be happy. Desire satisfaction theory stresses that a person will be happy when one fulfills their desire. But there were arguments that when one fulfills theirs desire, it brought them more dissatisfaction.

Seligman and Royzman (2003) introduced three traditional theories, hedonisms desire and objective list. Hedonism means pleasure. Happiness can only be attained when we maximize pleasure and minimize pain. Desire focuses on what we want and getting it. Similar with desire, Objective list will list out all the targets one wants to achieve and when they fulfill it, happiness is attained.

Layard (2005) way of looking into happiness is to have a meaningful life compared to living from one pleasure to the next. He estimated happiness by looking into meaningful life from different aspects like family relationship, financial situation, work, community and friends, health, personal freedom and personal values.
In 2006, Veenhoven (2006) came up with three theories, set-point, comparison and affect. Set-point theory evaluates what is people's attitude about life, comparison theory deals with the comparison on how life actually is and what it ought to be. Finally, affect theory provides consideration of how one feels usually. This is supported by Suikkanen (2011) when he adopted the Cognitive Whole Life Satisfaction (CWLS) theory which uses the same concept.

Hyman (2011) stressed that happiness can differ or change overtime, history and culture. This is because in his study some respondents claim happiness is natural that come from body and therefore social. But negative feelings can also be changed to positive feelings through drugs, anti-depressant medicine, drugs and alcohol. This is momentary. This only take a short time period. Finally in his study, the respondents confirmed that increased consumerism, various life style choices and breakdown of normative framework are the main factors that transform the idea of happiness. Oishi, Granham, Kesebir and Galinha (2013) supports the idea of Hyman (2011) that happiness differ based on history and culture. Their study on 30 countries, 24 nations confirms that happiness is related to good luck and fortune.

In this study, it can be concluded that achieving a fulfill life and a meaningful life, similar with the concept introduced by family relationship, financial situation, work, community, friends, personal values, personal freedom and heath. This definition was extracted from Layard (2005). Based on the theories mentioned above, non of the theory discussed spiritual as their variables. Spiritual beliefs can form personal values that was only highlighted by Layard (2005).

2.3 Determinants of happiness in economics

Most of the research to identify what are the drivers of happiness in economics. These drivers differ based on history and the culture of the country. Up to date, following are the factors or drivers that lead to happiness in economics:

a) Income

Among the most prominent factors, purchasing power is the most important factor in economics of happiness research. There are many proxy used as an indicator for purchasing power. The most famous is income. This is supported by the study conducted by Gerdtham and (1997). Income of individuals was found to be statistically significant in explaining the changes in the economics for happiness. Study by Bruno and Alois (2002) also confirms that the higher the level of income, the higher the level of happiness. This study was conducted in high income countries. The researcher also included inflation. When inflation increases, it reduced purchasing power. Thus the lower income group will be engaged in higher income generating activities compared to the rich. Therefore it reduces happiness. Easterline (2010) found a causal effect between income and happiness. But issue arises when limited data does not allow consistency in the observation. Thus sample selection is important. In US, there is no correlation between income and happiness in the long run.

In contrast the traditional economics view argue whether GDP is a good indicator to measure purchasing power or income or even welfare. Public expenditure should be a better proxy for income or welfare that could lead to happiness.
b) Employment

Employment shows or reflects economic security. Gerdtham and Johannesson (1997) used unemployment to represent the socio-economic variables. This is because employment creates positive externalities like job satisfaction and income. But unemployment can increase the number of suicides which creates negative externalities. Positive externalities supports happiness but negative externalities provides unhappiness. This is supported by the study conducted by Luechinger et al. (2010), unemployment can create negative externality because it induces negative anticipatory feelings of angst and stress due to economic insecurity. Data from 12 European countries between 1975 and 1992, states that aggregate unemployment decreases average life satisfaction and average income. Di Tella et al. (2003) distinguishes effect of unemployment to direct and indirect. Direct effects of unemployment is crime and public finance, changes in working hours and salaries but indirectly reports job insecurity. The findings support the moment to moment outlook theory.

c) Social capital

In order to put the determinant of economic happiness into perspective, the study of alternative sources are also important. Happiness depends on personal relationships like relationship with family, friends, work mates, fellow community, religion based community (spiritual). If the relationship with these people are good, we can achieve the highest level of happiness. Easterlin (2004) also stresses economic theory supports that non-monetary variables like material living level, family circumstances and life cycle of a family influences happiness. The findings were also supported by Layard (2005), Michael (2006), Landiyanto, Ling, Puspitasari, and Irianti (2011) and Campante and Drott (2014).

d) Health

Van Praag and Carbonell (2011) suggested a new road to measuring and comparing happiness. The new road includes health condition. Easterlin (2004) also supports that health condition has a long lasting effect. Money does not guarantee happiness. The author suggested that most people who devote most of their time making money should devote less time in making money and focus on more to non-pecuniary goals. In Indonesia, Landiyanto, Ling, Puspitasari, and Irianti (2011) put more attention to health and found it to be significant in influencing happiness.

e) Other factors

Veenhoven (2012) investigated the impact of social development conducive to happiness within 1990 and 2010. Social development leads to happiness compared to economic development. The researcher did an analysis on 141 contemporary nations using 5 Indices of social development which is civic activism, involvement voluntary associations, harmony among group, individuals and gender equality. The result revealed that social development did not influence happiness.

In addition, there were researchers who claimed that climate change and suitable policies can increase economic and social cost. This was proven when a study was conducted in Bulgaria and Barcelona. Emission of carbon dioxide that affects the greenhouse has insignificant effect to happiness. Researchers like Sujarwoto (2013) argues that economic system also influences happiness because it reflects capacity and accountability. Sujarwoto (2013) uses multi level analysis to examine the impact of local government revealed that citizens are more happy with local government that able to provide better public goods and services for them. They are not happy in the face of local corruption and weak capacity to govern.
2.5 Valuation approach on economic of happiness

The study on economics of happiness is a quantitative study that combines the field of psychology and economics. It can also be related to other fields like sociology, health and so on. Since the 20th century, development of various methods, survey and indices has been a challenge to the economic profession to measure happiness. Happiness is a subjective subject. It can be classified as welfare that covers equity, justice, inequality and so on. In contrast, it can look into living standards and quality of life.

Happiness is a subjective measure, self reporting but the reliability and accuracy is a questionable. It can also be measured objectively using life span, income and education. But question arises, whether if income, lifespan and education level increases, will it increase the level of happiness. It may not be the case.

The idea of happiness is not new. Many researchers wanted to include or incorporate happiness in their work. Thomas Jefferson claims that pursuit for happiness must be in line with life and liberty. Jeremy Bentham shows that public policy is accountable for happiness. In 1972, Gross National Happiness focused in increasing the citizen's happiness in Bhutan. But the quantitative measures used was not very clear. In 2005, Med Jones improved the Gross National Happiness and changed its name to Gross National Well-Being. Gross National Well-Being uses measured based on the socio economic development characteristics. In 2006, the Genuine Progress Index included the environmental cost. Another development index was uses the Human Development Index that covers health (life expectancy), literacy rate and standard of living. To overcome the criticism in this index, Hou, Walsh and Zhang (2015) improvised Human Development Index to Human Development Index Flow which made the following changes. Life expectancy was replaced with mortality, literacy with enrolment in school.

In 2009, the Gallup poll system launched a happiness scale in a national survey. The Well-Being Index score at six subsections that include life evaluation, emotional health, work environment, physical health, healthy behavior and access to basic necessities.

At 2010, the nation of Bhutan further extended four contributors to eight contributors and renamed it Bhutan GNH Index. Similarly in 2010, the Oxford Poverty and Human Development Initiative (OPHI) promotes the collection and analysis of data based on 5 criteria, quality of work, empowerment, physical safety, ability to go without shame and psychological well-being.

In 2011, various Indices were formed, happiness towards a holistic approach to development by UN, Better Life Index by OECD, World Happiness Report by UN, and Canadian Index of Well-being by Canada also with similar factors. Only in 2013, a new dimension on how people communicate was included to measure well-being. Finally in 2004, public's contentment and satisfaction with different government service was included by the Dubai government.

Microeconomic happiness equation have the standard form $W_{it} = \alpha + \beta x_{it} + e_{it}$. $W$ reports well-being of individual $i$ at time $t$. $X$ is the know vector variables and $e$ is the other factors not included in the study. Happiness or satisfaction in life is immeasurable in classical and neo classical theory. Van Praag was the first to do a large scale survey. Income Evaluation Question was used.
3.0 Methodology

3.1 Research Framework

Figure 3.1: The Theoretical Framework

The research framework was adopted from Layard, R. (2005) idea which stated that the seven main factors that affect happiness were family relationships, financial situation, work, community and friends, health, personal freedom and personal values. Personal freedom and personal values were seen as important, but draw out from this study because it was difficult to be valued due to lack of survey evidence. However, government policy was added in this study because there was some evidence that showed quality of politics can affect happiness level.

3.2 Sample Design

This respondents in this research were chosen based on probability sampling using two-stage cluster sampling method because it deals with large population from different areas and it was too costly for researcher to spread a sample across the population as a whole. By choosing two-stage cluster sampling technique, the researcher was able to divide the population into groups, reduce expenditure and at the same time control the uncertainty related to estimation of interest. It was a probability sampling technique because the samples that were assembled from the population were collected in a process that gave all the individuals in the population equal chances of being selected. The alternative use of probability sampling was not considered to eliminate both systematic and sampling bias.

Besides that, if two-stage cluster sampling was conducted properly, the sample was represents of the entire population. Therefore, using two-stage cluster sampling means dividing the population into groups or clusters in the first stage. Then, it involves the selection of participants from the groups or clusters to take the happiness survey, based on the principle of randomization or chance.

The data that was used in this study were collected from the citizens or households who come from different areas in Sabah such as Beaufort, Beluran, Keningau, Kinabatangan, Kota Belud, Kota Kinabalu, Kota Marudu, Kuala Penyu, Kudat, Kunak, Lahad Datu, Nabawan, Papar, Penampang, Pitas, Putatan, Ranau, Sandakan, Semporna, Sipitang, Tambunan, Tawau, Tenom, Tongod, and Tuaran. The districts in Sabah were too many, thus it was divided into five administrative divisions as below:
In this study, Kota Kinabalu represented West Coast Division, Beaufort represented Interior Division, while Kudat, Sandakan and Tawau represented Kudat, Sandakan and Tawau Division respectively. In all the clusters from Sabah, the respondents were further distinguished into respondents from rural and urban areas.

The cluster further divided into sub-districts due to the large sample size in each cluster. Simple random sampling method was used to pick the representative sub-districts. The sub-districts chosen in Kota Kinabalu were Likas, Damai, Kelombong, Inanam, Tuaran and Penampang. Besides, the sub-districts like Apas, Kubota and Balung were chosen to represent Tawau meanwhile Sandakan was represented by Taman Fajar, Bandar Indah Jaya and Bandar Kim Fung. Lastly, Kudat and Beaufort were only represented by Kudat Town and Beaufort Town respectively.

Finally, the respondents were chosen randomly from the selected sub-districts using simple random sampling method. The clustering method employed in this study was in line with the study conducted by Ngui et al. The respondents of the happiness survey were selected on the basis of all adults in Sabah which were more than 18 years old. The clustering method employed in this study was in line with Royal Government of Bhutan (2012), Omar and Noordin (2015), Loke, Abdullah, Chai, Hamid and Yahaya (2011). The clustering method mentioned by the researcher above was adapted and fitted into the Malaysia map.

In calculating the representative sample for proportion for large populations, the formula developed by Cochran (1963) was used. The equation was given as

\[ n_0 = \frac{Z^2 pq}{e^2} \]  

where \( n_0 \) was the sample size, \( Z \) was the abscissa of the normal curve that cuts off an area \( \alpha \) at the tails (1-\( \alpha \) equals to the desired confidence level like 95%), \( e \) was the desired level of precision, \( p \) was the estimated proportion of an attribute that was present in population, and \( q \) is 1-\( p \).

According to Department of Statistics Malaysia (2010) as stated in Table 3.2, the population size in this study referred to the total population in Sabah that is 3,206,742. Therefore, the desired sample size can be calculated by applying Equation 3.1 at 5% significance level. Suppose we use a 95% confidence level, then the precision will be ±5%. For \( p \) will be the proportion of Sabah households to the total households while \( q \) is 1-\( p \). Assume there is a large population but that we do not know the variability in the proportion that will take on the practice, therefore, assume \( p=.5 \) (maximum variability). With this, the value of each term in Equation 3.1 can be obtained as

\[ Z = 1.96 \]
\[ e = 0.05 \]
\[
n_0 = \frac{(1.96)^2(0.5)(0.5)}{(0.05)^2} = 384.16 \approx 385
\]

If the population was small then the sample size can be reduced slightly. This was because a given sample size provides proportionately more information for a small population than for a large population. The sample size \( n_0 \) can be adjusted using Equation 3.2.

\[
n = \frac{n_0}{1 + (\frac{n_0 - 1}{N})} \quad (3.2)
\]

where \( n \) was the sample size and \( N \) is the population size.

Hence, the sample size for Sabah can be estimated by applying Equation 3.2.

Sample size for Sabah, \( n_{\text{sabah}} = \frac{385}{1 + (\frac{385 - 1}{3,206,742})} = 384.95 \approx 385 \)

Finally, the sample size formulas provided the number of respondents that need to be obtained. However, this sample size was added with extra 10 percent to compensate for person that was unable to contact. Meanwhile the sample size was also always increased by 30% to compensate for non-response. Thus, to guarantee the desired level of confidence and precision, extra 30% percent was added to the calculated sample size (Kish, 1965 and Sudman, 1976). With this, extra 30% percent from the calculated sample size which amounted to 116 respondents were added. Thus, the actual sample size that needed in this study was estimated as 501 respondents for Sabah as shown below:

<table>
<thead>
<tr>
<th>State</th>
<th>Population Size</th>
<th>Calculated Sample Size</th>
<th>Extra 30%</th>
<th>Actual Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sabah</td>
<td>3,206,742</td>
<td>385</td>
<td>116</td>
<td>501</td>
</tr>
</tbody>
</table>

According to Department of Statistics Malaysia (2010), the total number of population in Kota Kinabalu, Sandakan, Tawau, Kudat and Beaufort were 462,963, 409,056, 412,375, 85,404, and 66,406 respectively. Based on the proportion, the sample size for Kota Kinabalu, Sandakan, Tawau, Kudat and Beaufort were estimated as shown in Table 3.3.

<table>
<thead>
<tr>
<th>Clusters</th>
<th>Population Size</th>
<th>Proportion</th>
<th>Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kota Kinabalu</td>
<td>462,963</td>
<td>0.3224</td>
<td>162</td>
</tr>
<tr>
<td>Sandakan</td>
<td>409,056</td>
<td>0.2848</td>
<td>143</td>
</tr>
<tr>
<td>Tawau</td>
<td>412,375</td>
<td>0.2871</td>
<td>143</td>
</tr>
<tr>
<td>Kudat</td>
<td>85,404</td>
<td>0.0595</td>
<td>30</td>
</tr>
<tr>
<td>Beaufort</td>
<td>66,406</td>
<td>0.0462</td>
<td>23</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>1,436,204</strong></td>
<td><strong>1</strong></td>
<td><strong>501</strong></td>
</tr>
</tbody>
</table>

From the Department of Statistics Malaysia (2010), the proportion of urban and rural areas in Sabah was recorded as 53.3 percent and 46.7 percent respectively. The sample size for each cluster in urban and rural
areas can be calculated by multiplying the proportion with the total sample size for each cluster. The calculated sample size for urban and rural areas in Sabah were shown in Table 3.4.

Table 3.4: Sample size for each cluster in urban (53.3%) and rural (46.7%) areas in Sabah

<table>
<thead>
<tr>
<th>Clusters</th>
<th>Sample Size</th>
<th>Urban Sample Size</th>
<th>Rural Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kota Kinabalu</td>
<td>162</td>
<td>86</td>
<td>76</td>
</tr>
<tr>
<td>Sandakan</td>
<td>143</td>
<td>76</td>
<td>67</td>
</tr>
<tr>
<td>Tawau</td>
<td>143</td>
<td>76</td>
<td>67</td>
</tr>
<tr>
<td>Kudat</td>
<td>30</td>
<td>16</td>
<td>14</td>
</tr>
<tr>
<td>Beaufort</td>
<td>23</td>
<td>12</td>
<td>11</td>
</tr>
<tr>
<td>TOTAL</td>
<td>501</td>
<td>266</td>
<td>235</td>
</tr>
</tbody>
</table>

The contact with potential respondents was made through by telephone and email or face to face asking for the participation in this happiness survey research. Translation from English to Malays was needed as quite a number of Sabahan cannot understand English well. The process continued until targeted number of respondents were willing to participate in this research.

At the end of the survey research, a formal letter was sent out to each respondent to explain the purpose of this research and the survey was completed between 1st April 2017 and 30th April 2017. Each respondent received a summary of their happiness score as a gratitude for the participation.

3.3 Instrument and Measurement

Part of the survey instrument was adopted from The Happiness Initiative 2013 using single-item or multiple-item questions to study how happiness and well-being were influenced by the circumstances of our lives and societies. Whereas, the remaining question was set by myself. The questionnaire was divided into section A and section B.

Section A covers’ Demographics information from Items 1 to 9, it obtained the demographic information about the selected respondent who responded to this survey. The information was required to measure the respondent’s perception about how happiness were influenced by the circumstances of our lives and communities according to the variable specified such as age (1), gender (2), ethnicity (3), marital status (4), number of household (5), spirituality (6) and (7), education level (8) and household income (9).

Section B consists of seven questions which addressed the circumstances of our lives and societies such as family relationship, financial situation, work, community and friends, health and government policy relating to happiness and well-being.

3.4 Method of Analysis

In this study, 50 people were used to do a full pilot compared to the actual sample which was large. The Cronbach’s alpha for each of the questions have the reliability coefficient of 0.60 or higher. It indicated the Likert scale used in this study achieved a high degree of internal consistency. It was considered acceptable for this study.

Besides that, descriptive statistics was used to quantitatively illustrate the simple characteristics of the data in a study. Also, reliability analysis was used to test whether the test was reliable. Lastly, factor analysis test, correlation test, data normally distributed test, f-test, t-test, and multiple regression test was used in this study.
In general, the multiple regression equation of this study is given by:
Happiness index = $\beta_1 + \beta_2 x_1 + \beta_3 x_2 + \beta_4 x_3 + \beta_5 x_4 + \beta_6 x_5 + \beta_7 x_6 + \epsilon t$

(3.5.1)

$\beta_1 =$ Intercept value of happiness index when other variables are 0

$x_1 =$ Family relationship

$x_2 =$ Financial situation

$x_3 =$ Work

$x_4 =$ Community and friends

$x_5 =$ Health

$x_6 =$ Government policy

$\beta_2, \beta_3, \beta_4, \beta_5, \beta_6 =$ Parameters to be estimated

$\epsilon t =$ Random error (other variables that determine the happiness and well-being)

4.0 Findings

4.1 Profile of the respondents

Most of the respondents in this study were adults, aged 19 to 49 and married. They got moderate monthly household income, that is RM3000 to RM4000, and received high education level. It showed that Malaysian highly value the importance of education and the in line with the government's commitment for the provision of quality education to its societies.

4.2.2 The Level of Satisfaction

Table 4.2.2.1 shows the descriptive statistics

<table>
<thead>
<tr>
<th>Table 4.2.2.1 shows the descriptive statistics</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Happiness level</td>
<td>387</td>
<td>1.83</td>
<td>5.00</td>
<td>3.6572</td>
<td>.46778</td>
</tr>
<tr>
<td>Family relationship</td>
<td>387</td>
<td>2.25</td>
<td>5.00</td>
<td>3.9008</td>
<td>.44233</td>
</tr>
<tr>
<td>Financial situation</td>
<td>387</td>
<td>1.75</td>
<td>5.00</td>
<td>3.7907</td>
<td>.40093</td>
</tr>
<tr>
<td>Work</td>
<td>387</td>
<td>1.57</td>
<td>5.00</td>
<td>3.6748</td>
<td>.45984</td>
</tr>
<tr>
<td>Community and friends</td>
<td>387</td>
<td>2.07</td>
<td>4.43</td>
<td>3.5338</td>
<td>.32056</td>
</tr>
<tr>
<td>Health</td>
<td>387</td>
<td>1.57</td>
<td>4.71</td>
<td>3.5426</td>
<td>.40198</td>
</tr>
<tr>
<td>Government policy</td>
<td>387</td>
<td>1.42</td>
<td>4.08</td>
<td>2.8721</td>
<td>.45165</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>387</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Overall, the mean of family relationship, financial situation, work, community and friends, health lies between scale of “3” to “4”. It indicated neutral option or slightly satisfied. Likewise, the mean of government policies lies between scales of “2” to scale “3” which indicated neutral option or slightly dissatisfied. The government policy mean was 2.8721 which was the lowest mean among all variables indicated the existence of dissatisfied trend towards governance of Malaysia.

4.2 Reliability Analysis

Table 4.3.1 shows the reliability statistics

<table>
<thead>
<tr>
<th>Cronbach's Alpha</th>
<th>Cronbach's Alpha Based on Standardized Items</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>.639</td>
<td>.639</td>
<td>7</td>
</tr>
</tbody>
</table>
4.3 Correlation Test

In short, there was no multicollinearity problem in this study because multicollinearity only exists when there was very high intercorrelation (Pearson Correlation, r > 0.9) among the independent variables.

4.4 Data Normally Distributed Test

Based on the results in Table A.1 which attached in Appendix A, all the Sig. value of the Shapiro-Wilk Test was greater than 0.05 and it indicated that the data was normally distributed. Besides that, histogram of each of the variables was formed in Appendix B which consisted of 7 graphs (Graph 1 to Graph 7). It was very useful to measure the goodness of fitness of the data using graphical method.

4.5 Multiple Regression Test

Multiple regression test was used to predict the value of happiness index based on the value of independent variables in this study. Table A.2 showed the multiple linear regression model summaries. The adjusted R² of the model was 0.244 and the R² of the model was equal to 0.256. It indicated that the independent variables explain 24.4 percent of the variance in the dependent variable. It also showed that the strength of association between dependent variable in independent variables was low but it does not indicated whether a regression model is adequate.

On the other hand, Table A.3 showed the F-test, the F-statistic was the Mean Square (Regression) divided by the Mean Square (Residual): $14.408/0.662 = 21.777$. Based on the result, the P value for the F-test was less than significance level and it indicated the model was a good fit for the data. Thus, it also showed that there was a linear relationship between the variables in this model.

Furthermore, the next Table A.4 showed the multiple linear regression estimates which included the intercept and the significance levels. Also, the table showed the investigation for multicollinearity problem in the multiple linear regression models. Based on the results, the Tolerance for all variables was more than 0.1 and it indicated multicollinearity problem did not exist.

Unstandardized Coefficients (B) examined the unique effect size for each variable. Unstandardized Coefficients (B) was the values for the regression equation for forecasting the dependent variable from the independent variable. Based on the Table A.5, the constant, family relationship and financial situation shown statistically was significant because the p-value was smaller than 0.05. However, work, community and friends, health and government policy shown not statistically significant. The equation for the unstandardized multiple regression line was formed as shown below:

$$\text{Happiness} = 1.621 + 0.796x_1 + 0.590x_2 - 0.014x_3 + 0.106x_4 + 0.509x_5 - 0.063x_6 + \epsilon t$$

(4.6.1)

The equation above can used to predict the value of happiness and well-being for given values of the circumstances of our lives and societies such as family relationships, financial situation, work, community and friends, health, and government policy. The error term ($\epsilon t$) indicated other factor that did not included in this multiple regression model.

To examine which of the independent variable had a greater effect on happiness and well-being in a multiple regression, standardization coefficients, Beta ($\beta$) was used based on the Table A.5 in Appendix A. Standardized coefficients represent what happens after all of the independent variables had been
converted into standard deviation (z-scores) unit. The standardized coefficients, Beta (β) of each of the variables were summarized as shown in the Table A.5 in Appendix A.

5.0 Conclusion

Happiness was highly valued in today society. According to Bentham (1789), human not only wanted happiness in their own life but hope to spreading the love around the world. They care for the happiness of other people and the government should promote the happiness of the society, by punishing and rewarding. Meaning to say, strengthen the penal law and implement the policies that align with promoting happiness. He also stated that happiness consists of enjoyment of pleasures and security from pains. In general, happiness was understood as the degree of human evaluates their satisfaction with life or quality of life. The result have been encouraging because the study found that family relationship has the greatest positive impact on happiness in Sabah. It indicated that Sabah citizens maintained strong ties and commitment to spending time with family. The study showed that Sabah citizen were found to be happiest with family relationship, followed by financial situation, community and friends, health, work and government policy.

The study also found that happiness of Malaysian was highly contributed by financial situation compared to community and friends and health. It indicated that Malaysian continually travel on the high way to wealth in the chase of happiness. Eventually, it slowly transformed Malaysia into materialistic societies that were associated with the negative well-being such as anger, hatred, depression, anxiety and broken relationships. As a result, Malaysian tends to become self-interests and lack of compassion. Galbraith (1998) claimed that increasing the wealth of the society did not necessary implied people were happier. He stated that materialisms bred discontentment. As mentioned repeatedly, one of objectives of this research is to bring happiness and well-being into the public awareness of Malaysia. Malaysian should aware holding wealth or materials were only contributed temporary happiness because external things were actually impermanent and can’t fulfill human unlimited desired. Human should focus less on possessions and put more focus on health, community and friends. As discussed in chapter 2, Easterlin (2004) proved that social comparison and adaption affect utility less in the non-monetary than monetary domain. Individuals tend to allocate an excessive amount of time to earn money and overpass non-monetary domain such as health and family life which causing unhappiness. Also, he suggested that the policies need to be revised to produce a better-informed individual preference, and thus increase happiness. Similarly, Busch (2008) stated that consumerism has contributed to a development of status consumption and want-creation by expanding material standard of living, but both have increased the consumption without contributing to happiness. He suggested that Smith’s ethics should be adopted by modern societies although it may decrease overall consumption but will lead to a more satisfied life. Ending materialism did not mean to give up all the possessions but developed a healthier and balancing life which contributed to happiness.

Health can be explained as a condition of good physical and mental health in which human can lives their life healthily and able to cope with the normal stresses of life. In an opposite dimension view, poor physical and mental health seem to have greatest impact on happiness also. However, there were many reasons that causing someone vulnerable to experiencing a period of poor physical and mental health because everyone has their own life journey and subject to illness. Hence, to maintain a good state of health, this study suggests peoples to maintain a healthy lifestyle and it believed to have great effects in the long term. According to Jeff Olson (2003), minor habit changes in daily choices could lead to the success and happiness. He suggested the 3 main ideas to a healthy life by consume rich nutrition food, exercise regularly, and quality sleep. As mentioned in chapter 2, Easterlin (2004) also suggested that most people who devote most of their time making money should devote less time in making money and focus on more to non-pecuniary goals.
To live happiness life, peoples to build a good relationship or construct a relationship system with community and friends. Constructing and maintaining good relationship with peoples were an important part of staying happily in lives. Human were the architect and creator of their own life. By building and maintaining good relationship with virtuous and supportive peoples especially wise one, people will be more confident to face difficulties and the happiness and well-being were be magnified by being shared. Eventually, people can create a better society which was full of loving kindness and trust. Many studies found that economic development were greatly determined by the circumstances of the society or vice versa. Marshall (1890) defined that economics is a study of man in the ordinary business of life. Thus, it explained economics studies on both individual and social actions to promote economic welfare of people. Hence, peoples were advised to increase social contact and associates with more wise persons around the world.

Last but not least, the findings of the study also showed that government policy and work contributed the least on happiness and well-being of Malaysian. Firstly, it indicated that Malaysian life was too rushed and lack of time to do what they desired to as peoples need sacrifice most of their time to work and making money. Poor work-life balances causing imbalances in lives and stressed. In the end, it causes a lot of negative impacts such as mental health problems, relationships problem and so on. People should organized their time more effectively and achieve a happy equilibrium between life and work. Secondly, the results also indicated the existence of dissatisfaction trend towards governance of Malaysia’s authority. Government should implement policy interventions that improve different aspect of people’s happiness such as health, financial situation, works, social’s relationship and family relationship. Policy interventions may not directly affect happiness, but these interventions may still affect happiness in the results. Early education programs should be implemented in school to educate children the right way of livings and not just aim score high in examination. Besides that, government could promote more job opportunities and improving employment chances since a lot studies showed that unemployment causes unhappiness. Moreover, government could improve the environment quality, promoting social networks and encouraging peoples involve in social activities. In conclusion, government should revise the current legislation and law to align with the policies that could promote social interaction, equality and antidiscrimination. Eventually, the happiness of the nation could increases.

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Proceedings of International Conference on Economics 2017 (ICE 2017)


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Nikolaev, B. (2013). Rising income inequality and economic growth are Americans better off?: Evidence from subjective well-being data. Department of Economics, Oxford College of Emory University.


**APPENDIX A: TABLE AND DATA FINDINGS**

**Table A.1 shows the tests of normality**

<table>
<thead>
<tr>
<th></th>
<th>Kolmogorov-Smirnov</th>
<th>Shapiro-Wilk</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statistic</td>
<td>df</td>
</tr>
<tr>
<td>Happiness level</td>
<td>.123</td>
<td>387</td>
</tr>
<tr>
<td>Family relationship</td>
<td>.111</td>
<td>387</td>
</tr>
<tr>
<td>Financial situation</td>
<td>.105</td>
<td>387</td>
</tr>
<tr>
<td>Work</td>
<td>.098</td>
<td>387</td>
</tr>
<tr>
<td>Community and friends</td>
<td>.079</td>
<td>387</td>
</tr>
<tr>
<td>Health</td>
<td>.101</td>
<td>387</td>
</tr>
<tr>
<td>Government policy</td>
<td>.055</td>
<td>387</td>
</tr>
</tbody>
</table>

a. Lilliefors Significance Correction

**Table A.2 shows the model summary**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.506</td>
<td>.256</td>
<td>.244</td>
<td>.81339</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), family relationship, financial situation, work, community and friends, health and government policy

**Table A.3 shows the ANOVA**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>86.449</td>
<td>6</td>
<td>14.408</td>
<td>21.777</td>
<td>.000^a</td>
</tr>
<tr>
<td>Residual</td>
<td>251.412</td>
<td>380</td>
<td>.662</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>337.861</td>
<td>386</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Happiness level
b. Predictors: (Constant), family relationship, financial situation, work, community and friends, health and government policy

**Table A.4 shows the coefficients**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>1.621</td>
<td>.626</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family relationship</td>
<td>.796</td>
<td>.103</td>
<td>.376</td>
<td>7.722</td>
<td>.000</td>
</tr>
<tr>
<td>Financial situation</td>
<td>.590</td>
<td>.120</td>
<td>.253</td>
<td>4.934</td>
<td>.000</td>
</tr>
<tr>
<td>Work</td>
<td>-.014</td>
<td>.114</td>
<td>-.007</td>
<td>-.127</td>
<td>.899</td>
</tr>
<tr>
<td>Community and friends</td>
<td>.106</td>
<td>.145</td>
<td>.036</td>
<td>.734</td>
<td>.464</td>
</tr>
<tr>
<td>Health</td>
<td>.059</td>
<td>.111</td>
<td>.025</td>
<td>.531</td>
<td>.596</td>
</tr>
<tr>
<td>Government policies</td>
<td>-.063</td>
<td>.095</td>
<td>-.030</td>
<td>-.666</td>
<td>.506</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Happiness level
Table A.5 shows the standardized coefficients of each variable in ascending order:

<table>
<thead>
<tr>
<th>Order</th>
<th>Independent variables</th>
<th>Standardized coefficients, Beta (β)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Government policy</td>
<td>-0.030</td>
</tr>
<tr>
<td>2</td>
<td>Work</td>
<td>-0.007</td>
</tr>
<tr>
<td>3</td>
<td>Health</td>
<td>0.025</td>
</tr>
<tr>
<td>4</td>
<td>Community and friends</td>
<td>0.036</td>
</tr>
<tr>
<td>5</td>
<td>Financial situation</td>
<td>0.253</td>
</tr>
<tr>
<td>6</td>
<td>Family relationship</td>
<td>0.376</td>
</tr>
</tbody>
</table>
APPENDIX B: GRAPHS

Graph B.1 shows the histogram of happiness level

Graph B.2 shows the histogram of family relationship

Graph B.3 shows the histogram of financial situation
Graph B.4 shows the histogram of work

Graph B.5 shows the histogram of community and friends
Graph B.6 shows the histogram of health

Graph B.7 shows the histogram of government policy