THE STRUCTURAL MODEL OF ECONOMIC HARDSHIP AND SUBJECTIVE WELL-BEING AMONG VULNERABLE PEOPLE

Noraini Ismail,*
Laily Hj. Paim, **
Asnarulkhadi Abu Samah, ***
Mohd Daud Awang ****

Faculty of Human Ecology, Universiti Putra Malaysia, Serdang, Selangor, Malaysia.
60103-3933566/ 603-89467102/ 603-89467066/ 603-89467071
**norharis2002@yahoo.com, **laily@putra.edu.upm.my,*
****asnarul@putra.edu.upm.my, ****amdaud@upm.edu.my*

Abstract

The present study aims to illustrate the relationship between economic hardship and the subjective well-being (SWB) of household heads in Malaysia who are vulnerable to poverty.

Economic shortcomings challenge the well-being (WB) of Malaysian families and has the most inclination to effect vulnerable impoverished groups in the lower parts of the income distribution. SWB is the ultimate goal of public policy and individuals. Varying experiences of SWB were reported by people. SWB is connected with aspects which people value in their lives. Some individuals experience high levels of SWB despite adverse living conditions, while others experience low levels of SWB despite having certain outward advantages. The empirical literature on the association between economic hardship and SWB indicates that they are only moderately correlated to one another.

This study utilised data collected in 2010 using instruments of "Vulnerability Development Index", designed for the research of Vulnerability Index by a group of researchers in the Faculty of Human Ecology, Universiti Putra Malaysia. The study survey sample was made up of 379 participants of vulnerable household heads in Selangor.

The study discovered that the economic hardship had a significant negative relationship with SWB. Within samples of the study, household heads' level of economic hardship was found to be relatively low, and had a reasonably strong negative association with SWB. Test of Measurement Model and Structural Model produced with acceptable fit statistics. It was estimated that the economic hardship explained only 10 percent of SWB. The result indicated that having lower economic hardship was associated with higher level of SWB.

Based on the principal of the Theorem of Incomparable Utilities, this study proved that despite many economic hardships encountered by the individual, he or she still acknowledged life as very good/very happy. SWB builds on hardship because people tend to be happier after enduring hard times.

***Keywords**: economic hardship, subjective well-being, relationship*

1.0 INTRODUCTION

Poverty and economic setbacks challenge the well-being (WB) of Malaysian families. In 2009 (December), 3.5 percent of Malaysian population fell below the poverty threshold and the unemployment rate in 2013 was at 2.9 percent (January 2010 was 3.6 percent) while the labour force was 63.2 percent out of 28.4 million populations (World Bank Development Indicators). Malaysian Government has been focusing on eradicating poverty since 1970, and succeeded in reducing the incidence of poverty from 49.3 percent in 1970 to 3.8 percent in 2009.

Economic disadvantage tends to affect the vulnerable poverty group which is represented in the lower parts of income distribution. The focus now is to elevate the income levels of the bottom 40 percent households, who are eligible for support and resources, based on their specific needs (The Economic Planning Unit, 2011). In 2009, the bottom 40 percent households (of about 2.4 million households) had a total household income level of less than RM2,300 per month. 90.6 percent of them were within the low-income household group, 1.8 percent within the hard-core poor group, and 7.6 percent within the poor group. The mean monthly income of the bottom 40 percent households in 2009 was RM1,440. There were initiatives to increase income and quality of life of this group including strengthening the social protection programs to ensure the basic living necessities and services, and issues impacting their WB were addressed.

WB is supposed to be both the ultimate goal of public policy and what individuals strive for. A great number of people have come up with lists of 'basic needs', or elements of full life, or the components of WB beyond income that the 'poor' would have less of. However, there is ample evidence that income alone does not thoroughly capture the levels of WB associated with 'objective' factors. In 2000, Vietnam had the same income as the UK in the early Nineteenth Century, but compared to the UK in 1800s, modern Vietnamese live an average of 28 years longer and the infant mortality rate is only a quarter as high (Ã, 2006). Most quality of life (QOL) variables, unlike income, are rapidly converging and that significant improvements have occurred even in countries that have seen no economic growth (Bartolini & Bilancini, 2010). Easterly (1999) found that there is no correlation between the speed of the improvement in most QOL variables and the speed of GDP per capita growth across countries in the past.

People vary in their experiences of SWB. For example, some individuals experience high levels of SWB despite their adverse living conditions, while others experience low levels of SWB despite having certain outward advantages such as wealth, education, and good health. However, a study (Mcgillivray & Clarke, 2006) stated that in their surveyed communities, between 73 percent and 82 percent of respondents claimed to be either satisfied or very satisfied, despite large prevalent capability poverty. In Mexico where 55 percent of the respondents were "poor" by UNDP definitions, they found that only 5 percent declared that they did not have a happy life (UNDP, 2005, p.220). The study also detected an extremely high percentage of "happy people" and a high rate of "unhappy rich people" (Rojas, 2007). The high rate of happy poor people implied that being rich "materially" is not necessarily being well; there are other things that can make people well. Likewise, in a poor country like Nigeria, it was reported that average happiness on a ten-point scale of 6.82 in 1995 while Japan's average was 6.61 and South Korea was 6.69 (Frey & Stutzer, 2011).

Camfield (2012) argued that SWB is connected with aspects that people value in their lives. By focusing on what poor people have, are able to do, and want to do in their lives, the approach presents a more comprehensive understanding of the lives of the poor. The conceptualization of well-being put forward by WeD (Tiwari, 2008) moved attention beyond the 'deprivation sets' of the poor to what the poor have. Mc Gregor (Deneulin & McGregor, 2010) argued that well-being 'arise[s] from the combination of what person has, what they can do with what they have, and how they think about what they have and can do'.

Furthermore, Rojas's (2006) conceptual referent theory of happiness proposed that people's judgments of life satisfaction or happiness are dependent on their conceptual referent for happy life, or what they understand by 'being well'. For example people consider sustaining meaningful relationships is important to enable them to succeed in areas of their lives, or to live according to their ideas about what will make them happy.

SWB when measured, refers to a person's declared well-being and is based on a person's answer to either a single question or a group of questions about his/her well-being (Rojas, 2007). Therefore SWB can be regarded as an outcome measured by which to judge successful living (E. Diener, 2000; E. Diener, Wirtz, et al., 2009). Contrary to the monetary and capability approaches, the SWB concept makes it possible to avoid defining what welfare and well-being means. By using the answers to subjective questions, individuals define their level of welfare and well-being themselves (Neff, 2006a). This can be seen as an advantage not only because it avoids value judgments about the constituent components of well-being, but also because there is no agreement on the final definition of the quality of life. Nevertheless it is still disputed whether SWB (or quality of life) approach can eventually avoid defining the essence of a good life (Neff, 2006b) and furthermore it is also disputed that there is something like an overall quality of life (Veenhoven, 2004).

Until recently, it is observed that debates over SWB were confined to developed countries. Within developing countries, holistic understandings of poverty have been sought using participatory methods (Tiwari, 2008). The findings of some participatory research in the 1990s suggested a multidimensional understanding of WB with emphasis on the fulfilment of 'basic needs'.

The SWB distinctive features are the 'internal experience' of well-being, and it stresses 'understanding the way people estimate their own lives' (E. Diener, Sapyta, & Suh, 2009; Oishi & Diener, 2009). It is an interdisciplinary field, which adjoins but remains distinct from the wider one concerning quality of life. Whereas the former refers to the experience of 'feeling well', expressed in emotional terms (Armezzani & Paduanello, 2013), the latter sums up the string of elements operating within one's perception of one's own position in life; within one's cultural and value system environment; and also in relation to one's own aims, expectations, and benefits (WHO, 2001). Its distinctive feature enable researcher to understand how individual's perceived their own lives, SWB is chosen as a variable to be studied.

The empirical literature on the association between income poverty and various hardship measures indicates that they are only moderately correlated with one another in the United States (Beverly, 2008a; Bradshaw, 2006; Mayer & Jenks, 1989; Perry, Williams, Wallerstein, & Waitzkin, 2008). On contrary, poor people are more likely than non-poor

people to report a variety of material hardships. For example the study on material hardships(Heflin, 2009; Msw, Santhiveeran, & Hunter, 2008) reported that while about 13 percent of respondents under 200 percent of the poverty level reported not having enough food to eat, only 2 percent of those over 200 percent of the poverty line said the same. One of the best-developed measures of material hardship, the Food Security Scale, correlates with income and poverty at approximately 0.33 (Wills-Herrera, Islam, & Hamilton, 2009).

A research which employed Family Stress Model showed that the economic difficulties, just like stressful life events of all kinds, do not have precisely the same effects on all families and individuals (Donnellan, Conger, McAdams, & Neppl, 2009). The research found that some families show considerable signs of disruption whereas others seem to whether economic challenges without showing many signs of distress and disturbance. Personal characteristics can have 'stress-suppressing' effects (Craft, Johnson, & Ortega, 2008) and characteristics including positive self-views help individuals effectively solve problems (Howell & Hill, 2009). In terms of the specific case of economic conditions, certain personal characteristics may protect individuals from economic hardship by promoting more success in work and employment contexts (Wei, Liao, Ku, & Shaffer, 2011).

Several researchers have suggested that reports of family economic hardship are more immediately relevant measures of family economic difficulties than measures based on family income (Levecque, Van Rossem, De Boyser, Van de Velde, & Bracke, 2011; Surjadi, 2010; Wickrama, Surjadi, Lorenz, Conger, & Walker, 2012). Although on average, economic hardship declines and the levels of wealth increase successively in older age groups up to late middle age, there may exist inter household differences in economic hardship experiences.

The relative income is important to people's subjective view of their own income poverty. It was found that more than half of Americans say that they cannot afford everything they really need (Graham, 2011). Indeed, between 1958 and 1999 in the US, people's need for good rose to 140 percent, on the contrary, personal disposable income per capita rose to 131 percent in real terms (Redmond, 2014).

Another research (Bauman, 2008) found that income poverty is more strongly associated with some hardship measures, such as food insecurity, difficulty of paying bills, and possession of consumer durables, and less strongly associated with others, including housing and neighbourhood problems and fear of crime. He concluded that various hardship measures, often by design, tap into distinct dimensions of SWB. Income poverty measures capture the flow of income that can be used to meet recurring needs, and by large do not attempt to take into account the stock of resources at people's disposal. Thus, neither a household's wealth nor its debt is typically included in these measures. Many of the material hardship measures, however, indirectly take a household's wealth or debt into account. There are likely some people with tremendous wealth who do not work and thus look income poor but may report no hardships. Conversely, there are people with high incomes who either hit a rough financial patch and report hardships, or who have high fixed costs and may have trouble meeting basic expenses (Heflin, 2012).

Another study examined the extent to which the relationship between income and depression is mediated by measures of material hardship. The author found that hardship

helped mediate much, though not all, of the link between poverty and depression in the conditional fixed-effects logistic regression models (Heflin, 2012). A study of the effects of poverty on the psychological being of adolescents experiencing poverty via family and parenting processes. Shek (2012) found that compared with adolescents without economic disadvantage, adolescents with economic disadvantage were more hopeless and less satisfied with life, and they had lowered levels of mastery and self-esteem. There are explanations for the differences; first, it is possible that poor people might have genetic predisposition for poverty (e.g., lack of talent and skills) and poor mental health (e.g., more pessimistic temperament), thus contributing to the observed differences, and second, the findings may be explained in terms of the effects of poverty on the psychological being of adolescents experiencing poverty via family and parenting processes.

In two Chicago surveys, Mayer & Jenks (1989) measured material hardship as the number of problems reported in the prior year, such as difficulty buying food, being unable to pay the rent or afford a place to stay, getting evicted, having utilities turned off, living in dilapidated housing, being without health insurance, and having unmet medical or dental needs. They regressed the level of material hardship on the attributes of the household that determine its poverty threshold (the income below which it would qualify as poor), adjusting for the ratio of family's income to its poverty threshold. It was found that, holding constant the ratio of income to the poverty line, an increase in family size increases the expected number of hardships (J Mirowsky & Ross, 2001; John A Mirowsky & Ross, 2012).

There is a growing interest in using measures of material hardship to identify individuals who do not consume minimal levels of such basic goods and services as food, housing, clothing, and medical care (Beverly, 2008b). The researchers suggested that those who are income poor, defined by the flow of resources into the household, differ greatly from those who are consumption poor, defined according to the goods and services purchased by the household (Albelda, 2011; Christoph, 2009; Larsen, Diener, & Emmons, 1985; Teitler, Reichman, & Nepomnyaschy, 2004). For example, single mothers who are without a high school degree and who are in the bottom quintile of the consumption distribution are more likely to not own a car and to have fewer rooms per person than those in the bottom quintile of the income distribution. There is evidence that individuals are more likely to be productive when their basic food, shelter, clothing and medical needs are met (Bauman, 2008; Beverly, 2008a). Researchers like Amartya Sen argued that poverty measurement should focus on the deprivations that are "intrinsically important", as opposed to income, which is only "instrumentally significant" (Ansari, Munir, & Gregg, 2012; Sarshar, 2010).

Dalkey and Rourke (1973) conceptualized subjective well-being as "a person's sense of well-being, his satisfaction or dissatisfaction with life, or his happiness or unhappiness" (Oleson, 1990). Meanwhile it is operationalized as the perceived overall satisfaction with life.

Economic hardship conceptualized as "inadequate consumption of very basic goods and services such as food, housing, clothing, and medical care" (Beverly, 2008b). It is operationalized as deprivation of material WB: lack of money needed to meet family needs for food, clothing, shelter, education, medical care and difficulty paying bills.

2.0 METHODOLOGY

Data Source

The study tested the hypothesis by using data collected in 2010 from 379 participants of vulnerability households in Selangor, via instrument of "Vulnerability Development Index", designed for the research of the Vulnerability Index by a group of researcher in Faculty of Human Ecology, Universiti Putra Malaysia.

Measures

Subjective well-being was measured by the Satisfaction with Life as a Whole Scale (SWLS) designed by Diener et al., (Larsen et al., 1985) to assess an individual's own global judgment of his or her quality of life. It consisted of 5 items in the scale : (i) In most ways my life is close to ideal; (ii) The conditions of my life are excellent; (iii) I am satisfied with my life; (iv) So far I have gotten the important things I want in life; and (v) If I could live my life over, I would change almost nothing. The questions were answered by seven point scale: 1=strongly disagree, 2=disagree, 3= slightly disagree, 4=neither agree nor disagree, 5 =slightly agree, 6=agree, and 7=strongly agree. This measure reflected the respondents' overall judgment of their life in order to measure the concept of subjective well-being.

Economic hardship was assessed using 16 items regarding respondents' ability to afford basic necessities (Rowley & Feather, 1987). Responses were measured on a six-point Likert scale. (Eg.: "You are not able to buy food and other basic needs?" (item 1); "Not enough income for savings" (item 3); "Depends on other resources to live" (item 4); You have to sell things to buy your family's necessities" (item 6)). The rates estimated the degree to which the responses reflected facing material hardship on a scale ranging from 0 ('Not at all related'); 1=never; 2=hardly ever; 3=sometimes; 4=frequently; and 5=nearly all the time. All items were reverse keyed, so that higher scores indicated greater economic hardship. Scale scores were created by computing mean scores across items.

Procedures

Statistical analyses utilized in this study were SPSS for Windows version 19, Structural Equation Modelling (SEM) AMOS version 20 which involved the Structural Model, and Measurement Model to verify the hypothesized relationship and to test the model.

3.0 RESULTS

The hypothesis stated that there is a significant negative relationship between economic hardship and subjective well-being has been supported. Output AMOS in Figure 3:1 shows the causal weight result on the relationship between economic hardship and subjective well-being was -.33. It shows the relatively strong negative relationship.

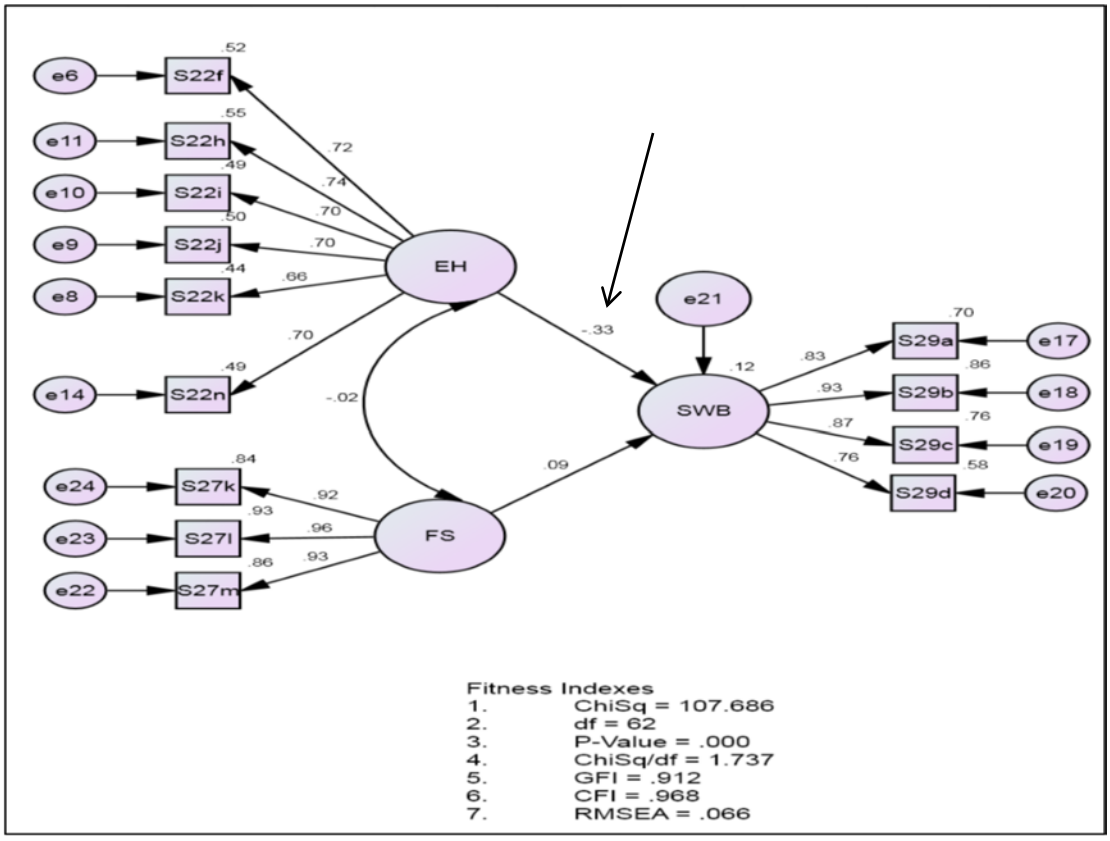

Figure 3:1 The AMOS output showing the beta coefficients, variance and covariance of the variables

Table 3:1 illustrates the result of the causal effects of economic hardship on subjective well-being which showed a significant negative relationship between the two latent variables. The probability of getting a critical ratio as large as -3.745 in absolute value was less than 0.001. The regression weight for economic hardship in the prediction of subjective well-being was significantly different from zero at the 0.001 level. The hypothesis stated that there is a significant negative relationship between economic hardship and subjective well-being has been supported.

In the correlation relationship between economic hardship and subjective well-being, the probability of getting a critical ratio as large as -3.479 in absolute value was less than 0.001. The regression weight for economic hardship in the prediction of SWB was significantly different from zero at the 0.001 level. The result suggested that the lower the economic hardship, the greater the subjective well-being.

Table 3:1 Testing the causal effects of economic hardship on subjective well-being

			Estimate	S.E.	C.R.	P	Result
SWB	<---	EH	-.329	.135	-3.745	***	Significant
SWB	<-->	EH	-.302	.087	-3.479	***	Significant

*** indicate highly significant at <0.001.

The result supported the hypothesis which stated that there is a significant negative relationship between economic hardship and subjective well-being (r=-.33, p<.05). The result indicated that having lower economic hardship, (i.e. being able to afford basic needs/ child education, afford to pay loans and other services, able to pay bills on time, and have some savings for emergency) were associated with higher level of subjective well-being.

3.1 Test of Measurement Model

The Measurement Model was constructed, and the model fit the data well as shown in Figure 3:2 and Table 3:2. The loadings of the measured variables on the latent variable of SWB were statistically significant at 0.001 levels. Correlation among the variables economic hardship and subjective well-being was statistically significant (p<.05) although negatively correlated.

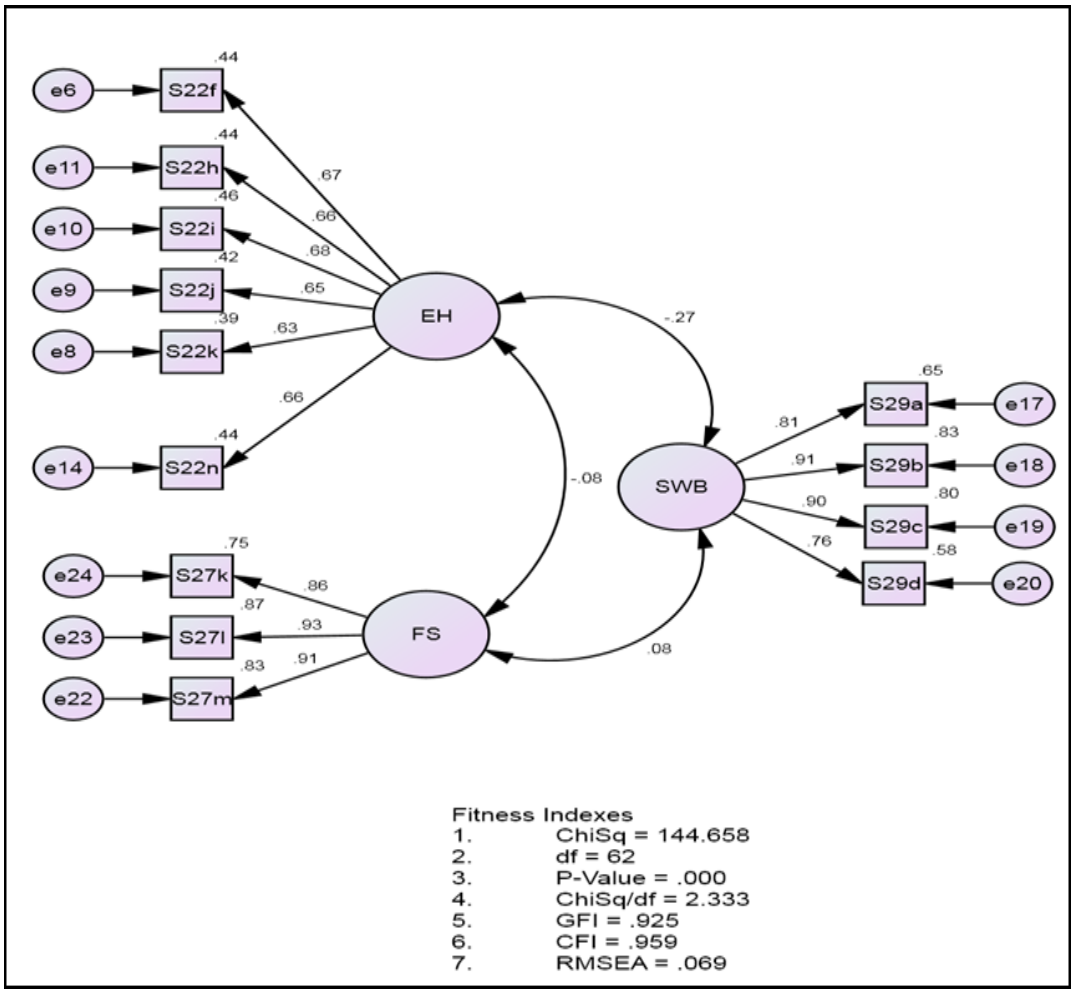

Figure 3:2 The Measurement Model

Test of Measurement Model produced with acceptable fit statistics X2 (N=379) =p<.001, RMSEA=.069, CFI =.96, GFI =.92. Confirmatory Factor Analysis exercise for confirming the needed reliability and validity resulted the Cronbach alpha, critical ratio, and convergent validity for economic hardship = (0.8, CR=0.8, AVE=0.5), family support = (0.92, CR=0.9, AVE=0.8), and SWB = (0.92, CR=0.9, AVE=0.72). Test of Structural Model produced with acceptable fit statistics X2 (N=379) =p<.001, RMSEA =.058, CFI

=.981, TLI =.974. The standardized beta estimate of X was -.32, the actual beta value was -.663, the value of R2 was .10, which indicated the contribution of construct X in estimating Y is 10 percent of its variance. It is estimated that the economic hardship explained only 10 percent of subjective well-being.

Table 3:2 The fitness indexes for measurement model

Category name	Index name	Index value	Comments
Absolute fit	RMSEA	0.069	The required level is achieved
Absolute fit	GFI	0.925	The required level is achieved
Incremental fit	CFI	0.959	The required level is achieved
Parsimonious fit	Chisq/df	2.33	The required level is achieved

Table 3:3 Confirmatory Factor Analysis (CFA) report summary

Construct	Item	Factor Loading	Cronbach Alpha (Above 0.7)	CR (Above 0.6)	AVE (Above 0.5)
EH	S22f	0.67	0.807	0.821	0.510
	S22h	0.66			
	S22i	0.68			
	S22j	0.65			
	S22k	0.63			
	S22n	0.66			
FS	S27k	0.86	0.918	0.928	0.811
	S27l	0.93			
	S27m	0.91			
SWB	S29a	0.81	0.917	0.910	0.718
	S29b	0.91			
	S29c	0.90			
	S29d	0.76			

The issue of uni-dimensionality, validity and reliability was taken care of. For uni-dimensionality, this requirement was achieved through the item-deletion process. Validity was achieved through convergent validity; AVE $\geq$0.50, construct validity; all fitness indexes for the model met the required level, and discriminant validity; all redundant items were deleted, and the correlation between exogenous constructs was ≤ 0.85. For reliability, this requirement has been achieved through the processes; internal reliability; Cronbach alpha ≥ 0.70, construct reliability; CR ≥ 0.60, and Average Variance Extracted; AVE $\geq$0.50 (as shown in Table 3:3).

Table 3:4 shows the diagonal values (in bold) were the square root of AVE while other values were the correlation between the respective constructs. The discriminant validity is achieved when a diagonal value is higher than the values in its row and column (Zainudin, 2013).

Table 3:4 The CFA results summary for discriminant validity

Construct	EH	FS	SWB
EH	**0.61**		
FS	-0.08	**0.08**	
SWB	0.09	-0.32	**-0.27**

3.2 The Assessment of Normality for the Data

After the fitness of indexes was achieved, before proceeding to the Structural Model, the normality assessment for the data was examined. Using the final Measurement Model, test for normality and outliers was run in order to assess the distribution for every variable in the dataset. Table 3:5 presents the resulted output from the procedure.

Table 3:5 The assessment of normality for the data

Variable	min	max	skew	c.r.	kurtosis	c.r.
S27k	.000	4.000	-.935	-4.181	-.348	-.777
S27l	.000	4.000	-1.070	-4.786	-.086	-.192
S27m	.000	4.000	-1.118	-4.999	.013	.029
S29d	1.000	7.000	-.056	-.250	-.610	-1.363
S29c	1.000	7.000	-.219	-.980	-.596	-1.332
S29b	1.000	7.000	-.185	-.827	-.541	-1.210
S29a	.000	7.000	-.209	-.933	-.298	-.666
S22n	.000	5.000	1.313	5.873	1.829	4.090
S22h	.000	5.000	.300	1.342	-.975	-2.180
S22i	.000	5.000	1.446	6.469	2.649	5.923
S22j	.000	5.000	.392	1.752	-.857	-1.916
S22k	.000	5.000	1.512	6.761	2.607	5.829
S22f	.000	5.000	1.215	5.432	1.141	2.551
Multivariate					75.736	21.005

Two criteria in the normality assessment were observed: (i) the measures of skewness reflected the normality assessment for every item, and (ii) the value of multivariate kurtosis (Zainudin, 2013). The value of skewness should fall within the range of -1.0 to 1.0 to indicate normal distribution.

In Table 3:6, six items (S27l, S27m, S22n, S22i, S22k, and S22f) were not in the range and the data distribution for the respective items departed from normality. The researcher attempted to delete the outliers and extreme values using Mahalanobis Distance and re-specify the model several times, and cannot re-specify further as it caused system failure to read the results. It was perhaps due to the amount of large data whereby large samples can make the statistical tests overly sensitive and restricted alpha will also affect the power (Hair, Black, Babin, & Rolph E, 2010). The estimate, standard error, constructs reliability, and significant sign for the three observed variables are shown in Table3:7.

Table 3:6 Estimate regression weights for each item

			Estimate	S.E.	C.R.	P	Label
S22i	<---	EH	.851	.090	9.452	***	
S22j	<---	EH	1.230	.130	9.438	***	
S22k	<---	EH	1.094	.101	10.804	***	
S22l	<---	EH	1.433	.130	11.036	***	
S22n	<---	EH	1.000				
S29a	<---	SWB	1.000				
S29b	<---	SWB	1.093	.048	22.914	***	
S29c	<---	SWB	1.099	.049	22.628	***	
S29d	<---	SWB	1.000	.056	17.854	***	
S27m	<---	FS	1.000				
S27l	<---	FS	1.109	.044	25.403	***	
S27k	<---	FS	1.053	.047	22.192	***	

*** indicate a highly significant at <0.001.
*Note – 1.00 indicates reference point

3.3 Test of Structural Model

The Structural Model produced with acceptable fit statistics X2 (N=379) =p<.001, RMSEA =.058, CFI =.981, TLI =.974 as presented in Figure 3:3. This ensure that the latent variable model produced relationships that were close to those observed in the sample (Rex B. Kline, 2011). The typical range for TLI lies between zero and one, but it is not limited to that range. TLI values close to 1 indicate a very good fit. CFI values close to 1 indicate a very good fit. According to McDonald, R.P. & Marsh, H.W. (1990) RMSEA (Root Mean Square Error of Approximation) value is about .05 or less would indicate a close fit of the model in relation to the degrees of freedom (Browne, M.W. & Cudeck, R.,1993), and value of about 0.08 or less is acceptable.

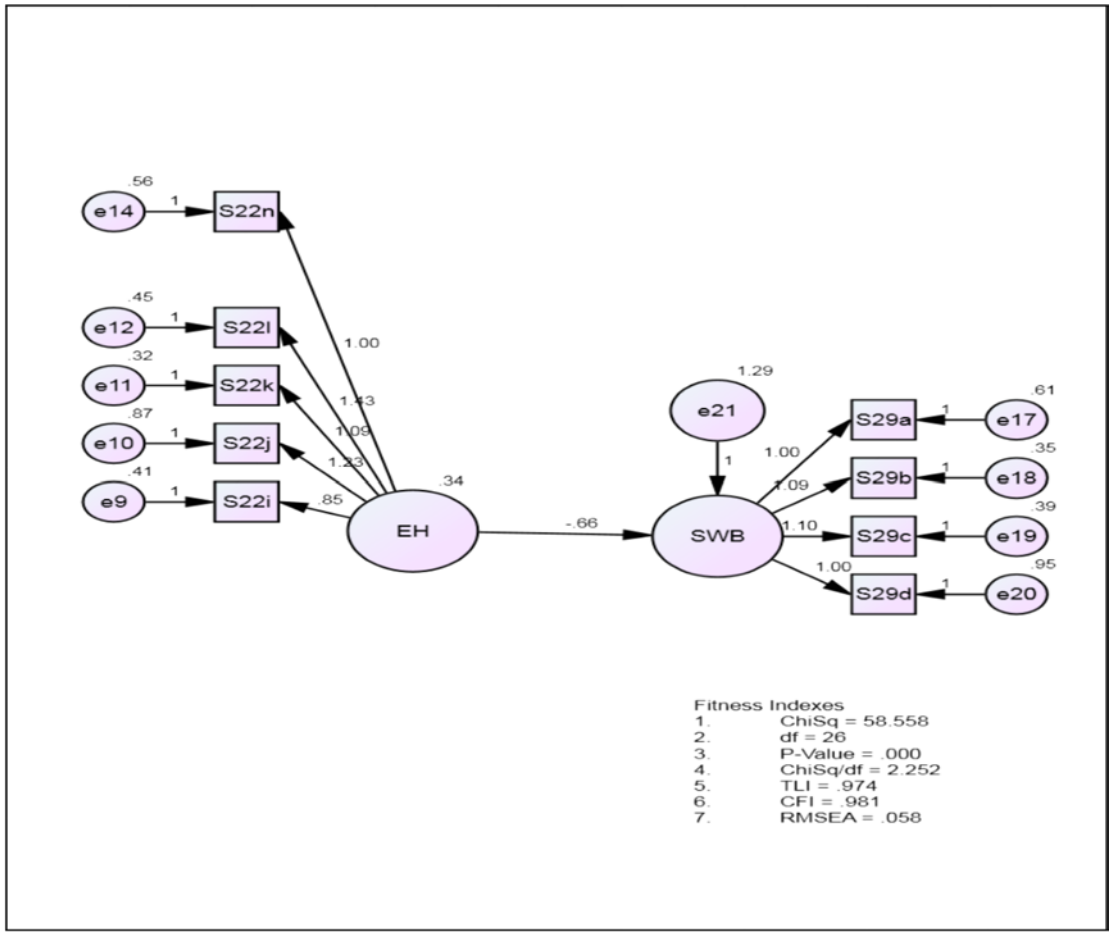

Figure 3:3 The Structural Model

The estimate, standard error, constructs reliability and p value for the two observed variables (SWB and economic hardship) are shown in Table 3:7.

Table 3:7 The regression weights for each item

	Beta Estimate			S.E.	C.R.	P	Label
SWB	**<---**	**EH**	**-.663**	**.127**	**-5.227**	*******	**par_8**
S22i	<---	EH	.848	.090	9.451	***	par_1
S22j	<---	EH	1.227	.130	9.449	***	par_2
S22k	<---	EH	1.093	.101	10.831	***	par_3
S22l	<---	EH	1.428	.129	11.052	***	par_4
S22n	<---	EH	1.000	Reference point			
S29a	<---	SWB	1.000	Reference point			
S29b	<---	SWB	1.094	.048	22.910	***	par_5
S29c	<---	SWB	1.099	.049	22.621	***	par_6
S29d	<---	SWB	1.000	.056	17.848	***	par_7

*** indicate a highly significant at <0.001.

*Note – 1.00 Indicates the reference point

Table 3:8 shows the fitness indexes requirements were achieved for the structural model with RMSEA was .058, GFI was .9, CFI was .98 and chi square was 2.25.

Table 3:8 The fitness indexes for Structural Model

Category name	Index name	Index value	Comments
Absolute fit	RMSEA	0.058	The required level is achieved
Absolute fit	GFI	0.981	The required level is achieved
Increamental fit	CFI	0.974	The required level is achieved
Parsimonious fit	Chisq/df	2.25	The required level is achieved

Table 3:9 shows the squared multiple correlations for SWB and the variance estimate for economic hardship.The variance estimate of the squared multiple correlations was .104. The result suggested that economic hardship only explained 10 percent of subjective well-being variance.

Table 3:9 Squared multiple correlations

Variable	Estimate (R2)
SWB	**.104**
S29d	.604
S29c	.817
S29b	.832
S29a	.704
S22n	.381
S22l	.607
S22k	.560
S22j	.374
S22i	.374

Table 3:10 The variance estimate for variable Y

	Estimate	S.E.	C.R.	P	Label
EH	.344	.057	6.075	***	par_9
e21	1.294	.133	9.711	***	par_10
e9	.413	.035	11.969	***	par_11
e10	.865	.072	11.971	***	par_12
e11	.323	.033	9.867	***	par_13
e12	.455	.050	9.069	***	par_14
e14	.558	.047	11.914	***	par_15
e17	.607	.054	11.188	***	par_16
e18	.349	.042	8.244	***	par_17
e19	.390	.045	8.734	***	par_18
e20	.947	.078	12.138	***	par_19

*** indicate highly significant at <0.001.

Based on P value in Table 3:10, it can be concluded that the variance for all variables in the model were significantly different from zero.

The standardized beta estimate of X is -.32, the actual beta value is -.663, as shown in Table 3:11, the value of R2 is .10 (Table 3:9), which indicated the contribution of construct X in estimating Y was 10 percent of its variance. It was estimated that the economic hardship explained only 10 percent of subjective well-being. Thus, the subjective well-being of vulnerable household heads may be explained by additional variables absent from the quantitative data. The probability of getting a critical ratio as large as -5.227 in absolute value was less than 0.001. In other words, the regression weight for economic hardship in the prediction of subjective well-being was significantly from zero at the 0.001 level. Therefore, the research hypothesis has been supported.

Table 3:21 The regression weight for (Y) economic hardship in predicting (X) SWB

			The actual beta values	S.E.	C.R.	P-value
Y	<---	X	-.663	.127	-5.227	

*** indicate a highly significant at <0.001.

4.0 DISCUSSION

The hypothesis which stated that there is significant negative relationship between economic hardship and SWB is supported. The causal weight on the relationship between economic hardship and subjective well-being was -.33. The result indicates that having lower economic hardship, (i.e. being able to afford basic needs including no problem in child education, affordable to pay loans and other utility services, able to pay bills on time, and have some savings for emergency) is associated with higher level of SWB. Within sample of the study, household heads' level of economic hardship is relatively low, and has a strong negative association with SWB.

Economic hardship is of concern for families in society today. In addition, happiness builds on hardship (Ruut Veenhoven, 2013), because people tend to be happier after hard times. When plagued by earlier worse life, one's standard tends to be lowered and hence will have a more favourable judgment of the present life. Thus, a certain degree of unhappiness or hardship is important to appreciate happiness. Happiness depends in part on the gratification of certain absolute biological and psychological needs (Ruut Veenhoven, 2013). The individuals experience of SWB seems to be similar to everyone, just like phenomena such as hunger and pain (Veenhoven in Schimmel, 2007b). This study is in line with these views.

The finding of this study is consistent with a study of income and happiness which is found not to be positively related in time-series studies. It is possible that happiness did not rise over time because aspiration levels adjusted to negatively varied with aspiration (Easterlin, 2001). Another study also found that income has negative impact on satisfaction relative to the goal of living in a better place and raising a family, with people in higher material poverty experiencing significantly higher average goal satisfaction in a study of subjective well-being in Peru (Copestake, Guillen-Royo, Chou, Hinks, & Velazco, 2009). The discrepancy theory states that subjective well-being is maximized when the discrepancy between one's goals and achievements is minimized, and lower among adults (Throop, 2011). These empirical analyses showed someone materially poor

can enjoy higher SWB. Another finding suggested a strong negative long-term effect of economic strain on SWB among adults (Baltatescu, 2011).

Within the US, it appears that the differences in income account for perhaps two to five percent in the variation in subjective well-being across people at a single time (Ahuvia & Friedman, 1998), with a dramatic decline in the marginal utility of income (Helliwell & Wang, 2013). They also argued that individuals who have the highest levels of subjective well-being are not those who live in the richest countries, but in the place where social and political institutions are effective, mutual trust is high, and corruption is low.

There are goods and services that do not pass through the market (Cobb, 1976), such as work in the household heads or communities. Yet, this economy of love, compassion, reciprocity and solidarity is highly important for human SWB. Consistent with "Easterlin paradox" (Layard & Programme, 2012) which finds the level of happiness of individual in the United States; despite the doubling in personal income since 1945, had hardly or not at all increased, but sometimes it had even diminished. Monetary needs and desires can never be fully satisfied (Easterlin, 2001)

Another related study on income and material hardship found that income did not moderate the relationship between economic pressure and resilience (Okech, Howard, Mauldin, Mimura, & Kim, 2012). Resilience is an active process of positive adjustment, adaptation and efficacy within a context of severe economic hardship (Okech et al., 2012). Resilience is the potential that arises from energy and skill of ongoing problem solving. Although this study do not test resilience, but it can be assumed that resilience is the factor of stable level of SWB as found among low-income household heads individuals whose facing some sort of certain economic hardship. There is relative stability of SWB over the life cycle in which individual adapt to events, the endogeneity of certain events relative to baseline life satisfaction, and the speed with which adaptation occurs.
Conversely, the finding of this study contradicted a cross national research which found a positive correlation between SWB and material resources, but the richer the country, the smaller this correlation at individual level (Veenhoven & Vries,1992). Diener and Fujita (1996) considered that resources vary in their relevance to SWB from one individual to another. The resources most relevant to him/her are the best predictor of his/her SWB.

People rank happiness, satisfaction ahead of money as a life goal (E. Diener, Oishi, & Lucas, 2003). The purpose of production of goods and services and of policies in areas such as education, health, the environment, and welfare is to increase well-being. Well-being is the common desired outcome. SWB is the basic element of WB related to physiological and physical needs (Higgs, 2006). Emotional or "higher order" needs (Maslow, 1954;E. D. Diener & Lucas, 2000) also greatly affect a person's personal sense of WB. Better WB means lower risk of poverty/higher standard of living. This study explored the relatively unexamined relationship between economic hardship and SWB. Rural vulnerable people have considerable economic hardship experience impacting their SWB.

SWB generally seeks to capture non-economic dimensions of human life which are not tapped by objective in outlook. Subjective well-being is portrayed as a measure that attempts to capture the overall sense of well-being. Some people possess the capacity to live remarkably happy, even in the face of poverty, or adversity. It was presumed that in

spite of stress of poverty, happy individuals are pre-equipped with certain inbuilt positive mechanism in themselves or their environment which protects them from the ill effects of poverty, while unhappy individuals are devoid of these attributes, thus, yielding themselves to the stressful conditions.

The hypothesis which stated that there is a significant negative relationship between economic hardship and subjective well-being was tested. Based on the principal of the Theorem of Incomparable Utilities, this study proved that despite many economic hardships faced by the individual, he or she still judge his/her life as very good/very happy. This theorem implies that the relationship between the economic hardships and SWB is not linear, but nonlinear.

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