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# The Micro and the Macro of Happiness: Case of East Asia

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## Abstract

Studies of subjective well-being can be and have been done at both micro and macro levels. Most studies, however, are done for Western countries. For lack of appropriate data, only community-level or provincial-level studies have been done for Thailand. This paper considers data of Thailand's neighbor countries, based on which regression analyses provide a preview of what subjective well-being might look like in Thailand. Despite cultural, political, and economic differences between East Asian and Western countries, findings based on these East Asian countries are consistent with what have been found for Western countries. At the macro level, South Korea, having shared the experience of the Financial Crisis with Thailand, is specially considered. Both per capita GDP and subjective well-being trend upwards following the crisis.

**Keywords:** Happiness, East Asia, Thailand

## 1. Introduction

As with other branches of economics, studies on subjective well-being have been done at both the micro and the macro levels. At the micro level, relationships between subjective well-being and various socio-economic characteristics and life circumstances have been established. Males are known to be less happy than females with the gap between the two genders closing over time (see, for example, Marcelli and Easterlin; Zimmermann and Easterlin; and Stevenson and Wolfers, all working papers). Happiness over a life cycle is found to take a U-shaped pattern, bottoming at age about 50. The employed tend to report being happier than the unemployed; the married than the single; the better educated than the less educated; and at a given time the rich than the poor, although, without appropriate data, causality cannot be established. Due to availability and quality of data, most of these micro studies involve developed countries – most notably, the United States, the United Kingdom, and Germany.

At the macro level, it has been found that people's subjective well-being suffers from high inflation and high unemployment in the economy (see Di Tella *et al.*, 2001; Clark and Oswald, 1994). The focus, however, is on the relationship between subjective well-being and income. Starting it all is Easterlin's 1974 paper that finds no rise in happiness level of people in Western countries despite a growing level of real income. An extension of this study to a wider group of countries indicates that happiness rises with income at low levels of income, but past a certain level of income, greater income does not necessarily translate into greater happiness.

Due to lack of high-quality subjective well-being data, happiness research involving Thailand has been almost non-existent until recent years. The only survey that considers subjective well-being is conducted by the University of Bath's Wellbeing in Developing Countries Research Group (WeD). Even then, surveys are only conducted at a community or a provincial level (see Camfield, 2007; Mahaarcha and Kittisuksathit, 2007; Gray and Kramanon, 2007; Masae, 2007). To paint a rough picture of what subjective well-being might look like

in Thailand, I resort to Thailand's neighboring countries, including China, India, Japan, South Korea, the Philippines, Indonesia, Singapore, and Vietnam. It is clear that Thailand shares a great deal of economic history with these countries, and they among themselves. Following Japan's success, South Korea and Singapore experienced a spurt of economic growth in the second half of the twentieth century. Just like South Korea and Singapore, Thailand has later experienced a period of 'growth miracle', which China now enjoys. As Vietnam becomes more open to the world market, discussions that it will soon catch up with Thailand become louder. Also, just like the South Korean and the Indonesian, the Thai economy was disrupted by the Asian Financial Crisis in 1997. Although these countries do not perfectly represent Thailand, they should provide reasonable hypotheses of the pattern of subjective well-being in Thailand. If not, I believe it would be interesting to see how countries at different stages of economic development compare in term of subjective well-being.

Notwithstanding many similarities and differences in Thailand's and South Korea's economies, the two countries share one important economic experience – the 1997 Asian Financial Crisis. Moreover, it is the one country that has recorded life satisfaction in successive years after the crisis. Therefore, I would like to use South Korea as a case study in taking a macro look at the relationship between life satisfaction and economic performance with a special notice on the Financial Crisis.

## 2. Data and Methodology

An advantage of using the World Values Survey (WVS) is its universal. Similar questions on socio-economic characteristics, beliefs, and interests are asked in scores of countries around the world for four rounds of surveys. Two of the questions on subjective well-being are: "Taking all things together, would you say you are: (1) very happy, (2) quite happy, (3) not very happy, or (4) not at all happy" and "All things considered, how satisfied are you with your life as a whole these days? [from 1 to 10 scale, with 1 being dissatisfied

and 10 being satisfied].” I choose to life satisfaction as the primary dependent variable for its wider scale should provide a greater variation in survey response. For most countries, histograms of response to life satisfaction skewed to the left, except for India.

However, since WVS is not longitudinal in structure, only cross-sectional results can be established, and since all countries of my interest participate in the fourth wave, this most recent wave, which took place in the years 2001 and 2002, will be the focus of this paper. Since it is possible that the pattern of subjective well-being may differ between males and females, the same analysis is done for males and females separately, and for the two genders combined. Included variables are gender when the two genders are combined, age and its square, marital status with being married as the omitted category, education dummy that takes the value of one if the individual has finished high school or equivalent level of schooling, employment status with being employed as the omitted category, family savings, social class, and size of town in which the individual lives (when available). Because the interested dependent variable, life satisfaction, is recorded as discrete, ordinal variables, ordered logit or order probit model is appropriate. For simpler interpretation of estimated coefficients, ordinary least squares (OLS) results will also be presented. According to Ferrer-i-Carbonell and Frijters (2004), the two methods should produce similar results.

To effectively study the relationship between South Korea’s economic performance and its people’s life satisfaction over time, it is ideal to follow the same group of people from one period to another so as to avoid sample selection bias.[2] Among countries of our interest, South Korea is the one country that has a longitudinal record of life satisfaction. The record is part of the Korean Labor Institute’s labor survey called the Korean Labor and Income Panel Study (KLIPS), which began in 1998 and has been annually conducted since then. In

[2] If the sample of people is changed over periods of time, then the observed changes in life satisfaction could result from changes in the sample. Following the same group of people over time eliminates this possibility.

this paper, I analyze South Korea's life satisfaction from the first wave of survey in 1998 and the sixth wave of survey in 2003. Mean values of life satisfaction from the WVS and the KLIPS data are plotted along with index of GDP per capita in Figure 2.

## 3. Micro-level Results

The variable that is consistently significant in both genders and all countries, with an exception of Indonesia, is family's saving behavior, which could proxy for income, which is not surveyed in all countries of our interest. A family's saving behavior is recorded as '1' if it saved money, '2' if it just got by, '3' if it spent some savings and borrowed money, and '4' if it spent all savings and borrowed money, in the past year. The negative coefficients thus indicate that, the worse the family's financial situation, the less happy the individual is. Since it is highly plausible that rich families are able to save more than poorer ones, these negative coefficients could be viewed as reflecting a positive cross-sectional relationship between income and life satisfaction, another confirmation of the same relationship found in Western countries.

Also consistently significant is an individual's subjective evaluation of his or her social class, except for South Korea, where the variable is not observed, and among Indonesian males. First, a positive relationship between subjective life satisfaction and social class may directly reflect a positive cross-sectional relationship between life satisfaction and income, which is very likely positively correlated with social class. Second, it may also reflect an effect of social comparison on life satisfaction. Corresponding to the idea that it is relative income but not absolute income that matters to happiness, an individual who feels better off, when comparing himself or herself to other people should feel more satisfied. Finally, it is also possible that an individual who is optimistic about life and, thus, views himself or herself as being better off or no worse off than other people also has personality traits that are conducive to happiness.

Apart from social class and family savings, no other variables are consistently significant across countries and genders. There is some evidence indicating that the unemployed are less happy than the employed. Understandably, this relationship is more prominent among males than females as males are more likely main income earners of the family. Whenever the coefficient on the high-school dummy variable is significant, it is positive, which again may reflect a positive cross-sectional relationship between income and life satisfaction above and beyond what is represented by subjective evaluation of social class and family savings. Whether education can improve subjective well-being outside the income channel is not certain. As expected, single people report being less satisfied than married people. The effect is more significant in more countries when the analysis is done for the two genders together than when it is for each gender separately. The negative relationship between divorce, separation, or widowhood and life satisfaction is significant only in China and Singapore, in which case, the coefficients are more negative for males.

Out of eight countries of interest, the relationship between age and life satisfaction shows up significantly in only three countries, namely, Japan, South Korea, and the Philippines. For all these three countries, life satisfaction is u-shaped in age – consistent with what is commonly found by similar studies of Western countries. This u-shaped relationship holds up for males in these three countries, although age is barely significant at the ten-percent significance level in case of South Korea. Interestingly, however, the coefficients on age and its square are not significant in any countries. Last but not least, contrary to my expectation, when the two genders are combined for the regression analysis, the male dummy variable is not statistically significant.

## 4. A Look at Macro Level

The relationship between income per capita and happiness has been established: happiness only increases with income up to a certain level of income; beyond that level, happiness stays flat. But what

happens when an economy's growth path is disrupted? History has provided us with natural experiments of such case. Most studied is the transition of former communist countries into the market economy, including the reunification of East and West Germany. At the advent of transition in the late 1980s or the early 1990s, these countries experience a sharp drop in GDP as well as life satisfaction (see Easterlin, 2006). Less studied are financial crises that happened in various parts of the world. Most familiar to the Thai people is the 1997 Asian Financial Crisis. Although the impact of the Crisis on GDP is widely discussed, its impact on people, especially in term of subjective well-being, is less well-known.

Taking advantage of the availability of South Korea's subjective well-being data before and after the Crisis, I can deduce the impact of the Financial Crisis on happiness of the South Korean people. In 1998, the year after the crisis, South Korea registered a negative economic growth at -7.5 percent, but it quickly recovered, regaining the 1996 level of GDP per capita in 1999 (Beja, 2007; also see Figure 2). Based on Figure 2, life satisfaction, as recorded by the World Values Survey and per capita GDP index both increase during South Korea's prosperous decade of 1980s. Although the World Values Survey shows a decrease in life satisfaction between 1990 and 2001, it is uncertain what happens in the interim; hence, it is not known what happens to life satisfaction of the South Korean people in 1997 and 1998. However, an upward trend in life satisfaction, as recorded by the Korean Labor and Income Panel Study, corresponds to the continuous recovery in per capita GDP following the 1997 Financial Crisis. This upward trend could reflect a quick recovery of the South Korean economy, a quick adjustment to the crisis of the South Korean people that cannot be captured by the data of this frequency, or both.

## 5. Conclusion

Despite cultural, political, and economic differences, neither micro nor macro relationships involving life satisfaction in East Asian countries discussed in this paper breaks with previous findings for

Western countries. Life satisfaction is u-shaped in age, less for the unemployed, and more for the married. The coefficients on social class and family savings can be explained by the established theory of income and happiness: relative status matters for one's subjective well-being, and the rich are happier at a given time. Due to a quick recovery of the South Korean economy from the 1997 Asian Financial Crisis, life satisfaction seems unaffected by the macroeconomic collapse although this pattern can possibly result from a quick adaptation to the crisis of the South Korean people themselves.

It must be stressed that this study of East Asian countries does not come close to representing a complete picture of subjective well-being in Thailand. Rather, this paper has previewed what Thailand stands to learn by consistently collecting subjective well-being data or incorporating subjective well-being questions into existent national surveys. As Powdthavee's paper in this same volume would attest to, cross-sectional data are hardly good enough to provide reliable policy recommendations. To make happiness a national agenda and to create public policies with happiness as a goal, good-quality longitudinal data are needed.

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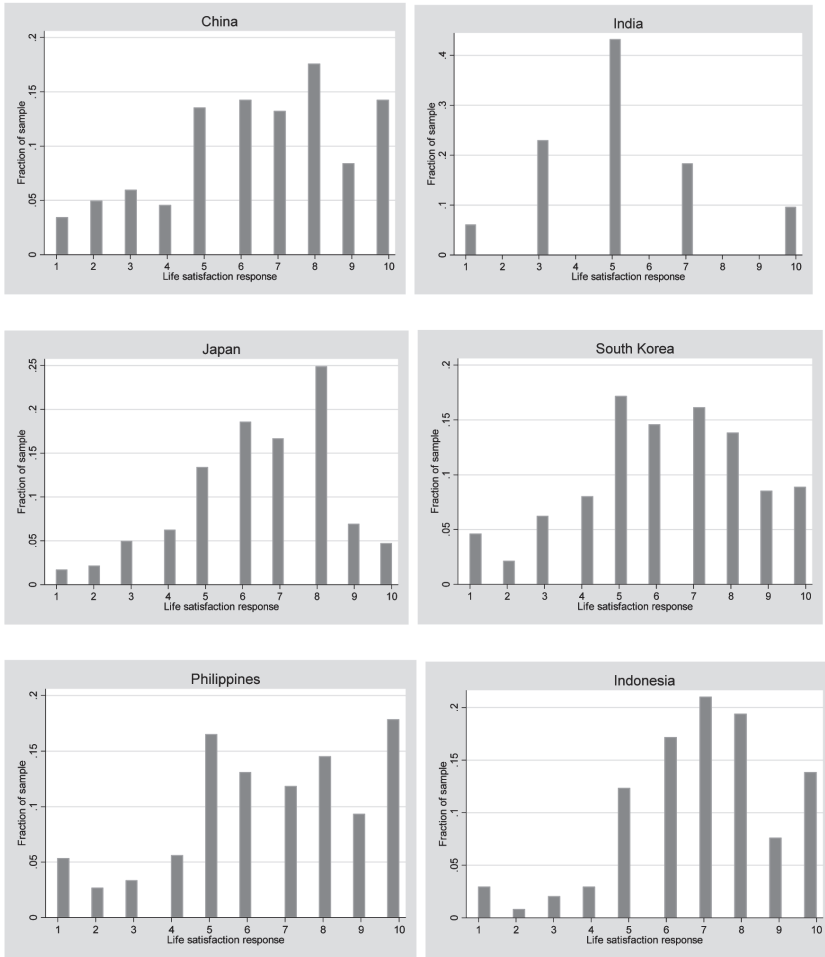
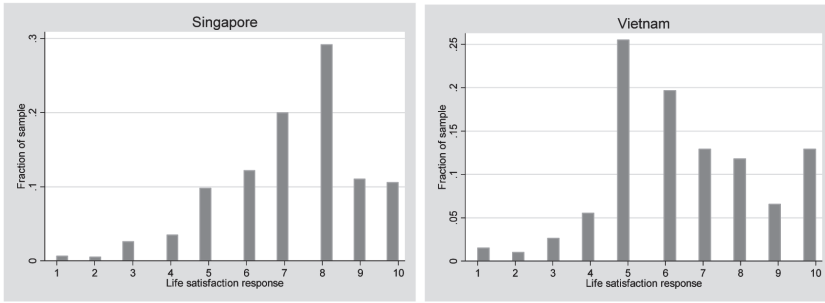
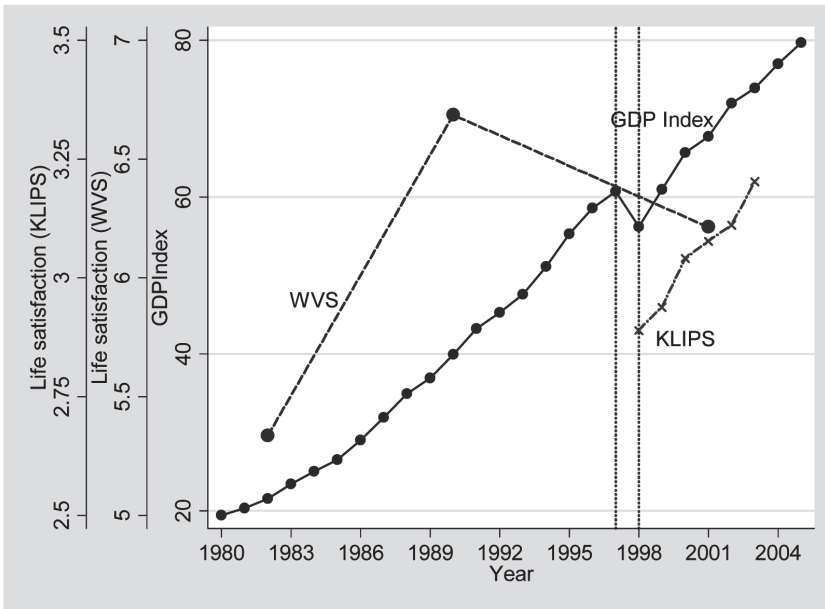



**Figure 1** Distribution of response to life satisfaction question




*Source*: World Values Survey, Wave 4.

**Figure 1** Distribution of response to life satisfaction question (continued)




*Source*: GDP Index from OECD (OECD 2000=100); life satisfaction from World Values Survey on the 1-10 scale; life satisfaction from Korean Labor and Income Panel Study, waves 1-6, on the 1-5 scale.

**Figure 2** South Korea's GDP index and life satisfaction

**Table 1.1** OLS regressions of life satisfaction on demographic variables by country, both genders

| | China | India | Japan | Korea | Philippines | Indonesia | Singapore | Vietnam |
|---|---|---|---|---|---|---|---|---|
| **male** | 0.030 | 0.073 | 0.024 | -0.203 | -0.247 | -0.142 | -0.044 | -0.009 |
| | [0.849] | [0.633] | [0.839] | [0.209] | [0.193] | [0.390] | [0.695] | [0.947] |
| **age** | -0.069 | -0.005 | -0.064 | -0.126 | -0.095 | 0.037 | -0.022 | 0.015 |
| | [0.196] | [0.814] | [0.032]* | [0.004]** | [0.004]** | [0.451] | [0.404] | [0.526] |
| **agesq** | 0.001 | 0.000 | 0.001 | 0.002 | 0.001 | 0.000 | 0.000 | 0.000 |
| | [0.192] | [0.992] | [0.022]* | [0.001]** | [0.002]** | [0.322] | [0.245] | [0.394] |
| **divorced** | -1.609 | -0.133 | 0.063 | -0.574 | 0.042 | 0.434 | -1.151 | -0.402 |
| | [0.000]** | [0.590] | [0.759] | [0.136] | [0.916] | [0.110] | [0.001]** | [0.313] |
| **single** | -0.798 | -0.028 | -0.599 | -0.761 | -0.034 | -0.482 | -0.398 | -0.512 |
| | [0.032]* | [0.887] | [0.004]** | [0.002]** | [0.891] | [0.187] | [0.019]* | [0.031]* |
| **hseduc** | -0.181 | -0.052 | 0.164 | 1.393 | 0.044 | 0.408 | 0.007 | 0.074 |
| | [0.282] | [0.678] | [0.311] | [0.001]** | [0.810] | [0.031]* | [0.951] | [0.619] |
| **retired** | -0.357 | 0.369 | 0.297 | -0.332 | 0.025 | 0.589 | -0.372 | 0.587 |
| | [0.324] | [0.389] | [0.147] | [0.386] | [0.956] | [0.029]* | [0.403] | [0.012]* |
| **housewife** | -0.390 | 0.311 | 0.537 | -0.116 | -0.248 | 0.358 | 0.204 | 0.295 |
| | [0.268] | [0.366] | [0.001]** | [0.595] | [0.299] | [0.095]+ | [0.223] | [0.237] |
| **students** | -1.115 | -0.150 | 0.077 | 0.233 | -0.394 | 0.230 | 0.093 | 1.381 |
| | [0.101] | [0.386] | [0.878] | [0.434] | [0.312] | [0.542] | [0.602] | [0.001]** |
| **unemployed** | 0.321 | -0.529 | -1.340 | -0.844 | -0.256 | 0.619 | -0.078 | -0.085 |
| | [0.404] | [0.001]** | [0.006]** | [0.033]* | [0.307] | [0.204] | [0.693] | [0.820] |
| **dissavings** | -0.427 | -0.266 | -0.297 | -0.401 | -0.434 | -0.069 | -0.331 | -0.537 |
| | [0.000]** | [0.000]** | [0.000]** | [0.000]** | [0.000]** | [0.345] | [0.000]** | [0.000]** |
| **socialclass** | 0.818 | 0.456 | 0.940 | | 0.194 | 0.304 | 0.321 | 0.349 |
| | [0.000]** | [0.000]** | [0.000]** | | [0.009]** | [0.003]** | [0.000]** | [0.005]** |
| **townsize** | | 0.130 | | | -0.025 | 0.000 | | -0.053 |
| | | [0.000]** | | | [0.737] | [0.993] | | [0.386] |
| **Constant** | 7.135 | 4.490 | 5.692 | 8.424 | 9.299 | 5.246 | 7.281 | 6.748 |
| | [0.000]** | [0.000]** | [0.000]** | [0.000]** | [0.000]** | [0.000]** | [0.000]** | [0.000]** |
| **Observations** | 916 | 1699 | 1073 | 1108 | 1183 | 837 | 1458 | 954 |
| **R-squared** | 0.172 | 0.114 | 0.269 | 0.059 | 0.045 | 0.052 | 0.089 | 0.077 |

**Table 1.2** OLS regressions of life satisfaction on demographic variables by country, males

| | China | India | Japan | Korea | Philippine | Indonesia | Singapore | Vietnam |
|---|---|---|---|---|---|---|---|---|
| **age** | 0.019 | -0.019 | -0.124 | -0.099 | -0.160 | 0.004 | -0.040 | 0.045 |
| | [0.801] | [0.533] | [0.001]* | [0.105] | [0.000]** | [0.950] | [0.300] | [0.239] |
| **agesq** | 0.000 | 0.000 | 0.001 | 0.001 | 0.002 | 0.000 | 0.001 | 0.000 |
| | [0.849] | [0.682] | [0.001]* | [0.030]* | [0.000]** | [0.985] | [0.290] | [0.270] |
| **divorced** | -2.366 | -0.164 | -0.375 | -1.811 | -0.524 | 0.695 | -1.500 | -0.539 |
| | [0.000]* | [0.660] | [0.285] | [0.002]* | [0.379] | [0.139] | [0.019]* | [0.596] |
| **single** | -0.953 | -0.195 | -0.878 | -0.374 | 0.002 | -0.278 | -0.559 | -0.385 |
| | [0.050]* | [0.415] | [0.001]* | [0.296] | [0.995] | [0.518] | [0.022]* | [0.242] |
| **hseduc** | -0.267 | 0.123 | 0.157 | 0.742 | 0.276 | 0.645 | -0.026 | 0.010 |
| | [0.268] | [0.451] | [0.452] | [0.264] | [0.291] | [0.013]* | [0.875] | [0.961] |
| **retired** | -0.347 | 0.378 | -0.106 | -0.338 | -0.193 | 0.488 | -0.410 | 0.394 |
| | [0.540] | [0.408] | [0.693] | [0.398] | [0.715] | [0.120] | [0.484] | [0.183] |
| **housewife** | -0.503 | 0.386 | -1.159 | 0.000 | 0.019 | -1.248 | 0.000 | 0.040 |
| | [0.310] | [0.295] | [0.000]* | [.] | [0.984] | [0.000]** | [.] | [0.957] |
| **students** | -2.785 | -0.050 | -1.080 | 0.128 | -1.059 | 0.868 | 0.195 | 0.760 |
| | [0.000]* | [0.916] | [0.084]+ | [0.771] | [0.040]* | [0.115] | [0.397] | [0.064]+ |
| **unemployed** | 0.000 | -0.706 | -1.495 | -0.889 | -0.292 | 0.860 | -0.394 | -0.151 |
| | [.] | [0.000]* | [0.037]* | [0.074]+ | [0.393] | [0.206] | [0.162] | [0.760] |
| **dissavings** | -0.459 | -0.264 | -0.320 | -0.401 | -0.487 | -0.136 | -0.414 | -0.346 |
| | [0.000]* | [0.000]* | [0.000]* | [0.000]* | [0.001]** | [0.197] | [0.000]** | [0.012]* |
| **socialclass** | 0.705 | 0.322 | 0.892 | | 0.243 | 0.253 | 0.332 | 0.476 |
| | [0.000]* | [0.000]* | [0.000]* | | [0.020]* | [0.122] | [0.000]** | [0.005]* |
| **townsize** | | 0.097 | | | -0.119 | 0.091 | | -0.113 |
| | | [0.006]* | | | [0.256] | [0.021]* | | [0.169] |
| **Constant** | 5.782 | 5.301 | 7.320 | 8.012 | 10.814 | 5.214 | 7.860 | 5.481 |
| | [0.001]* | [0.000]* | [0.000]* | [0.000]* | [0.000]** | [0.000]** | [0.000]** | [0.000]* |
| **Observation** | 455 | 1008 | 517 | 564 | 593 | 432 | 699 | 473 |
| **R-squared** | 0.186 | 0.088 | 0.289 | 0.075 | 0.083 | 0.077 | 0.117 | 0.083 |

**Table 1.3** OLS regressions of life satisfaction on demographic variables by country, females

| | China | India | Japan | Korea | Philippines | Indonesia | Singapore | Vietnam |
|---|---|---|---|---|---|---|---|---|
| **age** | -0.116 | -0.003 | 0.019 | -0.089 | -0.021 | 0.067 | -0.008 | -0.001 |
| | [0.108] | [0.926] | [0.682] | [0.243] | [0.680] | [0.373] | [0.827] | [0.974] |
| **agesq** | 0.001 | 0.000 | 0.000 | 0.001 | 0.000 | -0.001 | 0.000 | 0.000 |
| | [0.119] | [0.963] | [0.671] | [0.329] | [0.646] | [0.200] | [0.554] | [0.691] |
| **divorced** | -1.023 | -0.116 | 0.364 | 0.281 | 0.379 | 0.467 | -1.058 | -0.211 |
| | [0.097]+ | [0.753] | [0.141] | [0.559] | [0.477] | [0.133] | [0.007]** | [0.620] |
| **single** | -0.408 | 0.342 | -0.168 | -1.016 | -0.145 | -0.666 | -0.253 | -0.504 |
| | [0.448] | [0.353] | [0.595] | [0.004]** | [0.729] | [0.238] | [0.279] | [0.165] |
| **hseduc** | -0.145 | -0.305 | 0.068 | 1.477 | -0.231 | 0.272 | 0.023 | 0.157 |
| | [0.536] | [0.119] | [0.793] | [0.007]** | [0.367] | [0.331] | [0.886] | [0.489] |
| **retired** | -0.261 | 0.828 | 0.890 | -1.534 | -0.059 | 0.618 | 0.019 | 0.658 |
| | [0.587] | [0.507] | [0.004]** | [0.118] | [0.963] | [0.261] | [0.977] | [0.087]+ |
| **housewife** | -0.315 | 0.157 | 0.770 | -0.092 | -0.312 | 0.311 | 0.188 | 0.351 |
| | [0.531] | [0.850] | [0.000]** | [0.695] | [0.243] | [0.164] | [0.303] | [0.207] |
| **students** | -0.920 | -0.073 | 1.484 | 0.388 | 0.594 | -0.211 | -0.069 | 2.050 |
| | [0.162] | [0.725] | [0.012]* | [0.345] | [0.270] | [0.723] | [0.807] | [0.001]** |
| **unemployed** | 0.338 | -0.312 | -1.093 | -0.501 | -0.227 | 0.279 | 0.164 | 0.000 |
| | [0.396] | [0.273] | [0.013]* | [0.477] | [0.556] | [0.688] | [0.519] | [1.000] |
| **dissavings** | -0.392 | -0.276 | -0.245 | -0.391 | -0.365 | -0.035 | -0.239 | -0.725 |
| | [0.001]** | [0.000]** | [0.007]** | [0.000]** | [0.006]** | [0.737] | [0.011]* | [0.000]** |
| **socialclass** | 0.905 | 0.603 | 1.001 | | 0.132 | 0.325 | 0.314 | 0.126 |
| | [0.000]** | [0.000]** | [0.000]** | | [0.213] | [0.007]** | [0.000]** | [0.522] |
| **townsize** | | 0.175 | | | 0.095 | -0.141 | | 0.005 |
| | | [0.000]** | | | [0.383] | [0.004]** | | [0.958] |
| **Constant** | 7.750 | 3.892 | 3.566 | 7.974 | 7.249 | 5.457 | 6.772 | 7.884 |
| | [0.000]** | [0.000]** | [0.002]** | [0.000]** | [0.000]** | [0.005]** | [0.000]** | [0.000]** |
| **Observations** | 461 | 691 | 556 | 544 | 590 | 405 | 759 | 481 |
| **R-squared** | 0.175 | 0.162 | 0.277 | 0.065 | 0.032 | 0.080 | 0.075 | 0.100 |

**Table 2.1** Ordered logit regressions of life satisfaction on demographic variables by country, both genders

| | China | India | Japan | Korea | Philippines | Indonesia | Singapore | Vietnam |
|---|---|---|---|---|---|---|---|---|
| **male** | -0.018 | 0.059 | -0.023 | -0.158 | -0.177 | -0.131 | -0.054 | 0.013 |
| | [0.888] | [0.654] | [0.853] | [0.204] | [0.178] | [0.359] | [0.662] | [0.912] |
| **age** | -0.049 | -0.005 | -0.089 | -0.105 | -0.076 | 0.028 | -0.030 | 0.018 |
| | [0.257] | [0.814] | [0.007]** | [0.002]** | [0.003]** | [0.523] | [0.317] | [0.377] |
| **agesq** | 0.001 | 0.000 | 0.001 | 0.001 | 0.001 | 0.000 | 0.000 | 0.000 |
| | [0.248] | [0.926] | [0.005]** | [0.001]** | [0.002]** | [0.426] | [0.218] | [0.274] |
| **divorced** | -1.314 | -0.060 | 0.067 | -0.434 | -0.071 | 0.303 | -1.120 | -0.529 |
| | [0.000]** | [0.774] | [0.735] | [0.134] | [0.836] | [0.229] | [0.004]** | [0.209] |
| **single** | -0.524 | -0.036 | -0.700 | -0.584 | -0.113 | -0.511 | -0.490 | -0.455 |
| | [0.075]+ | [0.831] | [0.002]** | [0.002]** | [0.512] | [0.109] | [0.007]** | [0.034]* |
| **hseduc** | -0.149 | -0.019 | 0.196 | 1.092 | 0.003 | 0.476 | -0.041 | 0.085 |
| | [0.262] | [0.858] | [0.263] | [0.001]** | [0.984] | [0.004]** | [0.751] | [0.524] |
| **retired** | -0.279 | 0.390 | 0.300 | -0.351 | -0.055 | 0.449 | -0.449 | 0.574 |
| | [0.344] | [0.308] | [0.168] | [0.275] | [0.885] | [0.070]+ | [0.412] | [0.006]** |
| **housewife** | -0.370 | 0.261 | 0.572 | -0.079 | -0.172 | 0.208 | 0.189 | 0.304 |
| | [0.199] | [0.379] | [0.001]** | [0.634] | [0.307] | [0.284] | [0.353] | [0.197] |
| **students** | -0.994 | -0.098 | 0.028 | 0.144 | -0.249 | 0.145 | 0.104 | 1.259 |
| | [0.096]+ | [0.521] | [0.960] | [0.541] | [0.332] | [0.659] | [0.617] | [0.000]** |
| **unemployed** | 0.268 | -0.458 | -1.205 | -0.686 | -0.141 | 0.454 | -0.144 | -0.054 |
| | [0.362] | [0.001]** | [0.006]** | [0.033]* | [0.429] | [0.310] | [0.500] | [0.874] |
| **dissavings** | -0.308 | -0.240 | -0.300 | -0.318 | -0.302 | -0.060 | -0.378 | -0.522 |
| | [0.000]** | [0.000]** | [0.000]** | [0.000]** | [0.000]** | [0.341] | [0.000]** | [0.000]** |
| **socialclass** | 0.628 | 0.422 | 1.000 | | 0.119 | 0.267 | 0.337 | 0.271 |
| | [0.000]** | [0.000]** | [0.000]** | | [0.027]* | [0.002]** | [0.000]** | [0.013]* |
| **townsize** | | 0.118 | | | -0.010 | -0.017 | | -0.024 |
| | | [0.000]** | | | [0.852] | [0.528] | | [0.658] |
| **cut1** | -3.928 | -2.314 | -4.320 | -4.930 | -5.017 | -2.049 | -5.756 | -4.584 |
| | [0.000]** | [0.000]** | [0.000]** | [0.000]** | [0.000]** | [0.067]+ | [0.000]** | [0.000]** |
| **cut2** | -2.920 | -0.340 | -3.398 | -4.506 | -4.530 | -1.816 | -5.023 | -3.994 |
| | [0.002]** | [0.484] | [0.000]** | [0.000]** | [0.000]** | [0.104] | [0.000]** | [0.000]** |
| **cut3** | -2.293 | 1.695 | -2.424 | -3.802 | -4.157 | -1.374 | -3.912 | -3.260 |
| | [0.014]* | [0.001]** | [0.003]** | [0.000]** | [0.000]** | [0.221] | [0.000]** | [0.000]** |
| **cut4** | -1.940 | 3.049 | -1.714 | -3.208 | -3.687 | -0.964 | -3.148 | -2.428 |
| | [0.039]* | [0.000]** | [0.037]* | [0.000]** | [0.000]** | [0.391] | [0.000]** | [0.000]** |
| **cut5** | -1.130 | | -0.730 | -2.341 | -2.758 | 0.006 | -2.105 | -0.725 |
| | [0.230] | | [0.373] | [0.004]** | [0.000]** | [0.996] | [0.003]** | [0.228] |
| **cut6** | -0.476 | | 0.247 | -1.728 | -2.177 | 0.923 | -1.345 | 0.118 |
| | [0.613] | | [0.762] | [0.035]* | [0.002]** | [0.410] | [0.057]+ | [0.845] |
| **cut7** | 0.133 | | 1.096 | -1.017 | -1.705 | 1.837 | -0.314 | 0.702 |
| | [0.887] | | [0.179] | [0.213] | [0.014]* | [0.101] | [0.656] | [0.243] |
| **cut8** | 1.056 | | 2.811 | -0.223 | -1.041 | 2.785 | 1.260 | 1.357 |
| | [0.262] | | [0.001]** | [0.784] | [0.131] | [0.013]* | [0.075]+ | [0.025]* |
| **cut9** | 1.653 | | 3.961 | 0.533 | -0.486 | 3.340 | 2.250 | 1.855 |
| | [0.079]+ | | [0.000]** | [0.515] | [0.481] | [0.003]** | [0.001]** | [0.002]** |
| **Observations** | 916 | 1699 | 1073 | 1108 | 1183 | 837 | 1458 | 954 |

**Table 2.2** Ordered logit regressions of life satisfaction on demographic variables by country, males

| | China | India | Japan | Korea | Philippines | Indonesia | Singapore | Vietnam |
|---|---|---|---|---|---|---|---|---|
| **age** | 0.039 | -0.019 | -0.147 | -0.079 | -0.122 | 0.011 | -0.051 | 0.056 |
| | [0.540] | [0.469] | [0.001]** | [0.118] | [0.000]** | [0.852] | [0.254] | [0.133] |
| **agesq** | 0.000 | 0.000 | 0.002 | 0.001 | 0.001 | 0.000 | 0.001 | 0.000 |
| | [0.594] | [0.655] | [0.000]** | [0.033]* | [0.000]** | [0.991] | [0.260] | [0.156] |
| **divorced** | -2.013 | -0.078 | -0.347 | -1.382 | -0.558 | 0.537 | -1.511 | -0.462 |
| | [0.000]** | [0.822] | [0.294] | [0.002]** | [0.188] | [0.289] | [0.053]+ | [0.647] |
| **single** | -0.566 | -0.141 | -0.977 | -0.224 | -0.112 | -0.300 | -0.603 | -0.322 |
| | [0.160] | [0.500] | [0.002]** | [0.434] | [0.620] | [0.418] | [0.013]* | [0.344] |
| **hseduc** | -0.221 | 0.091 | 0.278 | 0.514 | 0.259 | 0.727 | -0.114 | -0.011 |
| | [0.260] | [0.512] | [0.236] | [0.373] | [0.191] | [0.001]** | [0.534] | [0.954] |
| **retired** | -0.202 | 0.340 | -0.109 | -0.370 | -0.230 | 0.280 | -0.508 | 0.382 |
| | [0.672] | [0.379] | [0.731] | [0.278] | [0.606] | [0.328] | [0.470] | [0.168] |
| **housewife** | -0.428 | 0.315 | -1.213 | | 0.168 | -1.405 | | 0.348 |
| | [0.321] | [0.315] | [0.000]** | | [0.805] | [0.000]** | | [0.528] |
| **students** | -32.151 | -0.186 | -1.137 | 0.089 | -0.667 | 0.845 | 0.204 | 0.944 |
| | [0.000]** | [0.702] | [0.107] | [0.791] | [0.061]+ | [0.159] | [0.446] | [0.021]* |
| **unemployed** | | -0.622 | -1.508 | -0.762 | -0.159 | 0.783 | -0.473 | -0.037 |
| | | [0.000]** | [0.040]* | [0.074]+ | [0.520] | [0.203] | [0.121] | [0.935] |
| **dissavings** | -0.325 | -0.243 | -0.351 | -0.297 | -0.323 | -0.106 | -0.452 | -0.395 |
| | [0.000]** | [0.000]** | [0.001]** | [0.001]** | [0.003]** | [0.246] | [0.000]** | [0.003]** |
| **socialclass** | 0.551 | 0.301 | 0.998 | | 0.155 | 0.239 | 0.336 | 0.427 |
| | [0.000]** | [0.000]** | [0.000]** | | [0.049]* | [0.082]+ | [0.000]** | [0.005]** |
| **townsize** | | 0.089 | | | -0.079 | 0.066 | | -0.084 |
| | | [0.002]** | | | [0.299] | [0.060]+ | | [0.274] |
| **cut1** | -2.493 | -3.299 | -5.878 | -4.601 | -5.994 | -1.509 | -6.371 | -3.094 |
| | [0.064]+ | [0.000]** | [0.000]** | [0.001]** | [0.000]** | [0.261] | [0.000]** | [0.003]** |
| **cut2** | -1.537 | -1.069 | -4.835 | -4.117 | -5.549 | -1.338 | -5.562 | -2.631 |
| | [0.256] | [0.100] | [0.000]** | [0.003]** | [0.000]** | [0.319] | [0.000]** | [0.009]** |
| **cut3** | -0.844 | 0.862 | -4.002 | -3.362 | -5.166 | -0.940 | -4.488 | -2.176 |
| | [0.533] | [0.185] | [0.000]** | [0.014]* | [0.000]** | [0.488] | [0.000]** | [0.027]* |
| **cut4** | -0.447 | 2.229 | -3.208 | -2.756 | -4.624 | -0.424 | -3.669 | -1.327 |
| | [0.743] | [0.001]** | [0.003]** | [0.044]* | [0.000]** | [0.756] | [0.000]** | [0.175] |
| **cut5** | 0.348 | | -2.265 | -1.871 | -3.784 | 0.524 | -2.701 | 0.619 |
| | [0.800] | | [0.037]* | [0.171] | [0.000]** | [0.702] | [0.005]** | [0.526] |
| **cut6** | 1.089 | | -1.144 | -1.274 | -3.152 | 1.367 | -1.968 | 1.541 |
| | [0.429] | | [0.289] | [0.351] | [0.000]** | [0.319] | [0.040]* | [0.115] |
| **cut7** | 1.759 | | -0.180 | -0.586 | -2.632 | 2.301 | -0.877 | 2.158 |
| | [0.202] | | [0.867] | [0.668] | [0.002]** | [0.096]+ | [0.357] | [0.028]* |
| **cut8** | 2.619 | | 1.555 | 0.224 | -1.947 | 3.281 | 0.581 | 2.826 |
| | [0.059]+ | | [0.154] | [0.870] | [0.024]* | [0.018]* | [0.543] | [0.004]** |
| **cut9** | 3.137 | | 2.858 | 1.023 | -1.361 | 4.048 | 1.641 | 3.325 |
| | [0.024]* | | [0.013]* | [0.454] | [0.115] | [0.004]** | [0.084]+ | [0.001]** |
| **Observations** | 455 | 1008 | 517 | 564 | 593 | 432 | 699 | 473 |

**Table 2.3** Ordered logit regressions of life satisfaction on demographic variables by country, females

| | China | India | Japan | Korea | Philippines | Indonesia | Singapore | Vietnam |
|---|---|---|---|---|---|---|---|---|
| **age** | -0.108 | 0.001 | -0.011 | -0.089 | -0.026 | 0.021 | -0.012 | 0.002 |
| | [0.068]+ | [0.969] | [0.832] | [0.134] | [0.492] | [0.760] | [0.778] | [0.934] |
| **agesq** | 0.001 | 0.000 | 0.000 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 |
| | [0.082]+ | [0.848] | [0.862] | [0.205] | [0.497] | [0.507] | [0.578] | [0.568] |
| **divorced** | -0.823 | -0.092 | 0.299 | 0.194 | 0.264 | 0.350 | -1.063 | -0.365 |
| | [0.065]+ | [0.759] | [0.219] | [0.597] | [0.572] | [0.245] | [0.016]* | [0.413] |
| **single** | -0.363 | 0.220 | -0.307 | -0.874 | -0.139 | -0.854 | -0.371 | -0.450 |
| | [0.386] | [0.498] | [0.365] | [0.001]** | [0.629] | [0.088]+ | [0.161] | [0.153] |
| **hseduc** | -0.124 | -0.169 | -0.005 | 1.147 | -0.257 | 0.292 | 0.025 | 0.194 |
| | [0.494] | [0.325] | [0.985] | [0.008]** | [0.159] | [0.257] | [0.895] | [0.328] |
| **retired** | -0.167 | 1.095 | 0.854 | -1.125 | -0.100 | 0.682 | -0.086 | 0.676 |
| | [0.664] | [0.481] | [0.005]** | [0.129] | [0.938] | [0.182] | [0.910] | [0.041]* |
| **housewife** | -0.272 | 0.355 | 0.752 | -0.076 | -0.231 | 0.166 | 0.187 | 0.330 |
| | [0.495] | [0.669] | [0.000]** | [0.677] | [0.204] | [0.408] | [0.398] | [0.189] |
| **students** | -0.772 | 0.008 | 1.431 | 0.239 | 0.244 | -0.313 | -0.040 | 1.779 |
| | [0.124] | [0.964] | [0.087]+ | [0.481] | [0.482] | [0.548] | [0.904] | [0.003]** |
| **unemployed** | 0.290 | -0.252 | -0.940 | -0.340 | -0.145 | 0.111 | 0.127 | -0.028 |
| | [0.350] | [0.317] | [0.019]* | [0.517] | [0.603] | [0.883] | [0.659] | [0.955] |
| **dissavings** | -0.292 | -0.242 | -0.228 | -0.331 | -0.267 | -0.061 | -0.305 | -0.660 |
| | [0.001]** | [0.001]** | [0.016]* | [0.000]** | [0.006]** | [0.507] | [0.007]** | [0.000]** |
| **socialclass** | 0.694 | 0.570 | 1.032 | | 0.071 | 0.316 | 0.344 | 0.039 |
| | [0.000]** | [0.000]** | [0.000]** | | [0.343] | [0.004]** | [0.000]** | [0.812] |
| **townsize** | | 0.161 | | | 0.071 | -0.140 | | 0.026 |
| | | [0.000]** | | | [0.347] | [0.001]** | | [0.731] |
| **cut1** | -4.892 | -1.434 | -2.357 | -4.874 | -3.765 | -3.308 | -5.207 | -5.873 |
| | [0.000]** | [0.059]+ | [0.067]+ | [0.000]** | [0.000]** | [0.074]+ | [0.000]** | [0.000]** |
| **cut2** | -3.791 | 0.283 | -1.541 | -4.505 | -3.228 | -2.985 | -4.577 | -5.146 |
| | [0.002]** | [0.705] | [0.219] | [0.000]** | [0.002]** | [0.104] | [0.000]** | [0.000]** |
| **cut3** | -3.203 | 2.519 | -0.419 | -3.840 | -2.863 | -2.483 | -3.390 | -4.192 |
| | [0.011]* | [0.001]** | [0.734] | [0.001]** | [0.006]** | [0.178] | [0.003]** | [0.000]** |
| **cut4** | -2.883 | 3.864 | 0.220 | -3.248 | -2.464 | -2.203 | -2.671 | -3.354 |
| | [0.021]* | [0.000]** | [0.858] | [0.005]** | [0.018]* | [0.229] | [0.015]* | [0.000]** |
| **cut5** | -2.041 | | 1.270 | -2.387 | -1.428 | -1.150 | -1.512 | -1.800 |
| | [0.102] | | [0.301] | [0.038]* | [0.165] | [0.527] | [0.157] | [0.024]* |
| **cut6** | -1.471 | | 2.142 | -1.747 | -0.885 | -0.113 | -0.714 | -1.018 |
| | [0.238] | | [0.081]+ | [0.128] | [0.389] | [0.950] | [0.500] | [0.202] |
| **cut7** | -0.913 | | 2.906 | -1.003 | -0.448 | 0.824 | 0.260 | -0.456 |
| | [0.463] | | [0.018]* | [0.380] | [0.663] | [0.647] | [0.807] | [0.567] |
| **cut8** | 0.076 | | 4.621 | -0.211 | 0.213 | 1.792 | 1.956 | 0.199 |
| | [0.951] | | [0.000]** | [0.853] | [0.836] | [0.318] | [0.067]+ | [0.803] |
| **cut9** | 0.749 | | 5.679 | 0.515 | 0.749 | 2.178 | 2.885 | 0.702 |
| | [0.546] | | [0.000]** | [0.653] | [0.468] | [0.223] | [0.007]** | [0.383] |
| **Observations** | 461 | 691 | 556 | 544 | 590 | 405 | 759 | 481 |