

The relationship between the understanding of philosophy of sufficiency economy and the living standard: the case study of sufficiency economy community in lower northern region of Thailand

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Key Words

Philosophy of Sufficiency Economy, Logit Model

Abstract

The purpose of this research paper is to find the relationship between the knowledge of "Sufficiency Economy Principles" and the quality of life of the households. It is postulated that, the higher the level of the knowledge of the principles that the household has acquired, the better the quality of life of the household as measured by family's income. A number of survey questionnaires have been sent out to families in rural areas in Northern part of Thailand. The sample families are from two types of village: one is under a pilot project called "sufficiency economy village", the other is not. The sampled data have been used to estimate the parameters of the logit model. The results indicate that, the level of education, and the knowledge of the principles have significant influence on family's income. The location of the family (i.e., whether or not it is in the Philosophy of Sufficiency Economy prototype village), however, has no significant relation with the family's income.

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1. Introduction

1.1 The Anatomy of Financial Crisis

The Asian Financial Crisis 1997 had brought down Thailand into severe recession never experienced in its economic history. The cause of financial crisis in Thailand was attributable to free international capital flows which enable Thai investors to invest more than domestic saving and allow Thai consumers to consume more than domestic output. This over-spending behavior by Thai investors and consumers was financed mainly by external borrowing in the form of capital inflows.

The over-spending activities financed by foreign borrowing did not last for long, however. Once the level of borrowing reached the threshold where the return from investment projects was not large enough to service the loan repayment coming due, the bad loans started to spread all over the balance sheets of all financial institutions. These bad loans had eaten up the capital of financial institutions to the point where these institutions must stop banking operations due to capital inadequacy.

The final episode of financial crisis saw the whole financial system collapsed completely which sent the business and production sectors grinding to a halt. Severe recession followed when large portion of labour force was laid off and became unemployed. The economic crisis spread out to some other Asian countries like South Korea, Indonesia and the Philippines.

There is a general consensus among economists about what causes financial crisis. They agree that the main culprit is the free international capital flows which allowed people in the

capital- recipient countries to borrow more than domestic saving. Consequently, people in these countries will consume more than the output they produce. This over-consumption will be reflected in the deficit in current account. Such is the situation called “Double or Triple Deficits”, when the balances of all sectors (private, government, and foreign trade) are in the red.

1.2 Can we blame it on economic theory?

After the world has experienced so many financial crises, many people started to cast some doubts on the soundness of modern economic theory that we teach students in the vast majority of universities around the world today. The simple question is raised: If the assumptions that the producer maximizes profit and the consumer maximizes utility are correct, why do they behave in a manner like over- investment and over- consumption, which lead them to end up in financial crisis, or bankruptcy in plain words?

Some proponents of modern economic theory argue that the economic theory is always sound. The behavior of economic agents deviate from the assumption in economic theory is simply the result of government intervention in private sector. In particular, the economic agents are willing to take too much risk by performing over- investment and over- consumption because the government provides them with some kinds of insurance like income guarantee, health care, bail-out plan for failed banks, and fixed exchange rate. These insurance provided by the government will distort the behavior of the people to become risk takers, who will be complacent, willing to take high risk and not afraid of failure. This situation is well known in economic theory as a “Moral Hazard of Government Insurance”.

1.3 Philosophy of Sufficiency Economy (PSE)

The 1997 Financial Crisis was a painful experience for Thai people operating in all sectors and sections of society. It took almost a decade to recover from that crisis. During that prolonged recovering process, policy makers tried to revise implement new economic measures to ensure that Thai economy will not slip into crisis again in the future.

Among these new economic measures aiming to rebuild Thai economy, a certain economic development program called “Sufficiency Economy”, which is under His Majesty King Bhumibhol’s initiative, came to a main focus. As a matter of fact, the Philosophy of Sufficiency Economy (PSE) has been recommended by His Majesty the King to Thai people about 30 years ago, long before the occurrence of 1997 Financial Crisis. The essence of the PSE is the focus on sustainable development through the practice of reasonableness, moderation and self-immunity by people of all walks of life. But not until 1997 Financial Crisis, the PSE has not been followed seriously by Thai people. It was only after the Crisis, that Thai people realized the significance of His Majesty’s teaching, the PSE has been brought into serious attention by all sectors. Since that crisis, Thai government started to use the PSE as a guideline for economic development program for the country. Nowadays, there are many PSE prototype villages located all over the country. It is hoped by policy makers that once the practice of PSE has been carried out by the majority of Thai people, Thailand will be able to move forward with high and sustainable economic growth, with minimal risk of failure.

The assessment of success of the prototype PSE villages is the main focus of this research paper. The Sufficiency Economy Principles is mixture of economic development practice and the philosophy of living. In a nutshell, the PSE can be summarized in simple framework known as “Three Principles and Two Conditions” to be explained below.

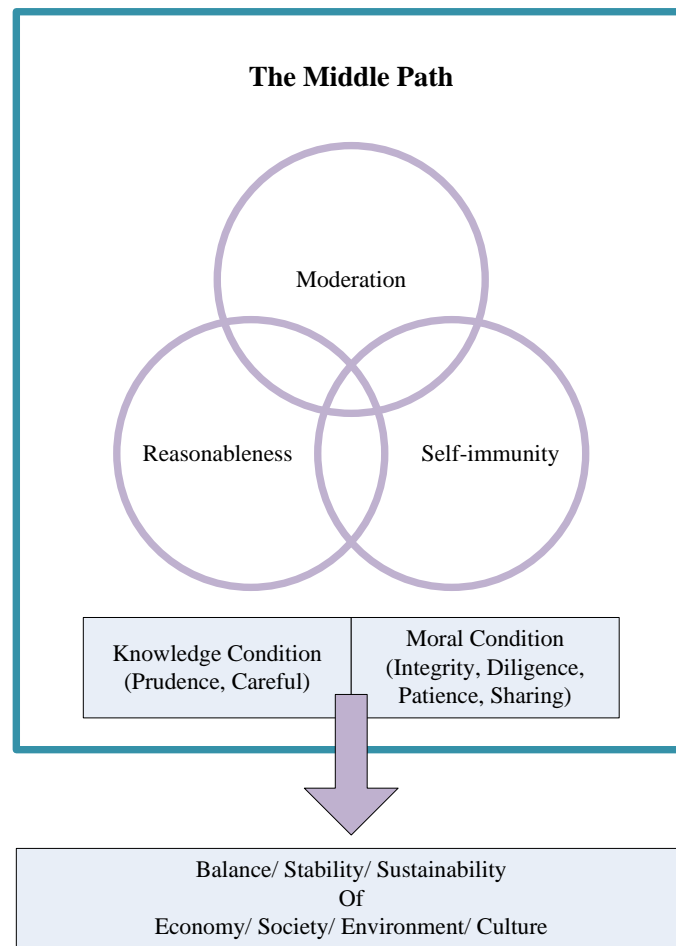


Fig. 1: The Philosophy of Sufficiency Economy Concept

“Moderate” means to be simple, not to take things to the extreme. The practice of moderation will help individuals to make a stable growth in life. Having simplicity as a norm, the individual will tend to have a happy life, with no envy in mind, and hence will always create good things for society.

“Reasonable” means to be careful in doing thing. Reasonable individual will gather all relevant information for making any decision. He will calculate the results in advance to assess the risk and return and the impact on other people and community as a whole prior to taking any action. When individuals use reasonableness as a guiding wisdom, it is no doubt that the society as a whole will benefit in terms of peace and prosperity.

“Self-immune” means to be able to cope with risk and adversary without having to depend much on the help from other people or the government. To be self-immune, the individuals must be prudent and well-aware of risks involved. He may employ the risk-protection tools in the forms of savings, buying insurances, joining the club or association, and creating good connection among people in community.

Knowledge is one of the two pillars that will help support individual in the practice of the three rings. With sufficient knowledge, he tends to be reasonable and self-immune in making a daily living and a careful plan for a future.

Morality is another pillar that can guarantee that individual will behave in a reasonable manner. A person with morality will be a good citizen, cooperative, and always willing to help

others. Furthermore, with good conscience, he can live a simple life and not taking things to the extreme.

It can be envisaged that, individual practicing the simple framework of PSE as illustrated will surely has a good life, with simple living and stable growth. When individuals in the society behave in this manner, the economy as a whole will prosper and is more likely to expand along sustainable path. It is worth noting that, sufficiency in the PSE does not have the same meaning as self-sufficient in Robinson Crusoe story. While Crusoe's self-sufficient means everything is scarce on a lonely island, the sufficiency in PSE means that people should have plenty of everything once they follow the practice the PSE seriously. The sufficiency economy supports the production and trade activities as conducted in modern capitalist system. What the PSE recommends is that, individuals must be reasonable, moderate, and self-immune, so that they can avoid economic crisis as frequently occurred in the present time.

1.4 The Philosophy of Sufficiency Economy and Modern Economic Theory

It is well- established in modern capitalist economic theory that the economic system will perform at its best when no market failure occurs. The market failure conditions include, among others, the monopoly, public goods, externalities, imperfect or incomplete information, and deviations of the system from its equilibrium due to external shocks (generally called business cycles or economic crisis). These market failures, when they occur, will cause the economic system to perform at lower than its optimal level, which will result in the welfare loss to the society as a whole.

The existence of the market failures, which is usually unavoidable due to market imperfection, calls for government to intervene in order to restore the efficient performance of economic system. However, more often than not, especially in less developed countries, the government has no intention to correct the market failures. This is due to the fact that, in most less-developed countries, the government is the representative of the interest groups. These interest groups are clearly those who benefit from market failure conditions such as monopoly, externalities like the emission of pollution to the earth atmosphere, the destruction of environment in any form, just to name a few.

The above claim can be supported by the evidence that, in less developed countries, the market failures still keep flourishing. Even though there exist the laws to regulate the market failures, but the enforcement seems to be so weak. With the understanding of the PSE among general people, the market failure conditions can be mitigated without useless intervention from the government. For examples, when people practice the principle of moderation, they will have no intention to monopolize the use of resource or information, to produce externalities like pollution, or to destroy environments for their own monetary gain. Furthermore, when people learn to practice the principle of self-immunity, they tend to be more careful in doing things. In other words, they will become more risk averse in modern economic terminology. Consequently, they will focus more on saving and less on consumption and borrowing. Obviously, self- immunity principle, the economic crisis can be avoided.

It can be seen that, the PSE is not in contradiction to the modern economic thinking. Rather, the PSE can help reduce the degree of market failures, which will in turn improve the performance of the capitalist system.

2. Literature Review

Mongsawad (2010) proposes that the philosophy of sufficiency economy conveys new theory in addressing current development challenges, which are issues of institutions, human capital, environmental sustainability and the role of government. The philosophy of sufficiency

economy, as a new paradigm of development, aims at improving human well-being as a development goal.

Bunyasrie (2010) uses the concept of sufficiency economy to analyze the causes of the Thai financial crisis in 1997. She pointed out the weaknesses of Thai economy and suggested the ways to prevent such crisis from happening again. She also recommended that the sufficiency economy and creative economy could be harmonically integrated to achieve a sustainable development.

Stückelberger (2010) claims that the future ethical market economy will be a sufficiency economy. It will provide “enough for everybody’s need, but not for everybody’s greed” (Mahatma Gandhi). A new vision of what human beings are will grow: human beings are not only grasping for maximum of material wealth and for maximum profit on the back of the others. They also look for community, solidarity and a meaningful life. Such anthropology will balance competition with community. It will modify economic and political theories. It will limit individual and institutionalized greed and lead to a new economic paradigm of fair and sustainable markets.

Calkins (2009) has constructed sufficiency economy matrices for use by local development planners. He applies constrained optimization, risk programming, and sufficiency economy philosophy to a case study of a sub-district in Northern Thailand. A seven-step process takes local decision-makers and planners from their current sub-optimal, unprotected situation to an optimal, “immunized” 5-year plan. Shadow price analysis, sufficiency economy indicators and parametric programming are also integrated into the 7-step procedure.

In this paper, the authors attempt to find the relationship between the understanding of the Philosophy of Sufficiency Economy concept (PSE) and the quality of life of people. At this stage, we use the family’s incomes as a proxy for the quality of life. The data on the level of understanding of PSE are obtained from the survey questionnaires sent out to people living in rural northern part of Thailand. The logit model is employed to find such relationship.

3. Methodology

This research work is aimed at investigating the relationship between the understanding of Sufficiency Economy Principles and the well-being of the households. It is postulated that those who have good knowledge and understanding of PSE should have better standard of living than those who lack the knowledge of PSE.

We collected the data from questionnaire issued to and responded by households from two types of village, one is under the government-run PSE program, and the other is not. Various questions regarding the principles of sufficiency economy were asked on the questionnaire and the total score is given to each household participating in the research.

The research uses family’s incomes (Y) as a proxy of the well-being of a household. We let Y=1 (representing good living standard) if the family’s incomes is equal to or greater than 10,000 baht per month, and Y = 0 (poor living standard) if the family’s incomes is less than 10,000 baht per month. The study uses 10,000 baht per month as a threshold since this level is approximately an average income per capita of Thai people at the present time. The study employs a logistic regression to analyze the data. The logistic regression equation is as follow.

$$\ln\left(\frac{p_i}{1-p_i}\right) = \beta_0 + \beta_1 \text{KnowSuff} + \beta_2 \text{Edu} + \beta_3 \text{FamNum} + \beta_4 \text{MStatus} + \beta_5 \text{Gender} + \beta_6 \text{SuffV} + u_i \quad (1)$$

where

$\ln\left(\frac{p_i}{1-p_i}\right)$ = The natural log of the ratio of the probability that the event will occur (in our case

the event is the household will have a good living standard, i.e., a family's incomes equal to or more than 10,000 baht per month) to the probability that the event will not occur (generally called the "Odds Ratio"). In the regression, the data on family's incomes will be set to 1 if it is equal of greater than 10,000. It is set to 0 when it is less than 10,000.

KnowSuff = The household's score of the test on the knowledge of PSE obtained from the household's response in the questionnaire

Edu = The level of education of the head of the family
 1 (lower than/ not complete high school level)
 2 (complete high school/lower-level vocational school)
 3 (higher-level vocational school/certificate)
 4 (bachelor degree)
 5 (higher than bachelor degree)

FamNum = The number of the members in the family

MStatus = The marital status of the respondent
 1 (single or living separately with spouse)
 0 (married or living together with spouse)

Gender = The gender of the respondent to the questionnaire
 1 (male)
 0 (female)

SuffV = The type of village that the sample family is located
 1 (in the PSE prototype village)
 0 (not in PSE prototype village)

u_i = The disturbance term of the regression

4. Regression Results

372 observations were gathered from questionnaires and the logit regression was run on EVIEWS software. The regression results are as follow:

$$\ln\left(\frac{p_i}{1-p_i}\right) = -1.9012 + 0.0603 \text{ KnowSuff} + 0.4477 \text{ Edu} + 0.0729 \text{ FamNum} \\
\begin{matrix} (-4.144620) & (1.929404) & (3.609300) & (0.941423) \\ -0.4189 \text{ MStatus} + & 0.5441 \text{ Gender} - & 0.3324 \text{ SUFFVILL} \\ (-1.398479) & (2.288483) & (-1.438022) \end{matrix}$$

The figures in parentheses are z-statistics being used for testing the significance of parameter estimates. It can be seen that the parameter estimates of level of education and gender are significant at 5% level, while that of knowledge of PSE is significant at 10% level. This means that these three variables are significant in explaining the well-being (family's incomes) of the households. Other variables such as marital status, and located in PSE prototype village are not significant in explaining the level of family's incomes.

The parameter estimate obtained from logit regression can be interpreted as a marginal effect of a unit change of an explanatory variable on a change of a probability that event under consideration will occur. In this research, it is the probability that the family's incomes will be equal to 10,000 baht or more per month (i.e., the probability that $Y = 1$). The derivation of the marginal effect can be explained below. The logit regression equation can also be expressed as

$P_i = E(Y = 1 \mid X_i) = \frac{1}{1 + e^{-(\beta_1 + \beta_2 X_i)}}$ or $P_i = F(Z_i) = \frac{1}{1 + e^{-Z_i}}$ where $Z_i = \beta_1 + \beta_2 X_i$. The marginal

effect of Z on the probability P is $f(Z) = \frac{dP}{dZ} = \frac{e^{-Z}}{(1 + e^{-Z})^2}$. Then the marginal effect of a particular

X_i can be written as $\frac{dP}{dX_i} = \frac{dP}{dZ} \frac{dZ}{dX_i} = f(Z)\beta_i$. Here, the value of Z is the mean value of the estimated regression equation.

Hence, from the regression results obtained, we can construct the table indicating the marginal effect of each explanatory variable on the probability that the event will occur as follow:

Table 1: A summary of the marginal effect of a one unit change of each explanatory variable on the probability that the family's incomes will be 10,000 baht or more per month ($Y = 1$).

Variable	Mean	β	Mean \times β	$f(Z) = \frac{dP}{dZ} = \frac{e^{-Z}}{(1 + e^{-Z})^2}$	$f(Z)\beta_i$
KnowSuff	9.1283	0.0603	0.5504	0.2339	0.0141
Edu	1.3548	0.4477	0.6065	0.2339	0.1047
FamNum	3.7513	0.0729	0.2735	0.2339	0.0171
MStatus	0.2086	-0.4189	-0.0874	0.2339	-0.0980
Gender	0.3235	0.5441	0.1760	0.2339	0.1273
SuffV	0.4118	-0.3324	-0.1369	0.2339	-0.0777
Constant	1.0000	-1.9012	-1.9012	0.2339	-0.4447
Total			-0.5191 = Z		

From Table 1, the results reveal that the marginal effect of knowledge on PSE equals to 0.0141, meaning that if the test score of PSE (randomly picked) increases by one point, then the probability that the family's incomes is equal or greater than 10,000 baht per month increases by 1.41 percent as a consequence.

The marginal effect of education equals 0.1047, meaning that if the education of the head of the family (randomly picked) increases by one level, then the probability that the family's incomes equal or greater than 10,000 baht per month increases by 10.47 percent. Also, the marginal effect of family members equals 0.0171. This implies that if the members of the family (randomly picked) increases by one person, then the probability that the family's incomes equals or greater than 10,000 baht per month increases by 1.71 percent. As well as the marginal effect of gender is 0.1273. Therefore, if the gender of the respondent (randomly picked) is male, then the probability that the family's incomes is equal or greater than 10,000 baht per month increases by 12.73 percent.

Noticeably, the marginal effects of marital status and staying in the PSE prototype village are negative. The marginal effect of marital status is -0.098. Thus, the marital status is single or married but living separately from spouse, then the probability that the family's incomes will be equal or greater than 10,000 baht per month decreases by 9.8 percent. Lastly, the marginal effect of staying in the PSE prototype village equals -0.0777, meaning that if the family (randomly picked) is located in a PSE pilot project, then the probability that the family's incomes is equal or greater than 10,000 baht per month decreases by 7.77 percent as a consequence.

There are some interesting points worth noting from our marginal effect analysis above. Firstly, most of explanatory variables show the sign of effect as expected. However, we expect the effect of staying in the PSE prototype village on the probability of family's incomes to be positive, the estimated result shows the opposite. This contradiction may be attributable to the

fact that the PSE pilot project is targeted at the very low-income village, in order to help poor people to begin with. Consequently, the data obtained from our survey reflects this point by showing that the average family's incomes of people in PSE pilot village is lower than that of people in non-PSE village. Secondly, it can be seen that the factors that show strong impact on family's incomes are education level, marital status and gender. For education level, the result obtained in this paper seems to be in line with modern growth theory which proposes that the economic growth depends in large part on the quality of human capital, in which the education is a significant determinant. As for marital status, it is quite obvious from the fact of life that, a household with two people living together should make a better living than a household with single person. For gender, it is quite natural in developing countries that when the head of the family is male, the income will be higher as compared with that when female is the head of the family. Lastly, the knowledge of PSE, which is the focus of this research paper, yields the positive effect on family as expected. Its impact may not seem large, but statistically significant. However, as we stressed earlier in the paper, that the aim of PSE is to guide people to find way to have better quality of life, not just to earn more income. Therefore, if we can construct a quality of life index comprising various dimensions such as income, health, social, and environment, then we may find something more interesting than using income alone as we do in this paper. But let us leave that for a future research.

5. Conclusions

This research focuses on the finding of the relationship between the understanding of PSE and the quality of life. In this research, we use family's incomes as a measure of quality of life of a household. A number of questionnaires have been sent out to people in rural areas in Northern part of Thailand. These questionnaires include, among others, a set of questions to test how much each household understand the PSE.

This study used the logit model to run regression with the data collected from the questionnaires. The dependent variable is the family's incomes, and the explanatory variables are the level of education, the understanding of PSE or knowledge of PSE, number of members of the family, marital status, gender, and whether or not the family lives in the PSE pilot project village. The regression results show that, level of education, the understanding of PSE, and gender are statistically significant, while the rest of the explanatory variables are not.

In conclusion, the understanding of PSE, which is the focus of this research, is found to be one of the key factors having influence on the quality of life of the household as measured by the level of family's incomes.

6. Research Limitation and Direction for Further Research

Since this research uses only family's incomes as a measure of the quality of life of the household, it will be more interesting for future research to bring into consideration other measures in various dimensions, such as social, environment, health, security, and etc. To do such that, it is necessary that the composite index for measuring quality of life must be constructed, with appropriate weight given to each dimension. This will involve a collection of massive data and the construction of index of well-being will also be a challenging task indeed.

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