

# Sufficiency Economic Models of Managing Information Technology in Thai Public Organizations

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## **Abstract**

*The objective of this research is to study the practical Sufficiency Economic model for managing information technology (IT) in the Thai government organizations. The opinions and requirements of CIOs, and the executive personnel in the ICT departments of 20 Thai public organizations were investigated. Then the model will be designed and tested.*

*Both qualitative and quantitative data showed that CIOs are highly agreement with using sufficiency economic managing IT. And the executive personnel were evaluated with managing integrated model. They were agreed with highly level in 4 dimensions: internal operations, knowledge acquisition, social, environment, and moral with of agreement.*

**Keywords:** *Sufficiency Economic, Information Technology, Public Organization, Management*

## **1. Introduction**

Although, Thailand has already the 10th National Economic and Social Development Plan (NESDP; 2008-2012) that is enhanced

with the philosophy of sufficiency economy (SEP), similar to the 9th NESDP (2002-2006) which shares the same vision, there is still no clear in the operational procedure according to the mind set of sufficiency economics for information and communication technology (ICT). Additionally, since the cabinet's policy at 9<sup>th</sup> June, 1998, assigned the deputy permanent secretary, deputy director general or second head office as the Chief Information Officer [CIO] for performing in information and communication technology management. In order to readiness prepare for changing in the future, adaptation in globalization and creates immunity in every section by following the SEP. Public organization should be performing the system managing with integration the knowledge from local wisdom, fair sharing benefit with community, so that creating self-immunity and balance country management, also sufficiency, quality and moderation way of life.

To manage ICT by integrated with the SEP for security and sustainable, harmoniously with National Information Technology model scheme 2549-2553 emphasize in government's information

technology development. So, researcher gives precedence to design the sufficiency economic model in order to managing information and communication technology for holding and proceeding in every situation with perfect completeness.

## 2. Research Objectives

The objectives of this paper is to present the first part of the project: the opinions and agreement of the executives and the executants involved with requirement of management model of information technology (IT) based on sufficiency economic in public organizations in Thai

## 3. Theories and Related Research

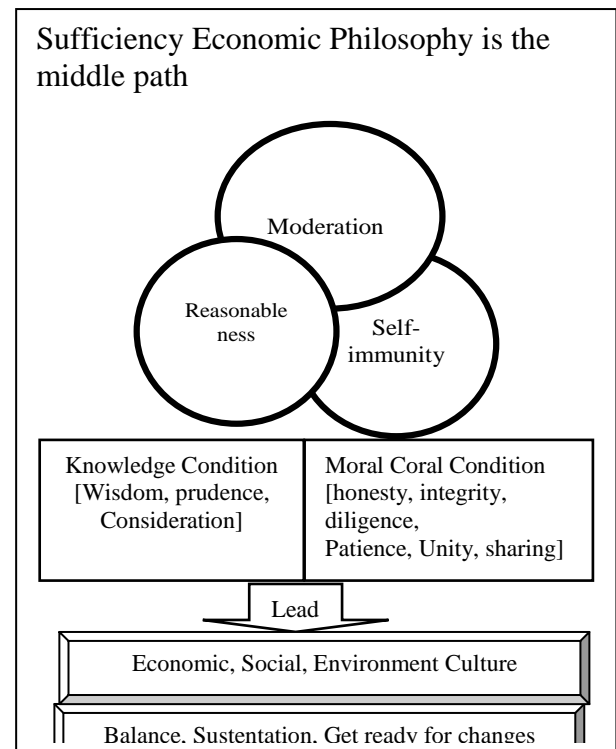
### 3.1 Related management theory

The favorite management theories are Fayol's organization administrative which is emphasized the duty characteristic of the organization involved planning, organizing, leading, controlling [1]. Max Weber's government administration theory is lay down the government administration, following Bureaucracy model in 5 themes. These are division of labor, hierarchical structure, authority, lifelong career commitment, rationality in order to get the most efficiency and successful of the organization's work. [1]

### 3.2 Sufficiency economy philosophy

His Majesty the King of Thailand bestowed the philosophy of the Sufficiency Economy since 2517 [4]. This refers to the ability to assess strengths and weaknesses with wisdom and knowledge, and to foster appropriate tools to immunize the country and society against internal and external volatility. The definition of SEP is concluded in Fig. 1, with 3 chains and 2 conditions.

The meanings of chains are first, moderation means to bring a principle of sufficient that is doing not to persecute yourself and others.



**Fig. 1:** Sufficiency Economic Philosophies (SEP) Model

Second, reasonableness means to resolve things by apply knowledge with due consideration and prudence. And third, self-immunity means sufficient protection from impact arising from internal and external changes. Two conditions are knowledge condition included precaution, intelligence, and prudence utilizes theories and methodologies in planning and implementation sufficiently. And moral coral condition means adheres first and foremost to the principles of honesty and integrity involve spirit way and performance way that emphasize the knowledge with moral to appropriately realize honesty and intelligence.

### 3.3 Principle of IT Management

In globalization era, ICT is used and applied in the several areas of management. They are using intranet and internet directly to e-Government system [2], [4], [5]. Almost government offices have policy intensively using ICT, such as National e-recording system [5]. However, ICT using should have

improve and develop in the way of SEP in the point of developing modes, good governance management model, human rights management models and ICT organization leader developing model [6]

The IT management concept is accepted general persons because of, the administration that wants output and outcome, by no interest process. The strategic management in ICT is based on strategic planning analysis, balance scorecard, strategy map, critical success factor, cause and effect relationship key performance indicator, and total quality assurance etc.[8] , [9] [10].

### 3.4 Research conceptual framework

Research design and methodologies show in Fig. 2. The data were collected from the CIO and 120 samples of personnel in the ICT departments with multi-stage sampling from 20 ministries.

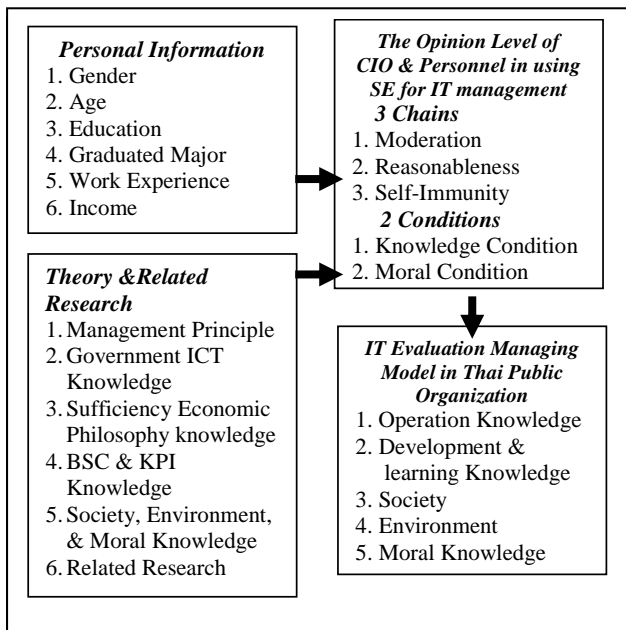


Fig. 2 Research Conceptual Framework

### 3.5 Research hypothesis

Executive and executants give high level model of strategic management IT following sufficiency economic philosophy on five aspects

## 4. Research Methodology

The CIOs were in-depth interviewed and the content analysis was used. And the personnel in the ICT departments were inquired by using questionnaires, these composed of 49 computer technical experts and 71 general computer users. Mean, standard deviation and t-test was analyzed.

## 5. Research Results

The research result, that gained from questionnaire survey with dealing ICT management from sampling group were analysed as follows:

### 5.1 The estimate of opinion level

The study result, gained from the survey in sampling group demonstrate that overall estimate of opinion level of the IT's organized administrative following philosophy of sufficiency economy in five aspects is in high level ( $\bar{x} = 3.7400$ ). The detail in each aspect is shown in Table 2.

Table 1: The estimate of opinion level of the IT's organized administrative

sufficiency economy perspectives	$\bar{x}$	S.D.	Rating
Internal operations	4.0194	.79717	high
Development and learning knowledge Society	3.5917	.52853	high
Environment	3.2681	.50455	medium
Moral knowledge	3.8458	.58265	high
<b>Total</b>	<b>3.7400</b>	<b>.41439</b>	<b>high</b>

### 5.2 The Consequence of Hypothesis

The test of hypotheses provides significant support for the research. All hypothesized relationships are statistically significant. Results of the analysis are found in Table 2.

**Table 2:** Compare Means (One-Sample T-test)

Opinions evaluation models of Managing IT they agree are in 5 side	Test Value = 3.41					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Internal operation	8.375	119	.000	.6094	.4654	.7535
Development and learning knowledge	3.765	119	.000	.1817	.0861	.2772
Society	-3.082	119	.003	-.1419	-.2331	-.0507
Environment	8.194	119	.000	.4358	.3305	.5412
Moral knowledge	10.490	119	.000	.5650	.4584	.6716
Total	8.724	119	.000	.3300	.2551	.4049

## 6. Conclusion and discussion

The result was accepted the hypothesis and found that both CIOs and the officials samples in ICT organizations give agreed with and required the practical SEP strategic management model in high level.

To apply the SEP with the development of technology should be blended new technology with the locality knowledge to be in agreement with the requirement of population for example to choose technological usage by realize in the concept of balance such as choosing open source ought to cling to a viewpoint of sufficiency of 3 chains , 2 conditions . **Moderation** which emphasized the lifestyle that base on the sufficiency, Sufficiency Economy for personal should be realized the ability to untroubled subsist, appropriate live base on status , individuality, not to be infatuated about materialism, have a freedom these all is built up for fundamental of security in maintain life to able to help yourself for example the development of software following the principal of moderation means to use software by mixing commercial software and open source software, should not abrogate commercial software and use open source software only. **Reasonableness**, in order to chose the usage of software should have paths to consider carefully:

saving, benefit, good-bad way to use each kind of software. It is initial difficulty to develop software individually. To develop software must be participated with Open Source's community in order not to private initiation. **Self-immunity** indicate to get ready the protection from impact arising from internal and external changes which have to ponder an occurrence and its result in after time under the limited data and ability of creating immunity to encounter the changing situation even though in the worst situation, also able to cope for example the Open Source Software development will be support principle that is increasing the quantity of usage of Open Source Software in case to protect and diminish the monopolization of technological merchandise from nation. **Knowledge Condition** as new generation of the organized administrative principle, the owner should including characteristics of omniscience, skillful administration means to comprehend exactly and meticulously, in addition to profoundly comprehend advantage and disadvantage of business administration which you are doing such as the development of software that not only need knowledge condition, especially in technicality, but also need social knowledge for example: promoting or applying software capacity with Thai local's knowledge of Strength of Thailand. Moral condition as the new generation of parteciple of organized administration, the owner should be respond their own occupation with virtue and ethical behavior, not to search for interest from illegitimate or expect to earn profit from undeserved or persecute other one or take advantage from consumer, customer, related person or society that will be cause of the damage of death, property, business's credit for example to choosing the usage software by moral principle means to be liberal knowledge and also help to use Open Source Software for the purpose of development of personal, organization, nation. **Balance and**

**Stable** ,there are many approaches of balance and stable of development of technology such as Open Source development which did not administer seriously, otherwise after administered will be illustrated following the future anticipate. In case use developed Open Source Software mutually, develop under conceptual framework of sufficiency economic philosophy, the usage software will be appropriate for Thais.

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