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(pp. 104-118)

The Asian Business and Management Conference

Official Conference Proceedings 2011

ISSN: 2186-5914

Proceedings URL: http://iafor.org/abmc_proceedings.html

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The Relationship between Information Technology Investment and Firm Performance with the context of Sufficiency Economy Philosophy

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Abstract

This research study how Information Technology (IT) Investment based on Sufficiency Economy Philosophy (Moderation, Reasonableness, and Self-immunity mechanism) affects firm performance. The attitudes rating of IT investment are used as independent variables whereas the IT-investment managements based on Sufficiency Economy Philosophy are mediator variables. The attitude rating of firm's convenience and the ROA (Return on Assets) are used as proxy of assessment firm performance, which are the dependent variables for this study. The samples used in this research are 373 firms listed as medium and large manufacturing business in Thailand. The Structural Equation Model is used to analyze the attitude rating scale from CIO (Chief Information Officer). The results show that the goodness of fit and regression weight significant supported all hypotheses ($p < .05$). IT investment with the context of Sufficiency Economy Philosophy has a positive direct relationship with the firm's convenience and indirect relationship with ROA. The research also discuss the relationship by showing that the firms properly balance between IT investment and firm environment according to Moderation, implementing knowledge management to build healthy firm growth according to Self-immunity, and monitoring and measuring the worth of IT usage according to Reasonableness. As a result , the firms achieve convenience and a good ROA, respectively.

JEL: D80, Q01

Key words: Information Technology Investment, Sufficiency Economy Philosophy

1.Introduction

The main objective of Information Technology (IT) investment in organizations is to increase productivity and profitability of organizations. Information Technology (IT) is a tool for supporting and enhancing competitive capability of the organization and improving quality of customer service. Customer receives convenient services and satisfaction through IT infrastructure. Businesses also use IT for supporting and operating their work to achieve higher effectiveness and business outcomes. The typical IT-investment mainly focuses on productivity organization resources and business processes. Most business firms improving business process usually change their business processes into IT as digital-base and result in the readiness to present electronic commerce and present to global market(Porter, 2001). High management levels also used information from digital-base and make accurately and correctly decisions.

Many businesses include IT into their main part of strategic planning. Business environment changes stimulate a better use of existing IT infrastructure and

a new IT investment in the organizations. Sometimes, IT technologies changes may cause the organization to adjust the existing strategies or emerge new strategies accordingly. As a result, IT investment will be changed as well. Furthermore, IT-investments are also positioning the firm for growth option value(Ranganathan & Carol, 2006). The benefits of option value are the ability for future.

In the last two decade, several researchers have investigated IT investment strategies and firm performance. The results from studies have shown that some strategies have directly relationship but some have no significant effect on the firm performance. The IT investment strategies contributed positive results on a firm performance have been listed as following papers: knowledge management(Tanriverdi, 2005), resource based view(Ferguson, Finn, & Hall, 2005), IT governance(De Haes & Van Grembergen, 2009), IT agility(Sambamurthy, Anandhi, & Varun, 2003), and IT cost management(Jeanne, Michael, & Cynthia Mathis, 1999; Peacock & Tanniru, 2005; Thouin, Hoffman, & Ford, 2008)

On the other hand, other groups of researchers have found that IT investment does not always bring an improvement of firm performance. Brynjolfsson and Hitt (1998) described the situation "productivity paradox problem". The researchers have elaborated that a little improvement of firm performance after applying IT investment occurs because of lack of IT management. The studies on comparison of the different event and dependence of strategy intention listed as following papers: CIO background(Curtis & Sambamurthy, 1999), environment(Chen, 2007; Iyer, Germain, & Claycomb, 2009; Keramati, Azadeh, & Mehran-Gohar, 2009; Ranganathan & Carol, 2006), developing and developed country(J. K. Kim, Xiang, & Lee, 2009; Shih, Kraemer, & Dedrick, 2007), culture(N. Shin, 2009; S. K. Shin, Ishman, & Sanders, 2007), firm size.

In Sufficiency Economic business practice of Kantabutra(2010) and Puntasen, Premchuen, & Keitdejpunya(2003), their suggestion concern with how to use technology, innovation and knowledge to advance business efficiency. The IT is a part of technology that is used as a tool to support business process and operation. The IT requires different strategies to manage in order to support sustainable business. Furthermore, Rewrite -> the Sufficiency Economy Philosophy has been adopted in Thailand and empirically show results that well apply to sustainable business. However, no research has emphasized on the IT investment with the context of Sufficiency Economy Philosophy. This research emphasizes on how businesses invest IT and manage IT with Sufficiency Economy Philosophy to achieve firm performance.

2. Scope of the Study

This research refine the model of IT investment with the Sufficiency Economy Philosophy. The comprehensive research will contribute to businesses, which invest or reinvestment the Information Technology. The new approach will show how to manage the Information Technology Investment with the Sufficiency Economy Philosophy. The finding model help CIO to improve the strategic planning on investment in the duration of recession limit, and they also can continually improve their firm performance.

3. Research Objective

- 1) To explore and study the IT strategies that use in organization.
- 2) To develop and to test a model of IT investment and firm performance with the context of the Sufficiency Economy Philosophy.

3) To find out the related factor of the relationship of IT strategic management with Sufficiency Economy Philosophy that affect to firm performance.

4. Research Framework

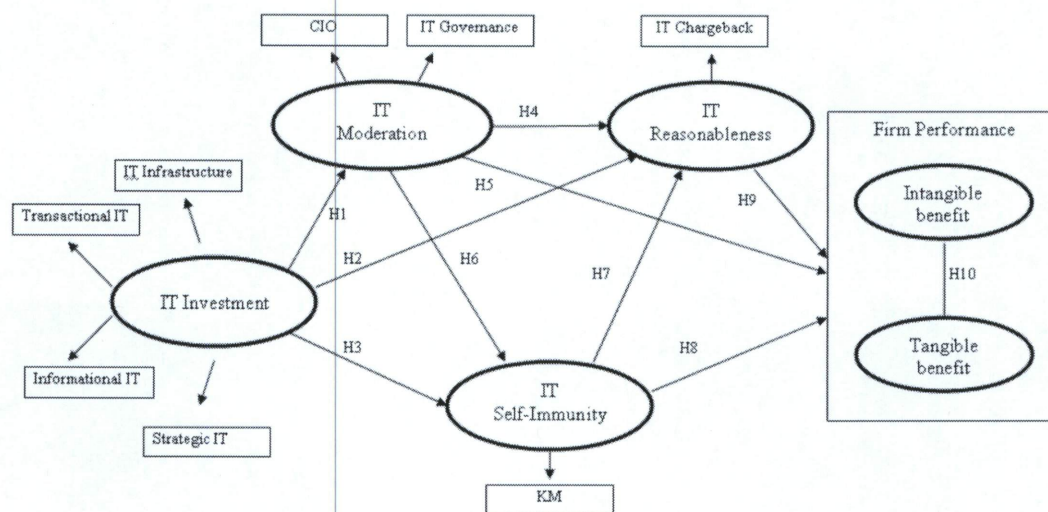


Figure 1 Research Framework

5. Review of the literature

5.1 Chief Information Officer (CIO)

CIO is an executive reporting direct to CEO and is responsible for managing IT of organization such as hardware, software and IT staff. CIO title was emerged on top management in the 1970s. The roles of CIO are important, because the organizations commonly concern about the management of IT spending to archive an outcome. Usually, CIO role should understand business process and IT, and adapted both business and IT suitably to be an advantage for enterprise (Curtis & Sambamurthy, 1999). The CIO with IT background and strategic oriented to IT rather than utilitarian oriented or generic management (Sobol & Klein, 2009).

5.2 IT Governance

The IT governance is a subset of corporate governance and responsibility of organization leadership. IT governance is a process that ensures an organization to decide how to deploy Information Technology as impartial, faithful, accountability management and law compliance. Thus, firm has to impose requirements on internal control and reporting. IT resource was directly considered and controlled to archive firm's goal. Assisting to control information in organization, the Control Objectives for Information and related Technology (COBIT) is the best practice for improve the performance of IT investment through ethics, internal control, and corporate governance and law compliance. The Information Systems Audit and Control Association (ISACA) and Information Systems Audit and Control Association (ITGI) created COBIT in 1996. COBIT ensures optimized IT investment, good service delivery and good detail for metrics. COBIT consist four primary domains; Plan and Organize, Acquire and Implement, Deliver and Support, and Monitor and Evaluate. It consists of 34 processes that firm should meet all of process. In addition, each

process has to meet seven information criteria: Effectiveness, Efficiency, Confidentiality, Integrity, Availability, Compliance, and Reliability and each process consist of People, Information, Applications, and Infrastructure as IT resources. Bowen, Cheung and Rohde(2007) divided IT governance research into two groups, IT governance as structure and IT governance as process. The IT governance as structure involves functions for making decision responsible both business and IT executive, whereas IT governance involves the process of IT implementing. De haes and Van Grembergen (2009) stated that the business and IT alignment maturity is higher when organization are applying a mix of mature IT governance practice.

5.3 IT Chargeback

According to IT governance, CIO has to report cost of the IT management to stakeholders. CIO should manage IT as impartial, faithful, accountability management and law compliance. Normally, a centralized department bears all of the IT costs in a firm and those costs are treated simply as firm overhead. It indicates that IT cost is the indirect cost. For managing costs of IT, firm should charge IT cost to real work. They consider IT as a complement with others for supporting their processes and create convenience for their job. . The IT chargeback helps tracing cost of IT usage or IT service they use. Ross and Beath (2006) suggested that IT chargeback fulfills the fair and reasonable financial report and leads to the better IT investment and usage decision. However, IT chargeback is cost allocation and related only with internal cost. IT chargeback does not reduce current cost, but it details real organization cost that leads to faith and reasonableness.

5.4 Knowledge Management

The knowledge management has been a significant component for a firm. The processes of knowledge management comprise of creation, representation, and adoption into a firm. Knowledge has divided into two types: Explicit Knowledge and Tacit Knowledge. Explicit knowledge is a knowledge that can be explained into data and easy to understand. Tacit knowledge is an individual experience of people. Organization will transfer tacit knowledge to explicate knowledge by implementing knowledge management. The knowledge is created through a spiral process of socialization, externalization, combination, and internalization (SECI)(Nonaka, 1994). Due to Resource-Advantage theory of competition, knowledge has the characteristic of heterogeneity, uniqueness and immobility, effect to firm performance as the competitive advantage. The rival difficulty imitates because knowledge is complexity. Therefore, if the business wants to achieve performance, the knowledge management is an important consideration. Li, Huang and Tsai (2009) examine the Taiwan firms, founded in ten years, on Entrepreneurial orientation, Knowledge creating and firm performance. They found that Entrepreneurial orientation has positive effect to firm performance by mediating of knowledge creating. Besides knowledge effect to financial firm performance, it also affects to new product performance(Vaccaro, Parente, & Veloso, 2010). Knowledge from inter-organization or intra-organization is more effective than that from single-organization. It will encourage to knowledge sharing because the culture and experience will transfer between them (Vaccaro, et al., 2010; Yang, 2010). The renewal innovation not only becomes necessary for survives and ability to competitive advantage but also advances to knowledge creation. The study of Díaz-Díaz, Aguiar-Díaz, and DeSaá-Pérez (2008) found that knowledge management indirectly effected to firm performance and mediated by innovation. In addition, the finding of Craighead, Hult, and Ketchen Jr (2009) show that firm need to manage knowledge of supply chain's innovation-cost strategy because it enhances to superior performance.

5.5 IT investment with Moderation Concept

The IT investment should consider the investment with the Moderation Concept which manages by CIO. The CIO has to design an appropriate IT planning by considering the limitation of resource and IT staff and using IT governance to manage IT as the ethics, accountability, and comply with laws.

5.6 IT investment with Reasonableness Concept

The responsible of CIO is not only suitable with a firm, but also reasonable. Firm will conceive the IT investment reasonableness by monitoring and showing the real cost of IT. The IT chargeback is tools for recording IT usage and tracing to accurate real cost of IT. The outcome of IT reasonableness will affect to the better decision for reinvest IT and know that they use IT suitable with the capability of them.

5.7 IT investment with Self-Immunity Concept

When a firm plans to have a new IT investment, they should have leverage the knowledge from previous of firm performance before design new strategies of IT investment. The firm knowledge such as solution of the problem and tactic should be feed back to consider before the decision to reinvest IT next year.

6. Methodology

6.1 Population and Sample

Because this research studies CIO, IT governance, IT chargeback and Knowledge Management, the medium and large enterprise that has the total assets more than 200 million baht is to be suitable to collecting data. The 4,139 manufacturing firms list on the Department of Business Development of the Ministry of Commerce of Thailand are the research population. Sample size is processed as subset of population to study, which follows a formula of Yamene with 95 confidence level.

$$n = N/(1+N*(e)^2)$$

Where "n" is the sample size, "N" is the population, and "e" is error value.

The 4,092 firm population applied into Yamane formula with 95% confidence level is 365 firms.

6.2 Variable

- 1) Independent variables are IT Infrastructure, Transactional IT, Informational IT and Strategic IT.
- 2) Mediator variable are CIO, IT Governance, IT Chargeback, and Knowledge Management
- 3) Dependent variable are IT Convenience, IT Competitive Advantage, and ROA
- 4) Control variable are SaleGrowth, Firm's year, Firm's size

6.3 Content Validity Testing

The content validity is used for assess the questionnaire covers the theory of IT investment. The questionnaire will be assessed by the five expertises in IT investment field and then adjusted the term from expertise suggestion. The discriminate validity will be tested by the factor analysis. Usually, there are many questions representing each factor or variable. If the questions represent different variables, it will be summarized into different groups by factor analysis. Then, the convergent validity will test by the correlation statistic. If the questions represent the same variable, there are correlation among them.

6.4 Reliability Testing

This research tests the internal consistency of reliability by the cronbach's alpha after designing the questionnaire. The score ranges from 0 to 1 and the acceptant of the score of this research are more than 0.7(Vaus, 2002).

6.5 Model Analysis

For analyze statistic research model, we will use Structural Equation Model (SEM) analysis which have steps for analyze as following.

- 1) Construct the model that related with variable in search framework
- 2) Define Latent Variable: Investment, IT Reasonableness, IT Moderation, IT Self-Immunity and Firm Performance
- 3) Define observe variable to latent variable
- 4) Assessment the model fit
 - 4.1) Chi-Square/ Degree of Freedom should less than 3.00
 - 4.2) Root Mean Square Error of Approximation should less than 0.05
 - 4.3) Good of fit index approach to 1
 - 4.4) Comparative fit index approach to 1
 - 4.5) Root Mean Square Residual should less than 0.05
- 5) Consider the Standardized Regression Weights that accept model if it has significant and Square Multiple Correlation for confident of prediction of model

After the model is accepted, the result of regression weight will consider for hypothesis testing. If regression weight are significant, it will indicate that the variable at the beginning arrow affect to the end.

7. Research Result

To prevent unreturn questionnaires, the questionnaires were mailed to 1,600 manufacturing firms. Then, the responses were randomly selected for 373 firms. Convergent and Discriminant Validity were tested before constructing the Structural Equation Model. The Convergent Validity used to verify that the indicators can represent into latent variable. If they represent in same latent, they must be positive correlate together. And then the Discriminant Validity testing was performed to show that the indicators represent on the same latent variable and not associated with indicators of the other latent.

7.1 Convergent Validity

The researchers measured Convergent Validity with Confirm Factor Analysis. If the research model is converged, the value of factor loading should be greater than 0.6(Kalaya Wanichbuncha, 2008). The Figure 2 shows example of confirm factor analysis for Convergent Validity testing. The results show all of factor loading in Table 1

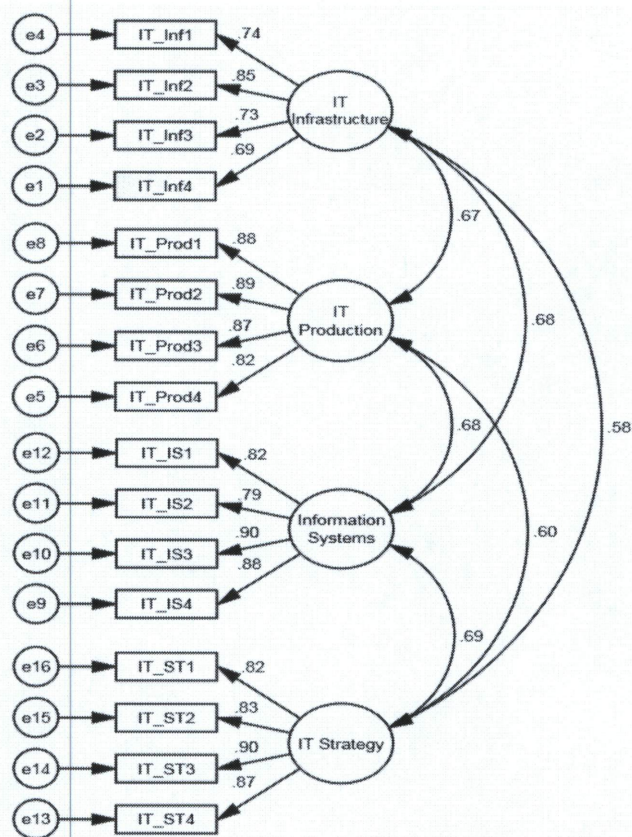


Figure 2 Factor loading of IT Investment

Table 1 Factor Loading of all latent variables

Variable	Factor Loading
IT Inf	
IT_Inf1	0.740
IT_Inf2	0.846
IT_Inf3	0.731
IT_Inf4	0.694
IT Prod	
IT_Prod1	0.877
IT_Prod2	0.894
IT_Prod3	0.870
IT_Prod4	0.815
IT IS	
IT_IS1	0.824
IT_IS2	0.793
IT_IS3	0.897
IT_IS4	0.884
IT ST	
IT_ST1	0.821
IT_ST2	0.825
IT_ST3	0.900
IT_ST4	0.867
CIO and ITG	

Variable	Factor Loading
CIO1	0.633
CIO2	0.745
CIO3	0.768
CIO4	0.797
ITG1	0.757
ITG2	0.775
ITG3	0.738
ITG4	0.564
IT ChB	
IT ChB1	0.759
IT ChB2	0.809
IT ChB3	0.743
IT ChB4	0.705
KM	
KM1	0.873
KM2	0.911
KM3	0.828
KM4	0.828
Conveniences	
Con1	0.857
Con2	0.954
Con3	0.972
Con4	0.715
Competitive	
Com1	0.821
Com2	0.897
Com3	0.910
Com4	0.816

Considered in the table 1, ITG4 is not convergent so that it is dropped in this step.

7.2 Discriminant Validity

After the measurement Convergent Validity, the researcher then measures the Discriminant Validity. From Convergent Validity consideration, if indicator has high factor loading, it is good represent for latent variables and then it affect latent variable to be high variance.

The first step for Discriminant Validity, model will construct pair of latent variable to test Discriminant Validity. Setting constrains variance of both latent variables to "1" and then, testing covariance between both latent variables (M. G. Kim & Kim, 2010). If covariance is not higher than 0.85 and Goodness of Fit supported, then it has Discriminant Validity.

Second step, after setting model constrains covariance between latent variable to "1", If the model does not accept Goodness of Fit, it indicated that constrain does not true and both latent variables have no correlation.

However, the chi-square also has to consider the different value between both models testing. The chi-square should not less than 3.841 (M. G. Kim & Kim, 2010) for accept validity.

Example of testing between IT Production and Information Systems has shown in figure 3 and figure 4. The discriminant test between IT infrastructure and the rest of others will be performed similarly. This research perform iteration Discriminant Validity tests the rest of pair until complete and considers the condition value for accepted validity.

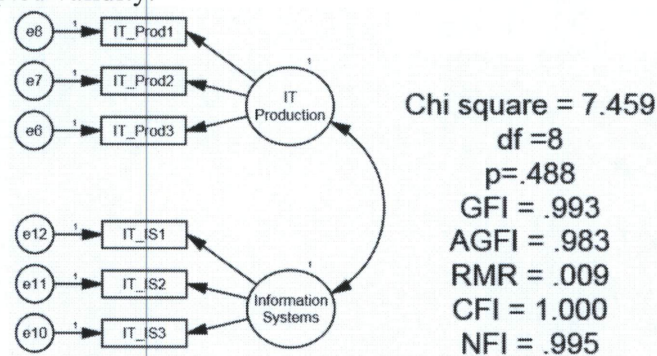


Figure 3 Fix Variance to 1 Free Covariance

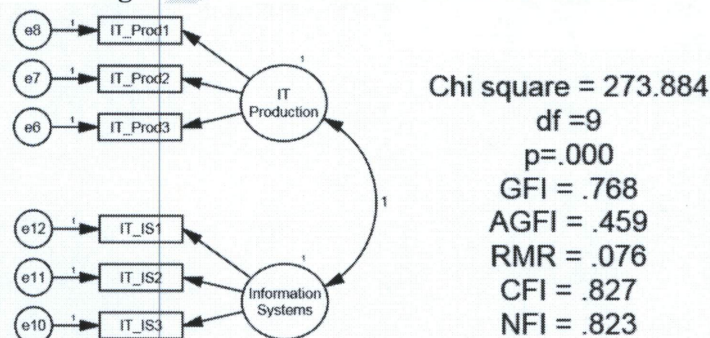


Figure 4 Fix Variance to 1 Fixed Covariance to 1

Table 2 Discriminant Validity test between IT infrastructure and Information Systems.

	Free covariance	Fixed covariance	Different Chi-square between Free and fix covariance
Chi-Square	7.459	273.884	266.428
p-value	0.488	.000	
correlation	0.70	1	

After Discriminant Validity testing, all of IT Strategies and Competitive, and some indicators are dropped because they do not pass the accepted value of Discriminant Validity with several pairs. So, the rest of indicators per latent variable are 19 indicators presented in table 3.

Table 3 The rest of indicator after Discriminant Validity

Latent Variable	Indicator
IT Infrastructure	IT_Inf1
	IT_Inf2
	IT_Inf3
IT Production	IT_Prod1
	IT_Prod2

Latent Variable	Indicator
	IT Prod3
IT Information System	IT_IS1 IT_IS2 IT_IS3
IT Moderation	CIO2 CIO3 CIO4
IT Reasonableness	ChB1 ChB3
IT Self-Immunity	KM2 KM4
Convenience	Con1 Con 3 Con 4

7.3 Construct Model and Hypothesis Testing

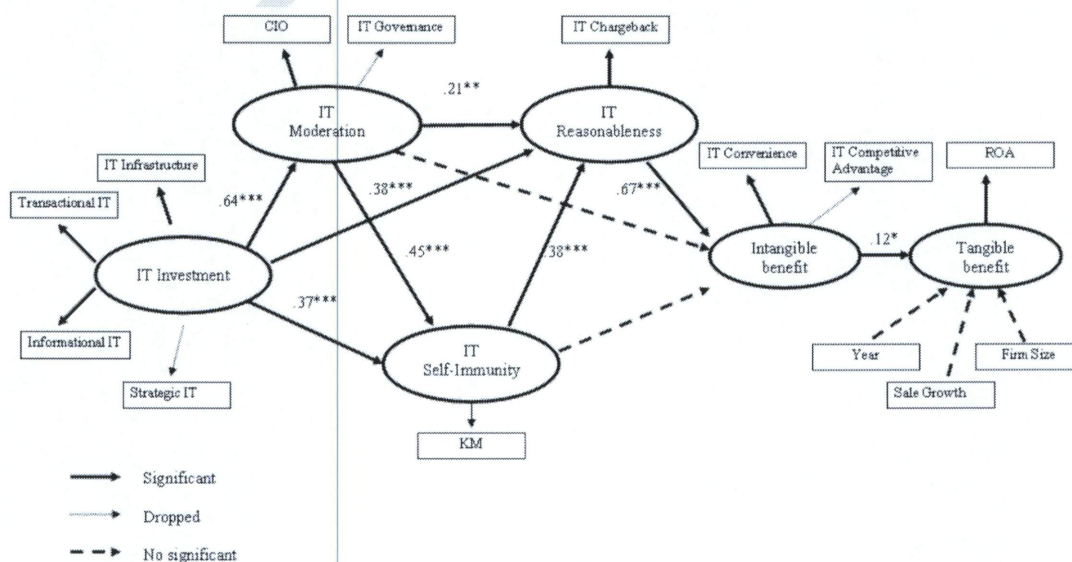


Figure 5 the result of model analysis

According to figure 5, the result of hypothesis testing show as follows:

H1 : The IT investment will have positive effect to IT Moderation concept.

This hypothesis was support that IT investment positive effect to IT Moderation concept, with CIO, since a standard regression weight is 0.64($p < .001$). It indicated that firm which considered IT investment important will lead CIO to give high attention on suitable firm, comprehend to business and having strategic management.

H2 : The IT investment will have positive effect to IT Reasonableness concept. This Hypothesis was supported that IT investment positive effect to IT Reasonableness concept with IT chargeback, since a standard regression weight is 0.38($p < .001$). It indicated that, firm which gave important to IT investment will be inspected of IT usage, with IT chargeback.

H3 : The IT investment will have positive effect to IT Self-Immunity concept. This Hypothesis was support that IT investment positive effect to IT Self-Immunity concept, with KM, since a standard regression weight is 0.37($p < .001$). It indicated

that firm giving important to IT investment, will lead to give consideration to manage IT knowledge of firm.

H4 : The IT Moderation concept will have positive effect to IT reasonableness concept. This Hypothesis was support that IT Moderation concept, with CIO, positive effect to IT Reasonableness concept, with IT chargeback, since a standard regression weight is 0.21($p < .01$). It indicated that firm whose CIO has given important on the suitability of firm, comprehend to business and having strategic management will lead firm to monitoring IT usage.

H5 : The IT Moderation concept will have positive effect to firm performance. This hypothesis was not supported. The IT Moderation concept does not direct effect to firm convenience.

H6 : The IT Moderation concept will have positive effect to IT Self-Immunity concept. This Hypothesis was supported that IT Moderation, with CIO, positive effect to IT Self-Immunity concept, with KM, since a standard regression weight is 0.45($p < .001$). It indicated that firm with CIO, who give important on the suitability of firm, will lead to study new IT knowledge and exchange with other in organization.

H7 : The IT Self-Immunity concept will have positive effect to IT Reasonableness concept. This Hypothesis was support that IT Self-Immunity concept, with KM, positive effect to IT Reasonableness concept, with IT chargeback, since a standard regression weight is 0.38($p < .001$). It indicated that firm which manage IT knowledge will lead to monitor IT usage, with IT chargeback system.

H8 : The IT Self-Immunity concept will have positive effect to firm performance. This hypothesis was not supported. The IT Self-Immunity concept does not direct effect to firm convenience.

H9 : The IT Reasonableness concept will have positive effect to firm performance. The Hypothesis was support that IT Reasonableness concept, with IT chargeback, positively affect to firm performance, since a standard regression weight is 0.67($p < .001$).

H10: The relationship between firm's benefit and ROA, we found that firm's benefit positively affect to ROA, since a standard regression weight is 0.12($p < .01$)

The goodness of fit shown as follows: Chi-Square=239.463, $df=211$, $p\text{-value}=0.087$, $GFI=0.948$, $AGFI=0.932$, $NFI=0.950$, $CFI=0.994$, $RMSR=0.036$, $RMSE=0.019$ (PCLOSE=1.00), and Hoelter=407(0.01).

The results of hypothesis testing of IT investing and firm's benefit found that there are accepted hypothesis H1, H2, H3, H4, H5, H6, H7 H9 and H10 and not accepted hypothesis H5 and H7. It is clear that the IT Investment has a positive effect to firm's benefit that the IT Reasonableness has a direct relationship, whereas IT Moderation and IT Self-Immunity not direct but through IT Reasonableness.

However, the hypothesis testing between IT investment and firm's ROA found that there are accepted hypothesis H1, H2, H3, H4, H5, H6, H7 and not accept H5, H7 and H9. The result indicated that the IT investment does not positively affect to ROA. The Hypothesis H10 shown that Convenience has positive effect to ROA. The standard indirect, direct, and total effect of model shows on table 4.

Table 4 The standard indirect, direct, and total effect of model

	Direct effect				
	IT Mod	IT Self	IT Rea	IT Con	ROA
IT Inv	.636	.356	.363		
IT Mod		.455	.245		
IT Self			.365		
IT Rea				.662	

IT Con					.127
			Indirect effect		
	IT Mod	IT Self	IT Rea	IT Con	ROA
IT Inv		.289	.391	.499	.064
IT Mod			.166	.272	.035
IT Self				.241	.031
IT Rea					.084
IT Con					
			Total effect		
	IT Mod	IT Self	IT Rea	IT Con	ROA
IT Inv	.636	.646	.755	.499	.064
IT Mod		.455	.411	.272	.035
IT Self			.365	.241	.031
IT Rea				.662	.084
IT Con					.127

According to hypothesis testing results, it will have positive effect to firm performance by sequence as follows: 1) Purchased IT to infrastructure, production and information systems, 2) Manage IT by CIO which suitable with firm environment, strategic management 3) Implemented knowledge management and 4) Finally record and monitoring IT usage.

8. Conclusion

This research study including CIO, Knowledge Management and IT chargeback. The research finding support theory as follows: 1) The CIO who have business skill, give importance of the suitability of the firm's environment before investing, and IT strategic management, will increase firm performance. 2) Firm implementing knowledge management and using it for decision making will increase firm performance. 3) The record IT usage and charge to real work and monitoring for worthwhile cost that will increase firm performance.

When the studies of three theories together for explore direction of the relationship among them within the framework with the context of Sufficiency Economy Philosophy, found that there is only IT chargeback direct relation to performance but not in Knowledge Management and CIO, they effect to firm performance through IT chargeback. It shows that, three theories have sequence of relationship as mentioned above.

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Abbreviations

Abbreviations	Meaning
IT_Inf	IT Infrastructure
IT_Prod	IT in Production
IT_IS	IT in Information Systems
IT_Inv	IT Investment
IT_Mod	IT Moderation
IT_Rea	IT Reasonableness
IT_Sel	IT Self-Immunity
CIO	Chief Information Officer
IT_ChB	IT Chargeback
KM	Knowledge Management
ROA	Return on Asset
Con	IT Convenience
Com	IT Competitive Advantage
IT_ST	Strategic IT
df	Degree of freedom
P	P-value
GFI	goodness of fit index

AGFI	adjusted goodness of fit in
RMR	root mean square residual
CFI	comparative fit index
NFI	normed fit index

The logo for iafor, featuring the word "iafor" in a lowercase, sans-serif font, centered within a circular emblem. The emblem is composed of two concentric, light blue circular lines that are slightly offset from each other, creating a sense of depth or a stylized 'O' shape.

iafor

2012 Events

March 30-April 1 2012: **ACP2012** - The Second Asian Conference on Psychology & The Behavioral Sciences

March 30-April 1 2012: **ACERP2012** - The Second Asian Conference on Ethics, Religion & Philosophy

April 6-8 2012: **ACAH2012** - The Third Asian Conference on Arts & Humanities

April 6-8 2012: **LibrAsia2012** - The Second Asian Conference on Literature & Librarianship

April 26-28 2012: **ACLL2012** - The Second Asian Conference Language Learning

April 26-28 2012: **ACTC2012** - The Second Asian Conference on Technology in the Classroom

May 3-6 2012: **ACSS2012** - The Third Asian Conference on the Social Sciences

May 3-6 2012: **ACSEE2012** - The Second Asian Conference on Sustainability, Energy and the Environment

June 2-4 2012: **ACAS2012** - The Second Asian Conference on Asian Studies

June 2-4 2012: **ACCS2012** - The Second Asian Conference on Cultural Studies

June 15-17 2012: **ACCOMS2012** - The First Asian Conference on Computer Science

October 26-28 2012: **ACE2012** - The Fourth Asian Conference on Education

November 2-4 2012: **MediAsia2012** - The Third Asian Conference on Media & Mass Communication

November 2-4 2012: **FilmAsia2012** - The First Asian Conference on Film and Documentary

November 16-18 2012: **ABMC2012** - The Third Asian Business & Management Conference