



## **FACTORS AFFECTING EFFICIENCY IN INTERNAL AUDITING PERFORMANCE AND OPERATIONAL OUTCOME OF THE LARGE THAI LISTED COMPANIES**

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The purpose of this study is to examine the factors affecting efficiency in internal audit performance and the relationships between efficiency in internal audit performance and operational outcomes, based on a survey carried out on the “Set 100” companies listed on the Thai Stock Exchange. In this study, critical success factors of the internal audit performance consist of five factors namely management’s policies and encouragement, completeness of operating and information systems, understanding and acceptance from auditee, knowledge, skill, and human relations and the relationship between the internal audit unit and other units. The efficiency in internal audit performance consists of four dimensions, namely independence, objectivity, competencies and human relations. The result of regression provides that completeness of operating and information systems, understanding and acceptance within the organization, knowledge, skill, and human relations and relationship between the internal audit units and other units have influence on internal audit efficiency. In addition, human relations and the relationship between the internal audit unit and other units have an influence on the four dimensions of an internal audit’s performance. Moreover, this paper shows that independence, objectivity and human relevance have an influence on operational outcomes in finance.

**Keywords:** Internal audit, Internal audit efficiency, Internal audit performance, Key success factor for internal audit performance.

### **1. Introduction**

After the corporate scandals of Enron, WorldCom and Global Crossing, public trust in firms’ management such as ethics, transparency and corporate governance has decreased. This loss of trust has been extended over southern Asia area including Thailand which confronted an economic crisis in 1997. In response to this, the Stock Exchange of Thailand made a pronouncement promulgating new regulations of corporate governance in order to control Thai listed companies. The effective corporate governance helps ensure that managers of firms work appropriately in order to protect shareholders rights and welfare (Gramling *et al.*, 2004). The internal audit function is one of the four cornerstones playing an important role in effective corporate governance along with an audit committee, executive management and an external auditor (IIA, 2010).

In Thailand, the role of internal auditing in corporate governance has received increasing attention. In 1998, The Stock Exchange of Thailand required that Thai listed companies must provide the adequate

internal control and the effectiveness and efficiency of internal auditing and corporate governance. The Stock Exchange of Thailand also emphasized that internal auditors and the internal audit activity must conform with the Professional Practice of Internal Auditing Standards. The internal audit activity adds value to the organization and its stakeholders when it provides objective and relevant assurance, and contributes to the effectiveness and efficiency of governance, risk management, and control processes (IIA, 2010). Accordingly, in order to achieve effective corporate governance to ensure the appropriateness of their work, firms have to improve the effectiveness and efficiency of their internal audit functions (Chaiyot and Phaprueke, 2009).

To gain effectiveness and efficiency of the internal audit function, critical success factors of the internal audit performance are necessary. In this study, critical success factors of the internal audit performance consist of five factors namely management's policies and encouragement, completeness of operating and information systems, understanding and acceptance from auditee, knowledge, skill, and human relations and the relationship between the internal audit unit and other units. (The Stock Exchange of Thailand, 2005). Accordingly, critical success factors of the internal audit performance consist of four factors namely senior management support, organization's culture and acceptance, auditor's skill and competencies and completeness of operating and information systems (Usana, 2009). It is worth mentioning that soft variable, such as senior management support, culture, integrity, and communication are generally perceived as critical success factors of the internal control assessment project (Macro and Giuseppe, 2003).

The prior research shows that attributes of efficiency of the internal audit consists of independence, objectivity, competencies and human relevance (Anchaya, 2007 refer to The Institute of internal auditors of Thailand, 1994). Moreover Anchana's research studied the relationships between efficiency in internal audit performance and operational outcomes by using a balance scorecard to study the operational outcomes, which are composed of four perspectives namely finance, customer, internal process and learning and growth. This study posited that efficiency of the internal auditing has an influence on operating outcomes in the finance perspective.

Empirical evidence of how the efficiency of the internal auditing influences on operational outcomes has been provided in research. The recent research has highlighted the efficiency in internal audit performance and operational outcomes were related to each other. The results obtained from this study could be used as guidelines for developing, creating and improving efficiency in internal audit performance for companies to be able to grow, to enhance quality of goods and service, to create competitive advantages, to increase marketing share, to create reliability to the public, and to be able to survive sustainably for a long period of time (Anchaya, 2007). Accordingly, the results of internal audit activity coming from innovation provide guidance, recommendations and value-added supports in order to help the firms' success (Sueyoshi, Shang and Chiang, 2008) and improve stability of the firm.

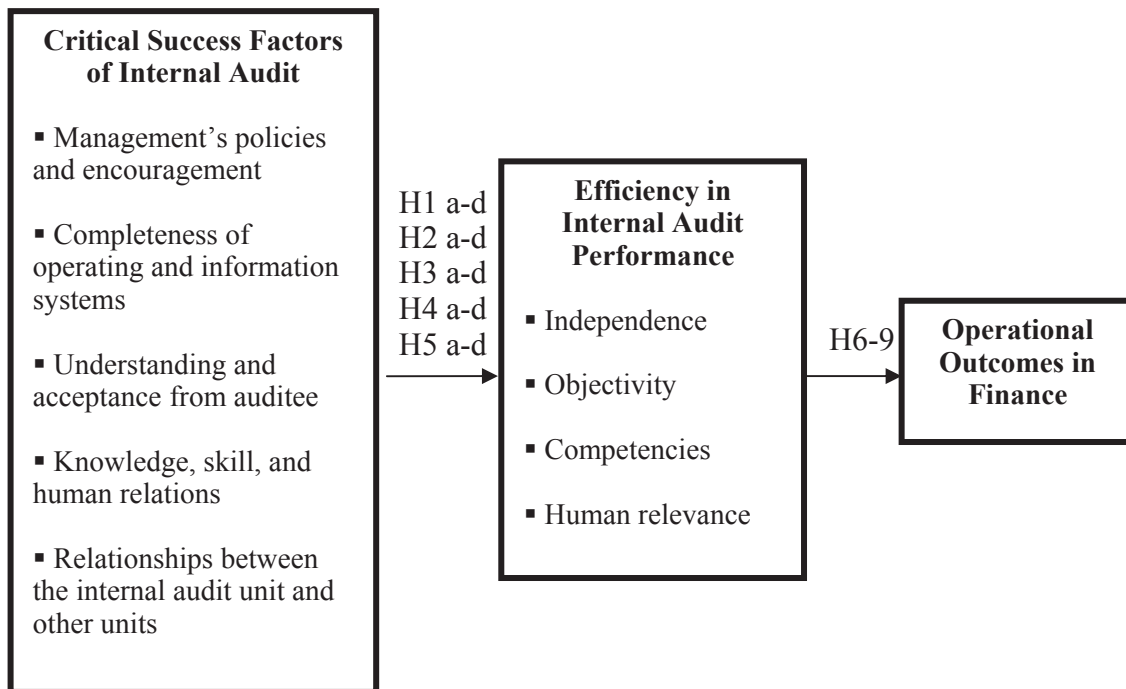
The purpose of this study is two-fold. The first one is to study the relationships between the critical success factors and the internal audit performance of the large listed companies in Stock Exchange of Thailand. The second is to study the relationships between efficiency in internal audit performance and operational outcomes of the large listed companies in Stock Exchange of Thailand. The research questions of this study are to uncover relationships between the critical success factors of the internal audit performance and efficiency in internal audit performance and operational outcomes. Also, the specific questions are (1) how do critical success factors of an internal audit have an influence on the internal audit efficiency? (2) how does efficiency in internal audit performance relate to the relationship to operational outcomes?

The structure of the paper is outlined as follows. Section 2 provides the theoretical framework. Literature reviews and hypothesis development are presented in section 3. Section 4 describes the research design, sample and procedure, and variable measurement of each construct in the study. Section 5 shows the results and the reasonable discussion. Section 6 indicates the contributions of this study and suggestions for future research. The conclusion is presented in the last section.

## 2. Theoretical Foundation

Internal auditing is an independent, objective assurance and consulting activity designed to add value and improve an organization's operations. It helps an organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes (IIA, 2010). The effectiveness of internal audit performance can be classified into independence, objectivity, competencies and human relevance (IIA, 2010). The effectiveness of internal audit performance consists of management's policies and encouragement, completeness of operating and information systems, understanding and acceptance from auditee, knowledge skill and human relations and the relationships between the internal audit unit and other units (The Stock Exchange of Thailand, 2005).

**Figure 1.** Conceptual model of antecedents and consequences of factors affecting efficiency in internal auditing performance and operational outcome



## 3. Literature Review and Hypotheses Development

### 3.1 Critical Success Factors of the Internal Audit

Critical success factors of the internal audit performance consist of five factors namely management's policies and encouragement, completeness of operating and information systems, understanding and acceptance from auditee, knowledge, skill, and human relations and the relationships between the internal audit unit and other units (The Stock Exchange of Thailand, 2005). Accordingly, critical success factors of the internal audit performance consist of four factors namely senior management support, an organization's culture and acceptance, the auditor's skill and competencies and the completeness of operating and information systems (Usana, 2009). It is worth mentioning that soft variables, such as senior management support, culture, integrity, and communication are generally perceived as critical success factors of the internal control assessment project (Macro and Giuseppe, 2003).

In this study, the critical success factors of the internal audit performance refer to the concept identified by the Stock Exchange of Thailand. Because of corporate scandals, management must provide strategies or techniques in order to increase the efficiency and effectiveness of internal auditors' activities. In this study, attempt will be made to study five factors of critical success factors of the internal audit performance namely management's policies and encouragement, completeness of operating and information systems, understanding and acceptance from auditee, knowledge, skill, and human relations and the relationships between internal audit unit and other units.

### 3.2 Efficiency in Internal Audit

According to the Institute of Internal Auditors, internal auditing refers to the activities that are used to add value to the firm and improve an organization's operations (IIA, 2010). In addition, the efficiency in internal audit performance enhances companies ability to grow, to have quality in goods and service, to create competitive advantages, to increase marketing share, to create reliability for the public, and to be able to survive sustainably over a long period of time (Anchaya, 2007). Incremental internal auditors have responsibility to audit the compliance of the firms in their standards and requirements such as audit the quality of financial statement required by international accounting standards, audit of security of information technology required by Sarbanes-Oxley Act of 2002, audit of quality management systems required by the ISO 9000 series and audit of environment management systems required by the ISO 1400 series (Karapetrovic and Willborn, 1998; Brandts, 2007).

In this study, the efficiency in internal audit performance refers to the concept defined by the Institute of Internal Auditors of Thailand. Because efficiency in internal audit performance has an influence on the operational outcomes, in this study, an attempt will be made to study four factors of the efficiency in internal audit performance, namely independence, objectivity, competencies and human relevance. This attempt leads to hypotheses as follows.

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Hypothesis 1a:	Management's policies and encouragement has influence on independence.
Hypothesis 1b:	Management's policies and encouragement has influence on objectivity.
Hypothesis 1c:	Management's policies and encouragement has influence on competencies.
Hypothesis 1d:	Management's policies and encouragement has influence on human relevance.
Hypothesis 2a:	Completeness of operating and information systems has influence on independence.
Hypothesis 2b:	Completeness of operating and information systems has influence on objectivity.
Hypothesis 2c:	Completeness of operating and information systems has influence on competencies.
Hypothesis 2d:	Completeness of operating and information systems has influence on human relevance.
Hypothesis 3a:	Understanding and acceptance from auditee has influence on independence.
Hypothesis 3b:	Understanding and acceptance from auditee has influence on objectivity.
Hypothesis 3c:	Understanding and acceptance from auditee has influence on competencies.
Hypothesis 3d:	Understanding and acceptance from auditee has influence on human relevance.
Hypothesis 4a:	Knowledge, skill, and human relations have influence on independence.
Hypothesis 4b:	Knowledge, skill, and human relations have influence on objectivity.

Hypothesis 4c:	Knowledge, skill, and human relations have influence on competencies.
Hypothesis 4d:	Knowledge, skill, and human relations have influence on human relevance.
Hypothesis 5a:	Relationships between the internal audit unit and other units has influence on independence.
Hypothesis 5b:	Relationships between the internal audit unit and other units has influence on objectivity.
Hypothesis 5c:	Relationships between the internal audit unit and other units has influence on competencies.
Hypothesis 5d:	Relationships between the internal audit unit and other units has influence on human relevance.

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### 3.3 Operating Outcomes in Finance

Nowadays, companies use the balance scorecard to measure their operating outcomes. The balance scorecard is performance measurement framework of Robert S. Kaplan and David P. Norton that view the organization from four perspectives, namely the learning and growth perspective, the business process perspective, the customer perspective and the financial perspective. As a result, the efficiency in internal audit performance has positive relationships with and influences on operational outcomes in all perspectives (Anchaya, 2007). Accordingly, the results of internal audit activity come from innovation provided guidance, recommendations and value-added supports in order to help the firm success (Sueyoshi, Shang and Chiang, 2008) improve the stability and the success of the firm.

The balanced scorecard is defined as a set of measurements that give top managers a fast, but comprehensive view of the business including operational measures on customer satisfaction and the organization's innovation and improvement activities, as well as financial measurements. However, Kaplan and Norton point out that the operational measures drive financial performance. In this study, attempt will be made to study operating outcomes in financial perspective. It leads hypotheses as follows.

Hypothesis 6:	Independence has influence on operational outcome in finance.
Hypothesis 7:	Objectivity has influence on operational outcome in finance.
Hypothesis 8:	Competencies have influence on operational outcome in finance.
Hypothesis 9:	Human relevance has influence on operational outcome in finance.

## 4. Research Methods

According to relevant literature, there is an opportunity to study in the field of internal auditing in Thailand. This study examines factors affecting efficiency in internal auditing performance and operational outcome of the large Thai listed companies.

### 4.1 Population and Sample

In this study, population and sample are taken from the large Thai listed companies and the key informant is the chief internal auditor of each of these companies database is drawn from The Stock Exchange of

Thailand on its website: <http://ww.set.or.th>. Based on this database, there are 100 listed firms (SET 100 Index) as of December 1, 2010.

## **4.2 Data Collection**

The questionnaire was constructed covering contents according to each variable that was operationalized for empirical studies. The questionnaires were sent to chief internal auditors to provide data for this study via mail. After one month 64 questionnaires were received. As a result, complete questionnaires are 64 from the original 100 mailed, the response rate of this paper was 64%. According to Aaker, Kumar and Day (2001), the response rate for mail survey, without an appropriate follow-up procedure, is less than 20%. In addition, non-response bias was investigated by t-test, responses from the first 20 and the last 20 questionnaires returned were tested and results were not significant. Therefore, it was implied that these received questionnaires show as non-response bias. Thus, the response rate of this study is considered acceptable.

## **4.3 Variable Measurement**

This questionnaire was developed as an effective instrument that is concerned with validity and reliability. The instrument of this study is a questionnaire that was constructed related literature. Before being used to collect data, the questionnaire was verified by one academic expert and adjusted where necessary to make it a more effective instrument. Moreover, a pretest method was conducted to increase the assertive measure. As a result, the instrument verifications certain the validity and reliability of questionnaire that represented to measure all constructs in conceptual model of this study.

### **4.3.1 Variables for Examining Factors Affecting Efficiency in Internal Auditing Performance**

Independent variables are critical success factors that consist of five items namely management's policies and encouragement, completeness of operating and information systems, understanding and acceptance from auditee, knowledge, skill, and human relations and the relationships between the internal audit unit and other units. The dependent variable is the efficiency in internal auditing performance, defined as independence, objectivity, competencies and human relevance.

### **4.3.2 Variables for Examining the Influence on Efficiency in Internal Auditing Performance on Operational Outcome of the Large Thai Listed Companies**

Independent variable is efficiency in internal auditing performance is defined as independence, objectivity, competencies and human relevance. The dependent variable is operational outcome in finance.

## **4.4 Reliability and Validity**

Constructs, Cronbach's Alpha was used to examine the multi-item in order to measure the reliability of data. Table 1 provides an alpha coefficient higher than 0.60, (Nunnally, 1978). Alpha coefficients of constructs have values ranging from 0.83 to 0.96 the lowest coefficient for human relevance and the highest coefficient for objectivity. That is, internal consistency of the measures used in this study can be considered good for all constructs. Factor analysis was employed to test the validity of data in the questionnaire. Items used to measure each construct

**Table 1.** Factor Loading and Alpha Coefficient of Constructs.

Constructs	Factor Loading	Alpha Coefficient
Management’s policy and encouragement (MP)	0.75-0.91	0.84
Completeness of operating and information systems (IT)	0.86-0.95	0.81
Understanding and acceptance from auditee (UN)	0.69-0.95	0.89
Knowledge, skill, and human relations (KN)	0.72-0.91	0.90
Relationships between the internal audit unit and other units (RE)	0.84-0.92	0.88
Independence (ID)	0.82-0.89	0.87
Objectivity (OJ)	0.84-0.95	0.96
Competencies (CA)	0.81-0.92	0.93
Human relevance (HR)	0.69-0.88	0.83

**Table 2.** Descriptive Statistics And Correlation Matrix.

	PO	IT	UN	KN	RE	ID	OJ	CA	HU	FI
Mean										
Standard Deviation										
Management’s policy and encouragement (PO)	1.00									
Completeness of operating and information systems (IT)	0.71**	1.00								
Understanding and acceptance from auditee (UN)	0.69*	0.82*	1.000							
Knowledge skill and human relations (KN)	0.72**	0.71**	0.75**	1.000						
Relationships between the internal audit unit and other units (RE)	0.71**	0.74**	0.81**	0.75**	1.00					
Independence (ID)	0.62**	0.65**	0.72**	0.66**	0.74**	1.000				
Objectivity (OJ)	0.59**	0.49**	0.56**	0.56**	0.74**	0.78**	1.00			
Competencies (CA)	0.66**	0.56**	0.71**	0.74**	0.81**	0.79**	0.77**	1.00		
Human relevance (HR)	0.66**	0.67**	0.79**	0.72**	0.82**	0.82**	0.76**	0.81**	1.00	
Operational outcome in finance (FI)	0.38**	0.44**	0.50**	0.54**	0.59**	0.35**	0.52**	0.51**	0.53**	1.000

\*\* Correlation is significant at the .01 level (2-tailed)

\* Correlation is significant at the .05 level (2-tailed)

extracted to be one only principal component. Table 1 shows factor loading of each construct that presents a value higher than 0.5, ranging from 0.69 – 0.95 the lowest factor loading is human relevance and the highest factor loading is completeness of operating and information systems, understanding and acceptance from auditee and objectivity. Thus, construct validity of this study was tapped by items in the measure, as theorized. That is, factor loading of each construct should not be less than 0.5 (Hair *et al.*, 2006)

### 4.5 Statistical Techniques

Regression analysis is employed to analyze the relationship between a dependent variable and independent variables. The ordinary least squares (OLS) regression analysis is used to test the hypothesized. From the relation model and the hypotheses, the following five equation models are formulated:

$$\begin{aligned}
 \text{Equation 1: ID} &= \alpha_{01} + \beta_1MP + \beta_2IT + \beta_3UN + \beta_4KN + \beta_5RE + \varepsilon_1 \\
 \text{Equation 2: OJ} &= \alpha_{02} + \beta_6MP + \beta_7IT + \beta_8UN + \beta_9KN + \beta_{10}RE + \varepsilon_2 \\
 \text{Equation 3: CA} &= \alpha_{03} + \beta_{11}MP + \beta_{12}IT + \beta_{13}UN + \beta_{14}KN + \beta_{15}RE + \varepsilon_3 \\
 \text{Equation 4: HR} &= \alpha_{04} + \beta_{16}MP + \beta_{17}IT + \beta_{18}UN + \beta_{19}KN + \beta_{20}RE + \varepsilon_4 \\
 \text{Equation 5: FI} &= \alpha_{05} + \beta_{21}ID + \beta_{22}OJ + \beta_{23}CA + \beta_{24}HR + \varepsilon_5
 \end{aligned}$$

Where, ID is independence, OJ is objectivity, CA is completencies, HR is human relevance, FI is operational outcome in finacnce, MP is management’s policy and encouragement, IT is completeness of operating and information systems, UN is understanding and acceptance from auditee, KN is knowledge skill and human relations, RE is relationships between the internal audit unit and other units.

TABLE 3. Results of ols regression analysis.

Independent Variables	Dependent Variables				
	ID	OJ	CA	HR	FI
	1	2	3	4	5
Management’s policy and encouragement (MP)	0.53	0.12	0.19	0.54	
Completeness of operating and information systems (IT)	0.92	0.22	0.01*	0.37	
Understanding and acceptance from auditee (UN)	0.14	0.71	0.13	0.01*	
Knowledge skill and human relations (KN)	0.44	0.98	0.01*	0.25	
Relationships between the internal audit unit and other units (RE)	0.02*	0.00*	0.00*	0.00*	
Independence (ID)					0.01*
Objectivity (OJ)					0.04*
Competencies (CA)					0.17
Human relevance (HR)					0.03*
Adjusted R <sup>2</sup>	0.57	0.54	0.71	0.71	0.61

\**p* < .05

## 5. RESULTS AND DISUSSION

Table 2 shows the correlation matrix for all variables. To check multicollinearity problems among independent variables, variance inflation factors (VIF) were used, that range from 1.03-8.89, well below the cut-off value of 10 recommended by Hair *et al.*, (2006). Thus, there are no significant multicollinearity problems confronted in this study.

Table 3 presents the results of OLS regression analysis of the effect of the critical success factors namely management's policies and encouragement(MP), completeness of operating and information systems(IT), understanding and acceptance from the auditee(UN), knowledge, skill and human relations(KN),the relationship between the internal audit unit and other units(RE), independence(ID), objectivity(OJ), competencies(CA) and human relevance(HR). Management's policies and encouragement(MP), completeness of operating and information systems(IT), understanding and acceptance from auditee(UN), knowledge, skill and human relations(KN) and human relations and the relationship between the internal audit unit and other units are predicted to have a positive influence on independence, objectivity, competencies and human relevance. Accordingly, the results show that management's policies and encouragement have no significant influence on independence, objectivity, competencies and human relevance. (Model 1:  $\beta_1 = 0.53, p > 0.05$ , Model 2:  $\beta_6 = 0.12, p > 0.05$ , Model 3:  $\beta_{11} = 0.19, p > 0.05$ , Model 4:  $\beta_{16} = 0.54, p > 0.05$ ). Thus, *hypothesis 1a, 1b, 1c, and 1d are not supported*.

For completeness of operating and information systems, the results provide that it has only positive significant influence on competencies, but it has no significant influence on independence, objectivity and human relevance (Model 1:  $\beta_2 = 0.92, p > 0.05$ , Model 2:  $\beta_7 = 0.22, p > 0.05$ , Model 4:  $\beta_{17} = 0.37, p > 0.05$ ). The internal auditor's objective is assessment of evidence to provide an independent opinion or conclusions regarding an entity, operation, function, process, system, or other subject matter, so completeness of operating and information systems helps internal auditors to gain efficiency in internal audit performance.(Usana, 2009). Thus, *hypothesis 2c is supported but hypotheses 2a, 2b, and 2d are not supported*.

For understanding and acceptance from the auditee , the results show that it has only positive significant influence on human relevance, but it has no significant influence on independence, objectivity and competencies (Model 1:  $\beta_3 = 0.14, p > 0.05$ , Model 2:  $\beta_8 = 0.71, p > 0.05$ , Model 3:  $\beta_{13} = 0.13, p > 0.05$ ). To achieve effective audit work, auditors are required to have full and unrestricted access to all activities, records and properties, and be provided with cooperation from the auditee. The auditee attributes with implications on audit effectiveness include the auditee's proficiency to efficiently and effectively meet organizational sub-goals; their attitude towards internal audit; and the level of cooperation provided to the auditor.(Dessalegn and Aderajew, 2007). Thus, *hypothesis 3d is supported but hypotheses 3a, 3b, and 3c are not supported*.

Moreover, the results of regression analysis uncover that knowledge, skill and human relations have positive significant influence on competencies, but they have not significantly influenced independence, objectivity and human relevance (Model 1:  $\beta_4 = 0.44, p > 0.05$ , Model 2:  $\beta_9 = 0.98, p > 0.05$ , Model 4:  $\beta_{19} = 0.25, p > 0.05$ ). The IIA's standard 1210 on proficiency of the auditor requires that the internal auditors possess the knowledge, skills and other competencies needed to perform their responsibilities (IIA, 2010). The internal audit work requires knowledge and experience on a wide range of systems and operations. It is imperative to deploy auditors with extensive professional skills and to upgrade their skills through continuing professional training and development (Dessalegn and Aderajew, 2007). Thus, *hypothesis 4c is supported but hypotheses 4a, 4b, and 4d are not supported*.

Accordingly, the results show that relationships between the internal audit unit and other units have positive significant influence on all independence, objectivity, competencies and human relevance. Communication is generally perceived a critical success factors of the internal control assessment project.(Macro and Giuseppe, 2003) Thus, *hypothesis 5a, 5b, 5c and 5d are supported*.

In addition, model 5 is used to test the effect of independence, objectivity, competencies and human relevance on the operational outcomes in finance. The results of OLS regression analysis provide evidence that independence, objectivity and human relevance have positive significant effect on the operational outcomes in finance, but competencies have not significantly influenced the operational outcomes in finance. (Model 5:  $\beta_{23} = 0.17, p > 0.50$ ). Developing, creating and improving efficiency in internal audit performance help companies to be able to grow, to enhance quality of goods and service, to create competitive advantages, to increase marketing share, to create reliability to the public, and to be able to survive sustainably for a long period of time (Anchaya, 2007). The internal audit activity that comes from innovation provides guidance, recommendations and value-added supports in order to help

the firms' success (Sueyoshi, Shang and Chiang, 2008) and improve stability of the firm. The internal audit activity provides independent, objective assurance and consulting services designed to add value and improve an organization's operations and helps an organization accomplish its objectives (IIA, 2010). Therefore, *hypotheses 6, 7 and 9 are supported but hypotheses 8 is not supported*. Adjusted R<sup>2</sup> of model 1, 2, 3, 4 and 5 are 0.57, 0.54, 0.71 and 0.61.

## 6. Contributions and Future Research

### 6.1 Theoretical Contributions and Future Directions for Research

This study provides important theoretical contributions which confirm previous knowledge and literature of factors affecting efficiency in internal auditing performance and operational outcome. For preceding the filed theoretically, this research is one of the studies linked to the contributions of factors affecting efficiency in internal auditing performance. However, the population and sample are taken from the 100 large Thai listed companies (SET 100 Index). This study provides a new perspective different from the previous one.

In addition, there are some factors of the efficiency in internal auditing performance covering other viewpoints the further study in the next research. For example, further study should investigate cause of management's policy and encouragement have not influence on the efficiency in internal auditing performance for the large Thai listed companies. Moreover, the results show that competencies do not have impact on the operational outcomes in finance, future research should explore the reasons why on its.

### 6.2 Managerial Contribution

This study helps CEOs understand the influence of critical success factors via completeness of operating and information systems, understanding and acceptance from auditee, knowledge, skill, and human relations and the relationship between the internal audit unit and other units on the efficiency in internal audit performance. Moreover, this study uncovers the influence of the efficiency in internal audit performance namely independence, objectivity, and human relations on the operational outcomes in finance. To help the efficiency in internal audit performance, the supporting of critical success factors is essential. The aim of internal audit performance is to add value and improve an organization's operations and helps an organization accomplish its objectives.

### 6.3 Institutional Contribution

This study helps many institutions understand the contribution of the efficiency in internal audit performance. The contribution of this study for the SEC is the further verification that internal audits are very necessary to improve operations of listed companies. The SEC should promote and explain the important of internal audit to all listed companies. In addition, this study agrees with IIA that efficiency in internal audit performance namely, independence, objectivity, and human relations will add value and improve an organization's operations.

## 7. Conclusion

This study investigates the influence of five factors of the critical success factors of the internal audit, namely, management's policies and encouragement, completeness of operating and information systems,

understanding and acceptance from auditee, knowledge, skill, and human relations and the relationships between the internal audit unit and other units on independence, objectivity, competencies and human relevance. In addition, this study also examines the effect of independence, objectivity, competencies and human relevance effectiveness on operational outcomes in finance. A questionnaire was used as an instrument in this research and participant is chief internal auditors from some of the 100 Thai listed companies. The results of OLS regression provides the following: 1.) completeness of operating and information systems has positively influence on competencies, 2.) understanding and acceptance from auditee has a positive influence on human relevance, 3.) knowledge, skill, and human relations has a positive influence on competencies and 4.) the relationships between the internal audit unit and other units has positive influence on independence, objectivity, competencies and human relevance. In addition, independence, objectivity, and human relevance have positive influence on operational outcomes in finance.

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