

# Audit Review Integration Competency and Audit Success: An Empirical Investigation

## สมรรถนะในการบูรณาการการสอบทานการสอบบัญชีและความสำเร็จ ในการสอบบัญชี: การตรวจสอบเชิงประจักษ์

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### Abstract

The research purpose is to examine the association among audit review integration competency, its consequence, and audit success. This research emphasized audit review integration competency on the monitoring and assessing of processes with a criteria of audit process that is scheduled as planned. This research attempts to integrate the key elements of the performance review audit for five new dimensions. The 398 samples were selected from Certified Public Accountants (CPAs) in Thailand. A questionnaire was used for collecting the data. The response rate was 22.50%. The results of regression analysis show that the dimensions of audit review integration competency have a significant positive relationship with audit outcomes. Similarly, the audit outcomes have significant positive impacts on audit success.

**Keywords:** *Audit Review Integration Competency, Audit Outcomes, and Audit Success*

### บทคัดย่อ

งานวิจัยนี้มีวัตถุประสงค์เพื่อตรวจสอบความสัมพันธ์ในกลุ่มของสมรรถนะในการบูรณาการการสอบทานการสอบบัญชี ผลลัพธ์ที่ตามมา และความสำเร็จในการสอบบัญชี งานวิจัยนี้มุ่งเน้นที่สมรรถนะในการบูรณาการการสอบทานการสอบบัญชีเกี่ยวกับกระบวนการตรวจสอบ และประเมินเกี่ยวกับเกณฑ์ของกระบวนการสอบบัญชีที่เป็นไปตามแผนการสอบบัญชีที่กำหนดไว้ งานวิจัยนี้พยายามบูรณาการองค์ประกอบที่สำคัญของสมรรถนะในการสอบทานการสอบบัญชีสำหรับ 5 มิติใหม่ เลือกลุ่มตัวอย่างจากผู้สอบบัญชีรับอนุญาต (CPAs) ในประเทศไทยจำนวน 398 คน ใช้แบบสอบถามในการเก็บรวบรวมข้อมูล อัตราการตอบแบบสอบถามคือ 22.50% ผลของการวิเคราะห์การถดถอย แสดงให้เห็นว่ามิติทั้งหมดของสมรรถนะในการบูรณาการการสอบทานการสอบบัญชี มีความสัมพันธ์เชิงบวกอย่างมีนัยสำคัญกับผลลัพธ์ของการสอบบัญชี ในทำนองเดียวกัน ผลลัพธ์ของการสอบบัญชีก็มีผลกระทบเชิงบวกอย่างมีนัยสำคัญต่อความสำเร็จในการสอบบัญชี

**คำสำคัญ:** *สมรรถนะในการบูรณาการการสอบทานการสอบบัญชี ผลลัพธ์ของการสอบบัญชี  
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## 1. Introduction

At present, the economy is fluctuating critically and is aggressively competitive in business and trading. Some businesses use fraud and corruption to gain competitive advantages. It has led to the downfall of renowned companies, such as Tyco International Ltd, Enron, WorldCom Inc., and Health South (Uwuigbe, 2013). Many companies shut down, affecting the overall economy (Konishi, 2010). Furthermore, fraud and corruption revealed that great world-class businesses had no quality and lacked accountability to shareholders. This was done by senior executives who behaved surreptitiously and presented fiscal reports that were not genuine (Thitiyapramote & Ussahawanitchakit, 2013). Moreover, stakeholders are demanding that financial reporting standards should be similar around the world and have a higher quality of financial statements (Paino, Thani, & Iskandar Zulkarnain Sayd Idris, 2011).

The accounting and auditing standards are modified by the Federation of Accounting Professions (FAP) which are conforming to the International Federation of Accountants (IFAC) and the regulations. A high-quality audit practice was generated to comply with universal standards (Miller, Fedor, & Ramsay, 2006), so that the Thai Standard on Quality Control 1 (TSQC1) has led to the confidence of stakeholders.

The audit review is the main mechanism to control the quality of auditing to observe with the variations that arise and entail the audit review integration of procedure and process. The controlling of audit quality generates the confidence among stakeholders regarding the financial statements (Guiral, Ruiz, & Rodgers, 2011). The technique of audit review is used to

detect the behavior of auditors who ignore the steps necessary to complete the audit (Waggoner & Cashell, 1991). The audit review integration helps to keep up with the economic fluctuations and maintains the quality of the audit (Langkhunsaen, Ussahawanitchakit, & Boonlua, 2014). Therefore, the auditor must have integration competency with practice, planning, evidence, process and problem-solving in auditing. Auditors must develop their audit review integration competency to succeed in auditing.

Audit review integration competency in this research emphasizes the follow-up monitoring, and the estimation that the performance is consistent with the audit plan. Furthermore, it achieves the objective of operating procedures and practices according to professional standards and legal requirements (Biddle, Hilary, & Verdi, 2009). Tan and Shankar (2010) investigated the influence of the audit review procedure on the outcome of an audit. However, there is research attention to audit competence in the audit review procedure. Moreover, audit competency depends on the capability and knowledge of an auditor. The success of an auditor is affected by his/her audit competency (Askary, 2006). Therefore, the auditor should focus on using the audit review procedure for control the audit quality. Furthermore, there are only a few empirical researches that study about the dimensions of audit review integration competency and the association between audit review integration competency and the audit consequence. This research expresses and clarifies five new dimensions of audit review integration competency, namely, audit planning investigation, audit practice monitoring, audit evidence-checking, audit problem-solving, and

audit process renewal. Accordingly, this research generates the audit review integration competency. Therefore, the crucial research question is, “How does each dimension of audit review integration competency affect the audit success?”

This research attempts to provide an insight into the understanding of the relationships between audit review integration competency and audit outcomes. Accordingly, this research suggests new information for the professional auditor in that the audit review practice and the values of using the process of audit review increase the quality of the audit.

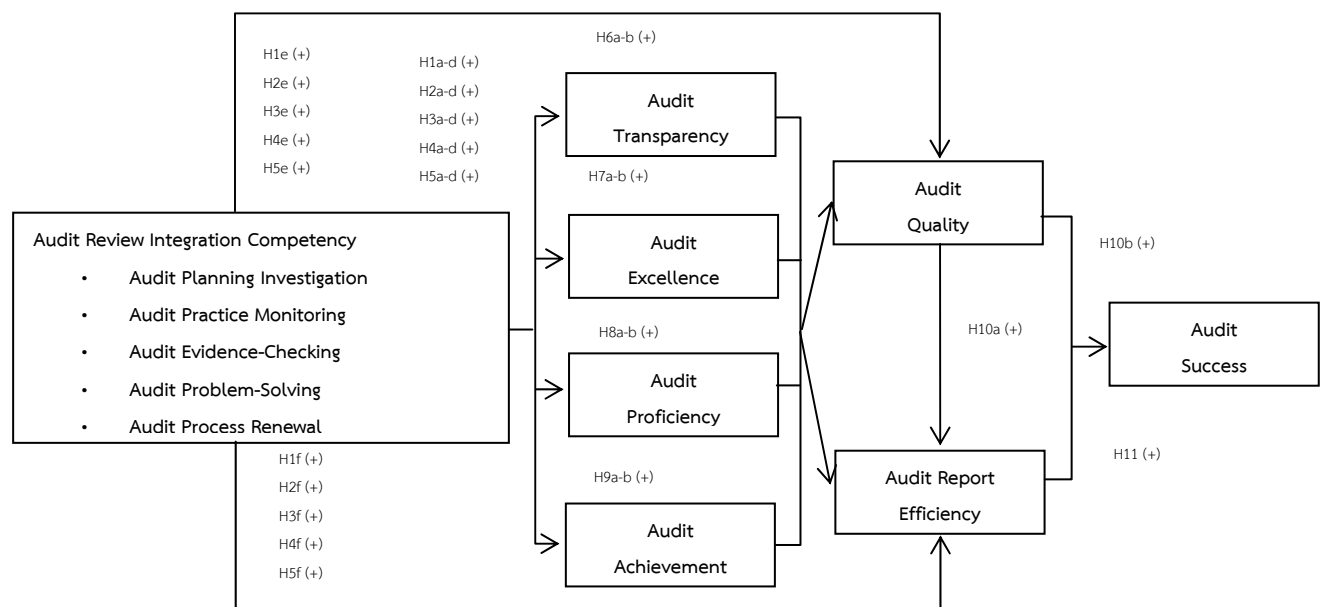
## 2. Literature Review

### 2.1 Audit Review Integration Competency and Its Dimensions

Audit review integration competency helps improve audit performance because it supports

a clear understanding of the audit process (Kariuki and Lowe, 2006). Thus, audit review integration competency may help to ensure the skills, knowledge, and ability of the auditor to sufficiently perform his/her audit tasks (Carpenter, 2007). Audit review integration competency is defined as a capability to combine the tactics, procedures and techniques in reviewing that lead to the success and control of the quality in auditing (Sumritsakun & Ussahawanitchakit, 2009), to be beneficial for auditing (Payne, Ramsay, & Bamber, 2010). This research determines five dimensions of audit review integration competency (Tan & Trotman, 2003).

This research examines the association between five dimensions of audit review integration competency and audit outcomes. The conceptual model is revealed in Figure 1.



**Figure 1** Conceptual Model of Audit Review Integration Competency and Audit Success: An Empirical Investigation

### 2.1.1 Audit Planning Investigation

Audit planning investigation is defined as the competency to analyze the planning of auditing to extend the whole actions in the monitoring duty. The monitoring necessity is comprehensive, and the monitoring of risk valuation and distribution of audit information that are excellent, uses an integrated review technique and the scope of the audit covered (Bedard, Graham, & Jackson, 2005). The monitoring opinion in the audit report is affected by the audit plans. Thus, determining the extent of an audit is an important process to control the audit activities. Audit planning investigation leads to reduce costs and save time for monitoring efficiency (Blay, Sneathen, & Kizirian, 2007). According to the above reason, the following hypothesis is offered:

*Hypotheses 1a-f: Audit planning investigation will positively relate to (a) audit transparency, (b) audit excellence, (c) audit proficiency, (d) audit achievement, (e) audit quality, and (f) audit report efficiency.*

### 2.1.2 Audit Practice Monitoring

Audit practice monitoring is defined as a method of continuous deliberation and assessment of the quality control system, comprising the assortment of a deal audit to comprehensively review a consistent audit plan. This process is planned for offering a rational assurance to the worthy audit control system that operates successfully (Owhoso & Weickgenannt, 2009). The auditor can have repetition based on the audit practice. It results in audit quality and a suitable audit opinion on the audit report (Bell, Doogar, & Solomon, 2008; Sikka, 2009). Depending on the earlier reason, the hypothesis is as follows:

*Hypotheses 2a-f: Audit practice monitoring will positively relate to (a) audit transparency, (b) audit excellence, (c) audit proficiency, (d) audit achievement, (e) audit quality, and (f) audit report efficiency.*

### 2.1.3 Audit Evidence Checking

Audit evidence-checking is defined as the capability to scrutinize and confirm the suitability and appropriateness of evidence in auditing, the appropriate dating of file store, and the confirmation of the conclusion that is consistent with the information and evidence to be detected (Hurtt, 2010; Nelson, 2009). Gathering sufficient and appropriate evidence is an important process of the audit practice. It leads to reliability in the auditor's opinion (Chang, Tsai, Shih, & Hwang, 2008). Therefore, the hypothesis is as follows:

*Hypotheses 3a-f: Audit evidence-checking will positively relate to (a) audit transparency, (b) audit excellence, (c) audit proficiency, (d) audit achievement, (e) audit quality, and (f) audit report efficiency.*

### 2.1.4 Audit Problem-Solving

Audit problem-solving is defined as the capability to practice a procedure and technique to identify (search) barriers, determine the cause of a problem; and find alternative solutions. Commendations and continuation resolutions (Barnes, 1980) arise in the audit duty. Performing is a systematic way, and is suitable to the circumstances (Miller, 1998; Petchjul & Ussahawanitchakit, 2013). The problem-solving in auditing is an important mechanism to increase opportunity in audit success (Petchjul & Ussahawanitchakit, 2013). Therefore, the hypothesis is as follows:

***Hypotheses 4a-f: Audit problem-solving will positively relate to (a) audit transparency, (b) audit excellence, (c) audit proficiency, (d) audit achievement, (e) audit quality, and (f) audit report efficiency.***

#### **2.1.5 Audit Process Renewal**

Audit process renewal is defined as the capability to advance the audit method in three stages (audit planning, audit practice and audit reporting), in which one agrees to continuously generate additional inspections and that are dependable and suitable to the client's business and changing situations (Pennekamp & Vlasveld, 2006). The audit review method is the main instrument to regulate the audit value. It leads to an appropriate and adequate audit judgment (Tan & Shankar, 2010). The performance in auditing is affected by the audit process renewal (Pennekamp & Vlasveld, 2006). Therefore, the hypothesis is as follows:

***Hypotheses 5a-f: Audit process renewal will positively relate to (a) audit transparency, (b) audit excellence, (c) audit proficiency, (d) audit achievement, (e) audit quality, and (f) audit report efficiency.***

## **2.2 Consequence Variables**

### **2.2.1 Audit Transparency**

Audit transparency is defined as the audit procedures, processes, and performance that are clear and provable (Tidd & Izumimoto, 2002). When strictly followed according to relevant regulations, the audit practice is unreservedly without bias (Awad & Krishnan, 2006). The confidence on the financial statement is generated from transparency in auditing (Weiner, 2013), which generates stakeholder recognition as financial reliability. It leads to an

audit outcome (Holt & DeZoort, 2009). Therefore, the hypothesis is as follows:

***Hypotheses 6a-b: Audit transparency will positively relate to (a) audit quality and (b) audit report efficiency.***

### **2.2.2 Audit Excellence**

Audit excellence is defined as the audit practice that is beyond expectations by a better-defined goal. It is exposed under limited resources, and in agreement with the pertinent principles and supreme efficiency. It applies modernization and technology that is suitable and in obedience with the monitoring environment (Hui & Fatt, 2007). The detecting and controlling of risk is generated by audit excellence, which helps enable the audit outcome (Mock & Turner, 2005). It leads to audit success (Chanruang & Ussahawanitchakit, 2011). This reason suggests that audit excellence is a guidance in the performance of auditing. Grounded in the prior literature, the hypothesis is as follows:

***Hypotheses 7a-b: Audit excellence will positively relate to (a) audit quality and (b) audit report efficiency.***

### **2.2.3 Audit Proficiency**

Audit proficiency is defined as the audit practices that are in accordance with the plan (Musig & Ussahawanitchakit, 2011), which are under the lowest audit resources, have the most value, take the time to perform with the most value, and have the lowest cost (Palmrose, 2006). The reputation of an auditor is generated from audit proficiency. Likewise, the reputation leads to audit success (Musig & Ussahawanitchakit, 2011). This reason suggests that the proficiency of the audit is a guide to

the quality of auditing and efficiency of an audit report. Grounded in prior literature, the hypothesis is as follows:

***Hypotheses 8a-b: Audit proficiency will positively relate to (a) audit quality and (b) audit report efficiency.***

#### 2.2.4 Audit Achievement

Audit achievement is defined as the audit practice according to the audit criteria that is related to the audit: the audit plan, audit scope, and gathering of audit evidence obtained. It is sufficient and appropriate to get an audit opinion on the financial statements in accordance with auditing standards (Musig & Ussahawanitchakit, 2011). The audit outcomes are generated from audit achievement to the contribution of valuable information (Elliott, Dawson, & Edwards, 2007). This reason suggests that the achievement of an auditor is a guide on the quality of the auditing and the efficiency of an audit report. Therefore, the hypothesis is as follows:

***Hypotheses 9a-b: Audit achievement will positively relate to (a) audit quality and (b) audit report efficiency.***

#### 2.2.5 Audit Quality

Audit quality is defined as the detection-reporting irregularities and errors in financial reporting that have occurred (DeAngelo, 1981). The information in the audit report is accurate (Davidson & Neu, 1993) and the probability that the financial statements are free of errors (Palmrose, 1988). The stakeholder satisfaction is the quality in auditing. The audited financial statement is used for the decision-making of the stakeholders. The reliability and quality of the financial reporting are considered by

investors. Therefore, the auditor attempts to increase audit quality which leads to audit outcomes (Watkins, Hillison, & Morecroft, 2004). This reason suggests that audit quality is the guidance on audit report efficiency and audit success. Grounded in the prior literature, the hypothesis is as follows:

***Hypotheses 10a-b: Audit quality will positively relate to (a) audit report efficiency and (b) audit success.***

#### 2.2.6 Audit Report Efficiency

Audit report efficiency is defined as the ability to present the audit report by using invaluable resources, successful auditing, and existence (Arens, Elder, & Beasley, 2005). The report of an auditor exposes an audit view and the auditor's opinion is reliable and useful for decisions (Al-Ajmi, 2009). Therefore, effective report of an auditor leads to improvement of the reliability from a stakeholder, to offer dependability, and is valuable for the determination (Bhattacharjee, Moreno, & Yardley, 2005) and efficiency of an auditor. This reason suggests that efficiency of the audit report is a guide to the success of auditing. Grounded in the prior literature, the hypothesis is as follows:

***Hypothesis 11: Audit report efficiency will positively relate to audit success.***

### 3. Methodology

#### 3.1 Sample Selection and Data Collection Procedure

The CPAs in Thailand are used as the population of this research. The sample was designated from the current and reliable online database of the Federation of Accounting Professions under the Royal Patronage of His

Majesty the King. CPAs are selected because this research examines the associations of audit competency and audit outcomes. This database includes 9,250 CPAs. Based on Krejcie & Morgan (1970), an appropriate sample size is 385 certified public accountants under the 95% confidence. Depending on the previous literature, an adequate response rate for a mail survey is 20% (Aaker, Kumar, & Day, 2001). Hence, 1,925 mailed questionnaires were distributed directly to 1,925 CPAs in Thailand selected using a simple random sampling procedure. The received and usable questionnaires are 398. The effective response rate was 22.50% (Krejcie & Morgan, 1970). Moreover, the non-response bias is tested for generalization based on Armstrong and Overton (1977). This research examined the significant differences of the demographic information of the CPAs (gender, age, married status, education level, and audit experience) between early and late responses. The result is that the characteristics of before and after respondents showed no significant difference. Therefore, it was concluded that there is no non-response bias.

### 3.2 Reliability and Validity

The questionnaire consists of six parts. Part one asks the personal information of CPAs (10 items). Part two through part five measures each of the constructs in the conceptual model (56 items), the total of 66 items. The five-point Likert scale ranging from 1 = strongly disagree, to 5 = strongly agree, was used to measure the variables (Newell & Goldsmith, 2001). Two academic experts who have experience in this area reviewed the instrument to ensure that the questionnaires used suitable wordings, and

all constructs are adequate to cover the content of the variables. The pre-test was conducted with 30 CPAs in Thailand. The factor loadings of each item were between 0.563 and 0.862, which are higher than the 0.40 cut-off point, indicating the construct validity of the questionnaire (Nunnally & Bernstein, 1994). Furthermore, the Cronbach's alphas were between 0.775 and 0.871, which are higher than the 0.70 cut-off point (Hair, Black, Babin, & Anderson, 2010). It ensures that validity and reliability of the questionnaire.

### 3.3 Statistical Techniques

The statistic for hypotheses testing is the ordinary least squares method (OLS). The OLS assumption checks the normality, heteroscedasticity, autocorrelation, multicollinearity, and linearity. Moreover, OLS regression analysis not only explains a relationship between two variables, but it also provides a sense of the rationale behind the reflect of interaction which it is the effect of independent variables on the dependent variable as a linear function of moderator variable (Jaccard & Turrisi, 2003). Consequently, OLS regression analysis is appropriately used to test all hypotheses in this research.

## 4. Research Results and Discussion

The result illustrates no multicollinearity problems. It means that the independent variables are not interrelated with other independent variables. Because the maximum value of VIFs is from 1.010 to 2.660, it is well below the cut-off point of 10 (Hair et al., 2010). Furthermore, correlations between each variable are less than 0.80 (Hair et al., 2010).

**Table 1** Results of Regression Analysis

Independent Variables	Dependent Variables <sup>a</sup>					
	ATR	AEX	APF	AAC	AQU	ARE
	Equation 1 H1a-H5a	Equation 2 H1b-H5b	Equation 3 H1c-H5c	Equation 4 H1d-H5d	Equation 5 H1e-H5e	Equation 6 H1f-H5f
Audit planning investigation (API: H1a-1f)	0.021 (0.036)	0.059* (0.035)	0.176*** (0.054)	0.111*** (0.037)	-0.013 (0.042)	-0.019 (0.048)
Audit practice monitoring (APM: H2a-2f)	0.176*** (0.049)	0.212*** (0.048)	0.121** (0.059)	0.314*** (0.050)	0.206*** (0.058)	0.141** (0.066)
Audit evidence-checking (AEC: H3a-3f)	0.283*** (0.055)	0.158*** (0.055)	0.262*** (0.067)	0.201*** (0.057)	0.062 (0.066)	0.118 (0.075)
Audit problem-solving (APS: H4a-4f)	0.129** (0.052)	0.142*** (0.052)	0.154** (0.061)	0.214*** (0.054)	0.190*** (0.062)	0.126* (0.071)
Audit process renewal (APR: H5a-5f)	0.263*** (0.047)	0.346*** (0.047)	0.098* (0.054)	0.069 (0.048)	0.212*** (0.056)	-0.012 (0.064)
Gender (GEN)	0.038 (0.071)	-0.023 (0.071)	0.008 (0.082)	-0.057 (0.073)	-0.050 (0.085)	-0.790 (0.097)
Working experience (EXP)	0.035 (0.034)	0.033 (0.033)	0.170** (0.083)	0.021 (0.35)	-0.049 (0.040)	-0.062 (0.046)
Adjusted R <sup>2</sup>	0.505	0.514	0.431	0.512	0.299	0.160
Maximum VIF	2.466	2.466	2.466	2.466	2.466	2.466

\*  $p < .10$ , \*\*  $p < .05$ , \*\*\*  $p < .01$ , <sup>a</sup> Beta coefficients with standard errors in parenthesis

Table 1 offers the regression analysis results of hypotheses 1a–5f that present the influence of five dimensions of audit review integration competency on consequence variables. Firstly, audit planning investigation has positive influences on audit excellence (H1b:  $\beta_8 = .059$ ,  $p < .10$ ), audit proficiency (H1c:  $\beta_{15} = .176$ ,  $p < .01$ ), and audit achievement (H1d:  $\beta_{22} = .111$ ,  $p < .01$ ). These results are in accordance with Blay et al. (2007) who suggest that having a link to audit planning judgments risks valuation in corruption. It demonstrates an important risk in the audit plan. Likewise, when the auditor is unable to perform the audit plan, it impacts audit performance.

In contrast, audit planning investigation has no significant positive effect on audit transparency (H1a:  $\beta_1 = .021$ ,  $p > .10$ ), audit quality (H1e:  $\beta_{29} = -.013$ ,  $p > .10$ ), and audit report efficiency (H1f:  $\beta_{36} = -.019$ ,  $p > .10$ ). The

audit planning is a practical guide for auditors. Meanwhile, the auditors use other guidelines to determine the facts that lead to the presentation of audit report efficiency (Bani-Ahmed & Al-Sharairi, 2014). Hence, Hypotheses 1b, 1c, and 1d are supported; but hypotheses 1a, 1e, and 1f are not supported.

Secondly, audit practice monitoring has a positive and significant relationship with audit transparency (H2a:  $\beta_2 = .176$ ,  $p < .01$ ), audit excellence (H2b:  $\beta_9 = .212$ ,  $p < .01$ ), audit proficiency (H2c:  $\beta_{16} = .121$ ,  $p < .10$ ), audit achievement (H2d:  $\beta_{23} = .314$ ,  $p < .01$ ), audit quality (H2e:  $\beta_{30} = .206$ ,  $p < .01$ ) and audit report efficiency (H2f:  $\beta_{37} = .141$ ,  $p < .01$ ). Audit practices monitoring is explicated by the awareness of the auditor in the audit task to offer audit performance (Kaplan, O'Donnell, & Arel, 2008). Thus, Hypotheses 2a–2f are supported.



Thirdly, audit evidence-checking has positive and significant relationship with audit transparency (H3a:  $\beta_3 = .283$ ,  $p < .01$ ), audit excellence (H3b:  $\beta_{10} = .158$ ,  $p < .01$ ), audit proficiency (H3c:  $\beta_{17} = .262$ ,  $p < .01$ ), and audit achievement (H3d:  $\beta_{24} = .201$ ,  $p < .01$ ). An auditor will need to gather sufficient, suitable, and relevant evidence. It is used to comment on the report of the auditors which will be correctly concluded (Sinchuen & Ussahawanitchakit, 2009).

On the other hand, audit evidence-checking has no significant influences on audit quality (H3e:  $\beta_{31} = .062$ ,  $p > .10$ ) and audit report efficiency (H3f:  $\beta_{38} = .118$ ,  $p > .10$ ). The reviewer does focus only on how to find audit evidence not examined. Therefore, monitoring the appropriateness and sufficiency of audit evidence is not a factor affecting audit practice. Similarly, a review of the evidence alone does not result in achieving the objectives of the audit, because achieving the audit objective is composed of several factors that can lead to acceptance by customers and the public (Banimahd, Poorzamani, & Ahmadi, 2013). Thus, Hypotheses 3a–d are supported, but hypotheses 3e and 3f are not supported.

Fourthly, audit problem-solving has positive influences on audit transparency (H4a:  $\beta_4 = .129$ ,  $p < .05$ ), audit excellence (H4b:  $\beta_{11} = .142$ ,  $p < .01$ ), audit proficiency (H4c:  $\beta_{18} =$

$.154$ ,  $p < .05$ ), audit achievement (H4d:  $\beta_{25} = .214$ ,  $p < .01$ ), audit quality (H4e:  $\beta_{32} = .190$ ,  $p < .01$ ) and audit report efficiency (H4f:  $\beta_{39} = .126$ ,  $p < .10$ ). Reviewers also need to focus on ensuring that audit problem-solving has a positive influence on audit outcome (Petchjul & Ussahawanitchakit, 2013). Hence, Hypotheses 4a–f are supported.

Finally, the association of audit process renewal has a positive and significant relationship with audit transparency (H5a:  $\beta_5 = .263$ ,  $p < .05$ ), audit excellence (H5b:  $\beta_{12} = .346$ ,  $p < .05$ ), audit proficiency (H5c:  $\beta_{19} = .098$ ,  $p < .10$ ) and audit quality (H5e:  $\beta_{33} = .212$ ,  $p < .10$ ). Audit process renewal helps with the capability to tangibly assess the audit quality (Tan & Jamal, 2001). Additionally, audit process renewal is the main cause that increases efforts and the performance of auditing (Payne et al., 2010).

In contrast, audit process renewal has no significant effect on audit achievement (H5d:  $\beta_{26} = .069$ ,  $p > .10$ ) and audit report efficiency (H5f:  $\beta_{40} = -.012$ ,  $p > .10$ ). Kalmanek (2012) suggests that only audit process renewal is not sufficient for audit achievement and audit report efficiency. The audit process renewal must recognize that the new idea can solve problems. Therefore, Hypotheses 5a, 5b, 5c, and 5e are supported, but Hypotheses 5d and 5f are not supported.

**Table 2** Results of Regression Analysis

Independent Variables	Dependent Variables <sup>a</sup>			
	AQU	ARE	ARE	ASU
	Equation 7 H6a-H9a	Equation 8 H6b-H9b	Equation 9 H10a	Equation 10 H10b, H11
Audit transparency (ATR: H6a-6b)	-0.009 (0.061)	0.035 (0.071)		
Audit excellence (AEX: H7a-7b)	0.272*** (0.064)	-0.016 (0.075)		
Audit proficiency (APF: H8a-8b)	0.059 (0.058)	0.281*** (0.068)		
Audit achievement (AAC: H9-9b)	0.371*** (0.060)	0.159** (0.070)		
Audit Quality (AQU: H10a-10b)			0.280*** (0.048)	0.106** (0.042)
Audit Report Efficiency (ARE: H11)				0.912*** (0.069)
Gender (GEN)	-0.019 (0.079)	-0.060 (0.092)	-0.045 (0.097)	-0.083 (0.081)
Working experience (EXP)	0.073 (0.037)	0.071 (0.043)	-0.034 (0.046)	0.033 (0.038)
Adjusted R <sup>2</sup>	0.384	0.163	0.086	0.349
Maximum VIF	2.660	2.660	1.010	1.090

\*  $p < .10$ , \*\*  $p < .05$ , \*\*\*  $p < .01$ , <sup>a</sup> Beta coefficients with standard errors in parenthesis

Table 2 showed the testing results of hypotheses 6–11. These hypotheses were analyzed from the regression equations 7–10. This result shows the associations among the consequence variables. The findings indicate that audit transparency does not significantly affect audit quality (H6a:  $\beta_{43} = -.009$ ,  $p > .10$ ) and audit report efficiency (H6b:  $\beta_{49} = .035$ ,  $p > .10$ ). Audit transparency must be transparent in all audit processes and can be checked. Also, the auditor should have a third party to monitor and ensure the transparency (Ninlaphay & Ussahawanitchakit, 2011). Thus, Hypotheses 6a and 6b are not supported.

Furthermore, audit excellence significantly and positively affects audit quality (H7a:  $\beta_{44} = .272$ ,  $p < .01$ ). The important reasons for audit excellence are one of the cornerstones that

play an important auditor's role in explaining audit quality as acceptance in an auditor's performance by those who use financial statements for decision-making (Obaidat, 2007). Likewise, Ninlaphay and Ussahawanitchakit (2011) suggest that audit excellence has a positive impact on survival of auditing. Therefore, audit excellence generates a quality of auditing, by which the auditors wish to have audit success in the profession.

On the other hand, audit excellence does not significantly affect audit report efficiency (H7b:  $\beta_{50} = -.016$ ,  $p > .10$ ). An auditor, who has only audit excellence, has no influence on audit report efficiency because the audit opinion requires other aspects of excellence (Evans & Lindsay, 2011). Therefore, Hypotheses 7a is supported but Hypothesis 7b is not supported.

Moreover, audit proficiency does not significantly affect audit quality (H8a:  $\beta_{45} = .059$ ,  $p > .10$ ). However, if an auditor is highly proficient, the advice or opinion of another expert will not influence them. Likewise, industries that require special monitoring techniques often employ an auditor of a large audit firm (Murphy, 2014). Similarly, most of the business audit often checks, as the businesses do not require technical proficiency or other special monitoring techniques (Zhou & Wong, 2008).

However, audit proficiency has significant and positive relationship with audit report efficiency (H8b:  $\beta_{51} = .281$ ,  $p < .01$ ). The auditors have the expertise to understand and be able to resolve the situation and reduce barriers that lead to audit report efficiency (Lowensohn, Johnson, Elder, & Davies, 2007). Thus, Hypothesis 8a is not supported, but Hypothesis 8b is supported.

Additionally, audit achievement has significant and positive relationships with audit quality (H9a:  $\beta_{46} = .371$ ,  $p < .01$ ) and audit report efficiency (H9b:  $\beta_{52} = .159$ ,  $p < .05$ ). Audit achievement affects the aims and ideas of the audit and also leads to the continuing practices of the audit firm (Jiang, Rupley, & Wu, 2010). Likewise, the audit achievement provides the confidence that brings credibility on the audit report. This credibility meets users of financial statement needs. The audit achievement generates report effectiveness, quality, and accomplishment in auditing (Al-Qudah, 2011). Thus, Hypotheses 9a and 9b are supported.

In regards to audit quality findings, audit quality has a significant influence on audit report efficiency (H10a:  $\beta_{55} = .280$ ,  $p < .01$ ) and

audit success (H10b:  $\beta_{58} = .106$ ,  $p < .05$ ). Audit quality is valuable for a financial information user and stakeholder because they use this information for decision-making. Stakeholders will be looking for quality of financial information. There are efforts to seek the factor for an increase in audit report efficiency (Watkins et al., 2004). Hence, Hypotheses 10a and 10b are supported.

Finally, in terms of audit report efficiency, the results expose that audit report efficiency positively influences audit success (H11:  $\beta_{59} = .912$ ,  $p < .01$ ). Audit report efficiency can create confidence and satisfaction of the stakeholders. It leads to audit success (Miller et al., 2006). Therefore, Hypothesis 11 is supported.

## 5. Conclusion

The investigation of the association of audit review integration competency and its consequences is the purpose of this research. The research results indicate that all five dimensions of audit review integration competency significantly impact audit outcomes, whereas audit excellence, audit proficiency, and audit achievement have a positive effect on audit quality and audit report efficiency. Likewise, audit quality has a positive effect on audit report efficiency. Similarly, audit quality and audit report efficiency have a positive effect on audit success.

The research results contributes to the auditing practitioners and regulators. Moreover, the executives who are responsible for need concern with audit review integration competency. In addition, the auditor can perform the audit in accordance with auditing standards and legal requirements, including the preparation of reports that are accurate,

complete and timely. In addition, this research also provides guidelines about the human resource management system of administrators, and about appropriately determining what reviewers and auditors are responsible for in each task.

According to the research results, some hypotheses are not statistically significant. Audit transparency does not influence audit quality and audit report efficiency. Future research may investigate additional variables such as efficient audit practice. This variable is the audit engagement of auditors who also required reasonable assurance about financial statements. Therefore, efficient audit practice may result in audit quality and audit report efficiency. Additionally, only CPAs were examined in this research; thus, future research might consider other types of auditors such as co-operative auditors and tax auditors in Thailand, to extend the generalizability of the findings.

## References

- Aaker, D. A., Kumar, V., & Day, G. S. (2001). *Marketing research* (7<sup>th</sup> ed.). New York: John Wiley & sons.
- Al-Ajmi, J. (2009). Audit firm, corporate governance, and audit quality: Evidence from Bahrain. *Advances in Accounting*, 25(1), 64-74.
- Al-Qudah, G. M. A. (2011). The impact of accounting information systems on effectiveness of internal control in Jordanian commercial banks "Field Study". *Interdisciplinary Journal of Contemporary Research In Business*, 2(9), 365-377.
- Arens, A. A., Elder, R. J., & Beasley, M. S. (2005). *Auditing and assurance services: An integrated approach*. New Jersey: Prentice Hall.
- Armstrong, J. S., & Overton, T. S. (1977). Estimating non-response bias in mail surveys. *Journal of Marketing Research*, 14(3), 396-402.
- Askary, S. (2006). Accounting professionalism-a cultural perspective of developing countries. *Managerial Auditing Journal*, 21(1), 102-111.
- Awad, N. F., & Krishnan, M. S. (2006). The personalization privacy paradox: An empirical evaluation of information transparency and the willingness to be profiled online for personalization. *MIS Quarterly*, 30(1), 13-28.
- Bani-Ahmed, A. A., & Al-Sharairi, J. A. (2014). The relationship between planning of audit process and total quality management. *International Journal of Business and Management*, 9(5), 96-108.
- Banimahd, B., Poorzamani, Z., & Ahmadi, S. A. (2013). The value relevance of audit report, auditor type and auditor tenure: Evidence from Iran. *Asian Journal of Finance & Accounting*, 5(1), 89-103.
- Barnes, R. M. (1980). *Motion and time study: Design and measurement of work*. New York: John Wiley & Son.
- Bedard, J. C., Graham, L. E., & Jackson, C. (2005). Information systems risk and audit planning. *International Journal of Auditing*, 9(2), 147-163.
- Bell, T. B., Doogar, R., & Solomon, I. (2008). Audit labor usage and fees under business risk auditing. *Journal of Accounting Research*, 46(4), 729-760.

- Bhattacharjee, S., Moreno, K., & Yardley, J. (2005). Auditors as underwriters: An alternative framework. *International Journal of Auditing*, 9(1), 1-19.
- Biddle, G. C., Hilary, G., & Verdi, R. S. (2009). How does financial reporting quality relate to investment efficiency?. *Journal of Accounting and Economics*, 48(2), 112-131.
- Blay, A. D., Sneathen, L. D., & Kizirian, T. (2007). The effects of fraud and going-concern risk on auditors' assessments of the risk of material misstatement and resulting audit procedures. *International Journal of Auditing*, 11(3), 149-163.
- Carpenter, T. D. (2007). Audit team brainstorming, fraud risk identification, and fraud risk assessment: Implications of SAS No. 99. *The Accounting Review*, 82(5), 1119-1140.
- Chang, S. I., Tsai, C. F., Shih, D. H., & Hwang, C. L. (2008). The development of audit detection risk assessment system: Using the fuzzy theory and audit risk model. *Expert Systems with Applications*, 35(3), 1053-1067.
- Chanruang, S., & Ussahawanitchakit, P. (2011). Audit sustainability of CPAs in Thailand: Effects of audit planning competency and audit report quality. *International Journal of Business Research*, 11(6), 57-82.
- Davidson, R. A., & Neu, D. (1993). A note on the association between audit firm size and audit quality. *Contemporary Accounting Research*, 9(2), 479-488.
- DeAngelo, L. E. (1981). Auditor size and audit quality. *Journal of Accounting and Economics*, 3(3), 183-199.
- Elliott, M., Dawson, R., & Edwards, J. (2007). An improved process model for internal auditing. *Managerial Auditing Journal*, 22(6), 552-565.
- Evans, J. R., & Lindsay, W. M. (2011). *The management and control of quality* (8<sup>th</sup> ed.). New Jersey: South-Western.
- Guiral, A., Ruiz, E., & Rodgers, W. (2011). To what extent are auditors' attitudes toward the evidence influenced by the self-fulfilling prophecy?. *Auditing: A Journal of Practice and Theory*, 30(1), 173-190.
- Hair, J. F., Jr., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis: A global perspective* (7<sup>th</sup> ed.). Upper Saddle River, NJ: Prentice Hall.
- Holt, T. P., & DeZoort, T. (2009). The effects of internal audit report disclosure on investor confidence and investment decisions. *International Journal of Auditing*, 13(1), 61-77.
- Hui, L. T., & Fatt, Q. K. (2007). Strategic organizational conditions for risk reduction and earning management: A combined strategy and auditing paradigm. *Accounting Forum*, 31(2), 179-201.
- Hurt, R. K. (2010). Development of a scale to measure professional skepticism. *Auditing: A Journal of Practice & Theory*, 29(1), 149-171.
- Jaccard, J., & Turrisi, R. (2003). *Interaction effects in multiple regression* (2<sup>nd</sup> ed.). Thousand Oakes, CA: Sage.
- Jiang, W., Rupley, K. H., & Wu, J. (2010). Internal control deficiencies and the issuance of going concern opinions. *Research in Accounting Regulation*, 22(1), 40-46.

- Kalmanek, C. (2012). The essential elements of successful innovation. *ACM SIGCOMM Computer Communication Review*, 42(2), 105-109.
- Kaplan, S. E., O'Donnell, E. F., & Arel, B. M. (2008). The influence of auditor experience on the persuasiveness of information provided by management. *Auditing: A Journal of Practice & Theory*, 27(1), 67-83.
- Kariuki, S. G., & Löwe, K. (2006). Increasing human reliability in the chemical process industry using human factors techniques. *Process Safety and Environmental Protection*, 84(3), 200-207.
- Konishi, T. (2010). Fraud by certified public accountants in Japan and the United States. *Asian Journal of Criminology*, 5(2), 99-107.
- Krejcie, R. V., & Morgan D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(3), 607-610.
- Langkhunsaen, S., Ussahawanitchakit, P., & Boonlua, S. (2014). Audit review proficiency and audit goal achievement. *Journal of International Finance and Economics*, 14(3), 65-85.
- Lowensohn, S., Johnson, L. E., Elder, R. J., & Davies, S. P. (2007). Auditor specialization, perceived audit quality, and audit fees in the local government audit market. *Journal of Accounting and Public Policy*, 26(6), 705-732.
- Miller, C. L., Fedor, D. B., & Ramsay, R. J. (2006). Effects of discussion of audit reviews on auditors' motivation and performance. *Behavioral Research in Accounting*, 18(1), 135-146.
- Miller, D. E. (1998). *Enhancing adolescent competence: Strategies for classroom management*. Washington DC: Thomson.
- Mock, T. J., & Turner, J. L. (2005). Auditor identification of fraud risk factors and their impact on audit programs. *International Journal of Auditing*, 9(1), 59-77.
- Murphy, M. L. (2014). Improving audit quality. *The CPA Journal*, 84(2), 24-31.
- Musig, P., & Ussahawanitchakit, P. (2011). Dynamic audit competency and the antecedents and consequences: Evidence from tax auditors in Thailand. *International Journal of Business Research*, 11(3), 47-75.
- Nelson, M. W. (2009). A model and literature review of professional skepticism in auditing. *Auditing: A Journal of Practice and Theory*, 28(2): 1-34.
- Newell, S. J., & Goldsmith, R. E., (2001). The development of a scale to measure perceived corporate credibility. *Journal of Business Research*, 52(3), 235-247.
- Ninlaphay, S., & Ussahawanitchakit, P. (2011). Accounting professionalism, financial reporting quality and information usefulness: Evidence from exporting firms in Thailand. *Journal of International Business and Economics*, 11(4), 155-166.
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3<sup>rd</sup> ed.). New York: McGraw-Hill.
- Obaidat, A. N. (2007). Accounting information qualitative characteristics gap: Evidence from Jordan. *International Management Review*, 3(2), 26-32.

- Owhoso, V., & Weickgenannt, A. (2009). Auditors' self-perceived abilities in conducting domain audits. *Critical Perspectives on Accounting*, 20(1), 3-21.
- Paino, H., Thani, A., & Iskandar Zulkarnain Sayd Idris, S. (2011). Attitudes toward dysfunctional audit behavior: The effect of budget emphasis, leadership behavior, and effectiveness of audit review. *Journal of Modern Accounting and Auditing*, 7(12), 1344-1351.
- Palmrose, Z. V. (1988). 1987 competitive manuscript co-winner: An analysis of auditor litigation and audit service quality. *Accounting review*, 63(1), 55-73.
- Palmrose, Z. V. (2006). Improving audit effectiveness. In *AICPA National Conference on Current SEC and PCAOB Developments* (pp. 313-326). Washington, D. C.
- Payne, E. A., Ramsay, R. J., & Bamber, E. M. (2010). The effect of alternative types of review on auditors' procedures and performance. *Auditing: A Journal of Practice & Theory*, 29(1), 207-220.
- Pennekamp, P., & Vlasveld, P. J. J. (2006). Reforming the audit function: A Dutch government audit group redefines its role in the organization and broadens the department's sphere of influence. *Internal Auditor*, 63(2), 69-73.
- Petchjul, S., & Ussahawanitchakit, P. (2013). Audit review strategy on audit success of certified public accountant (CPAs) in Thailand. *International Journal of Business Research*, 13(2), 41-56.
- Sikka, P. (2009). Financial crisis and the silence of the auditors. *Accounting, Organizations and Society*, 34(6-7), 868-873.
- Sinchuen, C., & Ussahawanitchakit, P. (2009). Effects of strategic audit planning on audit performance: Mediator role of audit judgment and quality and public auditors in Thailand. *Journal of Academy of Business and Economics*, 9(2), 1-15.
- Sumritsakun, C., & Ussahawanitchakit, P. (2009). Internal audit innovation and firm stability of Thai listed company: How to implement in an organization?. *Journal of Academy of Business and Economics*, 9(4), 1-23.
- Tan, H. T. & Trotman, K. T. (2003). Reviewers' responses to anticipated stylization attempts by preparers of audit workpapers. *The Accounting Review*, 78(2), 581-604.
- Tan, H. T., & Jamal, K. (2001). Do auditors objectively evaluate their subordinates' work?. *The Accounting Review*, 76(1), 99-110.
- Tan, H. T., & Shankar, P. G. (2010). Audit reviewers' evaluation of subordinates' work quality. *Auditing: A Journal of Practice and Theory*, 29(1), 251-266.
- Thitiyapramote, N., & Ussahawanitchakit, P. (2013). Social accounting practice and firm value: An empirical investigation of ISO 14000 firms in Thailand. *Review of Business Research*, 13(3), 85-106.
- Tidd, J., & Izumimoto, Y. (2002). Knowledge exchange and learning through international joint ventures: An Anglo-Japanese experience. *Technovation*, 22(3), 137-145.
- Uwuigbe, U. (2013). An examination of the effects of ownership structure and financial leverage on the dividend policies of listed firms in Nigeria. *Journal of Economics, Business, and Accountancy Ventura*, 16(2), 251-258.

- Waggoner, J. B., & Cashell, J. D. (1991). The impact of time pressure on auditors' performance. *The CPA Journal*, 50(1), 27-32.
- Watkins, A. L. Hillison, W., & Morecroft, S. E. (2004). Audit quality: A synthesis of theory and empirical evidence. *Journal of Accounting Literature*, 23, 153-193.
- Weiner, J. (2013). Financial data: Transparency vs. privacy. *Mortgage Banking*, 73(7), 85-86.
- Zhou, L., & Wong, A. (2008). Exploring the influence of product conspicuousness and social compliance on purchasing motives of young Chinese consumers for foreign brands. *Journal of Consumer Behaviour*, 7(6), 470-483.