The Effects of Professional Audit Proficiency on Audit Effectiveness: Empirical Evidence from Tax Auditors in Thailand
ผลกระทบความสามารถการสอบบัญชีอย่างมืออาชีพต่อประสิทธิผลการสอบบัญชี: หลักฐานเชิงประจักษ์จากผู้สอบบัญชีภาษีอากรในประเทศไทย

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Abstract

The main objective of this paper is to investigate the effects of professional audit proficiency on audit effectiveness of tax auditors. The data were gathered by using a questionnaire from tax auditors, and then analyzed using multiple regression analysis. In total, 296 usable questionnaires were collected. The results reveal that audit skepticism orientation, audit technology implementation, and audit learning capability have a significant effect on audit effectiveness. Especially, audit skepticism orientation is a significant dimension of professional audit proficiency. Also, the current study provides some insight for policy-makers about essential proficiencies, and can promote tax auditors to enhancing the vital aspects of ability needed to improve audit outcomes. Additionally, the result of the study made tax auditors realize an important ability that helps them gain greater audit outcomes.

Keywords: *Professional Audit Proficiency, Audit Outcomes, Tax Auditor*

บทคัดย่อ

งานวิจัยนี้มีวัตถุประสงค์หลักเพื่อตรวจสอบผลกระทบของความสามารถการสอบบัญชีอย่างมืออาชีพที่มีต่อประสิทธิผลทางการสอบบัญชีของผู้สอบบัญชีภาษีอากร ข้อมูลที่ใช้ถูกเก็บรวบรวมโดยใช้แบบสอบถามจากผู้สอบบัญชีภาษีอากรและวิเคราะห์โดยใช้การวิเคราะห์ถดถอยพหุคูณ โดยมีกลุ่มตัวอย่างจำนวน 296 คน ผลการวิจัยพบว่า การมุ่งเน้นใช้วิจารณญาณทางการสอบบัญชี การประยุกต์ใช้เทคโนโลยีทางการสอบบัญชี และศักยภาพในการเรียนรู้ทางการสอบบัญชีมีผลกระทบอย่างมีนัยสำคัญต่อประสิทธิผลทางการสอบ

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บัญชี โดยเฉพาะอย่างยิ่งการมุ่งเน้นใช้วิจารณญาณทางการสอบบัญชีเป็นมิติที่สำคัญที่สุดของความสามารถการสอบบัญชีอย่างมืออาชีพ ผลการวิจัยนี้ช่วยให้หน่วยงานกำกับดูแลทางวิชาชีพทราบถึงความสามารถที่สำคัญและสามารถส่งเสริมให้ผู้สอบบัญชีภาษีอากรพัฒนาความสามารถนั้นๆ เพื่อเพิ่มผลลัพธ์ของการสอบบัญชี นอกจากนี้ยังช่วยให้ผู้สอบบัญชีภาษีอากรตระหนักถึงประเด็นความสามารถที่สำคัญที่ช่วยให้ได้รับผลลัพธ์ของการสอบบัญชีที่ดีขึ้นอีกด้วย

คำสำคัญ: *ความสามารถการสอบบัญชีอย่างมืออาชีพ ผลลัพธ์ของการสอบบัญชี ผู้สอบบัญชีภาษีอากร*

Introduction

Presently, one important issue challenging the auditor is how to add value to the client and information users, when providing the audit service. Auditing is a tool for improving the financial information, and reducing uncertainty and risk in the decision-making of stakeholders. Stakeholders rely on the information in auditing reports in making decisions about investments, loans, products, services, and other issues (Salehi, 2010). Hence, an audit becomes of benefit if it provides trusted information, unbiased, and reflects a real-picture of an audited firm which responds to the needs of stakeholders. Accordingly, auditors must pay attention to the process to perform audits, and focus on how they do their duties if they want to succeed in the auditing business.

Interestingly, previous research has suggested that professional audit proficiency has an effect on the quality of audit results and audit effectiveness, and ensure that financial information is reliable and useful (Ahmad, Kausar, & Azhar, 2015; Zarefar, Andreas, & Zarefar, 2016). A high level of professional audit proficiency allows auditors to perform an audit duties that will provide better services, respond to expectations of users, and live up to the expectations of audit targets, because auditors are able to perform an audit in line with standards, handle uncertainty, give better judgments, and act fairly without the pressures of other parties (Asmara, 2016). Consequently, professional audit proficiency increases the effectiveness of the audit, conveying the audited information with reduced uncertainty and risk for the business decision-making of stakeholders, and enhancing the stakeholders' confidence. Therefore, professional audit proficiency plays an important role in auditing (International Accounting Education Standards Board [IAESB], 2008). Consequently, it is interesting to study which professional audit proficiency affects the effectiveness of an auditor in present days.

In Thailand, the external audit profession is divided into two groups comprising of certified public accountants (CPAs) and tax auditors. Here, the study focuses on how to investigate the attributes of the professional audit proficiency of tax auditors who have a vital responsibility to verify an enterprises' financial statement. Tax auditors perform this to ensure that small enterprises' financial statements rely on accounting regulations such as generally accepted accounting principles and tax legislation. According to the demand for quality of audits in small enterprises, the main source of capital of an enterprise is a long-term loan. The enterprise will provide high quality audits of financial statements in order to satisfy the needs of the lender, where the independent insurance is provided by the tax auditors that

is required (Collis, Jarvis, & Skerratt, 2004). This demand has highlighted the need for an increase in audit outcomes. Therefore, tax auditors, who want to be stable in the audit profession, must strive to increase audit outcomes because their success depends on the capability to create values for users (Ussahavanichakit, 2012). Thus, the tax auditor should be using professional audit proficiency to perform audit duties.

In the context of the tax audit, tax auditors perform their duties following the tax audit guidance with unclear about requirements of the necessary professional audit proficiency for a tax auditor. The present study fills in this gap by examining the professional audit proficiency regarding the knowledge, skills, and attitudes used by tax auditors in auditing.

Literature Reviews

1. Professional Audit Proficiency and Its Dimensions

While culture is seen as "the set of important understandings (often unstated) that members of a comThe International Education Standard 8 [IES8], outlines that auditors must have the knowledge relevant to an audit, professional skills, and be able to apply the professional values, ethics and attitudes to different contexts and organizations. IES8 requires audit professionals to ensure that it can demonstrate a number of audit competencies. Both CPAs and tax auditors are responsible to verify accounts. Although audit and tax audit are different in many aspects, both tax auditors and CPAs must focus on their duties, offer high quality of audit results, and respond to users' needs, to ensure long-term retention of their job (Taqi, 2013; Ussahavanichakit, 2012). Particularly, tax auditors must examine and check the accounting records and documents to determine and make adjustments to the taxable income figures (Drogalas, Ioannis, Dimitra, & Ioannis, 2015). Thus, tax auditors need to have adequate proficiency in performing a performance audit. Consequently, the current study applies this concept to tax auditor's professional audit proficiency, who has responsibilities to verify enterprises' financial statements, which can serve as a basis for a better understanding of an important professional audit proficiency in a tax audit context. Presently, professional audit proficiency is defined as the ability of tax auditors in using and applying knowledge, skills, and attitudes to successfully operate in a given role (Furiady & Kurnia, 2015; International Accountants Education Standards Board [IAESB], 2008). Professional audit proficiency is an important factor to provide quality of audit results, and the reliability and benefit of audited information (Moorthy, Seetharaman, Mohamed, Gopalan, & San, 2011; Syamsuddin, Sudarma, Habbe, & Mediaty, 2014). The high quality of audited financial information helps users to assess the risks, and the organization's ability to continue operations, ability to pay debt and interest, and taxation payment. Currently, this study has identified five dimensions of professional audit proficiency, namely, audit learning capability, audit method integration, audit technology implementation, audit skepticism orientation, and audit ethics focus.

Presently, this study is to investigate the effects of each dimension of professional audit proficiency on audit effectiveness of tax auditors. The conceptual model is revealed in Figure 1.

1.1 Audit learning capability

Professional audit proficiency cannot exist without due knowledge (Tudor, Gheorghe, Oancea, & Sova, 2013). An auditor's knowledge rises

through work-based learning and examination-based learning (Marriott, Telford, Davies, & Evans, 2011). Knowledge is necessary for audit, but an auditor' s ability to use his/her knowledge in the process of performing audit works is most important. Presently, audit learning capability is defined as the ability of a tax auditor to increase his/her knowledge via prior work reviews, analysis of an event in the past, and adapting to operate audit works (Al-khaddash, Nawas, & Ramadan, 2013; Lysaght & Altschuld, 2000). Audit learning capability increases tacit and explicit knowledge for understanding, enhancing, and changing existing and newly-emerging audit practices. Also, auditors who learned from error and fraud cases can improve the ability to identify fraud risk indicators (Carpenter, Durtschi, & Gaynor, 2011), including improving audit performance (Wiroterat, Ussahawanitchakit, & Muenthisong, 2014). Moreover, they make judgments with a lower error rate and find more item mistakes, thus having an effect on audit performance (Beck & Wu, 2006). Hence, the hypothesis is posed as follows:

Hypothesis 1: Audit learning capability is positively related to (a) audit quality, (b) information benefit enhancement, (c) information reliability Increase, and (d) audit

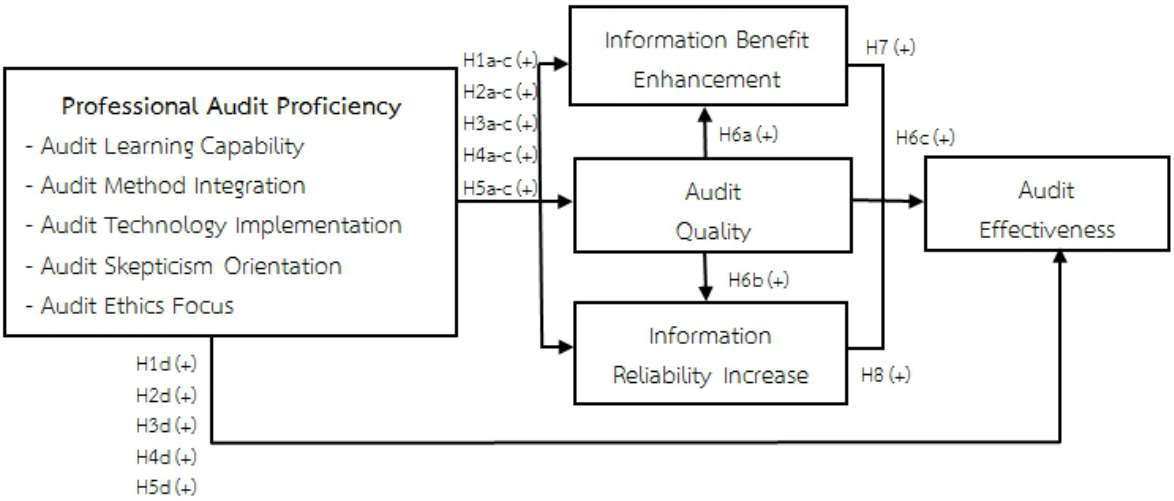

Figure 1 Conceptual Model of Effects of Professional Audit Proficiency on Audit Effectiveness

effectiveness.

1.2 Audit method integration

The auditors' opinion is depending on the audit evidence obtained from the auditing. The procedure for obtaining audit evidence is audit methods; which depend on audit risk (Bedard, Graham, & Jacjson, 2005). Therefore, well-designed audit methods assist auditors in obtaining an appropriate and sufficient audit evidence. Thus, under the restricted audit resources, an auditor should carefully design an audit method to achieve efficiently gathered audit evidence. Presently, audit method integration is the ability of the tax auditor to combine a variety of audit techniques into audit activities to gather sufficient audit evidence to support the audit opinion (Calota & Vinatoru, 2015). The ability of auditor to linking audit approach can increase the

credibility of audit activity, raise audit confidence, and increase audit effectiveness (Sarwoko & Ussahawanitchakit, 2009; Shoommuangpak & Agoes, 2014). Although there is some prior research which has suggested that the difficulty to request documents during tax audits can lead tax auditors to not perform within the scope of the stipulation in the notification, which may reduce the audit effectiveness (Fatt & Khin, 2012). However, tax auditors who can integrate audit methods under restricted audit resources are likely to gain greater audit outcomes. Accordingly, the hypothesis is proposed as follows:

Hypothesis 2: Audit method integration will positively relate to (a) audit quality, (b) information benefit enhancement, (c) information reliability Increase, and (d) audit effectiveness.

1.3 Audit technology implementation

The advancement of technology influenced the smooth operations of any organizations and individuals. The expansion of technology is the significant factor that changes auditors' practices from paper-based to electronic-based auditing (Plumlee & Plumlee, 2008). Presently, audit technology implementation is an ability of the tax auditor to use a computer, software, and tools in audit tasks (Bahador & Haider, 2013; Maria & Ariyani, 2014). Auditors who use technology during the audit process can evaluate fraud risk, evaluate inventory existence, and select sample items from electronic files; they obtain evidence about control efficiency and check the accuracy of the electronic records (Abou-El-Sood, Kotb, & Allam, 2015). The auditor's ability to apply audit technology provides significant benefits; such as improving the quality of audit results, detecting activities with fraud potential, reducing cost and saving time of auditing, and carrying out investigation tasks effectively to increase the effectiveness of the audit (Drogalas et al., 2015; Moorthy et al., 2011). Hence, the hypothesis is developed as follows:

Hypothesis 3: Audit technology implementation will positively relate to (a) audit quality, (b) information benefit enhancement, (c) information reliability Increase, and (d) audit effectiveness.

1.4 Audit skepticism orientation

The accounting and auditing standards are principles-based so that auditors should perform audit obligations with professional judgment. The suitable auditor's judgment gives the appropriate audit opinion. In this study, audit skepticism orientation means the ability of tax auditor to perform audit tasks with a questioning mind, be alert to situations that may cause errors or fraud, and evaluate and summarize the audit evidence prudently (American Institute of Certified Public Accountants, 2012; Laohamethanee, Ussahawanitchakit, & Boonlua, 2013). Auditors who are more skeptical will search, collect more convincing evidence and suspend judgment until sufficient evidence is available for a judgment (Hurtt, 2010; Nelson, 2009), act better in their decision-making (Popova, 2008), and ensure that the financial statements are free from material misstatements or errors (Silvija, 2014). Additionally, auditors in a high-skepticism condition have greater effectiveness without sacrificing efficiency (Carpenter & Reimers, 2013). Besides, it can help the auditor to select and provide valuable information to responding to users' need. According to the mentioned, the

following hypothesis is offered:

Hypothesis 4: Audit skepticism orientation will positively relate to (a) audit quality, (b) information benefit enhancement, (c) information reliability Increase, and (d) audit effectiveness.

1.5 Audit ethics focus

Codes of ethics require behavior and practices beyond the personal moral obligations of an individual (Adeyemi & Fagbemi, 2011). According to Akenbor and Onuoha (2013), the professional ethics focus on confidentiality, integrity, objectivity, and competent and due care. Here, audit ethics focus means the ability of the tax auditor to apply the ethical principles in the context of an audit and decide a suitable way to respond when faced with ethical dilemmas (Taddei & Siddiqui, 2016; Ussahawanitchakit, 2012). Prior research suggested that professional ethics reduce the degree of risk (Yazdani, Nikzad, & Alinia, 2013), which affects the quality of audit result, and enhance the credibility of auditors (Khodapanah, Garkaz, Darzi, & Zargari, 2013; Zarefar et al., 2016). Although some studies found that professional codes with general instructions are not helpful in particular ethical cases (Pater & Van Gils, 2003), auditors who can suitably apply audit ethics are nevertheless likely to gain greater audit outcomes. Thus, the hypothesis is proposed as follows:

Hypothesis 5: Audit ethics focus will positively relate to (a) audit quality, (b) information benefit enhancement, (c) information reliability Increase, and (d) audit effectiveness.

2. Consequence Variables

2.1 Audit quality

Audit quality is the result from the correct audit procedure and responds to users in a timeliness manner, which is shown from a probability of the auditor to discover existing material misstatement and errors (DeAngelo, 1981), and helps protect the interests of stakeholders (Dang, 2004). Presently, audit quality refers to the potency of the tax auditor to discover and report the unusual client's financial statements (Knechel, Krishnan, Pevzner, Shefchik, & Velury, 2013; Lee, Gloeck, & Palaniappan, 2007). Previous research reveals a strong positive relationship between audit quality and the reliability of audited financial statements (Alrshah, 2015), high-quality audit outputs that meet the needs of users and results in a client's satisfaction (Okpala, 2015), and lead to an auditor's credibility, image, and reputation (Susanty, Gunawan, Sembel, & Waluyo, 2015). In the taxpayers' view, however they perceived that the tax auditors have more interest in finding fault and penalizing for wrongdoings rather than helping the firm to do the right thing (Isa & Pope, 2011). Audit quality is nevertheless an important basis for providing valuable information to users. Therefore, the hypothesis is proposed:

Hypothesis 6: Audit quality will have a positive influence on (a) information benefit enhancement, (b) information reliability increase, and (c) audit effectiveness.

2.2 Information benefit enhancement

The beneficial information is the information that helps contribute to precise decisions of users, such as enhancing the ability to analyze, evaluate, and predict the economic events. Information benefits can be enhanced if audited information provides relevant, complete, and

timely information that reflects valuable data for users' decision-making (Fontaine & Pilote, 2012). Accordingly, information benefit enhancement means the advantage of audited information that increases the degree of confidence of users' decision to analyze and evaluate the performance and position of a firm clearly and accurately (Obaidat, 2007). The ability of an auditor to enhance information benefit can increase users' confidence because firm's information reduces their concerns about the ability of the firm to continuing to operate, pay debt and interest, including accurate taxation (Robu & Robu, 2015; Taqi, 2013). Accordingly, the hypothesis is as follows:

Hypothesis 7: Information benefit enhancement will have a positive influence on audit effectiveness.

2.3 Information reliability increase

Reliability is an important qualitative characteristic for audited accounting information to be useful for decision-making, which enables the users to rely on information while taking a financial decision (Alrshah, 2015; Salehi, 2010). Information reliability can increase if audited information represents the qualitative characteristics in line with related accounting standards carried out by a proficient person (Maines & Wahlen, 2006). Hence, information reliability increase is the superior qualitative characteristic of audited financial information that is un-biased, provable, and represents the truth of the real-world economic transactions (Alrshah, 2015). The reliability of audited information reflected the value of the audit, an auditor's credibility, and reputation that can lead to audit effectiveness. Therefore, the hypothesis is proposed as follows:

Hypothesis 8: Information reliability increase will have a positive influence on audit effectiveness.

2.4 Audit effectiveness

Audit effectiveness is an important successful indicator of the auditor, and auditors tend to focus on effectiveness. In terms of the effectiveness of the auditor, audit effectiveness occurs when stakeholders perceive ex-ante auditing services regarding the image and reputation of the auditor (Al-Khadash et al., 2013). Auditors who provide their services at a level that is worth the trust of society will gain an appreciation of the quality of auditing service regarding the image and reputation (Robu & Robu, 2015), which is a major factor that affects the auditor selection (Tagi, 2013). Here, audit effectiveness is the degree of achieving an audit objective, increasing in new customers, retaining existing customers, and trusting those who are involved in the audit task (Maayan & Carmeli, 2016).

Research Methodology

1. Sample Selection and Data Collection Procedure

The population of this research is tax auditors in Thailand. Tax auditors have functions and duties to investigate enterprises' financial statements. The database of the list of tax auditors in Thailand was drawn from the Revenue Department as of May 1, 2017. The population of this study is the number of tax auditors signing in the fiscal year ended of 2016 for enterprises' financial statements. The database shows 1,510 signed tax auditors. An appropriate sample size is 307 tax auditors under the 95% confidence (Krejcie & Morgan, 1970). Depending on the previous literature, a sufficient response

rate for a mail survey is 20% (Aaker, Kumar & Day, 2001). Hence, 1,535 tax auditors are an appropriate sample for a distributed mail survey. Nevertheless, in this study, with a population of 1,510 tax auditors, the population and sample was thus the same group. Therefore, 1,510 tax auditors were selected as the sample for data collection. The questionnaire was sent by post over the period between June 2017 and August 2017. Moreover, a free post self-addressed envelope was provided, while some copies were delivered in person to the participants. There are 1,468 questionnaires sent to the participants, while 42 surveys were undelivered because the participants moved to an unknown location. A total of 296 surveys have been received, and the effective response rate was 20.16%. According to Aaker et al. (2001), the 20% response rate for a mailed survey is considered acceptable.

Besides, this study also tested non-response bias (Armstrong & Overton, 1977). When questionnaires were received, the researchers put them in order, then split them into two equal groups and comparing the characteristics of the length of audit tenure, the period of the tax auditor certificate holder, and the number of asserted financial statements. The result found that there is no significant difference between two groups of respondents at a 95% confidence level as the length of audit tenure ($t = 0.274$, $p > 0.05$), the period of the tax auditor certificate holder ($t = -0.678$, $p > 0.05$), and the number of asserted financial statements ($t = 0.212$ $p > 0.05$). Thus, there is no non-response bias in the current study.

2. Variable Measurement

To measure each construct in the conceptual model, all variables were anchored on a five-point scale ranging from 1 to 5 (1 = strongly disagree to 5 = strongly agree). Here, audit learning capability is measured by the ability of tax auditor to gain knowledge by review, analysis, synthesis, and interpretation from prior work and audit issues. Next, audit method integration is measured by the ability of a tax auditor to perform by combining audit techniques and coordination with a different source of information. Also, audit technology implementation is measured by the ability of the tax auditor to perform by using a computer, information technology, and a database in the audit activities. Likewise, audit skepticism orientation is measured by the ability of the tax auditor to perform by searching for information, being alert to risk indicators, carefully making decisions, and carefully reviewing audit evidence. Also, audit ethics focus is measured by the ability of the tax auditor to perform by honesty in a profession; not allowing the influence of others to override professionalism; and respecting the confidentiality of data acquired as a result of the profession.

Moreover, audit quality is measured by the degree of discovering and reporting the unusual client's financial statements. Next, information benefit enhancement is measured by the potency in presenting information in the audit report that conveying incremental information of warning signs and other critical issues. Next, information reliability increase is measured by the potency of presenting information in the audit report that is actual by using a suitable audit process, an evidence-based audit report, and reflection of the real picture of events. Lastly, audit effectiveness is measured by the degree to which one has established objectives that are achieved, retaining existing customers, increasing new customers, and trusting those who are involved in the audit task.

3. Reliability and Validity

The information used in this study had been collected directly from questionnaire surveys of tax auditors. Regarding the validity of a scale, two academic researchers were used to ensure the survey instrument was clear to the participants, and obtained the information being sought. Moreover, the factor loadings of each item are greater than 0.40 cut-off point, ranging from 0.562 to 0.955, indicating the construct validity of the questionnaire (Nunnally & Bernstein, 1994). Regarding the reliability of a scale, all variable was examined using Cronbach's alpha coefficients. Currently, the scale is considered to be highly reliable and consistent as the alpha coefficients range from 0.837 to 0.942 (Hair, Black, Babin, & Anderson, 2010). In addition, all constructs have item-total correlations that are ranging from 0.392 to 0.917 (Field, 2009), which confirm that the item reliability is acceptable.

Analysis and Results

1. Correlation Analysis

Table 1 shows the Pearson correlation coefficient table of the variables. It can be seen from the table that all dimensions of professional audit proficiency have a significant, positive relationship with audit quality ($r = 0.553 - 0.716$; $p < 0.01$), information benefit enchantment ($r = 0.576 - 0.674$; $p < 0.01$), information reliability increase ($r = 0.590 - 0.739$; $p < 0.01$), and audit effectiveness ($r = 0.570 - 0.664$; $p < 0.01$). Moreover, correlations between each variable are less than 0.90 (Hair et al., 2010). The evidence shows that each variable is not highly correlated with each other, which is a sign that multicollinearity problems may not occur.

Table 1 Correlation Matrix

Variables	ALC	AMI	ATI	ASO	AEF	AUQ	IBE	IRI	AUE
Audit learning capability (ALC)	1								
Audit method integration (AMI)	.764***	1							
Audit technology implementation (ATI)	.640***	.675***	1						
Audit skepticism orientation (ASO)	.685***	.696***	.640***	1					
Audit ethics focus (AEF)	.661***	.594***	.613***	.744***	1				
Audit quality (AUQ)	.642***	.618***	.553***	.707***	.716***	1			
Information benefit enhancement (IBE	.596***	.584***	.621***	.674***	.576***	.714***	1		
Information reliability increase (IRI)	.651***	.648***	.590***	.739***	.709***	.798***	.761***	1	
Audit effectiveness (AUE)	.610***	.603***	.626***	.664***	.570***	.618***	.698***	.700***	1

*** Correlation is significant at the 0.01 level (2-tailed)

2. The Results and Discussion

Since multiple regressions are used, variables have to satisfy the following fundamental assumptions: linearity, constant variance, multicollinearity, and normality. A preferred method of detecting nonlinearity is an examination of residual plots (Osborne & Waters, 2002). The results show that the residual points have no departures from linearity; thus it seems to randomly scatter about the horizontal line, meaning that the linearity test of this research is preferred. Besides, the homoscedasticity was checked by visual inspection of a plot of the standardized residuals by the regression standardized predicted value. The testing shows that the residuals are randomly scattered above and below zero, and do not generate a specific pattern (Osborne & Waters, 2002). Thus, there is no condition of a heteroscedasticity problem in this research. Also, variance inflation factors (VIFs) are used to test multicollinearity problems in each part of the regression analysis. The maximum value of VIFs is 3.489, it is well below the cut-off value of 10 (Hair et al., 2010). Consequently, there are no significant multicollinearity problems existing in this research. In addition, the data normality test is used as a visual inspection of the normal probability plot. The results of a normality probability plot indicate that the distribution is normal-looking because the data points mostly fall close to the symmetrical diagonal line (Field, 2009).

In order to test the hypotheses, regression analysis was used to test the significance of all dimensions of professional audit proficiency on audit quality, information benefit enhancement, information reliability Increase, and audit effectiveness. The results are presented in Table 2.

According to Table 2, audit learning capability has a significant, positive effect on audit quality (H1a: $\beta_1 = 0.130$, $p < 0.05$) and audit effectiveness (H1d: $\beta_{22} = 0.135$, $p < 0.10$). Thus, hypotheses 1a and 1d were supported. Tax auditor with audit learning capability can generate professional knowledge that is both a deep and broad understanding of audit work, which opens up a wide vision, and allows an understanding of possible alternative actions. Nevertheless, audit learning capability has no significant influence on information benefit enhancement (H1b: $\beta_8 = 0.115$, $p > 0.10$) and information reliability increase (H1c: $\beta_{15} = 0.090$, $p > 0.10$). Hence, hypotheses 1b and 1c were not supported. Maybe, nowadays one doesn't apply the auditor rotation rule for tax auditors. Thus, if they have a long tenure with the client, then it reduces the ability to learn and is hard to get updated knowledge, which reduces the ability of tax auditors to provide reliable and useful information to users.

In addition, audit method integration has a significant, positive effect on audit quality (H2a: $\beta_{2=}$ 0.117, $p < 0.10$) and information reliability increase (H2c: $\beta_{16} = 0.137$, $p < 0.05$). Thus, hypothesis 2a and 2c were supported. The tax auditor who can link the audit method, can obtain sufficient and appropriate audit evidence that is a basis to give audit opinion. Certainly, the result of an audit from a suitable audit method provides more accurate information and presents a real picture of an audited firm. Nevertheless, audit method integration has not caused an effect on information benefit enhancement (H2b: $\beta_9 = 0.036$, $p > 0.10$), and audit effectiveness (H2d: $\beta_{23} = 0.079$, $p > 0.10$). This result implies that the capability of tax auditors to link the audit method does not help them to provide useful information to users and achieve an

audit objective. Accordingly, hypothesis 2b and 2d were not supported. Possibly, most tax auditors do not have direct contact with their clients. Instead, they contact accounting agents who provide bookkeeping and generate the financial statements to clients. Hence, the tax auditors received specific documents which accounting agents had to provide, as well as some documents requested during tax audits which is time-consuming (Fatt & Khin, 2012). That means the audit methods used depend on documents received, and that results in tax auditors being unable to use various parallel methods.

Table 2 Results of the Effects of Professional Audit Proficiency on Audit Effectiveness

Variables	AUQ Equation 1 (H1a-5a)	IBE Equation 2 (H1b-5b)	IRI Equation 3 (H1c-5c)	AUE Equation 4 (H1d-5d)
Professional Audit Proficiency Dimensions:				
Audit learning capability (H1a-d)	**.130****	.115	.090	**.135***
	(.064)	(.070)	(.062)	**(.070)**
Audit method integration (H2a-d)	**.117***	.036	**.137****	.079
	(.069)	(.071)	**(.063)**	(.070)
Audit technology implementation (H3a-d)	.004	**.251*****	.060	**.248*****
	(.056)	**(.062)**	(.055)	**(.061)**
Audit skepticism orientation (H4a-d)	**.268*****	**.373*****	**.335*****	**.326*****
	(.064)	**(.070)**	**(.062)**	**(.070)**
Audit ethics focus (H5a-d)	**.365*****	.051	**.292*****	.042
	(.060)	(.066)	**(.058)**	(.066)
Control Variables:				
Age	-.049	-.024	-.125	-.023
	(.081)	(.089)	(.078)	(.088)
Professional certification	-.028	**.168***	.038	**.204****
	(.084)	**(.091)**	(.081)	**(.091)**
R^2	**.605**	**.533**	**.633**	**.536**

Note: Beta coefficients with standard errors in parenthesis,

*** Significant at 1% level, ** Significant at 5% level, * Significant at 10% level

Also, audit technology implementation was a significant effect on information benefit enhancement (H3b: β_{10}= 0.251, p < 0.01) and audit effectiveness (H3d: β_{24}= 0.248, p < 0.01). Thus, hypotheses 3b and 3 d were supported. This result implies that the ability to use technologies helps tax auditors to accurately record the audit finding, precise information processing, and preparing audit reports (Maria & Ariyani, 2014). Hence, it helps the tax auditor provide the valuable information to users and leads to audit effectiveness. Conversely, audit technology implementation has no significance effect on audit quality (H3a: β_3= 0.004, p > 0.10) and information reliability increase (H3c: β_{17}= 0.060, p > 0.10). The result implies that the ability to use the technology of tax auditors cannot increase the reliability of information contained in an audit report and the quality of audit. Therefore, hypotheses 3a and 3c were not supported. Possibly, the presence of risk factors, inappropriate item presentations, and inaccuracy of presented documents are complex; thus, it also needs other personal skills to understand the red flag of incorrect items. Hence, the ability of the tax auditor to use technology may not be sufficient to discover a material misstatement items.

Likewise, audit skepticism orientation has a positive effect on audit quality (H4a: β_4= 0.268, p < 0.01), information benefit enhancement (H4b: β_{11}= 0.373, p < 0.01), information reliability increase (H4c: β_{18}= 0.335, p < 0. 01), and audit effectiveness (H4d: β_{25}= 0.326, p < 0.01). Therefore, hypotheses 4a, 4b, 4c, and 4d were supported. These findings indicate that performing audit tasks with careful doubt and a questioning mindset will enhance the opportunity to detect and correct errors from professional standards, and raise the level of audit quality (Knechel et al., 2013; Laohamethanee et al., 2013). Also, tax auditors with a skeptical mindset can identify the presence of risk factors and understand in inappropriate item presentations. Consequently, tax auditors prudently set methods in response to the assessed risk of error, carefully evaluate the audit evidence, and reasonably express an opinion (Hurtt, 2010; Silvija, 2014).

Besides, audit ethics focus has a positive effect on audit quality (H5a: β_5= 0.268 p < 0.01) and information reliability increase (H5c: β_{19}= 0.335, p < 0. 01). Thus, hypotheses 5a and 5c weresupported. This result implies that tax auditors who perform auditing under the baseline of professional ethics provide audit quality and raise information reliability through audit operation transparency. However, audit ethics focus has no significance on information benefit enhancement (H5b: β_{12}= 0.036, p > 0.10), and audit effectiveness (H5d: β_{26}= 0.042, p > 0.10). The result implies that the ability of the tax auditor to apply the ethical principles cannot increase the benefits of information contained in an audit report and the effectiveness of tax auditor. Thus, hypotheses 5b and 5d were not supported. It may be because code of ethics is usually expression rather than general guidelines; that means it does not give the specific way that is relevant to individual practices, making the ethical rules not helpful in specific ethical situations (Pater & Van Gils, 2003).

Likewise, regression analysis is also used to investigate the influences of audit quality, information benefit enhancement, and information reliability increase; on audit effectiveness. The results of regression are presented in Table 3.

According to Table 3, audit quality has a statistically significant, and positive impact on information benefit enhancement (H6a: β_{29}= 0.713, p < 0.01) and information reliability increase (H6b: β_{32}= 0.800, p < 0.01). Hence, hypotheses 6a and 6b were supported. Thus, the potency of the tax auditor to provide information with accurate, concise, easily understood, and unbiased is based on the audit quality (Alrshah, 2015). Nevertheless, the audit quality has no significant effect on for audit effectiveness (H6c: β_{35}= 0.062, p > 0.10). Hence, hypotheses 6c was not supported. Possibly, tax auditors are concerned with the negative perception of taxpayers. Regarding taxpayers' view, the tax auditors have more interest in finding fault and penalizing the firm for wrongdoings rather than helping the firm to do the right thing (Isa & Pope, 2011). Thus, tax auditors are concerned with taxpayers' view, affecting audit effectiveness, especially to retain old clients and obtain potential clients. Hence, on tax auditor's view, the high level of discovering and reporting the unusual client's financial statements reduces the audit effectiveness.

Table 3 Results of the Effects of Audit Quality, Information Benefit Enhancement, and Information Reliability Increase on Audit Effectiveness

Variables	IBE Equation 5 (H6a)	IRI Equation 6 (H6b)	AUE Equation 7 (H6c, H7, H8)
Audit quality (H6a-c)	**.713***** **(.040)**	**.800***** **(.035)**	.062 (.067)
Information benefit enhancement (H7)	-	-	**.353***** **(.063)**
Information reliability increase (H8)	-	-	**.378***** **(.072)**
Control Variables:			
Age	.106 (.086)	-.047 (.075)	.086 (.083)
Professional certification	**.285***** **(.091)**	.088 (.079)	**.177**** **(.088)**
R^2	**.525**	**.639**	**.563**

Note: Beta coefficients with standard errors in parenthesis,

*** Significant at 1% level, ** Significant at 5% level, * Significant at 10% level

Also, information benefit enhancement has a significant and positive impact on audit effectiveness (H7: β_{36}= 0.353, p < 0.01). Thus, hypothesis 7 was supported. The beneficial audited information gives owners comfort from an individual assurance that the financial statements are fairly presented; lenders are less likely to challenge decisions about loans; a government agency collects tax revenues effectively. Hence, the beneficial information leads to a confident, positive image and reputation of tax auditors (Robu & Robu, 2015; Taqi, 2013).

Besides, information reliability increase has a significant and positive impact on audit effectiveness (H8: β_{37}= 0.378, p < 0.01). Thus, hypothesis 8 was supported. The potency of tax auditors to provide reliable information under provable audit methods can indicate obvious audit evidence that can convey to users that the financial statements contain no material misstatements, including financial statements that give a true and fair view (Alrshah, 2015). Therefore, it builds up the confidence of the users which leads to audit effectiveness.

Conclusion

The main objective of this paper is to investigate the effects of professional audit proficiency on audit effectiveness of tax auditors. The results had revealed that audit ethics focus, audit skepticism orientation, audit learning capability, and audit method integration have positive influences on audit quality. R-square value is 0.605, showing that 60.50% of audit quality were explained by independent variables inside the model. Also, the results had revealed that both audit skepticism orientation and audit technology implementation have positive influences on information benefit enhancement. R-square value is 0.533, showing that 53.30% of information benefit enhancement were explained by independent variables inside the model. Besides, the results had revealed that audit ethics focus, audit skepticism orientation, and audit method integration have positive influences on information reliability increase. R-square value is 0.633, showing that 63.30% of information reliability increase were explained by independent variables inside the model. Moreover, the results of hypotheses testing reveal that audit skepticism orientation, audit technology implementation, and audit learning capability have a significant effect on audit effectiveness. R-square value is 0.536, showing that 53.60% of audit effectiveness were explained by independent variables inside the model.

Also, audit quality has a positive influence on information benefit enhancement. R-square value is 0.525, showing that 52.50% of information benefit enhancement were explained by independent variables inside the model. Besides, audit quality has a positive influence on information reliability increase. R-square value is 0.639, showing that 63.90% of information reliability increase were explained by independent variables inside the model. Additionally, Information benefit enhancement and information reliability increase have a positive effect on audit effectiveness. R-square value is 0.563, showing that 56.30% of audit effectiveness were explained by independent variables inside the model.

The research results contribute to audit practices and regulations. Essentially, this result throws an important light on audit skepticism orientation. Therefore, the institutions should advocate the application of audit skepticism by training in knowledge and skills that will allow

tax auditors to appropriately apply judgment and skepticism in different situations for obtaining evidence. Likewise, the result also benefits educational institutions in that they should incorporate learning outcomes related to creating the significant professional audit proficiencies as a way to ensure that the accounting curriculum is providing students with the skills and knowledge they will need in the tax audit business.

The results had revealed that audit skepticism orientation is significant factors that help tax auditors to gain greater audit outcomes. Thus, the tax auditors should exercise the attitude of a doubt to perform audit duties to ensure audited statements are without material misstatement and errors. Tax auditors should practice, and learn to build a skeptical mind with an experienced auditor through attending professional development programs. Importantly, personal knowledge, skills, and attitudes are difficult to substitute or be inimitable, thus, it can constitute the basis of sustained competitive advantage.

The result shows that audit skepticism orientation is the most important dimension of professional audit proficiency. Thus, future research needs to deeply expand on investigating audit skepticism orientation regarding the dimension of audit skepticism in order to identify which dimension is important for practitioners.

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