

Professional learning and Audit success: An empirical research of Certified Public Accountants (CPAs) in Thailand

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Keywords

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Abstract

Because client's business model such as strategy or activities are not likely to stay constant over time, the professional continuing learning is an important for the certified public accountants (hereafter; auditor) to understand of the new accounting standards, auditing standards, and practices, that relate to the audit process and auditor's judgment, which can help auditors to enhance effective and efficiency in performing the audit task. The objective of this study is to examine the association between professional learning and audit success of auditors in Thailand via the mediating influences which include audit planning quality, audit best practice, and audit goal achieve. The data was gathered from 88 auditors in Thailand by questionnaire survey, and then analyzed using inferential statistics which was multiple regression analysis.

The results conclude that all dimensions of professional learning have a significant positive influence on audit planning quality and only concrete experience item positively associated with audit best practice and two dimensions of professional learning are active experimental and reflective observation significant positive influence on audit goal achieve. Regarding the association between the audit planning quality, audit best practice, and audit goal achieve and audit success, the study finds that all of items are positively associated with the audit success.

1. Introduction

In Thailand, The Federation of Accounting Professions (FAP) impose a condition for accountant wanting to become Certified Public Accountant (CPA) must have work experience at least three years but not over five years or 3,000 hours in audit firm before going to examination. An accountant must have work experience in audit firm because work experience help understand the role and responsibility of auditor. Moreover, auditor must attend training or attend meetings at least 18 hours per year to achieve the objective of developing knowledge and skills in accounting (FAP, 2013). This condition shows that the regulators focus on the continuing knowledge development of the auditor.

Audit learning will be learned from the training or seminar. On the other hand, the auditor will have to learn on their own experience, which entails expertise in the work. Audit learning is the growth of auditor's personal knowledge that tacit and/or explicit knowledge of the objective of understanding, improving, and changing existing and recently rising audit work practices because the customer's business model such as strategy or activities are not likely to stay constant over time. For tacit knowledge creation, auditors learn through their experience and for explicit knowledge creation, they collect knowledge from their colleagues, customers, and any kinds of media. The auditors who learn from actual audit experience can lead to efficiency and effectiveness in auditing (Santeria, 1994) and the auditors who has more experience can offer higher quality audit service than less experience (Chan and Sun, 2015)

Researcher's motivation to study the association between professional learning and audit success of auditors in Thailand via the mediating influences which include audit planning quality, audit best practice, and audit goal achieve because the result of audit learning created is a valuable resource that promotes the auditor that will be effective and efficient in performing the audit task, and then lead to audit success, forming a foundation for professional sustainability.

The main research question is (1) how do the three dimensions of professional learning influence on audit planning quality, audit best practice, and audit goal achievement? (2) How does the audit planning quality have an influence on audit best practice, and audit goal achievement? (3) How do the audit planning quality, audit best practice, and audit goal achievement have an influence on audit success?

The rest of the paper is organized as follows. First, the researcher explains the literature review and hypothesis development, review the prior researches and theories related and hypotheses development of all constructs. Second, the researcher explains the research method, including; data collection procedure and

measurement, measure validation, and statistical technique. Third, the researcher explain the results. Fourth, the researcher explains the contributions and directions for future research. Finally, the researcher concludes of this research.

2. Literature review and hypothesis development

To examine the relationships between professional learning and audit success, professional learning is an independent variable of this study that includes 3 dimensions: concrete experience, active experimentation, and reflective observation (Kolb, 1984 cited in Kolb and Boyatzis, 1999). Furthermore, audit success is a dependent variable of this study. Therefore, the conceptual model presents the relations between professional learning and audit success as shown in figure 1.



Figure 1: Conceptual model of professional learning and audit success

2.1 Professional learning

According to FAP rule, the auditor must attend training or attend meetings at least 18 hours per year to achieve the objective of developing knowledge and skills in accounting (FAP, 2013). The auditors must have continuous professional development to obtain an understanding of the new accounting standards, auditing standards, and practices that relate to the audit process and auditor's judgment, which is important for audit success. Auditors gain knowledge that is prepared in the brain in ways that allow the auditors to work effectively with what is known through study and experience (Solomon and Trotman, 2003).

Kolb (1984) defines learning as "the process whereby knowledge is created through the transformation of experience" (Kolb, 1984 cited in Kolb and Boyatzis, 1999). Hawtreay (2007) defines experiential learning as "the incorporation of active, participatory learning opportunities in the course. It is sometimes called situational learning". This study defines professional learning as the auditors' ability to learn from experience (concrete experience), learning from observation (reflective observation), and learning by doing (active experimental), which will be useful for auditors to perform activities follow audit procedure.

Prior research showed that auditors learning from their actual audit experience can lead to efficiency and effectiveness gains at the individual auditor level (Salterio, 1994). In addition, the auditors who has more experience can offer higher quality audit service than less experience (Cahan and Sun, 2015), who can generate a sum of accurate explanatory hypothesis (Libby and Frederick, 1990) and a short summary in problem representations than intermediates or novices (Lehmann and Norman, 2006). Moreover, the auditors who has more experience can conservative in planning audit efforts (Wright and Wright). On the other hand, Edwin(1998) finds that type of experience and feedback had no effect on obtaining of tacit managerial knowledge and judgment performance.

Therefore, a set of actions of professional learning comprise of three characteristics as detailed: concrete experience, reflective observation, and active experimental.

Concrete experience

Chen, Jones, and Moreland (2014) defined concrete experience as "an auditor's individual learning based on their prior experiences and perceives the novel experience from a different view". Thus, this study defines concrete experience as the auditor proofread and verifies a prior working paper, and then seeking for new practices and techniques to improve audit planning step of gathering data and auditing evidence.

The basic category knowledge previous errors enhanced learning of category level error frequencies and actual experience has a greater influence on the later audit decisions when category knowledge is acquired prior to experience (Bonner and Nelson, 1997) and auditors who learn from actual audit experience can lead to efficiency and effectiveness gains at the person level (Salterio, 1994). Therefore, the hypotheses are proposed as follows:

Hypothesis 1: Concrete experience will have a positive influence on a) audit planning quality, b) audit best practice, and c) audit goal achievement.

Active experimental

Chen, Jones, and Moreland (2014) defined active experimental as “an auditor’s learning when gets work done as soon as possible and then test, apply the theories, and solutions previously generated”. Therefore, in this study define active experimental as the auditor gets work done as soon as possible and perform and seeking new practices and techniques to audit planning setup to gathering data and auditing evidence.

For the auditor who learns by doing a new project or get new non-audit service, they try to utilize new ideas, being inquiry about how things work or carrying out changes in work methods (Wong and Cheung, 2008). An auditors’ optimal knowledge depends on the relative impact of non-audit service on the trend and spread components of their clients’ income (Beck and Wu, 2006). Therefore, the hypotheses are proposed as follows:

Hypothesis 2: Active experimental will have a positive influence on a) audit planning quality, b) audit best practice, and c) audit goal achievement.

Reflective observation

Wong and Cheung (2008) defined reflective observation as “an auditor’s individual learning when taking action after carefully observe, watching and listening from others”. Thus, this study defines reflective observation as the auditor’s observation when working in fieldwork and lead to audit planning and audit practice to collect evidence which is to the goal to gain achievement.

Observational learning occurs when an individual organizes and examines the experiential data from different view. Prior research showed that the auditors mainly acquire technical knowledge on the job, through the collaborations among individual engagement team members (Westermann et al., 2013). Therefore, the hypotheses are proposed as follows:

Hypothesis 3: Reflective observation will have a positive influence on a) audit planning quality, b) audit best practice, and c) audit goal achievement.

2.2 Mediating of the relationship between professional learning and audit success

The mediating of the relationship between professional learning and audit success consist of audit planning quality, audit best practice, and audit goal achieve.

Audit Planning Quality

Audit planning is determined as “an auditor’s ability to sufficiently and suitably determine the nature, timing, and extent of audit procedures and the allocate of audit resources that are consistent with the level of audit risk assessment used to meet the requirements of auditing standards and to gather audit evidence” (Thai auditing standards No. 200 (TAS 200); FAP (2013)). Thus, this study defines audit planning as quality followed in TAS 200.

The audit planning is a basic step of audit process. The auditor should develop audit planning to avoid potential risk. The audit plan helps an auditor to select auditing procedures to search for evidence matter to confirm the assertions of a client’s financial statement and audit planning is communication between the planner and the gatherers of audit evidence (Wolfe and Donald, 1989) and planning of auditor procedure is related to classification of particular types of audit risk factors (Bedard, 2005). Therefore, the hypotheses are proposed as follows:

Hypothesis 4: Audit planning quality will have a positive influence on a) audit best practice, b) audit goal achieve, and c) audit success.

Audit Best Practice

The auditors examine client’s financial statements by following Generally Accepted Auditing Standards and Rules of Professional Conduct so audit testing procedures might be described as the best practices (Francis, 2011). In this study, audit best practice is defined as the audit practice compliant with audit planning and prescribed auditing standards to gather and evaluate the evidence, and report findings. Therefore, the hypotheses are proposed as follows:

Hypothesis 5: Audit best practices will have a positive influence on audit success.

Audit Goal Achieve

Grant and Dweck (2003) defined “goals that are focused on obtaining positive outcomes and performance goal refer to the goal of wanting to do well on a particular task”. In this study, audit goal achieves defined as the auditor who can detect and report fraud and error which are material to the financial statements by using the time as scheduled. Therefore, the hypotheses are proposed as follows:

Hypothesis 6: Audit goal achieve will have a positive influence on audit success.

3. Research Method

3.1 Sample selection and Data Collection Procedure

The population of this research is CPAs in Thailand. The sample of this research is chosen from the FAP data based online. Accordingly, the questionnaires are directly distributed to randomly choosing 400 auditors in Thailand by using the simple random sampling procedure. Of the surveys completed and received, only 88 are usable. The effective response rate is approximately 22%. The questionnaire was evaluated by an academic professional in terms of content validity and face validity.

To test non-response bias and to detect and consider possible problems with non-response errors, it is import to investigated using t--test that followed to Armstrong and Overton (1977). The researcher was compared early and late responses about age of auditor, number of clients and the characteristic of client which was signed by auditor. The results were not significant between early and late responses. Therefore, it was implied that these received questionnaires show insignificant non-response bias for the analysis in this study.

3.2 Variable Measurement

To measure each construct in the conceptual model, all variables are anchored by five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree) excluding control variables. In additional, all constructs are developed for measuring from definition of each constructs and examine the relationship from prior literature reviews. Thus, the variables measurements of this study are described as follows:

Dependent Variable

Audit success (AS) is the dependent variable in this research affected by audit planning quality, audit best practice, and audit goal achieve. It comprises five items developed as a new scale adapted with some modification from previous research. It is measured by auditor's gain the trust of customers by the service auditor perform consistently and new clients were regularly increased.

Independent Variables

Professional learning as the auditors' ability to learn from experience, learning from observation, and learning by doing, which will be useful for auditors to perform activities following audit process. This variable includes three characteristics: concrete experience, reflective observation, and active experimental.

Concrete experience refers to the auditor proofread and verify a prior working paper, and then seeking for new practices and techniques to improve audit planning step of gathering data and auditing evidence. Four items were developed as a new scale adapted from Lim-u-sanno and Ussahawanitchakit (2009).

Reflective observation defined as the auditor's observation when working in fieldwork and lead to audit planning and audit practice to collect evidence which were the goal achieve. Four items were developed as a new scale adapted from Lim-u-sanno and Ussahawanitchakit (2009).

Active experimental refers to the auditor who his/her work done as soon as possible and performs and seeks new practices and techniques to audit planning step of gathering information and auditing evidence. Four items were developed as a new scale adapted from Lim-u-sanno and Ussahawanitchakit (2009).

Mediating Variables

Audit planning quality defined as the auditor's ability to sufficiently and suitably determine the nature, timing, and extent of audit procedures and the allocation of audit resources that are consistent with the level of audit risk assessment used to meet the condition of auditing rules and to gather audit evidence. Five items were developed as a new scale adapted from Khampichit and Ussahawanitchakit (2011).

Audit best practice is defined as the audit practice compliant with audit planning and approved auditing rules to gather and evaluate evidence, and report findings. Four items were developed as a new scale developed, based on the definition of construct.

Audit goal achieves defined as the auditor who can detect and report fraud and error which are materiality to the financial statements by using the time as scheduled. Five items were developed as a new scale developed, based on the definition of construct.

Control Variables

Control variables in this study comprise of education and experience.

Education is defined as the level of auditors' graduated.

Experience is defined as the number of years since the auditors has work in auditing field, and is measured by the amount of years that the auditors has working in auditing.

3.3 Reliability and Validity

In this study, the Cronbach's alpha was used to test the reliability of the measurement. Coefficient alpha indicates the degree of internal consistency among items in questionnaires that should be greater than 0.70 (Nounally and Berstein, 1994). From table 1, the reliability of all variable is accepted because Cronbach's alpha for all variables are shown between 0.782 - 0.875.

In this study, convergent validity was tested by the factor loading, each of construct should be greater than the 0.40 cut-off value and all factors are statistically significant (Nunnally and Berstein, 1994). From table 1 presents all variables have factor loading between 0.630 - 0.883 indicating that there is the convergent validity.

| Variable | Factor Loadings | Cronbach's Alpha |
|------------------------------|-----------------|------------------|
| Concrete experience (CE) | 0.630-0.883 | 0.795 |
| Reflective observation (RO) | 0.779-0.815 | 0.816 |
| Active experimental (AE) | 0.704-0.866 | 0.782 |
| Audit Planning Quality (APQ) | 0.753-0.874 | 0.875 |
| Audit Best Practice (ABP) | 0.785-0.863 | 0.834 |
| Audit Goal Achievement (AGA) | 0.640-0.831 | 0.792 |
| Audit Success (AS) | 0.761-0.876 | 0.858 |

Table 1: Result of Measure Validation

3.4 Statistical Techniques

All dependent and independent variables in this study are the metric scale. Therefore, OLS regression is appropriate technique to test all hypotheses. From the conceptual model and hypotheses, the following four equation models are formulated:

Equation 1: $APQ = \beta_0 + \beta_1CE + \beta_2RO + \beta_3 AE + \beta_4EDU + \beta_5EXP + \epsilon_1$

Equation 2: $ABP = \beta_6 + \beta_7CE + \beta_8RO + \beta_9AE + \beta_{10}APQ + \beta_{11}EDU + \beta_{12}EXP + \epsilon_2$

Equation 3: $AGA = \beta_{13} + \beta_{14}CE + \beta_{15}RO + \beta_{16}AE + \beta_{17}APQ + \beta_{18}EDU + \beta_{19}EXP + \epsilon_3$

Equation 4: $AS = \beta_{20} + \beta_{21}APQ + \beta_{22}ABP + \beta_{23}AGA + \beta_{24}EDU + \beta_{25} EXP + \epsilon_4$

4. Results

Table 2 shows the descriptive statistics and correlation matrix for all variables. Correlation coefficients of variables are ranging from 0.449 - 0.788. With respect to potential problems relating to multicollinearity, variance inflation factors (VIF) were used to test the inter or relations among independent variable. In this study, the VIFs range from 2.233 to 3.497, is below the cut-off point of 10 (Hair et al., 2010), meaning that the independent variables are not correlated with each other. Therefore, there are no substantial multicollinearity problems met in this study.

| Variables | CE | RO | AE | APQ | ABP | AGA | AS |
|-----------|--------|--------|--------|--------|--------|--------|------|
| Mean | 4.02 | 3.79 | 3.83 | 3.86 | 3.84 | 3.73 | 3.86 |
| S.D. | 0.49 | 0.58 | 0.58 | 0.52 | 0.53 | 0.52 | 0.55 |
| CE | 1.00 | | | | | | |
| RO | .594** | 1.00 | | | | | |
| AE | .598** | .697** | 1.00 | | | | |
| APQ | .588** | .692** | .698** | 1.00 | | | |
| ABP | .610** | .618** | .668** | .775** | 1.00 | | |
| AGA | .449** | .666** | .656** | .711** | .769** | 1.00 | |
| AS | .503** | .595** | .721** | .751** | .788** | .715** | 1.00 |

** p<.05

Table 2: Descriptive Statistics and Correlation Matrix

Table 3 shows the results of OLS regression analysis. The results show the relationship between professional learning dimensions, concrete experience, reflective observation, active experimental, and audit success.

| Independent Variables | Dependent Variables | | | |
|-------------------------|---------------------|-------------------|-------------------|-------------------|
| | Model 1 APQ | Model 2 ABP | Model 3 AGA | Model 4 AS |
| CE(H1a-c) | .165* (.096) | .195** (.092) | -.113 (.101) | |
| RO(H2a-c) | .296*** (.093) | .022 (.092) | .262** (.101) | |
| AE(H3a-c) | .330*** (.091) | .128 (.091) | .197* (.101) | |
| APQ(H4a-c) | | .604*** (.103) | .450*** (.113) | .403*** (.112) |
| ABP(H5) | | | | .362*** (.116) |
| AGA(H6) | | | | .183* (.102) |
| EDU | .114* (.074) | -.179** (.070) | -.098 (.078) | -.173** (.071) |
| EXP. | -.016 (.075) | -.018 (.070) | -.066 (.077) | .021 (.067) |
| Adjusted R ² | 0.581 | 0.655 | 0.569 | 0.686 |
| Maximum VIF | 2.233 | 2.532 | 2.532 | 3.497 |

***p<.01, **p<.05, *p<.10, * beta coefficients with standard errors in parenthesis.

Table 3: Results of OLS Regression Analysis^a

For the professional learning dimensions, the results show that concrete experience has a significant positive influence on audit planning quality ($\beta_1 = 0.165$, $p > 0.1$), and audit best practice ($\beta_7 = 0.195$, $p > 0.05$), but it is not significantly related to audit goal achieve ($\beta_{14} = -0.113$, $p > 0.05$). **Thus, hypothesis 1a and 1b are supported, but hypothesis 1c is not supported.**

The second dimension of professional learning is reflective observation which has a significant positive influence on audit planning quality ($\beta_2 = 0.296$, $p < 0.01$) and audit goal achieve ($\beta_{15} = 0.262$, $p < 0.05$) but it is not significantly related to audit best practice ($\beta_8 = 0.022$, $p > 0.05$). **Thus, hypotheses 2a and 2c are supported, but hypothesis 2b is not supported.**

The last dimension of professional learning is active experimental which has a significant positive influence on audit planning quality ($\beta_3 = 0.330$, $p < 0.01$) and audit goal achieve ($\beta_{16} = 0.197$, $p > 0.1$) but it is not significantly related to audit best practice ($\beta_9 = 0.128$, $p > 0.05$). **Thus, hypothesis 3a and 3c are supported, but hypothesis 3b is not supported.**

In addition, audit planning quality has a significant positive influence on audit best practice and audit goal achieve ($\beta_{10} = 0.604$, $p < 0.01$; $\beta_{17} = 0.450$, $p < 0.01$). **Therefore, hypotheses 4a and 4b are supported.**

The effects of mediating variables on audit success, the results shown that audit planning quality, audit best practice, and audit goal achievement are positive effect on audit success ($\beta_{21} = 0.403$, $p < 0.01$; $\beta_{22} = 0.362$, $p < 0.01$; $\beta_{23} = 0.183$, $p > 0.1$). **Thus, hypotheses 4c, 5 and 6 are supported.**

5. Contributions

5.1 Theoretical Contribution

This research extends the view of the professional learning. Specifically, it focuses on three characteristics that consist of concrete experience, reflective observation, and active experimental, which affect the audit success via mediating influence that consist of audit planning quality, audit best practice, and audit goal achieve. While most previous empirical evidences examine the issue of audit experience on audit success, but at that place little research examines the essence of experiential learning on audit success.

5.2 Practical Contribution

From the results, it suggests that the auditor should continue professional learning especially, learning by concrete experience, learning by observation (reflective observation) and learning by doing (active experimental) because the client's business activities are unlikely to remain constant over time. Continuing professional learning can help the auditor receive the audit planning quality including performing followed in auditing standards and audit program for gathering reliability and relevance of audit evidence to the assertion the client's financial statements.

6. Conclusion and Limitations

The objective of this study is to examine the association between professional learning and audit success of Thai auditor via the mediating influences which include audit planning quality, audit best practice, and audit goal achieve. The sample of this research is chosen from the online database of the FAP. The results

indicated that all dimensions of professional learning have a significant positive influence on audit planning quality. It implies that auditors learning from their actual experience can increase audit planning quality that help the auditor to collecting data and audit evidence. Moreover, only concrete experience dimension have a significant positive influence on audit best practice and professional learning dimensions which consist of active experimental and reflective observation that has a significant positive influence on audit goal achievement. In addition, the mediating of the relationship between professional learning and audit success which audit planning quality, audit best practice, and audit goal achieve shows a positive effect on audit success.

This study has some limitations. Firstly, all constructs in the conceptual model are newly developed with some modifications, based on the definition of each construct. Accordingly, the results may be impacted from the inappropriate measures by using these scales and some constructs do not have a significant influence. Thus, an interpretation of the results should be careful. Secondly, a small size of participations can be a problem.

According to the results and limitations, some constructs have inappropriate measurements. Future research should develop and modify with mixed method of inductive and deductive methodology, such as using the in-depth interview with real auditors.

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