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INFLUENCING FACTORS OF ACCOUNTING SYSTEM MANAGEMENT EFFICIENCY UNDER THE OFFICE OF VOCATIONAL EDUCATION COMMISSION

Kai Heuer[1], Chayanan Kerdpitak[2]
[1]Wismar University Business School, Germany
[2]Suan Sunandha Rajabhat University, Bangkok, Thailand
Email: chayanan.ke@ssru.ac.th: corresponding author

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ABSTRACT

This research aims to 1) study the factors of variables affecting the accounting management efficiency (AME) and financial report quality (FRQ) of educational institutions under the Office of Vocational Education Commission, 2) to study AME affecting FRQ of educational institutions under the Office of Vocational Education Commission, and 3) to create a manual of AME and FRQ of educational institutions under the Office of Vocational Education Commission used to develop the accounting work of educational institutions in a concrete manner. Mixed methodology as well as research and development had a three-step process: step 1 - qualitative research using the Delphi Technique for collecting data to study the factors, step 2 - quantitative research for collecting data to create the model of factors, and step 3 - evaluation and validation of feasibility. The population and sample consisted of 429 educational institutions under the Office of Vocational Education Commission, the Ministry of Education in Thailand, arisen from a simple random sampling method. The respondents were directors/deputy directors of resource management and accounting supervisors/officers/operators. The research instruments were questionnaire and interview form. The data were analyzed using confirmatory factor analysis (CFA) and structural equation model analysis (SEM). The results showed that the CFA model was used to examine measurement model variability of five latent variables as follows: internal control and risk management (ERM), accounting performance (ACP), accounting technology (ACT), AME, and FRQ. It was found that CFA model that of ERM was fit to the empirical data.

Introduction

The State Fiscal Disciplinary Act 2018 has set government accounting standards and government accounting policies 2018, prepared for use with government agencies' reporting entities. The agencies, as specified in the State Fiscal Discipline Act 2018, must prepare financial reports to be sent to the Ministry of Finance to prepare a

consolidated financial report for the public sector. It includes all entities controlled by the government, an entity that operates with all or most of the money from the budget, including other government agencies as required by law, consisting of government agencies, state enterprises, agencies of the National Assembly, the Court of Justice, the Administrative Court, the Constitutional Court, constitutional independent organizations, prosecutors' organizations, public organizations, working capital as a juristic person, local government organizations and other government agencies as required by law. The objectives are (1) for government agencies to use as a guideline in determining the accounting system and prepare financial reports for general purposes on an accrual basis accurately and appropriately and within the same standard framework for the purpose of preparing the consolidated financial statements of the public sector; (2) as a guideline for auditors to examine the financial reports of government agencies to express their opinions that they have been prepared under the framework of government accounting standards and; (3) to help financial reporting users understand the meaning of the information presented in the financial report, prepared in accordance with government accounting standards and government accounting policies prescribed by the Ministry of Finance, and can compare with others' financial reports. The government agencies, presenting government reports, must prepare financial reports that include all types of money. If there is an entity under its control, a consolidated financial report that includes all sub-units under the control of that state agency must be prepared. According to the 35th Public Accounting Standard, Consolidated Financial Report (when it is published), the qualitative nature of the financial report refers to a feature that makes the information in financial reports useful to financial report users, consisting of understandable relevance to decision, reliability and comparability (The Comptroller General's Department, 2018).

From the auditor's report, the Comptroller General's Department has given an opinion to the Auditor-General that the financial statements of the Office of the Auditor-General have been audited. They consist of the statement of financial status as of September 30, 2018, the statement of financial performance and the statement of changes in net assets/equity for the year ended on the same day and notes to financial statements. In addition, a summary of important accounting policies and a report on the current and previous year's expenditure budget are included. These should be corrected in essence according to the standards and government accounting policies promulgated by the Ministry of Finance. As for the responsibilities of the management and those charged with supervising the financial statements, executives are responsible for the preparation and fair presentation of these financial statements according to the government accounting standards and policies promulgated by the Ministry of Finance and is responsible for such internal control necessary to enable the preparation of financial statements without misstatement due to fraud or errors in the preparation of financial statements. Executives, moreover, are responsible for evaluating the agency's ability to continue operating and disclosure matters related to continuing operations according to the appropriateness and accounting criteria. Significant issues found in the audit and significant deficiencies in the internal control system will be identified. It can be seen that the executives of the unit are important to the accounting practice and agency supervision (The Comptroller General's Department, 2018).

From the importance of the accounting system of government agencies, AME and FRQ of educational institutions and good corporate governance in risk management

of government agencies, including the results and recommendations of many studies on the factors related to the accounting operations of educational institutions, the success and efficiency of accounting work, the administration of school administrators, risk management of government agencies, therefore, it is summarized as the basic information for the research. The government agencies must perform accounting according to standards and criteria for evaluating the accounting performance of government agencies of the Comptroller General's Department and consistent with the laws, regulations and the Office of the Auditor-General of Thailand continuously and systematically. For this reason, the researchers are interested in studying the factors affecting the AME and FRQ of educational institutions under the Office of Vocational Education Commission to be used to create a manual for the accounting practices of the schools to report accurately and timely to their original agency.

Literature Review

Risk Management and Internal Control

COSO-ERM Framework or Enterprise Risk Management Framework is a framework or manual for enterprise risk management. It is one of the factors of Corporate Governance that goes hand in hand with IT Governance, consisting of 8 related factors, including Internal Control and Risk-based Internal Audit in the overall picture to create sustainable growth and achieve a good balance of management according to CG and ITG principles.

Risks and opportunities will affect the increase or decrease in value for the stakeholders. Risk management is a tool that helps managers deal with uncertainty (Kerdpitak, 2022) as well as the risks and opportunities involved effectively. This will increase the ability of the organization to add value to stakeholders. Risk management covers:

1. Considering organizational risks in strategic assessment, setting goals, and development of risk management tools;
2. Promoting decision-making in response to risks by identifying and choosing methods to respond to risks consistently;
3. Increasing the ability to identify and respond potential incidents to reduce the occurrence of unexpected events and harm;
4. Identifying and managing different types of risks throughout the organization in all levels;
5. Seizing opportunities by considering all possible events and identifying potential opportunities and making such opportunities real for organizational benefits;
6. Gathering risk information for management to assess necessary capital factors and capital factor distribution.

Accounting practices

The meaning of accounting refers to the collection, analysis, and recording of information arising from operations according to the events that occurred before – after and economic figure events in line with the correct accounting method based on international principles in the form of currency and classified into categories. It includes summarizing data in the form of financial reports for financial information for further

use. From the above definitions, the steps can be summarized as follows: (The Comptroller General's Department, 2018)

1. Bookkeeping is the duty of the bookkeeper, which has the following procedures.

1.1 Collecting means the collection of information or transactions that occur on a daily basis in the course of business related to money such as evidences of credit purchase and credit sale, evidences of receipt and payment, etc.

1.2 Recording means the recording of each transaction that occurs in the first-after order in accordance with generally accepted accounting principles along with saving data in the form of currency unit.

1.3 Classifying means bringing the information recorded in a general daily report through ledger account by categorizing them according to different categories of accounts such as asset, liabilities, equity, income and expenses, etc.

1.4 Summarizing means summarizing the information obtained from the classification in the ledger account into accounting report which shows the performance and financial position of the business as well as the acquisition and use of cash in an accounting period.

2. Providing financial information to various related parties such as management, lenders, creditors, government representatives, investors, etc. for use in financial analysis, budgeting, accounting system improvement and crediting.

Accounting Technology

Technology and accounting in today's era have a very important role in society. They also have an influence on business operations. Many businesses have introduced new technologies to help increase efficiency in work processes. As a result, the preparation of financial reports changes according to the business operation. Computer technology will help in accounting, analyzing, and detecting irregularities in data. It reduces repetitive or routine tasks, including tasks that take a lot of time or use few decisions. Technology, however, cannot fully replace the work of an accountant because of responsibility and ability to make decisions that requires experience as the heart of accounting work. The work of computers today has a network and internet systems that allow for faster data communication among various users. In addition, communication with financial institutions can be done quickly without having to travel by using a modem through a telephone line and a computer (Dharmniti Auditing Company Limited, 2021). In addition, modern accountants have to adapt to AI, for example, developing themselves to be knowledgeable in all areas, have analytical intelligence, be aware of the situation, and bring technology to help in accounting, analysis, and detecting anomalies of data. They need to adjust their roles to be a partner for the CEO. They must be able to think, analyze and distinguish to use existing data for summarizing the report so that the executives can make decisions in a timely manner. As superpowers are interested in news in financial world and want to develop their digital currencies, accountants must analyze and know good management. They must be creative and initiate out-of-the-box thinking (Kerdpitak et al.,2022) by practicing thinking for answers like designers and executives of today. Accountants are expected to increase their roles from accounting responsibilities to adding more value to the organization in business expansion or efficiency. Their assistance with tax planning creates maximum benefits and reduces business costs (Yodbua, 2020).

Financial report quality

For the importance of accounting, all types of business operations require reliable accounting information for consideration of making decisions on the budgeting, financial management, business resource management. Investors want the most benefits from the operation by using accounting information that is relevant both internally and externally to control and make decisions about operations. In order to obtain accounting information, computer program has been developed for more convenience, speed, and accuracy. Nowadays, computer programs are used to record accounts at present. Accounting information are applied to management, analysis, planning, control, and decision-making for benefits of stakeholders or financial statement users, including investors, executives, owners and governments who have used accounting information of each business in the administration of the country's economic and social affairs (Wiphadapornpong, 2017).

Accounting management efficiency

To achieve satisfactory results in improving operational efficiency, it is necessary to modify and promote human resource development in the organization based on knowledge, ideas, principles and practices from the beginning. The visualized components of supporting factors are used to create an overall picture, as a summary, increasing knowledge and ability to plan operations at both the organizational and individual level, leading to clearer implementation. The efficiency of organization depends on proficiencies of people and organization. Improving the efficiency of work in an organization is divided into four steps:

1) Measurement of Efficiency. Systematic and clear efficiency development will not be able to happen, if we are unable to understand the level of organization's operation efficiency. Therefore, we must establish concrete guidelines for measuring performance by considering the key factors that influence the operation to define benchmarks and methods of operation. At present, many industries may have indices that can be applied to measure efficiency. The continuous operation and preparation of databases both at the corporate and industrial level can be used as a guide for building business efficiency metrics. Even if a business doesn't have the basic information to build a benchmark, measuring tools can be built by considering output and input quantities that are important to the operation.

2) Evaluation of Efficiency. Data were compared, evaluated and analyzed to find differences, causes of inefficiency, and guidelines for planning to develop efficiency. The performance can be compared in 4 characteristics as follows:

1. Comparison in each time period by considering the difference of performances in each period will reflect the progress or backward of the business.

2. Comparison with objectives by comparing the performance with the desired goal allows the business to determine the consistencies, differences, and recommendations for improvement.

3. Planning for efficiency improvement by using the data from the assessment and the analysis of differences in the formulation of the organization's performance improvement plan concretely, called "Action Plan", will specify the details of the goals plus clear methods and procedures so that practitioners can perform tasks properly to achieve the goals.

4. Plan implementation by assigning people with direct responsibility, power to make decisions and clear orders make the operation systematic and unblemished so that the it can be monitored, evaluated, and adjusted accordingly in the future (Heuer, Kerdpitak & Kerdpitak, 2021; Gibson et al.,1988; Katz & Kahn, 1978).

Methodology

The researchers used mixed methodology research and development with 3 steps, comprising step 1: qualitative research with Delphi Technique for collecting data to study factors, step 2: quantitative research for collecting data to create the model of factors, and step 3: evaluation and validation of feasibility to study the probability of the model created.

The population and sample consisted of 429 educational institutions under the Office of Vocational Education Commission, Ministry of Education in Thailand, consisting of the Director / Deputy Director of Resource Management Department and Chief Accountant or Accounting Officer / Operator, totaling 2 persons per each institution. Therefore, the population of quantitative research was 858 persons and the sample was 469 persons, arisen from simple random sampling method. The tool used in this study was a questionnaire. The data were analyzed using confirmatory factor analysis (CFA) and structural equation model analysis (SEM). (Fornell & Larcker, 1981).

Results

To develop the Causal Relationship Model of Factors Affecting Accounting Management Efficiency and Financial Report Quality of Educational Institutions under the Office of Vocational Education Commission in Thailand, the researchers have synthesized documents and related research to obtain observed variables in the model. Preliminary data were examined by analysis of mean, standard deviation, coefficient of variation, Skewness and Kurtosis of the observed variables, as shown in Table 1.

Table 1 mean, standard deviation, coefficient of variation, Skewness and Kurtosis of the observed variables

Variables	Mean	S.D.	CV%	Skewness	Kurtosis
1. Enterprise risk management andinternal control					
1.1 Control environment	4.002	0.717	17.956	-0.456	0.407
1.2 Risk assessment	4.013	0.728	17.991	-0.464	0.390
1.3 Control activities	4.003	0.722	17.761	-0.402	0.312
1.4 Information and communication	3.857	0.806	17.835	-0.379	0.372
2. Accounting Practices					
2.1 Good characteristics of accountant	4.111	0.934	21.950	-0.870	0.364
2.2 Training on bookkeeping	4.315	0.851	18.730	-1.175	1.103
2.3 Understanding of the accountant's bookkeeping process	4.234	0.821	19.411	-0.945	0.838

3. Accounting Technology					
3.1 Accounting program skills	4.192	0.681	16.471	-0.511	0.276
3.2 Presentation of financial statements on Internet	4.124	0.654	15.876	-0.453	0.822
3.3 Accounting resource planning	4.107	0.677	16.491	-0.547	1.168
4. Accounting Management Efficiency					
4.1 Hierarchical principles	4.163	0.815	19.567	-0.790	0.493
4.2 Responsibility principles	4.054	0.817	17.679	-0.431	0.241
4.3 Reasonableness principles	4.017	0.839	18.407	-0.728	1.501
4.4 Success focus	4.118	0.708	19.910	-0.862	1.257
4.5 Specialization principles	4.051	0.736	20.480	-0.903	1.081
4.6 Discipline principles	4.190	0.853	17.920	-0.741	0.465
4.7 Professionalism	4.138	0.824	17.928	-0.533	0.717
5. Financial report quality					
5.1 Understandability	4.106	0.747	17.191	-0.672	0.764
5.2 Reliability	4.044	0.728	18.000	-0.503	0.572
5.3 Completeness	4.116	0.722	15.573	-0.545	0.592
5.4 Relevance to decision making	4.125	0.766	18.792	-0.730	0.992
5.5 Timeliness	4.113	0.811	16.869	-0.621	0.371

From the Table 1, the results found that the observed variables in the causal relationship model had the means between 3.957 and 4.316. Training on bookkeeping variable had the highest mean (4.316), whereas supervision, monitoring and evaluation activities variable had the lowest mean (3.957). Standard deviations (S.D.) of variables were less than 1 (0.655 to 0.944), indicating an appropriate distribution of the data. The variable with the highest standard deviation was good characteristics of accountant (0.944), while the variable with the lowest standard deviation was presentation of financial statements on internet (0.655).

The coefficient of variation (CV) of the observed variables portrayed the values between 15.886 and 22.950, which were similar values. Observed variable with the highest CV was good characteristics of accountant (22.950), indicating that the respondents had the highest different levels of perception. The observed variable with the lowest CV was presentation of financial statements on Internet (15.886), indicating that the respondents had the lowest different levels of perception.

Skewness of the observed variables represented the values from -0.379 to -1.175, not more than 2. The distribution of the data was slightly left-skewed (negative skewness). In addition, Kurtosis of the observed variables ranged from 0.241 to 1.506, not more than 10 according to the criteria (positive kurtosis), signifying normal curve distribution. The Skewness and Kurtosis results complied with the preliminary terms in structural equation analysis.

Table 2 Factor Loading

Structural Variables	Items	Standardized Estimates	T-Value	Loading	CR	AVE
Enterprise Risk Management and Internal Control (ERM)	X1	0.762	19.008	0.762	0.816	0.686
	X2	0.932	26.719	0.835	-	-
	X3	0.962	28.089	0.862	-	-
	X4	0.915	25.759	0.818	-	-
	X5	0.799	13.434	0.899	-	-
Accounting Practices (ACP)	X6	0.781	9.521	0.781	0.873	0.687
	X7	0.622	11.681	0.822	-	-
	X8	0.900	16.008	0.897	-	-
Accounting Technology (ACT)	X9	0.935	12.968	0.838	0.872	0.699
	X10	0.958	13.299	0.866	-	-
	X11	0.738	17.241	0.739	-	-
Accounting Management Efficiency (AME)	Y1	0.634	N/A	0.736	0.865	0.681
	Y2	0.869	14.714	0.867	-	-
	Y3	0.813	13.884	0.812	-	-
	Y4	0.751	13.136	0.851	-	-
	Y5	0.723	11.605	0.822	-	-
	Y6	0.775	13.961	0.874	-	-
	Y7	0.782	9.734	0.881	-	-
Financial Report Quality (FRQ)	Y8	0.712	N/A	0.715	0.882	0.677
	Y9	0.797	14.555	0.796	-	-
	Y10	0.832	12.575	0.835	-	-
	Y11	0.705	11.607	0.722	-	-
	Y12	0.718	11.666	0.718	-	-

Based on the CFA results of measurement model of five factors: enterprise risk management and internal control (ERM), accounting practices (ACP), accounting technology (ACT), accounting management efficiency (AME) and financial report quality (FRQ), with 23 observed variables, it found that the measurement model of all factors was fit to the empirical data. This reflected all observed variables were factors of the efficiency of accounting factors affecting financial report quality of educational institutions under the Office of Vocational Education Commission.

Table 3 Effects among variables

Effect variables	AME			FRQ		
Causal variables	TE	IE	DE	TE	IE	DE
AME	-	-	-	0.146*	-	0.146*
ERM	0.117 *	-	0.117*	0.125*	0.020*	0.108*
ACP	0.301*	-	0.301*	0.327*	0.044*	0.284*
ACT	0.197*	-	0.197*	0.130*	0.029*	0.101*

The test of causal factor model of the efficiency of accounting factors affecting the financial report quality of educational institutions found that enterprise risk management and internal control (ERM) had a direct positive relationship with accounting management efficiency (AME) (ß = 0.117, t - value = 2.466, p<0.05). Therefore, the following 7 hypotheses were accepted:

Hypothesis 1. Accounting practices (ACP) have a direct positive relationship with accounting management efficiency (AME) (ß = 0.301, t - value = 5.605, p<0.05).

Hypothesis 2. Accounting technology (ACT) has a direct positive relationship with accounting management efficiency (AME) (ß = 0.197, t - value = 3.867, p<0.05).

Hypothesis 3. Enterprise risk management and internal control (ERM) have a direct positive relationship with financial report quality (FRQ) (ß = 0.108, t - value = 2.137, p<0.05), and have an indirect positive relationship with financial report quality (FRQ) mediated by accounting management efficiency (AME) (ß = 0.020, t - value = 2.001, p<0.05).

Hypothesis 4. Accounting practices (ACP) have a direct positive relationship with financial report quality (FRQ) (ß = 0.284, t - value = 4.818, p<0.05), and have an indirect positive relationship with financial report quality (FRQ) mediated by accounting management efficiency (AME) (ß = 0.044, t - value = 2.405, p<0.05).

Hypothesis 5. Accounting technology (ACT) has a direct positive relationship with financial report quality (FRQ) (ß = 0.101, t - value = 2.074, p<0.05), and have an indirect positive relationship with financial report quality (FRQ) mediated by accounting management efficiency (AME) (ß = 0.029, t - value = 2.154, p<0.05).

Hypothesis 6. Accounting management efficiency (AME) has a direct positive relationship with financial report quality (FRQ) (ß = 0.146, t - value = 2.539, p<0.05).

Conclusions

The results of the components of factors affecting accounting management efficiency using Exploratory Factor Analysis (EFA) from 32 questions showed that the Kaiser-Myers-Olkin (KMO) was 0.836 (greater than 0.500), representing all the data and variables are well correlated. In addition, Bartlett's Test of Sphericity was statistically significant at the 0.05 level, indicating that the correlation matrix of all variables was correlated. Therefore, the correlation matrix was appropriate to be used for further factor analysis. Moreover, when extracting the factors by Principal Component Analysis (PC) method by rotating the factor axis, it was found that all 5 factors were obtained. The model fit of causal relationship of accounting factors affecting financial report quality of educational institutions under the Office of

Vocational Education Commission was analyzed using CFA to verify the validity of the model for measuring 5 latent variables: enterprise risk management and internal control (ERM), accounting practices (ACP), accounting technology (ACT), accounting management efficiency (AME), and financial report quality (FRQ). The result of model verification found that CFA of measurement model of enterprise risk management and internal control was fit to the empirical data.

References

The Comptroller General's Department. (2018). Government accounting standards and policies "principles and policies of public accounting: the qualitative nature of financial report". Retrieved April 2, 2020 from the website: https://saraban-law.cgd.go.th/easinetimage/inetdoc?id=show_CGD.A.23142_2_BCS_2_pdf

Dharmniti Auditing Company Limited. (2021). Technology and accounting in the 4.0 era. Retrieved December 28, 2021 from the website: https://www.daa.co.th/en/news/audit-news/item/219-%E0%B9

Gibson, H. D. and others. (1988) .Orgenization. 6th ed. Texas : Business Publications Inc.

Fornell, C. and Larcker, D.F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Market Research*, 18(1), 39-50.

Heuer, K., Kerdpitak, C. & Kerdpitak, N.(2021). Influencing factors to tourist decision in choosing service tourist attraction: case of northern of Thailand. *International Journal of Business Tourism and Applied Science*s. 9(2), 40-46.

Kerdpitak C. (2022). Business Performance Model of Herbal Community Enterprise in Thailand. *Uncertain Supply Chain Management.*Vol.10 No.2 P.345-352.

Kerdpitak C., Jankawekun P., Kongpan Y., Chotithammaporn W., Kumpetch N., Yen W.H. (2022). Effect of Eco-Innovation Strategies on Enterprises' Sustainable Business for Pharmacies Business in Thailand. *Journal of Positive School Psychology*. 6(3), 4246 – 4256

Katz, D. and R. L Kahn. (1978). *The Social Psychology of Organizations*. 2nd ed. New York : Wiley.

Krejcie, R. V., & Morgan, D.W. (1970). Determining sample size for research activities. *Educational and Psychological measurement*, 30(12), 607-610.

Wiphadapornpong, B. (2017). *Principles of Accounting1*. Bangkok: Muang Thai Book Center Co., Ltd.

Yodbua, L. (2021). 5 things that modern accountants have to adapt to AI. Accounting Manager, Jomthakol Co., Ltd. Retrieved December 28, 2021 from the website : https://www.spu.ac.th/fac/account/th/content.php?cid=19972