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EFFECT OF RISK MANAGEMENT ON QUALITY OF INTERNAL AUDIT REPORTS OF MUNICIPALITIES IN THAILAND

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ABSTRACT

The objective of this research was to study the effects of risk management on quality of internal audit reports of financial divisions of municipalities in Thailand. The sample comprised 368 directors/chiefs of financial divisions of municipalities in Thailand. The questionnaires were used to collect data. The data were analyzed using statistics including multiple regression analysis, correlation analysis as well as Pearson's correlation to test the effects of risk management on quality of internal audit reports. The results of this study showed that risk management in terms of internal environment, event identification, and information and communication had positive effects on quality of internal audit reports of financial divisions of municipalities in Thailand. In contrast, objective setting, risk assessment, risk response, control activity, and monitoring had no effects on quality of internal audit reports of financial divisions of municipalities in Thailand.

Keywords: Risk management, Internal audit reports, Financial division

Introduction

Presently, government organizations attached more importance to risk management because opportunities and risks are complicated. They also force administrators to review risk management methods and to identify acceptable levels of risks that the organizations must face in terms of environmental, financial, social and ethical aspects. Government organizations have the Regulations on the Establishment of Internal Control Standards 2001 to follow which clearly shows the importance of risk management or internal control. The former COSO concept has also been implemented in the organizations. Moreover, there is the Ministry of Finance Regulations on Internal Audits of Government Organizations 1999 that require internal auditors to write a report of the results of their inspections. The report is on the results or findings of the examination, analysis of the effects, recommendations/ guidelines for improvement that are beneficial to the organizations (Prasansak, 2016).

Municipalities are government organizations under the Department of Local Administration whose administrators face the following problems. 1) Laws, regulations and written orders regarding budgeting process, procurement and supplies management, and disbursement are unclear and do not correspond with municipal needs. 2) Municipal operations regarding regulations and methods of operations, personnel limitations, organizational image, and corruption among employees. 3) Problems concerning a lack of evaluation and risk management in the organization; inability to identify mistakes and errors due to unclear job descriptions and orders given by all levels of administrators. 4) A lack of knowledgeable and competent personnel as most of them lack

knowledge and understanding regarding regulations on disbursement, lack of good coordination, lack of support for training and personnel development (Department of Local Administration Promotion, 2017). Therefore, government organizations should realize the importance of risk management and internal control. In addition to these problems, studies have shown that there is a limited number of municipalities that have implemented the eight components of COSO-ERM framework which are internal environment, objective setting, event identification, risk assessment, risk response, control activities, information and communication, and monitoring (State Audit Office of the Kingdom of Thailand, 2001). In 2015-2017, the internal control assessment reports of some municipalities in Thailand, from Internal Audit Committee, showed that almost divisions were lack of internal control activities. For State Audit Office of the Kingdom of Thailand Regulations, all divisions of municipalities in Thailand had to self-assessment for internal control and they were audited by the internal audit committee, and then, they were reported to the State Audit Office of the Kingdom of Thailand. Hence, the researcher became interested in investigating effects of risk management on quality of internal audit reports of municipalities in Thailand.

Objectives of the Study

1. To investigate effects of risk management implementations on quality of internal audit reports of municipalities in Thailand.

Conceptual Framework

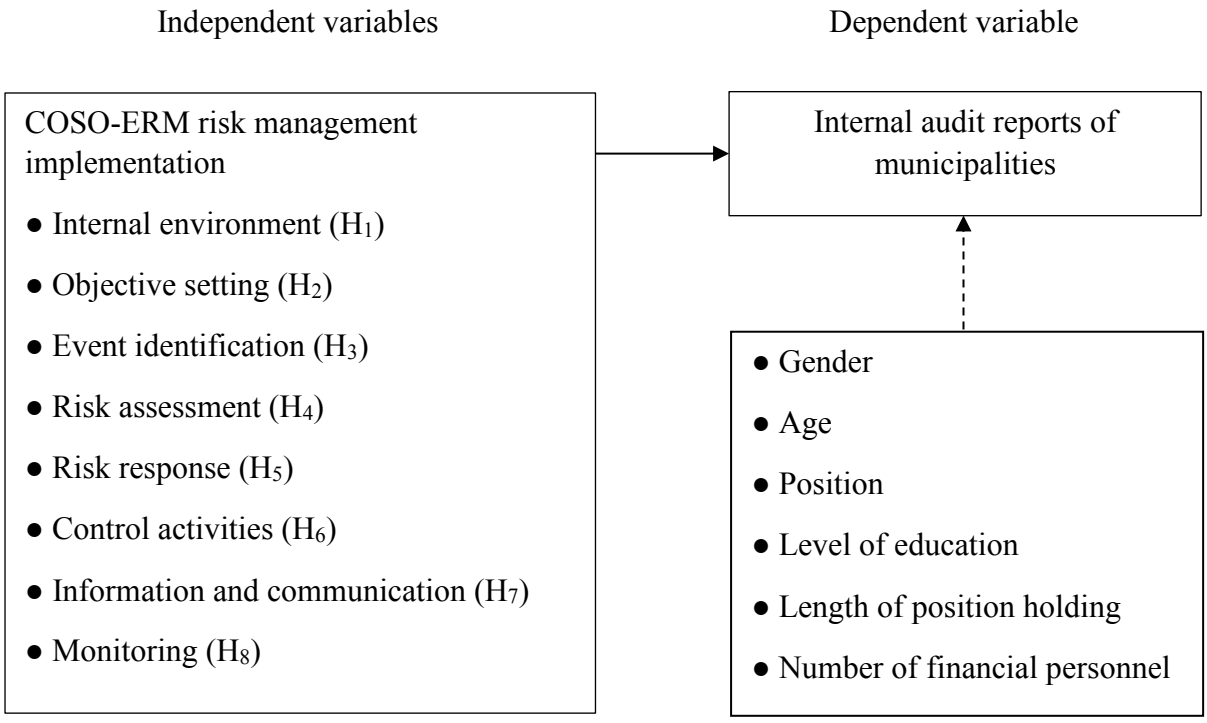

Figure 1 Conceptual framework

Hypotheses

1. Risk management implementations in the environment positively affects quality of internal audit reports of municipalities in Thailand.
2. Risk management implementations in objective setting positively affects quality of internal audit reports of municipalities in Thailand.
3. Risk management implementations in event identification positively affects quality of internal audit reports of municipalities in Thailand.
4. Risk management implementations in risk assessment positively affects quality of internal audit reports of municipalities in Thailand.
5. Risk management implementations in risk response positively affects quality of internal audit reports of municipalities in Thailand.
6. Risk management implementations in control activities positively affects quality of internal audit reports of municipalities in Thailand.
7. Risk management implementations in information and communication positively affects quality of internal audit reports of municipalities in Thailand.
8. Risk management implementations in monitoring and evaluation positively affects quality of internal audit reports of municipalities in Thailand.

Literature review

In this study, Blake and Mouton's behavioral theories are used to explain the relationship between risk management and internal audit reports because the theories focus on people and results of the operations that administrators use as guidelines for improvement or development of their organizations, making decisions on policy, methods, and work process. According to the theories, if administrators have knowledge and understanding of risk management that is suitable for their organizations, the organizations will have efficiency that can have effects on internal audit reports. In this study, internal audit report quality refers to an internal control self-assessment report of each division for assessment the effective of internal control systems for municipalities in Thailand. Based on related literature review, hypotheses of this study could be classified as follows.

Mihret and Yismaw (2007) found that environmental management in the organization highly affected the quality of internal audit, and personnel's work quality positively affected the efficiency of the audit. This is in congruence with Lenard et al. (2016) who found that risk management in control environment reflects personnel's performance. However, the study by Lenard et al. (2016) also found that risk management in terms of environment shows a lack of determination of high-level officers resulting in conflict of interest and it is an important cause of a decrease in determination of high-level officers. Thus, the hypothesis is as follows.

H_1: Risk management in the environment positively affects quality of internal audit reports of municipalities in Thailand.

A study by Suriyawong (2008) revealed that if many objectives are set, they can positively affect the quality of the internal audit report which is in line with the findings of a study by Saengsai and Sutthisanon (2016) which found that objective setting and objective achievement are associated with operational efficiency. When compared with the standard of the amount of work assigned, if the work has been achieved as set by the organization, time management for work management can make risk management to be associated with the operational efficiency which affects internal

audit reports. Thus, the following hypothesis was formed.

H_2: Risk management in objective setting positively affects quality of internal audit reports of municipalities in Thailand.

Ashbaugh-Skaife et al. (2008) found that event identification or risk factors damaging the objectives of each activity may happen as a result of internal and external risks that show an increase of quality of the audit report. This corresponds with a study by Doyle et al. (2007) which found that the quality of the audit report has risks with different effects depending on the event and risk management of each organization. Likewise, Badolato et al. (2017) found that weak risk management can increase risk to the quality of the internal audit report because administrators do not place emphasis on reporting the data in the internal audit. Thus, the following hypothesis was formed.

H_3: Risk management in event identification positively affects quality of internal audit reports of municipalities in Thailand.

In her 2008 study, Chayanit Arunsit found that risk assessment has positive relationship with the quality of data in the internal audit report in terms of understandability and decision-making. Similarly, Saengsai and Sutthisanon (2016) found that operational risk and internal control under the COSO framework which requires making a report to present to the administrators periodically for planning can have positive effects on the internal audit report. This is because the administrators could then monitor and require reviewing the work for improvement. Thus, the following hypothesis was formed.

H_4: Risk management in risk assessment positively affects quality of internal audit reports of municipalities in Thailand.

According to Kanphatchi (2012), risk response has the same direction of relationship with the internal audit report as a result of clear organizational structure and chain of command that are suitable for the size and type of work. Additionally, there are suitable and enough control activities for the degree of risk. Hence, the following hypothesis was formed.

H_5: Risk management in risk response positively affects quality of internal audit reports of municipalities in Thailand.

A study by Khongrungrot (2014) found that the component of risk management that many organizations implement is control activities. Phanrueangrong (2006) found that the overall work assessment according to the risk management system in terms of control activities was at a high level. This is because scope of authority and responsibility of administrators and practitioners at each level are clear which result in efficient and effective operations. Therefore, the following hypothesis was formed.

H_6: Risk management in control activities positively affects quality of internal audit reports of municipalities in Thailand.

The study conducted by Saengsai and Sutthisanon, (2016) revealed that risk management in information and communication had positive effects on the operational efficiency. This component was used in considering operational performance and it was found that the internal audit report was with efficiency. Thus, the following hypothesis was formed.

H_7: Risk management in information and communication positively affects quality of internal audit reports of municipalities in Thailand.

Phanrueangrong (2006) found that monitoring risk management according to the COSO framework where a report was made and presented to the administrators periodically, and work performance was regularly evaluated had positive effects on quality of the internal audit report. Likewise, Arunsit (2008), found

that monitoring and evaluation had positive relationship with operational results according to the risk management system. Thus, the following hypothesis was formed.

H_8: Risk management in monitoring and evaluation positively affects quality of internal audit reports of municipalities in Thailand.

Research Methodology

The population of the study was directors/ chiefs of 2,444 financial divisions (Department of Local Administration Promotion, 2017). The sample size of 368 was determined using Taro Yamane's formula and the reliability was 95 percent. The subjects were selected through simple random sampling in percentage from municipalities of each province. The research instrument was a questionnaire consisting of three parts. Part 1: General information with 6 questions about the respondents; Part 2: Risk management (COSO-ERM) with 24 questions about risk management of the financial division of each municipality; and Part 3: Quality of Internal Audit Report with 18 questions about internal audit of the financial division of each municipality. Content validity was assessed by three experts, and for the reliability of the questionnaire in the part about risk management, alpha coefficient was 0.934 while that for the part about the quality of internal audit report was 0.802. Descriptive statistics used were frequency and percentage, and inferential statistics were used for correlation analysis to determine relationships among variables. Multiple regression analysis was performed to analyze the effects of risk management on quality of internal audit reports. Two equations used in the study were as follows.

Equation 1:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6 + b_7X_7 + b_8X_8 + \text{error}$$

Equation 2:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6 + b_7X_7 + b_8X_8 + b_9X_9 + b_{10}X_{10} + b_{11}X_{11} + b_{12}X_{12} + b_{13}X_{13} + b_{14}X_{14} + \text{error}$$

Y = Quality of internal audit report
X_1 = Internal environment
X_2 = Objective setting
X_3 = Event identification
X_4 = Risk management
X_5 = Risk response
X_6 = Control activities
X_7 = Information and communication
X_8 = Monitoring
X_9 = Gender
X_{10} = Age
X_{11} = Position
X_{12} = Level of education
X_{13} = Length of position holding
X_{14} = Number of financial personnel

Results

Table 1 illustrates that each independent variable has relationship with effect on quality of the internal audit report. In order to avoid problems in relationship between independent variables, multicollinearity test was conducted using VIF below 10 to show that independent variables were not related or that multicollinearity would not occur.

Table 2 shows the results of the test on risk management that had positive effects on the internal audit report. From Equation 2 according to hypotheses H_1 to H_8, it was found that internal environment, event identification, and information and communication had positive effects on quality of the internal audit reports of the financial divisions of municipalities in Thailand. However, objective setting, risk assessment, risk response, control activities,

and monitoring did not have effects on quality of the internal audit reports. Therefore, hypotheses H_1, H_3 and H_7 were accepted, while H_2, H_4, H_5, H_6 and H_8 were rejected.

Table 1 Results of correlation analysis

	Y	X_1	X_2	X_3	X_4	X_5	X_6	X_7	X_8	X_9	X_{10}	X_{11}	X_{12}	X_{13}	X_{14}
Y	1	.375**	.355**	.259**	.375**	.367**	.315**	.364**	.353**	.078	.064	-.125*	0.45	.149**	.216**
X_1		1	.717**	.534**	.456**	.443**	.349**	.540**	.415**	.033	.100	-.118*	.057	.120*	.104
X_2			1	.535**	.545	.551**	.420**	.495**	.476**	0.42	.207**	-.143**	.025	.153**	.057
X_3				1	.491**	.423**	.377**	.521**	.408**	-.045	.120*	-.047	-.001	.117*	-.034
X_4					1	.740**	.434**	.386**	.541**	.008	.059	-.109*	-.092	.089	.035
X_5						1	.508**	.386**	.560**	.047	.145**	-.087	-.056	.132*	.013
X_6							1	.385**	.443**	.025	.045	-.047	.014	.068	.053
X_7								1	.453**	.031	.097	-.079	-.019	.144**	.089
X_8									1	.022	.150**	-.124*	-.008	.191**	.107*
X_9										1	-.019	-.051	.126*	.078	.033
X_{10}											1	-.533**	.142**	.341**	.021
X_{11}												1	-.166**	-.325**	.065
X_{12}													1	.103*	-.012
X_{13}														1	.008
X_{14}															1

* Significance level of 0.0

** Significance level of 0.01

Table 2 Results of multiple regression analysis in equation 1

Variable	Hypothesis	B	t	Sig.
(Constant)		**3.621**	**28.540**	**.000**
1. Internal environment (X_1)	H_1	.166	2.359	.019*
2. Objective setting (X_2)	H_2	.011	.148	.883
3. Event identification (X_3)	H_3	.185	2.588	.046*
4. Risk assessment (X_4)	H_4	.138	1.888	.060
5. Risk response (X_5)	H_5	.063	.835	.405
6. Control activities (X_6)	H_6	.091	1.612	.108
7. Information and communication (X_7)	H_7	.160	2.655	.008*
8. Monitoring (X_8)	H_8	.091	1.497	.135
R square		.238		
Adjusted R square		.221		
F		14.010		

* Significance level of 0.05

Table 3 Results of multiple regression analysis in equation 2

Variable (Constant)	Hypothesis	B	t	Sig.
		3.598	**17.311**	**.000**
1. Internal environment (X_1)	H_1	.126	1.794	.740
2. Objective setting (X_2)	H_2	.015	.202	.840
3. Event identification (X_3)	H_3	.142	1.989	.089
4. Risk assessment (X_4)	H_4	.128	1.744	.082
5. Risk response (X_5)	H_5	.089	1.190	.235
6. Control activities (X_6)	H_6	.083	1.490	.137
7. Information and communication (X_7)	H_7	.144	2.424	.016*
8. Monitoring (X_8)	H_8	.058	.966	.335
9. Gender (X_9)		.036	.791	.429
10. Age (X_{10})		-.069	-1.214	.226
11. Position (X_{11})		-.084	-1.504	.133
12. Level of education (X_{12})		.042	.904	.367
13. Length of position holding (X_{13})		.064	1.285	.199
14. Number of financial personnel (X_{14})		.178	3.822	.000*
R square	.280			
Adjusted R square	.251			
F	9.800			

* Significance level of 0.05

Table 3 shows the results of the test on risk management and general information of the sample group affecting the internal audit reports. From Equation 2, it was found that information and communication, number of financial personnel positively affected quality of the internal audit reports of financial divisions of municipalities in Thailand. However, internal environment, objective setting, risk assessment, risk response, control activities and monitoring did not affect the internal audit reports. In the same way, gender, age, position, level of education, and length of position holding of personnel did not affect the internal audit reports. Therefore, hypothesis H_7 was accepted while H_1, H_6, and H_8 were rejected.

Discussion

The results of the study revealed that for risk management in financial divisions of municipalities in Thailand, internal environment, event identification, and information and communication are associated with internal audit reports. Therefore, these components can positively affect quality of the internal audit reports. It can be explained that when risk management is implemented in the organization and that each component of risk management is implemented suitably, the operations of the organization will be efficient and have positive effects on quality of the internal audit reports. This is in agreement with the findings of these studies: Saengsai and Sutthisanon (2016), Kanphatchi (2012), Arunsit (2008) and Suriyawong (2008). However, it does not correspond with the studies by Khongrungrot, (2014) which could

be because the administrators have good knowledge, manage risks in the organization efficiently and monitor it regularly, and resulting in good quality of the internal audit reports. Nevertheless, components that were not found to have effects on quality of the internal audit reports were: objective setting, risk assessment, risk response, control activities, monitoring, gender, age, position, level of education and length of position holding. This can be explained that some organizations have not yet integrated each aspect/ component of risk management with the internal audit reports. The reasons could be that the internal audit reports focus on inspection of documents as financial evidence concerning revenues and expenditures to see whether there are errors and to check them against regulations and laws. Regarding risk management, activities of risk management are checked to see whether they have been conducted, and these activities could be regarded as guidelines for operations. As for personal characteristics of personnel: gender, age, position, level of education, and length of position holding, the findings were in congruence with the previous studies by Prasansak (2016) and Saengsai and Sutthisanon (2016). However, they were not in line with the studies by Phanrueangrong (2006) and by Arunsit (2008). This could be because most of the directors/ chiefs of the financial divisions were females, and thus, there are no differences in terms of gender. Moreover, the longer length of service might reduce the degree of risk management; administrators might place emphasis on internal environment and information. Additionally, the emphasis might be placed on operations in accordance with rules, regulations and objectives which cause the effects of risk management on the internal audit reports to be unclear or not clear enough to be seen.

Conclusion

The results of this study showed that risk management in terms of internal environment, event identification, and information and communication had positive effects on quality of internal audit reports of financial divisions of municipalities in Thailand.

Limitations and recommendations for further study

1. Studies should be conducted with other sample groups to investigate effects of risk management on quality of the internal audit reports of financial divisions. For example, the sample groups could be internal auditors or operational employees of the organization so that the studies cover various levels of employees and the results of the studies could be used as guidelines for administrative development to increase organizational efficiency.
2. Data of the studies should be collected using a questionnaire with in-depth questions to get detailed, correct and clear information that could be used for highest benefits.
3. Studies should be conducted on other aspects that could be problems and obstacles to risk management that reduce quality of the internal audit reports, such as rules and regulations and organizational culture, etc.

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