Fraud Risk Factors and Fraud Risk Assessment of Government Agencies

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Abstract
The purposes of this research were to (1) determine risk factors and fraud types through social reality, (2) analyze risk factors on fraud, and (3) create a fraud risk assessment model and the development program for fraud risk assessment. This research was carried out by both qualitative and quantitative methods. The population consisted of external auditors under the State Audit Office of the Kingdom of Thailand, internal auditors of Provincial Administrative Organization, internal auditors of Municipality, and internal auditors of City Municipality, a total of 461 persons. The research instruments were interview forms, questionnaires, and fraud risk assessment models. The statistics for data analysis included mean, standard deviation, exploratory factor analysis, and basic math operation. The research findings revealed that: (1) risk factors and risk types through social reality consisted of 26 variables, the mean was between 3.34 - 3.92, and the standard deviation was between 1.007-1.080, which were from moderate to high level, averagely, (2) risk factors on fraud consisted of 3 factors described by 26 variables, which were (1) compliance risk factors described by 11 variables, (2) financial risk factors described by 9 variables, and (3) personal risk factors described by 6 variables, and 3) fraud risks assessment model and program for fraud risk assessment which consisted of 4 factors, which were (1) data about agencies, (2) operation risk assessment model (Operation Risk: π), (3) risk factor scores assessment model (risk factors: RFS), and (4) internal control assessment model. (Internal Control: IC) and this research to develop program for fraud risk factor assessment on Microsoft excel program.
Keywords: Risk, Fraud, Corruption, Assessment Model, Auditing Governance

Introduction
Fraud is a problem in society and nation no matter it is in a developed country or a developing country. Fraud has been embedding in the administrative system both public and private sectors until it becomes a problem which has to be solved urgently. It can be seen that the mechanism of government administration has been interrupted by political sectors lately and it is related to fraud. Hence, it is a public administration responding to the needs of the political benefits more than the real needs of the country and its people. Such interruption causes the public sectors to lack of effectiveness on public administration, good governance, internal control system, which impacts the image and reliability in the public eyes all over the world (Heidenheimer, Arnold, Michael, and Levine, 1989). This might be a type of warning sign indicating fraud actions which the fraud will never be reduced or disappeared if the administrators and personnel in the organization do not realize its significance of having the

good internal control system and systematic risks administration. It is just an illusion of having good governance (Atuguba, Andoh, Anthony, and Appiah, 2012). Bayley (1966) Hence, there has been the study through causes, reasons, factors, or behaviors originating fraud. The fraud is usually from the personal behaviors and intention to use power, position, or profession of persons to seek the benefits for themselves and others (Singleton, Bologna, and Lindquist, 2006). Cressey (1953) proposed the conceptual framework of Fraud Triangle to explain the personal behaviors analyzed from all 3 motivational factors, which were, (1) opportunity; the opportunity which creates fraud that leads to the loss of organization resources resulted from the weakness of the internal control system, (2) motivation or pressure; the motivation or pressure which causes fraud such as bet, liquor, insufficient financial status, excessive debts, (3) attitude and reason; incorrect and inappropriate attitude or reason which might be the standing with oneself in order to use the gap of internal control system for fraud. Therefore, it is really necessary to make understanding about risk factors because the risk is considered a part of organizational conduction (Wells, 2011).

Hence, an anti-fraud strategy is really challenging in today environments. Organizations have to encounter risks which can affect their success and operation. It is extremely essential to analyze, identify, and assess all risks in order to find out the guidelines through risk management. The concept of internal control has been publicized and adjusted widely both in public and private sectors emphasizing the organizations to realize the importance of how to organize good internal control system. The concept of internal control is not only limited to the organizing of accounting and financial control system but also included the obeying of laws and related rules and regulations in order for preventing fraud or using resources falsely that helps reduce potential risks from any operational activities" (Clinton, Pinello, and Skaife, 2014). Thus, these mentioned are regarded as a challenge that the organization administrators or internal auditors and external auditors have to make every effort to control or reduce the risk factors which might cause fraud. Although risks cannot be eliminated completely from the organization, risks management in the right ways will help reduce them and relieve potential impacts toward the organization conduction efficiently, as well as manage the risks to remain at an acceptable level. Only this strategy will enable organizations to conduct their work and achieve their given goals under the significance of organizing a good internal control system.

However, there are only a few researches that have brought the issue of risk factors or red flags to study and develop as an instrument of assessment model for basic screen through any project which tends to have fraud at high risks, and it can restrain the risks promptly before losing resources or budgets, including reducing the potential risks within the organization. According to Pattaramontri (2015) proposed that creating the assessment model of the internal control system mechanism might bring the variables of discovered red flags to analyze as the basic red flags index then newly proceed the got answers of each variables group to predict potential likelihoods and impacts toward fraud to lead to the consideration of proactive audit which prevents or stop any actions which might cause damages, loss, or fraud that brings on damages to organizations. For these reasons, this research intends to (1) determine risk factors and fraud types through social reality, (2) analyze risk factors on fraud, and (3) create a fraud risk assessment model to answer the research questions of these 3 items; (3.1) what are the risk factors, fraud types through real society?, (3.2) What are the risk factors on fraud through real society?, and (3.3) how should the types of risk assessment model be and can it be applied to assess the fraud risks truly?. The results got from this research will be really beneficial to respond the anti-fraud policies within the organization.

Review of Literature

Fraud and Corruption Definition: Doody (2009) defines 'fraud' as "all activities such as fraud by robbery, fraud by conspiracy, money laundering, bribe, and properties obtaining". Hopwood, Leiner, and Young, (2009) defines 'fraud' as "the intention to cheat in order to get assets from the victims". While Singleton et al. (2006) said that 'fraud' is the "behaviors of human beings in a way of cruel and defalcation, immorality, illegality, or have an intention to avoid the laws, including any actions against the positions, responsibilities, and other rights" and Klitgaard (1988) Heywood (1997) identify that 'corruption' is "a behavior which deviates from regular responsibilities of the public services for private benefits by violating the rules and regulations with the abuse of power".

In conclusion, fraud and corruption mean the swindle, deception, cheat, misappropriation, or intention to cause misunderstanding for seeking benefits both in terms of finance and non-finance to acquire the benefits on position, power, money, property, or legal right toward oneself and companion from the organization which that person works. This is in accordance with the theoretical concept of human needs (Need Theories) of Maslow (1943) it depends on each individual's behaviors through 5 aspects as follows: (1) physiological needs, (2) safety needs, (3) belongingness and love needs, (4) esteem needs, and (5) self-actualization needs This explain all human beings struggle and fight for their own goals.

Internal Control Concept: Internal Control means the operating system organizing within the organization in order to reduce the potential risks from fraud and it might cause damages to the properties of the organization. Organizing a good internal control system is really essential for enhancing the operation to achieve the goals of organizational conduction both in terms of efficiency and effectiveness, including constructing the reliability of the financial report. Furthermore, internal control includes the following of laws and related rules and regulations to prevent fraud or resources misuse which will reduce the possible mistakes from all operation activities (Clinton, Pinello, and Skaife, 2014). It consists of 5 elements as follows: (1) Control Environment (2) Risk Assessment (3) Control Activities (4) Information and Communication and (5) Monitoring.

In 2013, COSO developed the guidelines of internal control and investigation by increasing the intensity of the analysis and risks from 5 factors previously to 8 factors focusing on the behavioral analysis of the wrongdoer on fraud based on Fraud Triangle concept by Cressey. Cressey (1953) reveals that "the fraud behaviors are caused from 3 motivation to let a person break a law, which includes incentive and pressure, opportunity, and attitudes and rationalization Singleton et al. (2006) said that if an organization has a weakness in the control system, it will open up the opportunity on fraud. The details are presented in Figure 1.

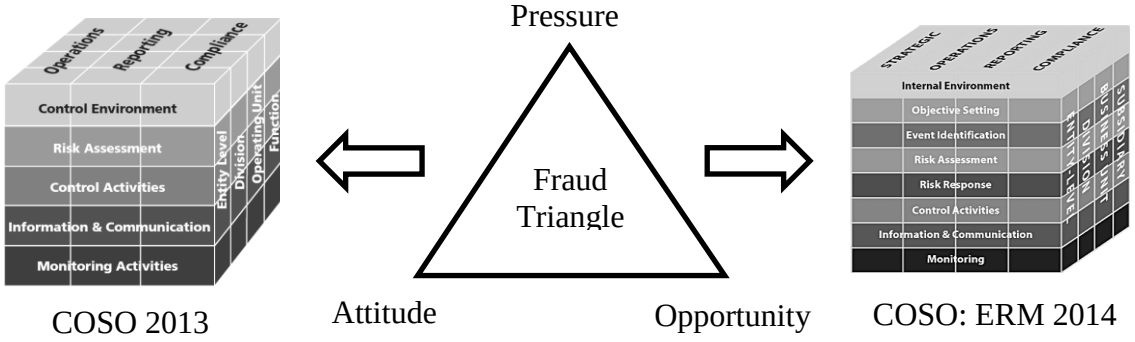
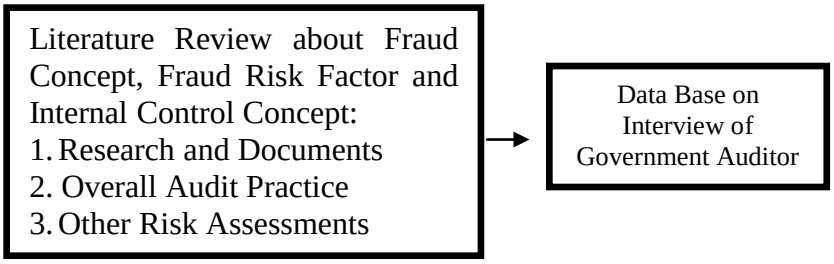


Figure 1 Relationship between Internal Controls, Risk Management and Fraud Triangle

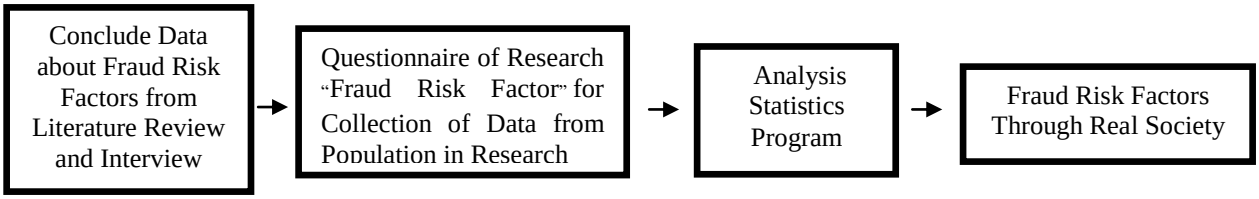
Therefore, the researcher has the idea to develop and assess the risks on fraud in order to apply it as a tool for sending the warning sign of government project conductions which are

the risk of fraud. The researcher determines the steps of research methodology framework as shown in Figure 2.

Step 1: Study and Analysis to Specify Operation Framework.



Step 2: Data Analysis



Step 3: The Development Evaluation From and Program for Fraud Risk Assessment

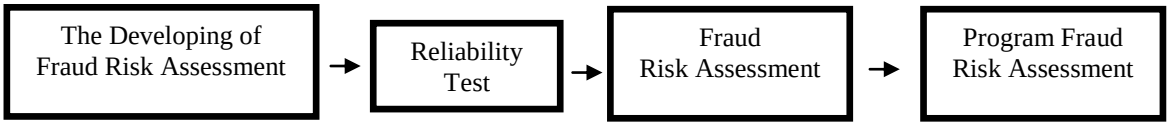


Figure 2 Operation Framework

Research Methodology

This research methodology is carried out by quantitative research and qualitative research by categorizing it into 2 parts as follows:

Part 1: Qualitative Research

(1) Documentary research; this is from the literature review and related researches in order to be the basic information for an interview;

(2) Interview; the informal interview method through key informants and purposive selection by voluntary were used. The researcher considered and selected the 1-15 for 8 persons;

(3) The instrument used was an interview form. The researcher studied the concepts related to the fraud and internal control system according to the COSO standard from various data resources, which include, (1) concepts from literature reviews, documents, textbooks, and researches of scholars both in domestic and foreign countries, (2) the important investigation results from the draft of audit report of the State Audit Office of the Kingdom of Thailand, annual budgets of B.E. 2550-2559 (2007-2016), and (3) the detection of internal audit office, Department of Local Administration, annual budgets of B.E. 2559-2560 (2016-2017), which were inclusively organized for doing the interview form by determining the points through structural interview type. For this research, the structural question items for the interview were divided into 5 parts;

(4) Interview form; this is proposed by 5 experts to examine the validity of each question item. The examination results of interview form after being considered from the experts revealed that there were 21 question items, the validity of the contents was covered each aspect and covered the research purposes. The measurement results of Item-Objective

Congruence Index (IOC) of the question were between 0.60 and 1.00, more than 0.5. Hence, it can be used for data collection.

Data Collection

Part 1: Review Data; (1) the concepts from literature reviews, documents, textbooks, and researches of scholars both in domestic and foreign countries, (2) the concepts of experts in term of domestic government audit, (3) crucial investigation results from the draft of audit report of the State Audit Office of the Kingdom of Thailand, annual budgets of B.E. 2550-2559 (2007-2016), and (4) detection of internal audit offices, Department of Local Administration, annual budgets of B.E.2559 - 2560 (2016-2017) in order to be used as basic information for determining the guidelines of this study; and Part 2: Field Data; the researcher collected the data by using the interview form through 8 persons of regional auditors by face to face to reveal the information relating to "risk factors on fraud" from the investigation experiences. The time for the interview was about 2 hours. The researcher would conduct the interview until there was no any doubts or any new information occurred from the interviewees which were called 'data saturation' then the researcher would stop the interview and bring the information got from the literature reviews and this interview to create the question items of the questionnaire "risks factors on fraud" to study in terms of quantity research further.

Part 2: Quantitative Research

For population who gave the information for answering the questionnaires, the researcher selected the population by using the Purposive Selection method. The researcher selected external and internal auditor include the auditors under the State Audit Office of the Kingdom of Thailand, heads of internal audit under the Provincial Administrative Organization, head of internal auditors under the municipality, and head of internal auditors under the city municipality, a total of 1960 persons. The instrument used for quantitative research; a questionnaire of 35 question items calculated by the rating scale with 5 levels designated by Likert Scale (1932). Quality investigation of the questionnaires; the details are as follows: Brought the 1st questionnaire (54 items) to propose 5 experts to let them examine the validity of each question item. The results of examination after consideration from the experts, it was found that from all 54 question items, there were 35 question items which had the validity covering each item. The measurement result of IOC was between 0.60 and 1.00, more than 0.5. Thus, it can be used for data collection. The researcher brought the questionnaires with 35 question items to try-out with the Director of Provincial Official of the Auditor General of Thailand, a total of 77 questionnaires. When it came to the due date, 62 questionnaires were returned back and they were all completed. This is in accordance with the research of Aaker, Kumar, and Day (2001) who proposes that for sending the questionnaires, it had to get them back at least 20%, therefore it could be acceptable. The researcher found out the discriminant power by using Item-total Correlation technique. Concerning the test of the discriminant power, it was found that from all 35 question items in the questionnaires, there were 9 of them which did not pass the standard criteria of the quality test through the instrument. Hence, the researcher removed the question items which did not pass the standard criteria from this research questionnaire and remained the question items in the questionnaire which passed the standard criteria of the quality test of the instrument for 26 question items. Nunnally and Bernstein, (1994) proposed that the discriminant power test should be more than 0.40 which would be acceptable and able to be used for data collection further. The Next Brought all 26 question items in the questionnaire to collect the data to the auditors, a total of 1,960 persons from 14 February to 20 April 2018. When getting all questionnaires back, the researcher investigated the completeness of the answers and all of them were complete, a total of 461 questionnaires (23.52%) which had been sent to the sample group. And to data

analysis methods and statistics used for data analysis included Mean, Standard Deviation, and Exploratory Factor Analysis by Principal Component Analysis: PCA

Research Results

According to the purposes of given research, the results can be concluded as 3 points as follows:

(1) To study the risk factors and fraud types through social reality. The results revealed that risk factors and fraud types through social reality consisted of a total of 26 variable factors. The Mean was between 3.34-3.92 which means that the interviewees mostly agreed to the fraud risk factors averagely from moderate to high level, from the least to the most, which included, the supervision and follow-up system, and strategic revision are not done regularly (3.34) and there were no documents to show the details of calculation methods acquired the work quantity and prices per unit as a part of cost estimates or the cost estimates were not in accordance with the construction lists form (3.92).

(2) To analyze explanatory factors. The statistic values of Kaiser-Meyer-Olkin: KMO was equal to.945, more than.800. This indicates that the variables have a relationship at the statistical significance at.01 level. It can be analyzed the factors, and from the value of Bartlett's Test of Sphericity, it was found that the Chi-Square Statistics (x^2) used in the test was equal to 7804.993, which had the statistical significance at 0.01 level. This identifies that the Correlation Matrix of variables has a relationship with each other. Therefore, it is suitable to be used for factors analysis. And factors which can be extracted from Eigenvalue, which had the eigenvalue more than 1, which was found that 26 variables can extract 3 factors, and the eigenvalue was between 1.529 -11.313. All 3 factors could explain the collected variance at 60.869%. After rotating the axle through Orthogonal Rotation type by the Varimax Method, the Eigenvalue was between 3.863 - 6.595, all 3 factors could describe the collected variance at 60.869%; especially the factors weight value was more than 0.50. which 26 variables of risk factors; this can describe the risk factors on fraud in all 3 factors, by being able to describe the meanings of all 3 factors: (1) risk factors on following the laws and regulations (2) risk factors of the financial report and (3) personal risk factors.

(3) To create the assessment form on fraud. This part describes the risk factors got from the above analysis. The risk factors could describe the fraud as 3 factors and 26 risk factors. The researcher conducted the draft of risk assessment form on fraud then brought the draft of such assessment form to propose 5 experts for investigating the validity of the question items in each aspect. The results of the experts' consideration and Item-Objective Congruence Index (IOC) was 123 items passed the criteria of validity test of the contents covering each aspect and research purposes, the values were between 0.60 and 1.00, more than 0.5. Therefore, it can be used to assess the risks of fraud. The fraud risk assessment was divided into 4 parts consisting of Part 1: general data about details of organization, 3 aspects and 12 items. Part 2: assessment of Operation Risk (π), 8 aspects and 37 items. Part 3: Risk Factor Scores (RFS), the values got from the fraud risks assessment in each dimension of the risks factors, 5 aspects and 26 items. Part 4: values assessment of internal control system (IC) in each factor according to the COSO's concept, 5 aspects and 48 items.

The researcher can write them as the prediction equation as follows:

RFS = S 1 + C 2 + O 3 + F 4 + P 5 **(1)**, FRI = π RFS **(2),** RFS = S 1 + C 2 + O 3 + F 4 **(3)**, FRI = π RFS **(4),** IC = IE 1 + RA 2 + CA 3 + IC 4 + Moni 5 **(5)** and FRI = π IC **(6)**

When

FRI: Fraud Risk Index, π: Level of Risk Operation, RFS: All Risk Factor, IC: All Risk, of Internal Control, S: Strategic Risk, C: Compliance Risk, O: Operational Risk, F: Financial

Risk, P: Personal Risks, IE: Internal Environment, RA: Risk Assessment, CA: Control Activities, IC: Information and Communication and Moni: Monitoring
The researcher determined the weight of each stage for operating this project by considering the likelihood, impact, and risk management ability in each stage as follows:

Table 1 The Risk Factors Scores: RFS and the Internal Control Scores: ICS

Risk Factors	Weighted Average: 1	Weighted Average: 2*	Risk Factors	Weighted Average	Rank	FRI	Fraud Likelihood	Sign
S	0.10	0.10	**IE**	0.25	**1**	0.00 - 1.99	A Few Fraud Risk	Green Flag
C	0.45	0.60	**RA**	0.55	**2**	2.00 - 3.99	High Fraud Risk	Yellow Flag
O	0.20	0.20	**CA**	0.10	**3**	4.00 - 5.00	Very High Fraud Risk	Red Flag
F	0.10	0.10	**IC**	0.05				
P	0.15	-	**Moni**	0.05				
Total Weighted Average	**1.00**	**1.00**	**Total Weighted Average**	**1.00**				

***** In case there is no any personal information abnormality of the authorities relevant to the operation, the values of scores will be brought to include in the risk management factors of illegal operation through laws and regulations (C).

Fraud Risk Factor Assessment Form: Complete

Figure 3 Show Cover Fraud Risk Factor Assessment Form

Table 2 Part 1 General Data

Type State agency	Location State agency	Type Project
() Government Center	() Northern Thailand	() Procurement Project
() Local Government	() Northeastern Thailand	() Subsidies Project
() State Enterprises	() Central Thailand	() Others
() Other Government	() Eastern Thailand	
	() Southern Thailand	

The operation risk (π) consisted of 8 topics described by 37 items. For the identification of fraud risks level, the researcher determined the risks level to be 5 levels, which were 1-5 level (ordered from the least risks to the most risks) The details are presented in Table 3.

Table 3 Part 2 Assessment of Operation Risk (π)

Risk Factor	**Level Risk**
(1) Project Characteristics	
(1.1) The project is about general procurement indicated in the plan.	1
(1.2) The project has the continuous operation tied with the budgets expenses in the following year.	2
(1.3) The project is wasted materials procurement.	3
(1.4) The project is the policies specific operation.	4
(1.5) The project is the joint venture between government and private sectors.	5
(2) Complication of the project	
(2.1) The operation is not much complicate.	1
(2.2) It is complicated at a level that there are sellers or contractors more than 5 persons, and may employ the contractors in a form of Joint Venture or Consortium.	3
(2.3) It is complicated at a level that there are sellers or contractors less than 5 persons, and may be necessary to employ the contractors in a form of Joint Venture or Consortium.	5
(3) Budgeted Amount	
(3.1) < 5 million baht	1
(3.2) > 6 - 50 million baht	2
(3.3) > 51 - 100 million baht	3
(3.4) > 101 - 200 million Baht	4
(3.5) > 200 million Baht	5
(4) Period of Project Operation	
(4.1) Not more than 1 year	1
(4.2) Not more than 3 years	2
(4.3) Not more than 5 years	3
(4.4) Not more than 7 years	4
(4.5) Not more than 7 years	5
(5) Areas of Project Operation	
(5.1) There is an only single area for project operation.	1
(5.2) There are not more than 10 areas covered.	2
(5.3) Between 11 and 30 areas are covered.	3
(5.4) Between 31-50 areas are covered.	4
(5.5) More than 50 areas are covered or the operation areas are changed.	5
(6) Study of possibility or real needs	
(6.1) There is a study on possibility of the project operation.	1
(6.2) There is no study on the possibility of the project operation.	3
(6.3) It has to study the possibility of the project operation because there is the law enforcement.	4
(6.4) There is no public hearing is done about the project requirement.	5
(7) Project operation states	
(7.1) The operation has been finished and it is useful.	1
(7.2) It is between the project and contract operation.	2
(7.3) There is a change of form on operation project.	3
(7.4) The project has not been operated yet signing the contract already.	4
(7.5) The contractor had a problem with an employer or people.	5
(8) **Projects Performance**	
(8.1) There is no observation from the investigation of the Office of the Auditor General of Thailand.	1

Table 3 (Con.)

Risk Factor	**Level Risk**
(8.2) There are complaints from people.	2
(8.3) There is an expostulation before the project operation.	3
(8.4) There is a complaint of people or mass media from finding the suspicion through the unclarity of the project operation.	4
(8.5) The project operation is finished but it is not useful for the public.	5

Table 4 Part 3 - 4 Risk Factors and Internal Control Level Assessment

Type Risks	**YES**	**NO**	**Likelihood**					**Impact**				
			5	**4**	**3**	**2**	**1**	**5**	**4**	**3**	**2**	**1**
Part 3 Risk Factors												
(1) Strategic Risk Factor (S) From 5 Risk Items												
(2) Compliance Risk Factor (C) From 5 Risk Items												
(3) Operational Risk Factor (O) From 5 Risk Items												
(4) Financial Risk Factor (F) From 6 Risk Items												
(5) Personal Risk factors (P) From 3 Risk Items												
Part 4 Internal Control Level Assessment												
(1) Internal Environment (IE) From 6 Risk Items												
(2) Risk Assessment (RA) From 9 Risk Items												
(3) Control Activities (CA) From 9 Risk Item												
(4) Information and Communication (IC) From 8 Risk Items												
(5) Monitoring (Moni) From 9 Risk Items												

Fraud Risks Assessment: A Case Study of Operation According to Government Project

The next step was bringing the fraud risk assessment form for this research to assess with the project operation according to the high risks government projects and had the causes to get the fraud from the project operation. The evaluator was the government investigators. For the identification of fraud risks level, the researcher determined the risks level to be 5 levels, which were 1-5 level (ordered from the least risks to the most risks), and when being calculated to find out the Mean of risks level through the abnormality or opportunity how much to cause fraud. The calculation results as follows: The Operation Risk Assessment: π Project characteristics./ level risk: 4 Project complication./ level risk: 5 Budget amount./ level risk: 5 Project operation periods./ level risk: 1 Areas of project operation./ level risk: 5 The study of possibility./ level risk: 5 Project operation state./ level risk: 3 and Project operation results./ level risk: 5 According to the operation risks assessment (π) by considering the factors of abnormality through 8 factors of project operation, when gathering all 8 factors of the risks level, it was found that the operation risks level (π) had the overall Mean of the operation equal to 4.25, and it will be multiplied with the values got from the calculation of risk factors level and internal control level according to the calculation.

Values Assessment of Risk Factors Level and Internal Control Level

The Assessment of risk factors level and internal control level of the government project operation; such question characteristics were about the "investigation lists" for 123 question

items. The answers got from each set would be analyzed and considered from 3 dimensions as follows: (1) Opportunity to cause fraud, (2) Effects of risks, and (3) Ability of risks management. The scores by determining 1 score for every answer of "Yes" and 0 score for every answer of "No", then brought the Mean of risk factors and internal control level of each aspect to calculate and find out the Mean of warning sign for the government project operation, and the FRS would be equal to 1 (S: 1 C: 1 O: 1 F: 1 P: 1 divided by five), and the Mean of internal control level (ICI) was equal to 0.94 (IE: 1 RA: 0.87 CA: 1 IC: 0.83 Moni: 1 divided by five). When bringing the FRS value (1) and IC value (0.94) to multiply with the operation risks level (π) value (4.25) to find out the risks index value which might be the fraud of government project operation, then found out the Mean of FRI which was equal to 4.25, and the Mean of ICI which was equal to 3.99. When interpreting the results by comparing with the Rank 2 (Table 1 2.00-3.99), it meant this government project operation had an opportunity to cause fraud at an anxious level (Red Flag), and it was caused from the lack of organizing good internal control system.

Discussion and Conclusion

According to the data analysis, the researcher can conclude the research results according to the purposes of research as follows:

Purpose 1: Regarding the review literature, the related researchers both domestic and foreign countries, the analysis and synthesis from investigation results of government sectors, and interview of experts, it got the risk factors of fraud types for a total of 26 factors. Hence, the definition of "fraud and corruption" can reflect the behaviors which lead to the fraud risk factors. there are several scholars such as Doody (2009) Hopwood, Leiner & Young, (2009) and Klitgaard (1988) their concepts have the same direction that a fraud is a behavior of using authorities, administrative positions in the immoral ways, laws for seeking illegal benefits to oneself and a group of persons, or it is the facilitation of laws to cause the gap to fraud.

Purpose 2: There are 3 fraud risk factors, described by 26 factors as follows: Factor 1: risk factors of Compliance Risk. Klitgaard (1988) Heywood (1997) said that the factors affecting the fraud were Structural Factor, which includes social value factors, or the organization of authorization which has power to control and intervene too much or too little of the government, too much or too little rules and regulations, scope expansion of roles and duties of the government, and scope expansion of the social welfare project to cover more, investigation and control system, and the fraud which is not strong which causes a person to decide to act or have fraud behaviors. Factor 2: financial report risk; COSO (2013) is a crucial standard relating to the risk management and the organizing of a good internal control system, and the construction of the reliability toward the financial report. Clinton, Pinello, and Skaife, (2014) and Lasritad et al. (2015) indicate that the fraud problem affects the transparent on accounting operation, standard and financial reliability which affects the relationship and positive effects with the entire financial report quality. Factor 3; the personal risk factors, this is in accordance with Simon (1955); Milgram (2006); Leff (1964) and Dobel (1978) The opinions are concordant that the attitudes and values with different views are a risk factor which leads to fraud action. Some societies admire the rich without considering the acquisition of such richness For Zhong. (2006) they indicate that the administrators who realize that the administrators who find out the benefits from the properties of the organizations in a form of a state enterprise will construct the conditions by getting the government to organize the flexibility of enforcement through the laws which lead to the use of these gaps for their personal benefits.

Purpose 3: This fraud risk assessment form is divided into 4 parts: Part 1; general data about the details of the organizations, Part 2; the Operation Risk form (π), Part 3; the Risk Factor

Scores: (RFS), and Part 4; the value assessment of Internal Control (IC) and this research to develop program for fraud risk factor assessment on Microsoft excel program.

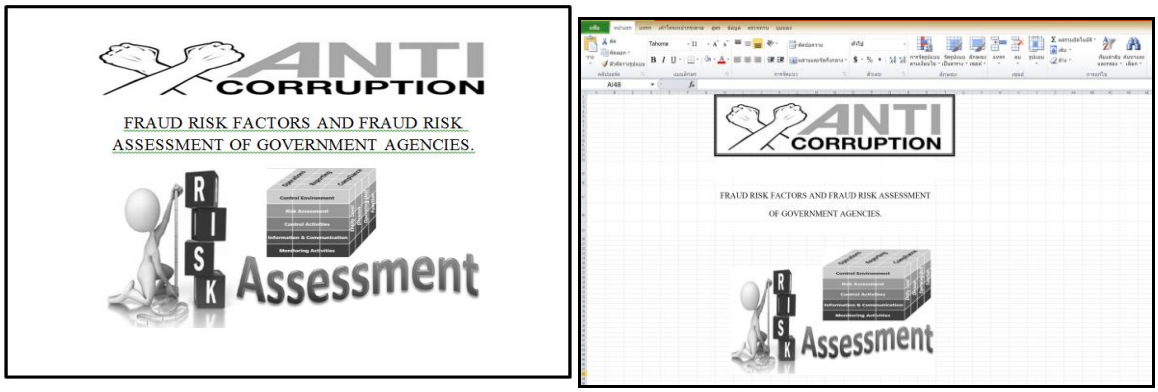


Figure 4 Assessment Form and Program for Fraud Risk Assessment

Limitations

1. The researcher collected the data during the time that Thailand encountered the situation of changing system on politics, and laws, rules and regulations about public administration, as well as the suppression of fraud and corruption in the government sector, it may cause the information in this research got impacts from the abnormality from such situations. Hence, to apply this information should be considered the mentioned issue.

2. This research is about the study and data collection in a negative way relating to the fraud issue in the public sectors, thus acquiring the information from interviewees and the interview might have some points of limitation because sharing opinions relating to the fraud risk assessment might affect the operation of the auditors.

Future Study

1. For the future research, it should have the data collected from the investigation results of other organizations apart from the analysis results of the researcher in order to get the points of risk factors which lead to fraud within the organizations more, and it should have the data collection such as interview, questionnaire from other groups additionally such as the internal auditors from both public and private sectors;

2. For the future study, it should have a study which relies on the data processing from high statistics more in order to get the analysis results which have more precision.

References

Aaker, D., Kumar, V., & Day, G. 2001. **Marketing Research**. New York: John Wiley & Sons Inc.

Atuguba, N., Richard, A., Cynthia Boateng, A., Nuamah, A. & Appiah, E. 2012. **A Study of the Internal Control Systems Evidence from Offinso Rural Bank Limited**. Kumasi: Christian Service University College.

Bayley, H., 1966. "The Effects Corruption in a Developing Nation." **Western Political Quarterly** 19 (4): 19-32.

Clinton, S., Pinello, A., & Skaife, H. 2014. "The Implications of Ineffective Internal Control and Sox 404 Reporting for Financial Analysts." **Journal of Accounting and Public Policy** 33 (4): 303-317.

Cressey, D. 1953. **Other People's Money**. New Jersey: Patterson Smith.

Dobel, J. 1978. "The Corruption of a State." **The American Political Science Review** 72 (3): 958-973.

Doody, H. 2009. **Fraud Risk Management: A Guide to Good Practice**. London: Chartered Institute of Management Accountants.

Heidenheimer, A., Arnold, J., Michael, J. & Levine, T. 1989. **Political Corruption: A Handbook**. Oxford: Transaction Publishers.

Heywood, P. 1997. "Political Corruption: Problems and Perspectives." **Political Studies** 45 (3): 417-435.

Hopwood, W., Leiner, J., & Young, G. 2009. **Forensic Accounting and Fraud Examination**. New York: McGraw-Hill.

Klitgaard, R. 1988. **Controlling Corruption**. California: University of California.

Lasritad, K. et al. 2015. "Effects of Accounting Practice Transparency on Financial Reporting Quality of Municipality in the Northeast Thailand." **Journal of Humanities and Social Sciences Mahasarakham University** 34 (4): 252-260.

Leff, N. 1964. "Economic Development through Bureaucratic Corruption". **The American Behavior Scientist** 8 (2): 8-14.

Likert, R. 1932. "A Technique for the measurement of Attitude." **Archives of Psychology** 22 (140): 1-55.

Maslow, A. 1943. "A Theory of Human Motivation." **Psychological Review** 50 (4): 370-396.

Milgram, S. 2006. **Human Behavior, Trust, and Corruption**. Washington, DC: The World Bank.

Nunnally, J. & Bernstein, I. 1994. **Psychometric theory**. 3rd ed. New York: McGraw-Hill Inc.

Pattaramontri, U. 2015. **Modern Internal Auditing**. Bangkok: Jamjuree Product.

Simon, H. 1955. "A Behavioral Model of Rational Choice". **Quarterly Journal of Economics** 69 (1): 99-118.

Singleton, T., Singleton, A., Bologna, G., & Lindquist, R. 2006. **Fraud Auditing and Forensic Accounting.** 3rd ed. New Jersey: John Wiley & Sons Inc.

The Committee of Sponsoring Organization of the Treadway Commission (COSO). 2013. **Guidance on internal control: Internal control framework.** Retrieved from www.coso.org/documents/COSO%20McNallyTransition%20Article-Final%20COSO%20Version%20Proof_5-31-13.pdf.

The Committee of Sponsoring Organization of the Treadway Commission (COSO). 2017. **Enterprise Risk Management**. Retrieved from www.coso.org/Pages/erm-integrated framework.aspx.

Wells, J. 2011. **Corporate Fraud Handbook: Prevention and Detection.** 3rd ed. New Jersey: John Wiley & Sons, Inc.

Zhong, H. 2006. "Where is the Future: China's SOEs Reform." **Journal of the Washington Institute of China Studies** 1 (1): 105-115.