

The Effect of IT Governance on Thai Financial Institution

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Abstract

Information Technology (IT) governance has emerged as a fundamental business imperative, and rightfully so, because it is a key to realizing IT business value. IT governance describes the distribution of IT decision-making rights and responsibilities among different stakeholders in the firm, and defines the procedures and mechanisms for making and monitoring strategic IT decisions. This research tries to examine the effectiveness of IT Governance to organization by using IT balanced scorecard as a tool to measure the effectiveness of IT Governance through a survey. Researchers had been collected data from total 28 companies which are financial institution in Thailand. Data collected is focusing on IT Governance implementation that expected to improve organizational performance. According to IT balanced scorecard, the survey was divided into four parts through four perspectives which are corporate contribution, stakeholders, operational excellence and future orientation. The result shows that Future Orientation has an impact on Operational Excellence. Operational Excellence has an impact on Stakeholders. Stakeholder has an impact on Corporate Contribution. These relationships are cause-and-effect relationships. According to our findings, we can conclude that IT Governance has a positive impact on financial institution in Thailand.

Keywords: IT Governance, balanced scorecard, effectiveness, Thai Financial Institution

1. INTRODUCTION

In recent years, information technology (IT) play a major role helping firms to survive in today's global marketplace. IT can be a supporting tool and allow companies to achieve its business goals. However, the effective use of IT relies mostly on good governance. As a result, IT Governance has been emerging as a central issue in the business world. However, top executives who do not have an IT background often ignore IT's essential role and hence the return on IT investment might be lower than their expectations. IT Governance Institute (2003) stated that more than 80% of CIOs acknowledged the need for better IT governance in delivering their firm's strategy. IT Governance can provide additional benefits to the company in terms of process optimization, control and relational mechanisms. It can support a company to sustain and extend its IT systems in the direction align with the company's strategy.

Despite the increasing importance of IT governance, evidences show that many firms have failed to obtain benefit from using IT. In previous research, different types of IT governance have been proposed (e.g. Brown 1997; Weill, 2004). However, it is still not clear

how IT governance affect firm performance. Therefore, the main focus of this paper is to investigate the relationship between IT governance in Thai financial institution and organizational performance. In order to explore IT Governance performance, data collected from 28 Thai financial institutions were used to empirically validate the relationships proposed in our model. The findings provide a better understanding of effective IT governance mechanisms.

2. LITERATURE REVIEW

IT Governance was originated in 1993 as a derivative of corporate governance. It deals with the connection between IT management and strategic objectives of the firm. IT governance is a measure tool for enhancing firm performance by using the advantages of IT on business management. IT governance is a major change for business that can move business into a new dimension via IT usage to improve business performance. The basic description of IT governance as the combination of business and IT is also supported by Parker et al. (2002). Weill and Ross (2004) defined IT governance as a tool to specify the decision rights and accountability framework to encourage desirable behavior in the use of IT.

In general, the goal of IT governance is to ensure that IT investment generates added value and reduces the risk for the company by implementing company structure with appropriate roles for each corporate functions. In addition, it can also help the firm to define a clear scope of responsibility and keep track of each work through the system log.

In 2009, the Information Technology Governance Institute (ITGI) conducted a survey on the relationship between IT Governance advancement and the outcome of the firm operation (Reserve of India 2011). There are several methodologies designed to improve IT management and develop IT governance framework, for example, aligning IT with company goals and strategy for better management, increasing IT profile for project and portfolio management, embedding IT into company's culture, reducing risks, increasing project visibility and optimizing IT operations. (Krishna 2011). Since this study is aiming to explore the importance of IT Governance and its effect, we use IT Balanced Scorecard as the measurement tools to determine the result.

Balanced Scorecard (BSC)

Beginning in 1992, Kaplan and Norton wrote a series of articles which introduced the concept of the balanced scorecard (BSC). The balanced scorecard is the developed set of the measurement that would give a comprehensive view of the business to the top executive in a short amount of time (Kaplan and Norton 1992). The balanced scorecard is a framework for operationalizing a firm's strategic plan by focusing on measurable outcomes on four dimensions of firm performance: financial, business process, customer, and learning and growth (Kaplan and Norton 1996) (See Figure 1).

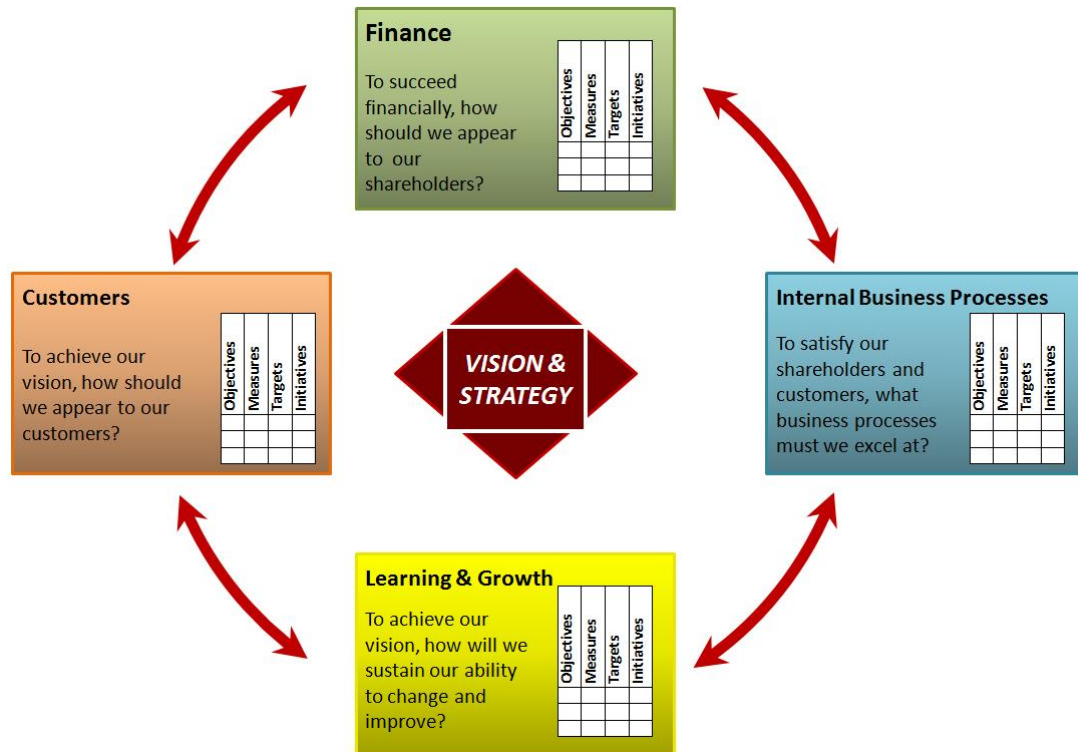


Figure 1: Balanced Scorecard Framework (Kaplan and Norton 1992)

The Learning & Growth Perspective: This perspective includes employee training and corporate cultural attitudes related to both individual and corporate self-improvement.

The Internal Business Process Perspective: This perspective refers to internal business processes.

The Customer Perspective: This perspective refers to the importance of customer focused and customer satisfaction in any business.

The Financial Perspective: This perspective refers to the traditional need for financial data, such as risk assessment and cost-benefit data (Balanced Scorecard Institution 1996).

Performance on each dimension is measured by using key performance indicators (KPIs), which are the measures proposed by senior management for understanding how well the firm is performing along any given dimension. The balanced scorecard framework is thought to be balanced because it causes managers to focus on more than just financial performance. In this view, financial performance is past history. Managers should focus on the things they are able to influence today, such as business process efficiency, customer satisfaction, and employee training.

Moving toward the IT Balanced Scorecard (IT BSC)

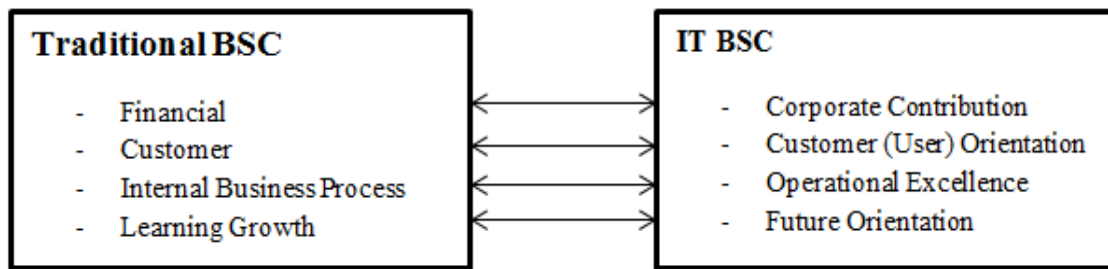


Figure 2: Changes from the Traditional BSC to IT BSC

Source: A Roadmap to Effective Governance of a Shared Services IT Company (Saul, 2000)

IT BSC was originated from the traditional BSC by Van Grembergen and Van Bruggen (1997). They changed the framework of traditional BSC to make it practical for corporate IT department. Since the IT department provides a service throughout a company, the internal users, such as its customers and its contribution, are considered in the scorecard from management's point of view. A scorecard is developed to make it more suitable for IT Governance process. Through this score card, all CIOs, executive managers and board members can see the process of IT Governance clearly.

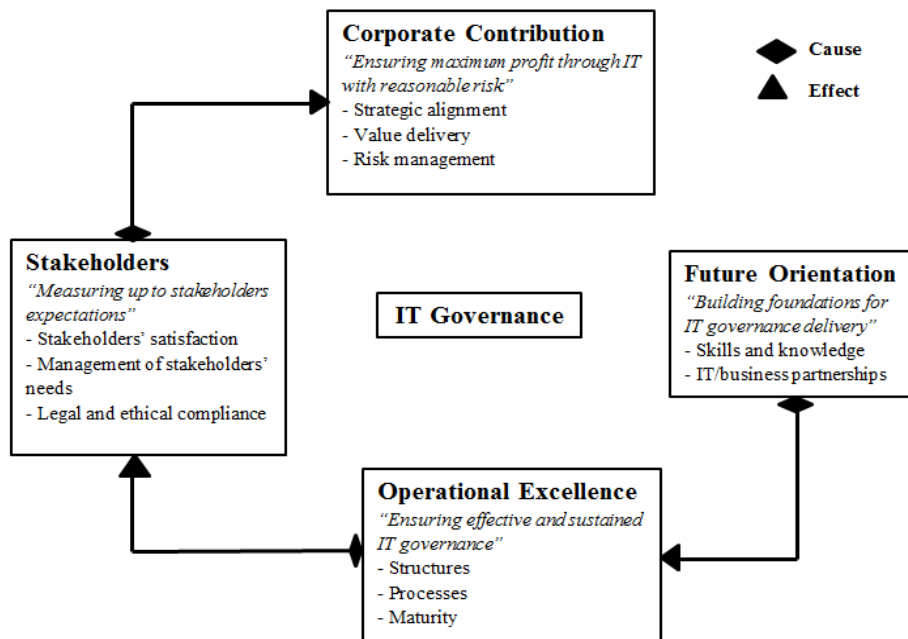


Figure 3: IT Governance Overview of Balance Scorecard

Source: Measuring and Improving IT Governance through the Balance Scorecard; (Grembergen and Haes 2005)

Each of these perspectives has to be translated into corresponding metrics and measures that assess the current situation. These assessments needed to be repeated periodically and aligned with pre-established goals and benchmarks. Critical components of

the IT BSC are the cause-and-effect relationships between measures. It enables the connections between the measures to be clarified in order to determine two key types of measures: outcome measures and performance drivers. A well developed IT scorecard contains a good mix of these two types of measures.

The development of IT Governance BSC should begin with is a corporate contribution. As shown in Figure 3, the corporate contribution has cause-and-effect relationships with the other three perspectives. Overall, completed IT governance education (future orientation) may improve the level of IT and business planning (operational excellence), which may improve the level of stakeholder's satisfaction in return (stakeholders orientation) and affect the major IT projects strategic in a positive way (corporate contribution). The main elements of IT Governance metrics, structures, processes, and relational mechanisms, can be found in the operational excellence and future orientation perspectives.

3. RESEARCH MODEL AND HYPOTHESIS

A survey instrument was implemented to empirically test our hypotheses. Most prior IT governance studies applied more qualitative or case study research. Very few studies employed balanced scorecard as a measurement tool. This research is one of the first to employ balanced scorecard to study the applicability of IT governance.

The instrument items used to operationalize the construct were all derived from past research. These items compose of 4 major areas: Corporate contribution, Stakeholders, Operational excellence, and Future orientation.

The first area of IT Governance Balance Scorecard is corporate contribution. This area is to ensure maximum profit while reducing IT-related risk, by using financial measurement tool. Corporate contribution contains 3 key issues, which are strategic alignment, value delivery, and risk management. These three issues are perceived as major concerns in IT Governance.

The second area is Stakeholders. This area attempts to measure IT Governance process from the stockholder's viewpoint including the board of directors, CEO and executive management, CIO and IT management, business and IT users, customers, shareholders, and community. The scope of this area will be able to be divided into 3 key factors which are stakeholder satisfaction, management of stakeholder need, and Legal and Ethical compliance.

The third area is Operational Excellence. This area focuses on identifies the key IT Governance practices, structures and processes. The main objective of this area is to guide IT usage with high commitment and accuracy and keep monitoring IT processes.

The last area is Future Orientation. This area focuses on building foundations for governance delivery. In addition, it focuses on the outcome of IT Governance such as business/IT co-location, partnership reward, knowledge and skill for ensuring effective and sustained IT governance.

Figure 3 illustrates the hypotheses tested in this study. Hypotheses on to three stem directly from the established balanced scorecard measurement tool. It is hypothesized that these relationships will hold in consequences. Hence, it is hypothesized that:

Hypothesis 1: *Future Orientation will have an effect on Operational Excellence performance.*

Hypothesis 2: *Operational Excellence will have an effect on Stakeholders performance.*

Hypothesis 3: *Stakeholders will have an effect on Corporate Contribution performance.*

Instrument Development

Our questionnaires are divided into 3 main sections: General information, IT Governance, and the opinion toward IT Governance, respectively.

The first section is about General Information of the correspondents, such as job description and company information. We also have questions to find out whether the respondent’s company has IT governance in place. The questions were presented in the form of closed-ended question.

The second section of the survey focuses on 4 areas of IT Governance Balance Scorecard which are Corporate Contribution, Operational Excellence, Future Orientation, and Stakeholders. In this section, questions were presented in the form of 5-point likert scale for respondents to select: strongly agree, Agree, Neutral, and disagree, and strongly disagree. There are 19 questions in this section as follow:

Table 1: List of questions in our questionnaire

Section 1 : General information	
Question 1 - 7	General information and overall perspective on IT governance
Section 2: IT governance	
2.1 : Corporate contribution	
Question 1-3	To obtain “corporate contribution” score from using IT governance
2.2 : Operational Excellence	
2.2.1 : Operational	
Question 4-6	To obtain “operational” score from using IT governance
2.2.2 : Planning	
Question 7-9	To obtain “planning” score from using IT governance
2.3 : Future Orientation	
Question 10-14	To obtain “Future Orientation” score from using IT governance
2.4 : Stakeholders	
Question 15-19	To obtain “Stakeholders” score from using IT governance
Section 3 : Other information	
Question 1-4	Comment and attitude toward IT governance

The last section focuses on personal opinion on IT governance. This section is provided with closed-ended questions. After all data is collected, the data will be analyzed in order to rate the successful of IT Governance implementation in the company.

4. RESULTS

The survey was completed to 28 of financial institutes in Thailand. The results of our descriptive analysis are illustrated as follows:

Table 2: IT Governance statistical result

Question	Frequency	Percent	Mean	SD
Company years old				
Less than 5	2	7.1		
5 to 9	8	28.6		
10 to 14	2	7.1		
More than 15	16	57.1		
Total	28	100	3.14	1.079
Company size				
Small	3	10.7		
Medium	13	46.4		
Large	12	42.9		
Total	28	100	2.32	0.67
Financial service type				
Commercial Banks	8	28.6		
Assets Management Companies	2	7.1		
Specialized Financial Institutions	5	17.9		
Credit Card Company	4	14.3		
Personal Loan Company	9	32.1		
Total	28	100	-	-
IT Governance implementation				
No	11	39.3		
Yes	17	60.7		
Total	28	100	-	-

Table 3:IT Balanced Scorecard Statistical Results

IT Balance scorecard component	Mean	S.D
Corporate Contribution	4.2456	0.54254
Operational Excellence	3.5702	0.43502
Future Orientation	3.7158	0.52203
Stakeholders	4.0316	0.48196

Table 3 illustrates the mean and Standard Deviation of each perspective. According to this table, the mean of all perspectives exceeded 3, which exceeds the half of the scale rated at maximum score of 5. The researcher concluded that the correspondents have a positive view on IT governance.

Hypothesis Testing Result

The aims of this research are to identify the standard score of organization performance after implemented IT Governance. To do so, the relationship between each perspective of IT BSC needed to be indicated through Regression Analysis. Among four perspectives that be integrated in IT BSC framework, it can be concluded that each perspectives can effect to another. In summary, when complete IT governance education (future orientation) may affect the level of IT and business planning (operational excellence), which may affect the level of stakeholder’s satisfaction in return (stakeholders) and continue effect to the major IT projects strategic in a positive way (corporate contribution). This research analyzes three models for the linear regression analysis. The details of the models are outlined below.

Table 4: Regression Analysis result

Model Summary				
Model	R²	Adjusted R²	Sig.	Decision
Model 1	0.686	0.565	.005*	Accepted
Model 2	0.554	0.465	.006*	Accepted
Model 3	0.588	0.471	.010*	Accepted

*P-value ≤ 0.05

According to the result, there are relationships throughout IT Governance framework. Therefore, all hypotheses are supported. Furthermore, this result also implies that IT Governance has a positive impact toward the company.

Furthermore, our survey questions also explore respondent attitude toward IT governance. Most of the respondents believe that IT Governance can improve organizational performance. The respondents, in general, think that IT Governance can improve firm performance and strategic alignment. 45 percent of the respondents believe that IT Governance cannot improve organization performance because most firms are still lack of IT Governance knowledge, while 44 percent believe that IT Governance may result in risk or loss in profit. 11 percent of all respondents believe that IT Governance may compromise some of good cultures or processes in company.

5. DISCUSSION AND CONCLUSION

Our research objective is to find the impact of IT governance on companies. The scope of this research focused solely on the financial institution in Thailand. The hypotheses were created according to the IT Balanced Scorecard Framework in order to find the effect of

IT governance to the organization. Based on the result, IT Governance has a positive effect through every aspects of the company. That is, IT Governance is recommended for the companies to gain competitive advantages. However, companies should raise awareness and educate its employee on IT governance before attempting on IT governance implementation. This can help alleviate potential problems or subsequent risks when implementation process takes place.

This work is not free from limitations while conducting our research. The findings in this study are based on Thai financial institutions, and therefore might not be able to generalize to other financial institutions in different countries. In terms of future research, it would be interesting to examine the impact of IT governance on firm performance by utilizing other measurement tools. It would also be of value to carry out this research in other industries. Further comparative research is needed to replicate the results found in this study.

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