

Confidence Building Systems in the Listed Companies in Thailand

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Abstract

Corporate governance, internal control systems, and benchmarking are the most typical systems that build confidence in corporate stakeholders, especially for the stakeholders of public companies. Besides, good internal control environment can help supporting a firm's strategic direction. Organizations making strategic decisions will consider how good are their internal control environment and how clear are their confident building systems which in turns will affect the performance and their benchmarking success.

With a 22.9% response rate from a total of 422 public companies listed in the Stock Exchange of Thailand, the survey results show that these organizations rated themselves to have a high level of clarity in their confidence building systems. Also, the clearer the organizations rated their confidence building systems, the more they considered their internal control environment to be better, and the greater success they gave to their benchmarking level. However, regardless of how the organizations rated differently on the clarity of their confidence building systems, almost all of them chose to do market expansion and selected growth strategy.

Keywords: benchmarking, confidence building systems, corporate governance, internal control environment, internal control systems

ระบบสร้างความเชื่อมั่นในบริษัทจดทะเบียนในตลาดหลักทรัพย์ แห่งประเทศไทย

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บทคัดย่อ

ระบบการกำกับดูแล ระบบการควบคุมภายใน และการประเมินเทียบเคียงเป็นระบบที่สามารถสร้างความมั่นใจให้ผู้มีส่วนได้ส่วนเสียในองค์กรโดยเฉพาะอย่างยิ่งสำหรับผู้ลงทุนหรือเจ้าหน้าที่ขององค์กรมหาชน นอกจากนี้ สภาพแวดล้อมของการควบคุมภายในที่ดีจะทำให้สามารถสนับสนุนทิศทางด้านกลยุทธ์ขององค์กรได้ ดังนั้น การตัดสินใจเชิงกลยุทธ์ขององค์กรมักจะพิจารณาว่าสภาพแวดล้อมของการควบคุมภายในขององค์กรดีเพียงใด และองค์กรมีความชัดเจนในระบบสร้างความเชื่อมั่นเพียงใด เพราะระบบดังกล่าวจะส่งผลต่อผลการดำเนินงานและระดับความสำเร็จของการประเมินเทียบเคียงขององค์กรด้วย

ด้วยอัตราการตอบกลับร้อยละ 22.9 จากการสำรวจบริษัทมหาชน จำนวน 422 แห่ง พบว่า องค์กรส่วนใหญ่ประเมินความชัดเจนของระบบสร้างความเชื่อมั่นในองค์กรตนเองอยู่ในระดับสูง และบริษัทที่ยังประเมินความชัดเจนของระบบดังกล่าวสูงก็ยังมีความเห็นว่าคุณภาพแวดล้อมของการควบคุมภายในขององค์กรดีกว่าองค์กรที่ประเมินความชัดเจนของระบบสร้างความเชื่อมั่นต่ำกว่า ผลจากการสำรวจยังพบว่าองค์กรที่มีความชัดเจนในระบบสร้างความเชื่อมั่นสูงจะประเมินให้ตนเองอยู่ในระดับความสำเร็จของการประเมินเทียบเคียงที่สูงกว่าองค์กรที่มีความชัดเจนในระบบสร้างความเชื่อมั่นที่ต่ำกว่าอย่างไรก็ตามไม่ว่าองค์กรจะประเมินความชัดเจนของระบบความเชื่อมั่นมากน้อยต่างกันเพียงใด องค์กรเกือบทั้งหมดต่างมุ่งขยายตลาดและเลือกกลยุทธ์การเติบโต

คำสำคัญ: การประเมินเทียบเคียง, ระบบการกำกับดูแล, ระบบการควบคุมภายใน, ระบบสร้างความเชื่อมั่น, สภาพแวดล้อมของการควบคุมภายใน

INTRODUCTION

Public companies, especially those listed in the Stock Exchange of Thailand (SET), are increasingly required to be transparent and demonstrate good corporate governance. The concept of good corporate governance is perceived as providing investors with more confidence in business operations and building more faith in financial reports disclosed by these firms. Thus, governing bodies in financial markets all over the world, including the Security Exchange Commission (SEC) in Thailand, have required listed companies to set-up an Audit Committee.¹ The Audit Committee oversees the reliability of financial figures, the credibility of internal control systems, the degree of compliance to rules, conditions and procedures of governing bodies, as well as taxation laws.

Guidelines of best practice are offered by regulators to companies and their audit committees. The guidelines enforce the independence between the audit committee and management by way of a direct reporting mechanism required from the internal auditor to the audit committee.² Efficient internal control systems with effective internal audit units will assure management, the audit committee, and minority shareholders, of the transparency, integrity, accountability, and competitiveness of the organization—the basic principles of good corporate governance.

Besides good corporate governance and internal controls, a firm can use benchmarking to give different groups of stakeholders confidence that their organizational operations, as compared to other firms, are at an acceptable level. When the only constant of change is change itself, organizations are paying much more attention to strategy and planning. The need to link strategy to operations and action plans has given

rise to new management tools (Burgelman & Grove, 1996). In the early 1990s, management tools such as Reengineering were very popular. Managing processes instead of managing functions was believed to enable organizations to be more efficient and effective in carrying out their plans (Hammer & Champy, 1993). The idea of managing performance followed shortly before the turn of the millennium with new tools like Total Quality Management, Benchmarking, Balanced Scorecard, and Key Performance Indicators. These tools allowed fast paced executives to have variety in their management repertoire. The use of these tools also ensured the shareholders that their agents' professional executives and managements' were acting on their behalf and looking after their interests. These management tools are seen as confidence building systems of the firm's operations and have some bearing on strategy implementation.

The remainder of this manuscript is organized into *four* sections. The first section provides a literature review of the confidence building systems: good corporate governance, internal controls, and benchmarking. Review of the internal control environment literature provides an understanding of the context of the three confidence building systems. The literature relating business strategies to these confidence building systems is also presented. The research methodology follows in section two, briefly describing sampling frame, data collection methods, and measurements. The third section summarizes findings of the study. The fourth and last section contains discussion, interpretation, and extrapolation of the relationship between the confidence building systems and business strategies.

¹ The Security Exchange Commission of Thailand issued the regulation requiring the listed companies to have an Audit Committee by 31 December 1999.

² Best Practice Guidelines for Audit Committee. Registration Division, Stock Exchange of Thailand, 23 June 1999.

CONFIDENCE BUILDING SYSTEMS

Understanding how organizations can build confidence in their stakeholders can be very challenging. The recent economic crime cases in supposedly world class organizations such as Enron and Worldcom as well as top national organizations such as Parmalat in Italy, SOGO in Japan, Daewoo in Korea, and Roynet in Thailand have brought about the need to foster the idea of enterprise with integrity. Research studies in this area cover a wide range of topics, including organizational citizenship behaviors (Holmes, Langford, Welch, & Welch, 2002), corporate reputation (Resnick, 2004), and Enterprise Risk Management (Miccolis, Hively, & Merkle, 2001). All of these studies allude in one way or another to the three systems that can assure corporate stakeholders that their investments or transactions with an organization are being carefully handled. These three confidence building systems are Corporate Governance, Internal Control, and Benchmarking.

An increase in *Corporate Governance* by corporate interest groups (the board of directors, audit committees, top management teams, internal auditors, external auditors, and governing bodies) should not be centered on the prevention and detection of financial statement fraud, but rather on the overall confidence of the corporation. The fact that the Sarbanes-Oxley Act of 2002 was enacted with a regulatory framework to create more accountability for public companies and their executives is no accident. Although compliance to laws and regulations was established as part of this Act, many corporations have found it rewarding to be among the first to be recognized as having good Corporate Governance.³

Although modern management tools are employed in order to help organizations operate in a

more efficient and effective manner, when the organization grows and becomes more complex the need to decentralize to allow flexibility in management and decision-making is inevitable (Gavin, Cooper, Leung, Lander, & Reinstein, 1995). However, decentralization must come with appropriate follow-up and control processes (Applegate, McFarlan, & McKenny, 1999). As such, *Internal Audit and Internal Control* systems can be important tools in supporting management as they pursue strategy and can also play a role in bringing transparency and good Corporate Governance (or CG hereafter) to the focal organization. As stated in the review of CG framework, an internal audit serves as the first line of defense against possible fraud. Internal auditors are expected to understand the business environment and internal control structure so as to fulfill their responsibility of detecting, investigating, and reporting financial fraud (Rezaee, 2003).

Benchmarking is a method of continuously comparing one organizational process to another, and examining the best practices of a given process. The Benchmarking development can be done at the strategic level where different drivers of continuous improvement will learn from the practices of successful organizations with similar operations (Bean & Chambliss, 2003; Julien, 1993). Best practice in one industry can also be applied to a totally different industry. For example, a hospital might want to benchmark their in-patient registration systems with the Check-in/ Check-out systems used by hotels. However, the use of other organizational best practice must take into account the difference in culture, strategy, information technology, product life cycle, and external environmental conditions. While information technology grows in importance to organizations, it

³ Good corporate governance awards are given annually by the Security Commissions of Thailand for demonstrating the transparencies and disclosure public their corporate citizenships. www.sec.or.th

becomes one of the first organizational components to be benchmarked in different service industries (Damianides, 2004; Rogers, Marsh, & Ethridge, 2004).

It is argued here that the three confidence building systems, if clearly defined and operational, can provide comfort to external constituencies with some assurances that their investments are being guarded against fraud and risks can be maintained at reasonable levels.

INTERNAL CONTROL ENVIRONMENT

One important factor enabling the effectiveness of the internal control of an organization is the control environment of the organization itself. Control environments can be classified into two general areas: corporate level of control and operational management level of control (Thongsiri, 2004). By having good control environments, the internal control systems can be uninterrupted. Also, with a clearly defined internal control environment, organizations will be able to reduce their risks, to identify responsible individuals, and to align their resources in order to achieve their strategic directions.

Modern organizations tend to use internal controls as proactive procedures to prevent possible fraud and to ascertain compliance. The internal control environment is typically comprised of the policies, processes, and skills in an organization or organizational subunit that ensures that the rules and regulations are compiled with, that business transactions are kept accurately, and that financial status is appropriately represented. Whereas the need to create a positive control environment has long been advised by internal control professionals (Chadwick, 1993), it was not until a law was issued that the concept become prevalent. The recent reporting requirements of the Sarbanes-Oxley Act of 2002 have challenged management and independent auditors to assess and

evaluate the effectiveness of their control environment. Some have introduced an internal control reliability model as part of the internal control systems. By means of assessing documentation, awareness and understanding, perceived value, control procedures, and monitoring, the author has mapped out four levels of reliability: initial informal, systematic, integrated, and optimized (Ramos, 2004). Others recommend that all financial professionals use a control smart approach as a way to create a strong control environment. The control smart approach is comprised of five sections: 1) See the threats coming, 2) Know yourself, 3) Identify where you are vulnerable, 4) Protect yourself, and 5) Monitor your health (Thompson, 2004).

Although an assessment of the general control environment using COSO has been embraced by financial practitioners, specific lists and guidelines are also published from time to time. For example, guidelines for the auditing of the control environment for all functions of a cellular business were proposed in order to prevent lost revenue. The list was created to help management audit the activity objective and its monitoring process, as well as the cost of implementing a control when compared to its projected risk (O'Brien, 1991). Business alliances and joint-ventures are also tuned to the needs of their specific control environment. In a short article in *The Internal Auditor*, an anonymous author listed questions to be asked for the understanding and assessing of the joint venture control environment (Anonymous, 1998).

Few empirical studies provide evidence for the influence of control environment conditions. However, an experimental study by Marden, et al asked 40 practicing auditors to make audit evaluations of financial institutions. They found that auditors exposed to different control environment conditions seemed to differ in their assessment of risk under different types of audited accounts (Marden, Holstrum, & Schneider,

1997). Auditors appeared to assess greater risk when they perceived that the control environment (e.g., tone at the top) was weak. Other studies found the control environment to be most influential in its ability to mitigate fraud. Incidence of fraud was reduced within local governmental organizations. A study of 145 local government auditors found that the greater the firm's level of control environment, the less perceived fraud (Ziegenfuss, 2001). A survey of 400 CPAs reported that a tone at the top (control environment) that fosters ethical decisions was found to relate to financial reporting decisions; whereas firm size and firm ownership were found to have an effect on the potential for fraudulent financial reporting (D'Aquila, 1998).

As discussed earlier, Control Environment has most often been discussed in conjunction with the literature of internal control. It serves as the context for internal auditing activities which lead to an effective internal control system, especially in the area of fraud reduction studies. As argued earlier, Corporate Governance and Benchmarking are also part of the corporate confident support system. A positive relationship should exist between the clarification of these systems and the rating of the organizational control environment. Thus, we hypothesize:

Hypothesis 1: The clarity of the confidence building systems will have a positive influence on the internal control environment.

While Benchmarking can be a catalyst for success, organizations must be willing to invest resources into the benchmarking process. Organizations using benchmarking have to evaluate their efforts in comparison to the best firms in a given class, and identify ways to make improvements (Band, 1990; Schmidt, 1992). Others find benchmarking to create a strategic decision-making context for organizational management. Ameren Embress Corporation, for example, reported that Benchmarking had become the

core business strategy at their nuclear power plant, and an indispensable mechanism in the organization (Bruzina, Jessop, Plourde, Whitlock, & Rubin, 2002). In order to achieve successful benchmarking, the organization must have a comprehensive understanding of how its items function and perform (Harrington & Harrington, 1996) and then the confidence building systems can be of value. Thus, we hypothesize:

Hypothesis 2: The clarity of confidence building systems will lead to a higher degree of benchmarking and a greater level of success.

Assessing organizational performance is important to ensure the financial health of an organization. Under the Sarbanes-Oxley Act, a prudent board in conjunction with the company CEO should establish key performance indicators to assess their governance, management, operations, finance, capital, and business strategy. These assessments are then compared with best practice benchmarks which will in turn be used to come up with alternatives and an action plan (Grobmyer & Reilly, 2003). The CEO/CFO/COO will be more confident in their execution of strategy if they are more confident with their own management systems. Sound internal control systems that result in good corporate governance will enable management and executives to be more successful in their strategy execution (Zagotta & Robinson, 2002). While relationships between enterprise governance and business strategy are becoming more and more accepted by all involved parties--internal auditor, board of directors, and other stakeholders (Anonymous, 2004)--very few empirical studies exist.

Depending on differences in the organizational internal control environment, firms may have different levels of clarity as to how they view their confidence building systems. However, it is argued that the most used confidence building systems--Corporate Governance, Internal Control, and

Benchmarking—can influence a firm’s business strategies. This leads to the following hypothesis:

Hypothesis 3: The clarity of confidence building systems will relate to a firm’s strategic decision making and its business strategies.

RESEARCH METHOD

Data and Sample A total of 422 companies listed in the SET in 2003 were chosen as the sampling frame of the study. This is a census survey since it is the total number of companies listed during that time. The listed companies comprise 30 sectors with 52.6% being grouped as manufacturing and 47.4% as service business. After extensive telephone follow-ups, the total responses rate was 22.9%, with about the same number of companies returning the questionnaires from each group (Table 1). This response rate is typical for survey research in Thailand.⁴ The majority of the respondents were executives (59.1%) and high level internal auditors (33.3%). Their average age is 45 years (43.3%) and they have typically worked in the organization for more than 10 years (48%). Although firm size was found to influence a firm’s strategic decision-making, the proportion of respondents and non-respondents in terms of size break-down was examined and found to be about the same, indicating a minimum non-response bias.

Survey Instrument Self-administered questionnaires were used to collect data from companies listed in the SET. The majority of the questions were objective, using a 5-point Likert scale. Some open-ended questions were used. The survey instrument consists of 6 sections. Section 1 asks general information about the organization, such as year(s) of establishment and number of employees. Section 2 asks the respondent to rate the clarity of the three confidence building systems and the degree of independence among management, audit committee, and internal auditor. The role of the internal auditor, as prescribed in COSO, was included. Section 3 covers the types of strategic decision-making the firm has made in the past five years, both on an organizational and a business level. Section 4, the external factors, includes types of alliances and external interest groups that influence a firm’s strategic decision making. What level of benchmarking success the firm exhibits is explored using the ten levels of the stairway to success (Harrington & Harrington, p.10]. Questions related to the extent of benchmarking being done in the organization are also asked. Section 5 poses the internal control environment questions which cover both levels: overall organizational and operational. Section 6 asks demographic data of the respondents.

Measurements All data used in the analysis were from the self-administered questionnaires, and

Table 1: Response Rate of Companies Listed in the Stock Exchange of Thailand

Business Types	Mailed	Returned*	Response Rate*
Manufacturing business	234 (55.5%)	51 (52.6%)	21.8%
Service business	188 (44.5%)	46 (47.4%)	24.5%
Total	422	97	22.9%

Note: * A total of 101 usable responses but 4 companies could not be identified as either manufacturing or service companies, making the actual response rate to be 23.9%

⁴ Several survey studies during 1990–2005 in different national journals in Thailand such as Chulalongkorn Review, Thai Journal of Development Administration, Journal of Songklanakarinn (Social Science and Humanity Issues), and so on have consistently shown that 10–30% is quite typical in the response rates.

the scales identified through the literature review were modified to suit the research purpose and this study context.

Confidence Building Systems Drawing from popular management practices of the late 1990s, it is evident that the clearer an objective, strategy, or performance indicator being presented, the better the outcome. The firms were asked to rate the clarity of the three confidence building systems--Corporate Governance, Internal Control, and Benchmarking--using a five-point Likert-type scale (ranging from 5 = very clear to 1 not at all clear). Also, a five-point Likert scale was used to assess independence between 2 pairs of the three groups, between audit committee and internal auditor, and between internal auditor and management. Questions regarding the role of internal auditors, as seen by the organization, were modified using an Enterprise Risk Management framework.

Strategic Decision Making The firms listed in the Stock Exchange of Thailand were asked to check whether or not they had chosen corporate strategies in the past, such as growth strategy (for example, expansion via new markets, new customer segments, or merger and acquisition), retrenchment, or status quo. Future strategies at both the corporate and business levels (cost leadership, differentiation, and innovation) were also asked. Binary data was coded for these variables. Note that focus strategies (cost focused or differentiation focused) are considered to be part of the cost leadership and differentiation strategies, thus innovation strategy is included in this study as it is believed to be important for companies in the emergent country like Thailand.

External Factors and Alliances This construct refers to the important extent (5-point Likert) of different external constituencies as perceived by the organization, and how each of them influences the strategic decision-making of the firm. A few ques-

tions were asked regarding the influence of other external factors, such as rules and regulations, which might govern particular aspects of business in their respective industries.

Internal Control Environment Drawing from the control self assessment questionnaires proposed in the enterprise risk management framework, the firms were asked to rate different aspects of the internal control environment, including tone at the top, responsibility, management process, perception of internal audit, skills and experience, integrity and ethics, perception of internal control, reporting of significant deficiencies, functions and tasks, risk assessment, control procedures, and information and communications. A five-point Likert-type scale (ranging from 5=very good to 1=not at all good) was used. The Cronbach Coefficient Alphas are 0.9602 for the organizational level and 0.9399 for the operational or first-line supervisor level. The high reliability coefficients found confirmed the robustness of the control environment measures used for a Thai setting.

Control Variables Based on previous research (Madu, Kuei, & Jacob, 1996; Navarro, Lopez, & Dominguez, 2002), two control variables were entered into the model. The control variables included the age or longevity of the organization (years established) and the size of the organization (the total number of employees).

RESULTS

Confidence building systems Most of the responding firms are over 30 years old (44.1%) with 100-499 employees (37.8%). The sector with the highest response rate was Insurance (10.3%) with the other three sectors (Banking, Building and Furniture Materials, and Finance and Securities) tied for second (8.2% each). In terms of clarity, most organizations stated that they had a quite clear corporate governance

Table 2: Descriptive Data for Confidence Building Systems

Clarity of Confident Support Systems	\bar{x} (σ)	Very Clear	Clear	Somewhat Clear	Not Very Clear	Not Clear At All
Corporate Governance System (N=99)	3.93 (0.80)	17 (16.8%)	58 (57.4%)	18 (17.8%)	8 (7.9%)	--
Benchmarking System (N=92)	3.29 (0.96)	6 (6.4%)	40 (42.6%)	25 (26.6%)	21 (22.3%)	2 (2.1%)
Internal Control System (N=99)	3.83 (0.88)	19 (18.8%)	57 (56.4%)	16 (15.8%)	7 (6.9%)	2 (2.0%)
Independence Between Groups (N=98)	\bar{x} (σ)	Very Independent	Independent	Somewhat Independent	Not Very Independent	Not Independent At All
Between Audit Committee and Internal Auditor	4.10 (0.69)	28 (28.0%)	55 (55.0%)	16 (16.0%)	1 (1.0%)	--
Between Internal Auditor and Management	4.15 (0.70)	30 (30.6%)	55 (56.1%)	11 (11.2%)	2 (2.0%)	2 (2.0%)

system and internal control system (both means = 3.83 with .80 and .89 standard deviations), and a relatively clear benchmarking system (mean = 3.29, SD = .88). Table 2 shows the descriptive statistics of the clarity of confidence building systems. It also shows the relatively high independence between relating groups --between the audit committee and internal auditors as well as between the internal auditors and management--both with means of 4.10 and above, with 0.70 standard deviations.

Benchmarking While the majority of firms responding to the survey saw themselves as being at the 'Very Good' step on the stairway to success, none of the firms rated themselves as being 'World Class' or 'Best of Breed.' One responded being in the 'Loser'

category, indicating that the firm has major problems and is in or near bankruptcy. Table 3 shows that none of the service businesses viewed themselves as being in the 'World Class in Industry' or 'Country Class.'

Also in Table 3, a little more than half of the firms indicated that they had done 'a great deal' and 'a lot' of benchmarking operations. Examples included planning, collecting benchmarking data from both internal and external sources and improvement and continuing improvement of benchmarking procedures. On average, internal data collection and continuous improvement of benchmarking were done the most (means are 3.63 for both tasks).

Table 3: Descriptive Data for Benchmarking

Stairway to Benchmarking Success (\bar{x} = 4.84, σ =1.05)	No of Firms	Group of Business	
		Manufactures	Services
Loser	2 (2.2%)	1	1
Fair	11 (11.9%)	7	4
Survivor	3 (3.3%)	1	2
Very Good	61 (66.3%)	27	34
Country Class in Industry	14 (15.1%)	9	5
World Class in Industry	1 (1.1%)	1	--
Country Class	1 (1.1%)	1	--
Total	93	47 (50.5%)	46 (49.5%)

Level of Benchmarking Operations	\bar{x} (σ)	A Great Deal	A Lot	Somewhat	Not Much	Not at All
Benchmarking process planning (N=100)	2.97 (0.98)	4 (4.0%)	43 (43.0%)	39 (39.0%)	8 (8.0%)	6 (6.0%)
Internal data collection and analysis (N=99)	3.63 (0.90)	9 (9.1%)	58 (58.6%)	23 (23.2%)	4 (4.0%)	5 (5.1%)
External data collection and analysis (N=99)	3.42 (0.95)	7 (7.1%)	48 (48.5%)	29 (29.3%)	10 (10.1%)	5 (5.1%)
Improvement of benchmarking items (N=99)	3.46 (0.90)	6 (6.1%)	50 (50.5%)	32 (32.3%)	6 (6.1%)	5 (5.1%)
Continuing improvement (N=99)	3.63 (0.97)	14 (14.1%)	49 (49.5%)	26 (26.3%)	5 (5.1%)	5 (5.1%)

Internal Control Environment Perhaps due to the specific requirements of the Stock Exchange Commission in Thailand, 80.8% of the responding firms indicated having a formal internal auditing unit, 5% having internal audit activities within other functional units, and 11.1% utilizing outsourcers. Only 3% specified not having any internal audit activities at all. As

expected, internal auditors were seen as being a doer of consultation services (67.1%) and an assessor of assurance services (68.8%).

Factor Analysis was performed with Varimax rotation on the internal control environment measurements. Table 4 shows the factor loadings of the two levels of internal control environment: corporate level

Table 4: Factor Analysis of Internal Control Environment

Internal Control Environment	No of Firms	\bar{x} (σ)	Factor 1 GIC Eigen Value (% Variance)	Factor 2 GRM Eigen Value (% Variance)
Corporate Level			5.944 (39.63%)	4.917 (32.78%)
Tone at the Top-Purpose and Scope of Control	101	3.79 (0.70)	0.279	0.847
Applicability of Internal Control	101	3.70 (0.66)	0.269	0.894
Management Process – Objectives and Feedback	101	3.56 (0.70)	0.397	0.809
Management Information - Relevant information	101	3.59 (0.67)	0.528	0.609
Integrity and Ethics	101	4.09 (0.70)	0.345	0.696
Alignment with Strategic Objectives	101	3.81 (0.65)	0.453	0.675
Risk Identification Capability	101	3.65 (0.74)	0.754	0.373
Timely Risk Assessment Capability	100	3.44 (0.69)	0.773	0.319
Responsible person Identification Capability	101	3.54 (0.73)	0.750	0.430
Risk Management Capability	100	3.82 (0.69)	0.531	0.629
Extent of Control Procedures	100	3.64 (0.75)	0.761	0.434
Scope of Control	100	3.60 (0.65)	0.766	0.379
Tightness of Control	100	3.60 (0.65)	0.803	0.341
Effectiveness of Organizational Communications	100	3.53 (0.73)	0.775	0.315
Communicating Strategy, Objective, and Risk	100	3.55 (0.67)	0.782	0.253
Internal Control Environment	No of Firms	\bar{x} (σ)	Factor 1 LIC Eigen Value (% Variance)	Factor 2 LAP Eigen Value (% Variance)
Line Management or Operational Level			3.839 (38.39%)	3.698 (36.98%)
Tone at the Top - Attitude to Internal Control	101	3.67 (0.69)	0.225	0.866
Perception on Internal Audit	101	3.68 (0.68)	0.297	0.884
Compliance Level	101	3.80 (0.66)	0.318	0.835
Skills and Experience	101	3.76 (0.62)	0.532	0.529
Integrity and Ethics	101	3.89 (0.66)	0.635	0.581
Level of Internal Control Acceptance	100	3.80 (0.70)	0.634	0.613
Reporting Level of Significant Deficiencies	101	3.75 (0.81)	0.734	0.475
Information Adequacy	101	3.64 (0.66)	0.762	0.389
Role of Information Technology	101	3.76 (0.75)	0.808	0.122
Effectiveness of Internal Control	101	3.68 (0.73)	0.859	0.289

and the first line supervisor level (Line level hereafter). Two factors were found at each level. The Kaiser-Mayer-Olkin (KMO) statistics are 0.934 and 0.914 respectively, indicating that the technique is appropriate. Also the Bartlett's Test of Sphericity was found to support the model at the 0.0001 level of significant. The Factor Analysis using Principal Component extraction was viable. The analysis found 2 factors in each level with the Eigen values greater than one, accounting for the cumulative variance of 72.41% and 75.38% respectively.

The loadings for factor analyses at the organizational level are quite clear cut, providing two factors of internal control environment measures. The first factor appears to capture the generality of internal control (GIC for short) and the second factor represents issues relating to general risk management and communication (GRM). Note that the internal control environment measure, Integrity and Ethics, received the highest average rating and is part of the second factor ($\bar{X} = 4.09, \sigma = 0.70$).

For the internal control environment at the operational level, two factors were also found. The

first factor represents the Line Management's internal control work related conditions (LIC), and the second factor denotes the Line Management's attitude and perception (LAP). Again, Integrity and Ethics received the highest average rating ($\bar{X} = 3.89, \sigma = 0.66$).

Interrelationships of Variables The standardized factor scores of the Internal Control Environment measures were calculated. Table 5 shows the correlation coefficient matrix of these variables. Almost all correlation coefficients of the measures in the sub-constructs are high and significantly related to one another. All directions of the relationships were positive, with the majority of correlation coefficients being significant at a 99 percent level of confidence. While external factors such as rules and regulations do have some relationship with Benchmarking variables, very few other correlation coefficients were found to be significant, thus the data were not included in further analyses.

Two control variables, number of years established and size (number of employees), were included in all regression models. The correlations are high, indicating possible multicollinearity⁵ of variables,

Table 5: Correlation Coefficients for All Reduced Variables

Variables	1	2	3	4	5	6	7	8	9
Clarity of Confidence building systems									
1. Corporate Governance	1								
2. Benchmarking	0.554**	1							
3. Internal Control	0.661**	0.568**	1						
Benchmarking									
4. Benchmarking Success	0.327**	0.272**	0.269**	1					
5. Benchmarking Extent	0.327**	0.388**	0.380**	0.210*	1				
Internal Control Environment									
6. 1 st Factor – GIC	0.218**	0.269**	0.249**	0.299**	0.255**	1			
7. 2 nd Factor – GRM	0.339**	0.284**	0.383**	0.239**	0.322**	-0.088	1		
8. 1 st Factor – LIC	0.186*	0.301**	0.270**	0.300**	0.214**	0.336**	0.139*	1	
9. 2 nd Factor – LAP	0.332**	0.231**	0.265**	0.131	0.323**	0.175*	0.332**	-0.034	1

**p<=.01, *p<=.05

⁵ Multicollinearity among variables was examined using the variance inflation factor (VIF). According to Studenmund (1992, p. 274-75, Using Econometrics: A Practical Guide. NY: Harper Collins Publishers.), the VIF is the method of detecting the severity of multicollinearity by looking at the extent to which a given explanatory variable can be explained by all the other explanatory variables in the equation. A high VIF indicates that multicollinearity has increased the estimated variance of the estimated coefficient, yielding a decreased t-score. The higher the VIF, the more severe the effects of multicollinearity. He suggests a common rule of thumb that if VIF>5, the multicollinearity is severe. Hair, J. Jr.; Anderson, R.; Tatham, R.L.; and Black, W.C. (1995:127, Multivariate Data Analysis with Readings, London: Prentice Hall International Inc.) also suggest the cutoff threshold of VIF values above 10

Table 6: Regression Models of the Internal Control Environment (using factor scores) and Benchmarking as Determined by the Clarity of Confidence Building Systems

Dependent	Adj R ² (Std. Err) F-statistics (Sig.)	Durbin-Watson	CSS#	Year#	Size (No of Emp)#
1st Factor – GIC General Internal Control	0.166 (0.916) 6.702 (0.000)	2.069	0.442, 4.415** 0.969, 1.032	-0.148, -1.474 0.966, 1.035	-0.033, -0.329 0.988, 1.012
2nd Factor – GRM General Risk Mgt	0.228 (0.898) 9.484 (0.000)	1.774	0.473, 4.905** 0.965, 1.036	-0.148, -1.533 0.964, 1.037	0.161, 1.685 0.987, 1.013
1st Factor – LIC Line Internal Control	0.349 (0.795) 16.381 (0.000)	2.116	0.564, 6.378** 0.969, 1.032	-0.005, -0.052 0.966, 1.035	0.197, 2.251* 0.988, 1.012
2nd Factor – LAP Line Attitude/ Perception	0.118 (0.939) 4.832 (0.004)	2.088	0.392, 3.804** 0.965, 1.036	-0.057, -0.554 0.964, 1.074	-0.012, -0.116 0.987, 1.013
Benchmarking Success	0.178 (0.899) 6.989 (0.000)	2.172	0.446, 4.404** 0.965, 1.037	0.026, 0.258 0.965, 1.036	0.028, 0.282 0.974, 1.026
Benchmarking Extent	0.220 (0.678) 9.063 (0.000)	2.005	0.499, 5.150** 0.965, 1.036	-0.125, -1.286 0.964, 1.038	-0.095, -0.991 0.988, 1.013

Note: # CSS stands for Confidence building systems (Corporate Governance, Benchmarking, and Internal Control Systems)
 Upper line shows Standardized Beta, t-value; Second line shows Tolerance and VIF

** p ≤ 0.01, * p ≤ 0.05

therefore simple regression analysis was used. Multicollinearity among variables was examined using Tolerance, Variance Inflation Factor (VIF) and Durbin-Watson statistics. All simple regression models (not shown in this manuscript) pairing the individual factor of the internal control environment as the dependent variable, and three individual confidence building systems as the independent variables, found marginally acceptable levels of the Tolerance, the VIF and the Durbin-Watson statistics - VIF of every variable in no case exceeded 2.55, which is much lower than the acceptable threshold of > 5; the minimum Tolerance value is 0.39; the maximum Durbin-Watson statistic is 2.161.

In order to test the hypotheses, the scores of the clarity rating of all three confidence building systems were summed into a single score representing the measure for the model's independent variable. As shown in Table 6, six dependent variables are included: four to test Hypothesis 1 and two to test Hypothesis 2. All the multicollinearity testing statistics are within

an acceptable range - Tolerance statistics (0.9 which is almost 1) are very high; VIF are quite low (maximum of 1.037 which is much less than 5). Durbin-Watson statistics, although not desirable at a little over 2, are acceptable in some cross-sectional studies such as this one.

Hypothesis Testing The regression results clearly support the first hypothesis: the clearer the confidence building systems, the better the internal control environment a firm will exhibit at both the organizational and operational levels. The adjusted R² ranged from almost twelve percent to thirty four percent, with the strongest relationship found between clarity of internal control systems and internal control at the line management level (Adjusted R² = 0.349; Standardized Beta Coefficient for Internal Control = 0.564, t-value = 6.378, p = 0.000). Likewise, the analyses show support for the second hypothesis: a clear confident support system will lead to a higher degree of benchmarking and a greater level of success (Adjusted R² are 17.8% and 22% and both

Standardized Beta Coefficients are significant at .01 level).

Strategy Market expansion, Cost reduction, and Product/Service expansion were the top three corporate strategies made by the responding firms in the past five years (92.8%, 69.1%, and 61.9% respectively). For future business strategies, Innovation, Differentiation, and Cost Leadership were chosen with lower percentages (58.8%, 48.5%, and 23.7% respectively).

In the last hypothesis, past strategic decisions and future strategies are included in the analysis. A series of ANOVA and t-tests were used to test the effect of the clarity of confidence building systems on the measures of these strategies. All group difference variables were recorded as binary variables. Levene's test of equality of variance is used to assess the homogeneity of the variance of independent variables between the groups. The majority of test statistics indicate some difference in variance, thus the unequal cell sizes do impact the sensitivity of the statistical tests of group differences and unequal t-test with

unequal variances as reported in Table 7. Few differences were found in the firm's past strategic decisions and future business strategies. It appears that the decision to use most strategies does not relate to the clarity of confidence building systems, rejecting the third hypothesis.

DISCUSSION AND CONCLUSION

The present study examines the role of three frequently used confidence building systems--Corporate Governance, Benchmarking, and Internal Control systems--on internal control environments of firms listed in the Stock Exchange of Thailand. As described in the literature review, many practitioners in the areas of internal audit and internal control cite the internal control environment as being the catalyst for these three confidence building systems. However, the research takes a slightly different stand, arguing that the clarity of these confidence building systems is a pre-condition to a good internal control environment, and the results support this contention. The results show support for the two hypotheses that the clarity

Table 7: ANOVA on the Clarity of Confidence building systems from Different Strategic Decision Groups

Strategic Decisions/Choices	Response#	Corporate Governance		Benchmarking		Internal Control	
	(N=97)	Mean Sqr Diff (F statistic)	t-value	Mean Sqr Diff (F statistic)	t-value	Mean Sqr Diff (F statistic)	t-value
Past Strategic Decisions							
Market Expansion	92 (92.9%)	0.045 (0.673)	-0.089	0.059 (0.972)	-1.428	0.127 (1.984)	-0.060
New Products and Services	61 (61.6%)	0.735 (3.292*)	3.025**	0.189 (0.797)	-0.347	0.284 (1.199)	1.911
Expand by Merger/Acquisition	44 (44.4%)	0.303 (1.221)	1.438	0.376 (1.552)	2.256*	0.486 (2.032)	2.758**
Expand into Different Market	7 (7.1%)	0.024 (0.353)	0.113	0.096 (1.381)	1.001	0.019 (0.273)	0.776
Downsizing	32 (32.3%)	0.101 (0.447)	-0.635	0.085 (0.375)	-0.988	0.039 (0.168)	-0.571
Close Down	19 (19.2%)	0.178 (1.143)	2.131*	0.161 (1.123)	0.622	0.094 (0.590)	1.567
Reduce Services	15 (15.2%)	0.115 (0.884)	1.218	0.132 (0.960)	-0.883	0.116 (0.888)	2.141*
Cost Reduction	68 (68.7%)	0.060 (0.271)	0.188	0.234 (1.103)	-1.279	0.125 (0.563)	-0.078
Reengineering	41 (41.4%)	0.278 (1.138)	1.277	0.336 (1.386)	0.233	0.277 (1.135)	1.957
ISO	54 (54.5%)	0.193 (0.764)	0.554	0.222 (0.882)	-1.607	0.296 (1.190)	-0.160
Future Business Strategy							
Cost Leadership	23 (23.2%)	0.033 (0.176)	0.554	0.506 (3.131*)	-1.607	0.092 (0.498)	-0.160
Differentiation	47 (48.5%)	0.391 (1.576)	1.318	0.208 (0.817)	1.019	0.204 (0.803)	1.424
Innovation	57 (59.6%)	0.207 (0.847)	1.312	0.162 (0.664)	0.014	0.221 (0.903)	0.483

Note: ** $p \leq 0.01$, * $p \leq 0.05$

The numbers of firms that did not choose a given strategy is the difference between the total number of responded firms (97 firms) and those who chose the strategy as shown in this column.

of confidence building systems can influence the perceived quality of the internal control environment and benchmarking success. As such, the findings also support the general notion that drives the strategic management research--namely that the clearer the vision, the more focused the strategies, the more effective the monitoring systems, and the healthier the performance (Kaplan & Norton, 2001).

Given the importance of clarity in the success of confidence building systems, management and practitioners should put greater effort into their organizational communication systems so that these systems can better contribute to the firm's internal control environment and eventually to its bottom-line. Internal auditors can be more effective in their professional judgment if they are able to evaluate the firm's internal control environment and articulate their influences (Marden, Schneider, & Holstrum, 1996).

No difference was found among the firms choosing different strategies. Regardless of the level of clarity in their confidence building systems, the majority of the firms traded in the Stock Exchange of Thailand appear to choose market expansion or growth strategy. Similar to previous studies, Thai firms appear to favor differentiation and innovative business strategies.⁶ However, working together with the internal auditors, the audit committee can bring the needed control environment to the attention of the board of directors so as to create a circle of execution of strategies (Zagotta & Robinson, 2002) and to build corporate reputation (Resnick, 2004).

Finally, the cross sectional survey research used in this study has many limitations. Attempts were made to find evidence linking the influence of the clarity of the three confidence building systems, albeit

only correlation analyses were used. Future studies should use longitudinal data or a different methodology to examine this potential causal link. Also, the lines between academic research and research undertaken by practitioners in the areas of internal control/internal audit and corporate governance are becoming vague; thus, greater effort should be made to bring together these complimentary bodies of knowledge.

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⁶ A series of research studies by Uthai Tanlamai and associates during 2001-2004, including Thai-Japanese Hotels: A Comparison of Strategic Decisions and Performance Measurements, a research funded by the Sumitomo Foundation and Convergence and Divergence of the Strategic Decision Making for Hospital and Hotel Businesses, a research funded by the Government of Thailand.

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