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CORPORATE GOVERNANCE PRACTICE OF TAIWAN LISTED CONSTRUCTION COMPANIES AND ITS CORRELATION WITH INDUSTRIAL FEATURES

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ABSTRACT: Corporate governance is a system articulating the division of responsibilities among different company members, and defining the running rules and procedures for making decisions on corporate affairs. The separation of ownership and management in modern enterprises brings agency problems to the company shareholders, and it is wildly believed that good practice on corporate governance is essential to prevent managers from taking actions by which profiteering their own benefits but compromising the interests of shareholders. This research investigates the level of companies' compliance with the corporate governance codes to find whether significant differences in corporate governance practice exist between the listed construction companies and the national leading companies in Taiwan. Further exploration focuses on the correlation between the compliance level and the industrial features. The investigation finds that: (1)Construction companies display lower levels of corporate governance compliance; (2)Construction companies display lower levels of structural board independence and respect for stakeholders; (3)Compliance levels of construction companies are correlated with the number of employees and the ownership concentration; (4)Compliance levels of the whole sample companies are correlated with the factors representing firm size, such as turnover, capital and number of employees, but are independent of profitability as well as stock price volatility. The above empirical evidence characterizes the features of corporate governance in Taiwan listed construction companies, including: (1)Large companies lurking high risk of agency problems have more willingness to conduct corporate governance and meanwhile can afford higher costs for the conduction, so that their compliance level would be higher than smaller companies; (2)Construction companies in Taiwan have higher ownership concentration, on account of the industrial tradition of family business, and therefore pay less attention to the compliance with structural board independence and respect for stakeholders. However, the conclusions indicate that further studies are essential to clarify whether the above disparities would lead to a negative cycle of corporate governance practice in construction industry. The benefits of corporate governance should unfold more evidently to convince construction companies for improving their investment environment and stimulating their healthy growth.

Keywords: Corporate governance, Agency problem, Construction industry

1. INTRODUCTION

The importance of corporate governance in academic research, and its theory, which is based primarily on the agency problem studied in institutional economics, can be traced back to 1776 and Adam Smith's exploration of the division between corporation ownership and management in his "Wealth of Nations." The concept was formally proposed later in Berle and Means's discussion of "the agency problem"[1]. The basis of the agency problem is that shareholders own the corporation and bear the outcome of its operations, but the actual operations may be the responsibility of a manager who is not a shareholder. At this point, the manager possesses more information about the corporation than the shareholders do or outside investors do but her primary purpose in pursuing operational efficiency is to secure an increase in her own remuneration and consolidate her position. These conditions create information asymmetry and may lead to a moral hazard, where the manager pursues personal interests at the expense of the rights and interests of the shareholders or the investors. This leads to three additional cost burdens for the corporation: monitoring costs, bonding costs, and residual costs [2].

The changing nature of the industrial structure has only increased the potential severity of agent risk as companies have gradually instituted the following four structural changes:

(1) In the process of shifting modes of production from labor-intensive to capital-intensive to knowledge-intensive, the depth and breadth of professional knowledge necessary for business operators to master have continuously increased, forcing business owners (shareholders) to hand over a larger proportion of operational power to so-called "professional managers." This has made the agent phenomenon ubiquitous, naturally increasing

the potential agent risk.

(2) Advancements in information technology and developments in transportation infrastructure have created a global supply and demand market and internationalized enterprises and groups. However, this internationalization has also made business operation-related information more complex and increased the severity of asymmetry, significantly increasing business risk. This high degree of pressure to perform also more easily induces a manager's moral hazard.
(3) The high proportion of "retail" investors in the stock market is a unique phenomenon in Taiwan. This phenomenon has led to the diversification of shareholdings for publicly listed companies, lowering the percentage of board ownership; in addition, due to the fact that many retail investors have short-term investments, and because their understanding of the business situation is generally insufficient, relying mostly on market information, people who want to can relatively easily take advantage of information disclosure to manipulate stock prices.
(4) Corporations use shares as a way to promote morale of managers and as a means of rewarding performance. However, this could encourage a manager to manipulate a company's share price to seek personal gain, ignore operations, and even manufacture false performance, while actually building a financial bubble crisis in the company.

Putting aside theory for a moment, constant business scandals have repeatedly highlighted the importance of corporate governance. Only after the outbreak of the Asian Financial Crisis in 1997, in which Asian countries experienced a comprehensive devaluation of their currencies and a stock market collapse, was the importance of corporate governance to stable economic development profoundly understood. The subsequent review of the crisis by the Organization of Economic Cooperation and Development (OECD) in 1998 claimed that bad corporate governance was one of the primary causes of Asian companies' inability to compete. Then in 2001, the Enron scandal shocked the world and caused the United States serious economic and social trauma. It brought corporate governance to the attention of countries around the world, and simultaneously ignited a firestorm of related academic research. However, in 2007, the U.S. subprime mortgage crisis triggered the ongoing global financial crisis and fully exposed the moral hazard of Wall Street. The U.S. Congress-designated Financial Crisis Inquiry Commission (FCIC) concluded that the failure of corporate governance was the primary cause of the financial crisis, showing flaws in the design of the corporate governance system. There is still substantial room for improvement in the fight against the agency problem. Whether industries and individual enterprises actually emphasize and implement corporate governance depends on whether corporate governance can create the expected result.

Two characteristics of Taiwan's construction industry differ distinctly from other industries. First is the strong sense of family in its businesses. The operational power normally rests in the hands of the original shareholders, and the percentage of shares owned by the board is relatively high. Although this phenomenon makes the construction industry's agent ratio lower than other industries, it also creates relatively closed business decisions (decision-making by a minority). Second, because construction projects are scattered in location and long-term, a manager's performance can only be evaluated after an extended period of time. This operational characteristic means the construction industry actually has a higher degree of information asymmetry, and therefore a potentially higher risk of agency problems. Whether the interaction of these two industry characteristics results in the Taiwan construction industry paying more or less attention to corporate governance compared to other industries is the issue explored in this study. More precisely, this study attempted to observe and understand the following two questions from the actual implementation situation of corporate governance in Taiwanese companies:

(1) Does the degree of corporate governance implementation in Taiwan's construction industry differ from other industries?
(2) If they do differ, to which industry characteristics do these differences correlate.

2. THE CORPORATE GOVERNANCE FRAMEWORK AND ASSESSMENT SYSTEM IN TAIWAN

According to the OECD Principles of Corporate Governance, jointly researched and proposed by experts and scholars from around the world, corporate governance is comprised of five dimensions: the protection of the rights of shareholders, the equitable treatment of shareholders, the recognition of the rights of concerned parties, the assurance of information transparency and disclosure, and the explicit definition of the powers and responsibilities of the board [3]. The current system of corporate governance around the world is basically a complete framework composed of laws and regulations following these guidelines. In addition to this structure, the Taiwan corporate governance system also stresses clear division and a system of checks and balances between three different rights within a corporation:

(1) The Board of Directors: the main body for implementing corporate governance operations;
(2) The Supervisor: responsible for overseeing the implementation of the operations by the board;

(3) The Shareholders: the highest body for corporate operations, it monitors directors and supervisors by having the legal power of subrogation action, group action, or disgorgement.

The content and framework of the system can be divided according to their primary objectives into six dimensions: protecting the rights of shareholders, strengthening information transparency, strengthening the function of the board, increasing the function of the supervisor, implementing management-level discipline and communication, and valuing the rights of concerned parties and social responsibility. Taiwan legally promotes but does not yet completely enforce corporate governance implementation. The law stipulates that after April 8, 2002, (the date the law was announced), applicants wanting to list on the stock market must promote corporate governance, and those companies which were already publicly traded prior to the law are to be guided by the announcement.

To understand the status of corporate governance promotion in all listed companies in Taiwan, the Securities and Futures Bureau, Financial Supervisory Commission, Executive Yuan commissioned the Taiwan Corporate Governance Association (TCGA) to build a "corporate governance assessment system," where the association's Corporate Governance Review Committee is responsible for the annual execution of the actual evaluation work. This assessment system is divided into two main parts, The Corporate Governance Field Assessment and The Corporate Governance Information Disclosure Evaluation System, comprising 70% and 30% of the total assessment, respectively. The assessment framework and content are shown in Table 1. If a company receives a total score of 75 points, it receives CG6001 Corporate Governance System Certification by the association [4].

Table1. The Corporate Governance Evaluation System, Various Assessment Items and Methods

<table>
<tr><th>System Components</th><th>Aggregate Score (Weight)</th><th>Evaluation Method (Score)</th><th colspan="3">Criteria</th></tr>
<tr><td rowspan="8">Corporate Governance Field Assessment</td><td rowspan="8">100 Points (70%)</td><td rowspan="7">Field Evaluation Self-Assessment Form (80 Points)</td><td>Six Dimensions</td><td colspan="2">Number of Indicators</td></tr>
<tr><td>1.Insuring Shareholders' Right</td><td>14</td><td rowspan="6">78 Total Items</td></tr>
<tr><td>2.Enhancing Information Transparency</td><td>2</td></tr>
<tr><td>3.Strengthening Functions of Board of Directors</td><td>39</td></tr>
<tr><td>4.Utilizing Supervisors' Power</td><td>10</td></tr>
<tr><td>5.Enhancing Disciplines and Communication within Management Team</td><td>6</td></tr>
<tr><td>6.Respecting Right of Stakeholders and Taking Social Responsibilities</td><td>7</td></tr>
<tr><td>Open Questionnaire (20 Points)</td><td colspan="3">· Interviewees: company CPAs, company lawyers, primary banks, authorities responsible for the supervision and management of listed companies, organizers of listed companies, and cash capitalization or debt security issuance salesman.
·Interview purpose: to clarify problems discovered or unresolved by the site evaluation.</td></tr>
<tr><td rowspan="6">Corporate Governance Information Disclosure Ranking System</td><td rowspan="6">100 Points (30%)</td><td rowspan="6">Information Disclosure Ranking (100)</td><td>Criteria</td><td colspan="2">Criteria Number</td></tr>
<tr><td>1.Compliance with the mandatory disclosures</td><td>12</td><td rowspan="5">103 in total</td></tr>
<tr><td>2.Timeliness of Reporting</td><td>21</td></tr>
<tr><td>3.Disclosure of Financial Forecast</td><td>5</td></tr>
<tr><td>4.Disclosure of Annual Report</td><td>49</td></tr>
<tr><td>5.Corporate website Disclosure</td><td>16</td></tr>
<tr><td rowspan="4">Executive Committee Discretionary Points</td><td rowspan="4">+10~-10 Points</td><td rowspan="4">Other Reference Indicators</td><td colspan="3">1.Responses of questionnaires and results of interviews</td></tr>
<tr><td colspan="3">2.Credit Records from Joint Credit Information Center</td></tr>
<tr><td colspan="3">3.Statistics from Taiwan Economic Journal</td></tr>
<tr><td colspan="3">4.Taiwan Corporate Governance Ranking System</td></tr>
</table>

Sources: [4] [5]

3. METHOD

3.1 Method for Assessing the Degree of Corporate Governance Implementation in Taiwanese Industries

This study investigated corporate governance performance in the Taiwanese construction industry and whether it differed from other industries. Taking all construction companies listed in Taiwan, we removed those that, due to significant changes, we were unable to obtain public information for in the survey period (July to December 2008), leaving 41 total companies to represent the survey group "the construction industry." For the survey group "other industries," this study took the top 1000 companies in the manufacturing, service, and finance industries publicized in Common Wealth Magazine in 2009 (ranked by 2008 total annual revenue) [6], removed the non-listed companies or those for which as a result of major changes we could not obtain public information, and similarly selected the top 41 companies as a control group for the construction industry. To evaluate the degree of corporate governance implementation, we adopted the aforementioned TCGA-developed "corporate governance assessment system" as a foundation. However, since the list of certified businesses and other information like the verification results for previous assessments are typically not publicized, this study composed its own Corporate Governance Implementation Evaluation Self-assessment Form as an assessment system (the gray, shaded section in Table 1). After researching resources like the 2008 Public Information Observation Post annual report on a collection of companies and manuals and supplementary information from shareholders meetings, all samples were rated according to their degree of corporate governance implementation.

3.2 Method for Analyzing the Group Difference in Degree of Corporate Governance Implementation

From the rating results in Section 3.1, this study used the total score of each company to represent its overall performance in corporate governance and used its scores for the six sub-items to represent individual performance for each of the six dimensions of corporate governance. To understand whether the overall and individual corporate governance performance of the construction industry differed from other industries (represented by the top 41 companies), this study used the Mann-Whitney test to compare the two groups. We tested the following hypotheses:

H_0 : $\mu_{top41} = \mu_{contr}$

H_1 : $\mu_{top41} \neq \mu_{contr}$

3.3 Method for Analyzing the Correlation between the Difference in Degree of Corporate Governance Implementation and Industry Characteristics

This study further investigated whether the areas of significant difference between the groups were related to a particular industry characteristic. Based on their ability to represent the characteristics of the construction industry or the significant differences with the top 41 companies control group, and to affect the willingness or ability of companies to promote corporate governance, factors representing industry characteristics were selected as observable variables for the correlation analysis. There were a total of seven factors in four categories:

(1) Proportion of board ownership.
(2) Company size: including capital, the number of employees, and total revenue.
(3) Profitability: including revenue growth and profit ratio.
(4) Stock market listing time: companies listing in the market after April 8, 2002 (including that day) are subject to regulations mandating that they promote corporate governance; the impact of this on their score is considered in the correlation analysis.

As for determining the correlation, this study adopted Spearman's Rank Correlation. Spearman's Rank Correlation is more applicable here than regression analysis because it is less sensitive to extreme values in the samples, which avoids significant interference created in the correlation analysis results when there is a major difference in variables between samples.

4. ANALYSIS

4.1 Sample Data

The results of the investigation of characteristics between the two groups of 41 companies, shown in Table 2, reveal that listed companies in the Taiwan construction industry significantly differ from the top 41 companies in regards to company size, profitability, and proportion of board ownership. For the mean of capital, number of employees, and total revenue, the top 41 companies were 11.8, 18, and 26 times larger, respectively, than the construction industry. However, there was also a considerable difference between the top 41 companies. The difference between the maximum and minimum of capital was 78-fold; the maximum number of employees was 51,800, while the minimum was only 64; and the range in the total revenue was as high as NTD 1,860,644,000,000. In addition, the largest revenue growth in the top 41 companies was 416.5%, but was only 87.46% in the construction industry. This shows that business volume expanded less in the construction industry. The profit ratio, however, reversed the trend from all the other items: the construction industry averaged 8.59%, better than the

2.11% achieved by the top 41 companies. The 9.88 standard deviation was also lower than the top 41 companies' 10.15. The sample results for the proportion of board ownership, with the construction industry average of 23.65% certainly larger than the top 41 company average of 20.38%, reflected the earlier statement in this study that due to its strong sense of family, ownership in the construction industry is relatively centralized.

Table 2. Statistical Outline of the Sample Group Properties

Factor	Sample Group	Mean	Standard Deviation	Maximum	minimum
Capital (NTD billion)	Top 41	47.37	47.22	256.25	3.28
	Construction	4.01	3.54	16.57	0.47
Number of Employees (people)	Top 41	7,565.07	9,374.94	51,800.00	64.00
	Construction	414.63	655.96	3,360.00	34.00
Total Revenue (NTD billion)	Top 41	289.93	321.58	1,950.48	89.76
	Construction	11.00	16.25	93.39	1.65
Revenue Growth Rate (%)	Top 41	15.87	67.53	416.50	-57.73
	Construction	5.65	29.27	87.46	-47.66
Profit Ratio (%)	Top 41	2.11	10.15	30.00	-24.64
	Construction	8.59	9.88	36.77	-7.41
Director and Supervisor Ownership Stakes (%)	Top 41	20.38	17.38	82.60	3.00
	Construction	23.65	12.16	69.06	5.94

4.2 Analysis of the Group Difference in Degree of Corporate Governance Implementation

The degree of implementation of corporate governance on overall performance by the construction industry, shown in Table 3, produced an average total score of 29.88 for the whole group, while the top 41 companies averaged a total score of 34.20. These results show that the null hypothesis H0 was rejected due to the 5% confidence standard. The construction industry's overall performance in corporate governance differed from the top 41 companies significantly, and its overall score was lower.

As for the individual performance of the six sub-items, Table 3 shows that in "strengthening the functions of the board" and "respect for the interests of concerned parties" the construction industry verified the 5% confidence standard by the significant difference with the top 41 companies. Similarly, the mean rating for the construction industry is also lower than the top 41 companies.

Table3. Analysis of the Difference in the Degree of Corporate Governance Implementation between Construction Companies and Top 41 Listed Companies

Analysis Item	Mean Rank		Z Statistic	P-value	Level of Significance (5%)
	Construction	Top 41			
Aggregate Scores	31.77	51.23	-3.710	0.000	*
1.Insuring Shareholders' Right	42.04	40.96	-0.210	0.834	
2.Enhancing Information Transparency	37.32	45.68	-1.859	0.063	
3.Strengthening Functions of Board of Directors	34.98	48.02	-2.501	0.012	*
4.Utilizing Supervisors' Power	36.67	46.33	-1.912	0.056	
5.Enhancing Disciplines and Communication within Management Team	39.13	43.87	-1.019	0.308	
6.Respecting Right of Stakeholders and Taking Social Responsibilities	33.54	49.46	-3.188	0.001	*

4.3 Analysis of the Correlation between the Difference in Degree of Corporate Governance Implementation and Industry Characteristics

The correlation analysis, shown in Table 4, revealed that only the number of employees and the ratio of board shareholdings significantly correlated with the degree of implementation of corporate governance in the construction industry. The other five factors had no significant correlation. Furthermore, if correlation analysis were conducted on all 82 companies, as Table 5 shows, the three factors for company size, the capital, the total number of employees, and the total revenue, show a significant positive correlation with the degree of implementation of corporate governance. If we further analyze the top 41 companies, no single factor significantly correlates with the sample group's corporate governance performance. After comparison, these results reveal that the significantly lower scores of the construction industry than the top 41 companies might have been influenced by their obviously smaller company size.

Table4. Correlation between the Degree of Corporate Governance Implementation and Industrial Characteristics in Construction Companies

Item of Analysis	Coefficient	P-value	Level of Significance
Number of Employees	0.545	0.000	* *
Director and Supervisor Ownership Stakes	0.369	0.018	*

Note: * represents a significance level of 5%

* * represents a significance level of 1%

Table5. Correlation between the Degree of Corporate Governance Implementation and Industry Characteristics for all Samples (82 Companies)

Item of Analysis	Coefficient	P-value	Level of Significance
Capital	0.354	0.001	* *
Number of Employees	0.507	0.000	* *
Turnover	0.446	0.000	* *

Note: * represents a significance level of 5%

* * represents a significance level of 1%

5. CONCLUSIONS

Through the above discussion of the variation tests and correlation analyses, this study draws the following three conclusions:

(1) The degree of implementation of corporate governance in Taiwan is significantly related to the scale of business operations. This is perhaps because theoretically the larger the organization, the larger the potential agency risk, and the more willing companies will be to implement corporate governance. At the same time, large companies are also more capable of bearing the necessary cost of promoting corporate governance. This results in a higher degree of corporate governance implementation.

(2) Taiwan's construction industry has a proportionally higher tradition of family-run businesses, where ownership is concentrated and management decisions are more centralized. Relative to the top 41 companies, this can lead to less emphasis on actions which " strengthen the functions of directors and supervisors," such as "establishing independent directors," "separating the titles of chairman and CEO," and "establishing a selection system for directors and supervisors." It can also cause a lack of specific measures to "respect the interests of concerned parties" like "establishing policies to protect consumers or customers" and "enacting specific practices to fulfill their social responsibilities."

(3) Theoretically, having a higher percentage of board ownership should correlate to paying less attention to promoting corporate governance. However, a unique characteristic of the construction industry in Taiwan is that large-scale construction firms still have a higher concentration of ownership while simultaneously being able to bear the cost of implementing corporate governance. This shows up as a high degree of implementation in test results, resulting in the appearance of a positive correlation between the proportion of board ownership and the degree of implementation of corporate governance.

Although the analysis showed a significant correlation between the degree of implementation of corporate governance and company size, it is impossible at this point to verify whether the overall corporate governance performance score for the Taiwanese construction industry was less than the top 41 companies due to a difference in company size or as a result of an actual lack of attention to corporate governance. What can still be seen from the results is that, in regards to improving the corporate governance system, the construction industry should provide a more reasonable salary calculation base for managers and employees and provide customers with a more transparent and fair consumer protection environment. The industry still needs more active understanding and more concrete action in corporate governance.

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