ISSN 1392-3730/eISSN 1822-3605

VILNIUS TECH
Vilnius Gediminas Technical University

JOURNAL of CIVIL ENGINEERING and MANAGEMENT

2024
Volume 30
Issue 2
Pages 168–181
https://doi.org/10.3846/jcem.2024.19554

EMPIRICAL STUDY TOWARD CORPORATE LEGAL COMPLIANCE AND ANTI-CORRUPTION FOR TOP CONSTRUCTION ENGINEERING CONSULTING FIRMS

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Article History:
- received 23 October 2022
- accepted 3 July 2023

Abstract. Enhancing legal compliance towards corporate anti-corruption has become a tendency to assure corporate operation sustainable. Corruption that jeopardizes construction supervision, project management, operation maintenance remains a governance challenge in public construction and procurement. The research purpose is to explore the impact factors for anti-corruption legal compliance towards top 5 engineering consulting companies in the Taiwan construction industry. A comprehensive literature review brings 8 hypotheses based on the Structural Equation Modeling (SEM) involving 28 stems for a 5-scale Likert questionnaire. The pilot survey with 22 effective returns demonstrates the validation for the questionnaire. The comprehensive survey collects 314 valid returns from top engineering consulting firms and proves that 5 out of 8 hypotheses stand. The findings conclude the legal compliance framework and top 5 impact factors: commitment, ethical management policy, organization and responsibility, prevention programs, and legal compliance policy. The contributions lie on (1) the identification and ranking for the impact factors, and (2) establishment of legal compliance framework toward corporate legal compliance and anti-corruption for top engineering consulting firms in the Taiwan construction industry. The legal compliance framework is correspondingly built to present how engineering consulting companies carry out anti-corruption legal compliance to assure corporate operation sustainable.

Keywords: legal compliance, corporate anti-corruption, engineering consulting company, construction industry, Structural Equation Modelling (SEM), firewall setup.

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1. Introduction

For the recent years, consulting engineering companies in the Taiwan construction industry play an essential role to further national infrastructure development through their professional services such as design planning, construction supervision, project management, operation maintenance and so on. Corporate Integrity become the focal point to step into of international business in the times for consulting engineering companies in the Taiwan construction industry grows stronger. Ethical corporate management become the standard to measure whether a corporate fulfill its Corporate Social Responsibility (CSR) or not. Corruption is a common occurrence not just in consulting engineering business but in every other profession and trade involving private improper benefits. The fact that the corruption behaviors often take place may cause difficult to the anti-corruption action (Tabish & Jha, 2012). Despite the effort that has been put in, corruption scandals and legal disobedience still take place from time to time in the Taiwan construction industry. Corruption that jeopardizes construction supervision, project management, operation maintenance remains a governance challenge in public construction and procurement and; therefore, it is a need for empirical study in order to explore the aspects and impact factors towards legal compliance and anti-corruption for top construction engineering consulting firms.

The research purpose is to explore the impact factors for anti-corruption legal compliance towards top and listed engineering consulting companies in Taiwan Stock Exchange (TWSE). It includes the notion of firewall setup to elaborate the respects of anti-corruption legal compliance

and building firewall to extract the impact factors whether top consulting engineering companies in the Taiwan construction industry fulfill the implementation of anti-corruption legal compliance. Those top consulting engineering companies in the Taiwan are defined based on the official employee number. Therefore, the survey sampling in this study is aimed at the top 5 consulting engineering companies in the Taiwan construction industry where the No. 5 company has around 1,600 employees and the largest one has approximately 7,500 employees. Subsequent stages include literature review, research hypothesis, survey design, pilot survey and its outcome analysis, survey material outcome analysis and discussion. The research flowchart is illustrated in Figure 1.

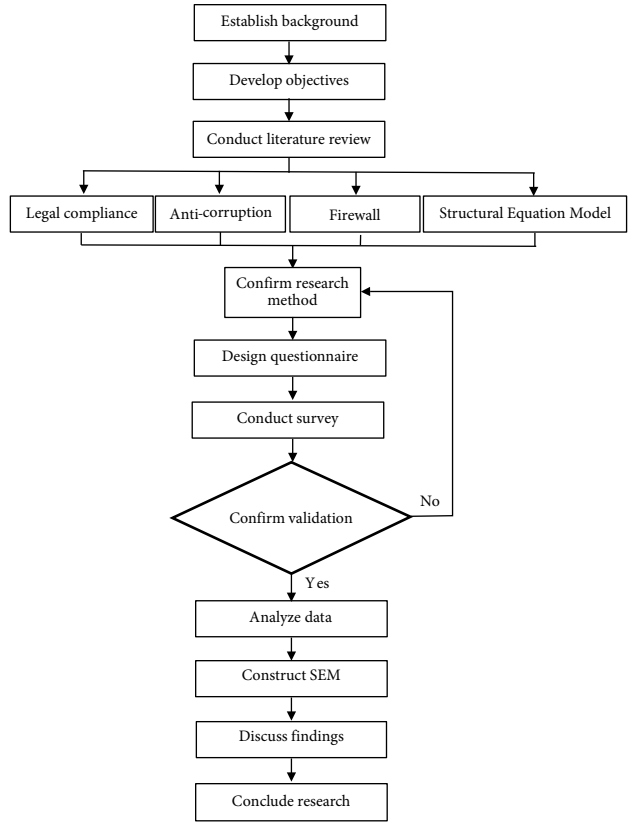

Figure 1. Research flowchart

2. Literature review

2.1. Ethical management policy

Ethical management policy is a main practice principle for conducting corporate ethical behaviors while correspondence with clients, agents, contractors, suppliers, public servants, or other stakeholders in the surrounding, which an enterprise shall strictly abide. When an enterprise grows, it may need to maintain well-tended the stakeholder relationship to reach the goal of sustainable development. Ethical management policy may function efficiently by way of management level's vigorous promotion. In recent years, international societies pay attention to CSR. CSR explores whether the idea "mutually taking from and giving back to society" is considered by an enterprise while expanding its business scale, rather than making money indiscriminately. It is necessary to incorporate CSR into one of the company's long-term business policies (Ruban & Yashalova, 2022; D'Avanzo et al., 2021; Schuler et al., 2017; Kyaw et al., 2017; Jagniatinskis et al., 2017; O'Mara-Shimek et al., 2015). Corporate governance is a standard for evaluating whether an enterprise meets CSR, and explores whether it avoids immorality and unethical behaviors when making money, and ethical management policy is one of the strategies for fulfilling corporate governance. Peale and Blanchard (1988) mentioned that ethical management policy can create a healthy work environment. In enterprise management, ethical management policy is generally the key to the successful development for enterprises. Arnold et al. (2010) mentioned that ethical management policy can inject integrity of virtue into the enterprise, and the enterprise can identify the defects of the corporate culture through management and punish the violators (Hypotheses 1 and 8).

2.2. Prevention programs

The prevention program is a policy to prevent unethical conduct such as offering and acceptance of bribes, making illegal political donations, making improper charitable donations or sponsorship, and offering or accepting unreasonable presents, loans or other improper benefits. The policy should be implemented in conjunction with the internal activities of the enterprise to effectively reduce and eliminate the chance of dishonest behavior in order to enhance corporate integrity as well as the public's trust in the company, such as internal control, auditing, education, training and assessment, establishment of a disciplinary and appeal system, etc. In the process of globalization of multinational enterprises, the huge challenge faced by enterprises is the problem of corporate integrity. Dishonest behaviors by corporate managers or insiders have led to many corporate scandals over the past few decades. Since corporate scandals can cause serious damage to the company, many companies have implemented an integrity program based on the principle of legal compliance, the content of which is similar to the aforementioned prevention programs (Chen et al., 2020; Chang & Lim, 2016). A code of conduct program can infiltrate enterprises into the entire work environment through screening new employees, education and training, reward and punishment systems, and hiring integrity supervisors. The program connects the preset corporate culture with the actual corporate culture (Hypotheses 3 and 7).

2.3. Legal compliance

Legal compliance is a system established with the main focus of complying with the laws, ensuring that the internal personnel of an enterprise understand and abide by it, and then reducing the triggering risk of the enterprise. The purpose of legal compliance is to improve the

legal awareness of enterprise personnel through the establishment of the system, thereby achieving the result of conflict-of-interest avoidance and reducing risks. The results of establishing an effective corporate integrity policy cannot be measured in a precise manner. Even though it is difficult to measure its results, corporate integrity and legal compliance have become increasingly important, and companies have invested significant resources in related issues (Owusu et al., 2020; Zhelyazkova et al., 2016; Bird & Orozco, 2014; Wang et al., 2013). Trevino and Nelson (2021) combined legal compliance and behavioral guidelines to help strengthen legal compliance practices, understood the value of this technology, and even improved the efficiency of enterprise transformation. Arnold et al. (2010) also mentioned that each enterprise should have a set of regulations or legal compliance standards for communication, management and auditing, and also pointed out that enterprises should have an integrity manager or group to correct problems at any time to achieve dynamic management (Hypotheses 2, 5 and 6).

2.4. Unethical conduct

Unethical conduct is a conduct that falls below or violates specific professional standards. In the field of professional ethics, such as lawyers, legal affairs and other personnel misconduct which violates morality, are also in the field of unethical conduct. Common unethical conducts lead to fines and losses to an enterprise and serious damage to the its reputation such as offering and acceptance of bribes, illegal political donations, improper charitable sponsorship, transfer of benefits, and so on. The unethical conducts of enterprise employees include fraud, abuse of power and dishonest seeking of personal interests. Most of the unethical conducts are for obtaining the equivalent benefit or money but seriously violates the companies' internal provisions eventually leading to be fired. Greed, financial gain, and other personal motivations are the main reasons for corporate employees to engage in unethical conducts. Most corporate managers only pay attention and take countermeasures after they receive anonymous emails and reports of unethical conducts (Hassan et al., 2022; Lasakova et al., 2021; Valle et al., 2019; Young, 2019; Lin et al., 2018; Ermongkonchai, 2010). Scholars from different disciplines try to understand and predict occurrences of unethical conducts in enterprises. Unethical conducts can be analyzed through personality trait theory, agency theory, and psychological contracts theory (Kidder, 2005) (Hypothesis 4).

2.5. Firewall setup

The term, firewall, comes from the field of computer science which is an information security system assumed between the Internet and the corporate intranet. The concept of firewall is to separate risks and protect enterprises from unnecessary losses (Chen et al., 2021). Alan Greenspan, chairman of federal reserve system, proposed the term "internal firewall" in 1987. Its main purpose is to "separate risks" and "prevent conflicts of interest". Therefore, through the legal design of "separately capitalized" and "corporate separateness", the banking and securities businesses are separated by regulation which is a set of corporate separation firewalls.

The research gap between the above-mentioned ones and the proposed study lies in the impact factors that explain how to conduct anti-corruption legal compliance towards top and listed engineering consulting companies in Taiwan. The next section presents the framework and hypotheses that facilitate those companies to carry out better understanding for anti-corruption legal compliance.

3. Theoretical framework and research hypothesis

This research is utilized Ethical Corporate Management Best Practice Principles (ECMBPP) for TWSE listed companies as a literature review. This research is categorizing the questionnaire into five categories as ethical management policy, prevention programs, legal compliance procedures, unethical conducts and firewall building according to the ECMBPP for TWSE listed companies. Each category elaborates as follows.

First category – Ethical management Policy, EP

While corporate correspondence with customer, franchise, contractor, supplier, public official, neighbourhood, environment, and all other beneficial owner the corporate shall strictly abide ethical corporate best practice principle. Moreover, board of directors and senior management shall fulfil their relative promises and act accordingly in internal activities to review its implementation to reassure ethical management policy compliance (Construct 1).

Second category – Legal Compliance, LC

Corporates shall build sets of internal procedure, policy, and action plans to assure staff abide by the laws, regulation, executive order, judicial verdict and administrative directive to avoid or reduce legal compliance risk. Other than that, the corporate shall also setup policy to avoid interest conflicts in order to identify, monitor, and manage the unethical risks (Construct 2).

Third category – Prevention Programs, PP

Corporates shall setup procedures to prevent unethical behaviours, making illegal political donations, making improper charitable donations or sponsorship, and offering/accepting unreasonable presents, loans, and other improper benefits. The procedure usually copes with corporate internal activities in order to lower and refrain unethical behaviour occurs such as internal control, audit, training, performance review, establishment of a disciplinary and appeal system etc (Construct 3).

Fourth category – Unethical Conduct, UC

Corporates shall refrain from any act that below or in breach of professional standard such as bribery. Illegal political donation, improper charitable donations or sponsorship and improper channelling of profits cause corporate suffer sizable amount of penalty, economic lost and reputation lost as well (Construct 4).

Fifth category – Firewall Setup, FW

Corporates shall incorporate the firewall setup policy into its anti-corruption strategy such as legal compliance and risk evaluation in order to identify and prevent anti-bribery. Also, corporates shall make explicit of the responsibility and financial management goal for themselves to prohibit concurrent serving affairs to avoid benefit transfer unethical behaviors (Construct 5).

Having 5 constructs, the research develops 8 hypotheses to fulfill the objective, exploring for the impact factors for anti-corruption legal compliance towards top engineering consulting companies, illustrated as Figure 2.

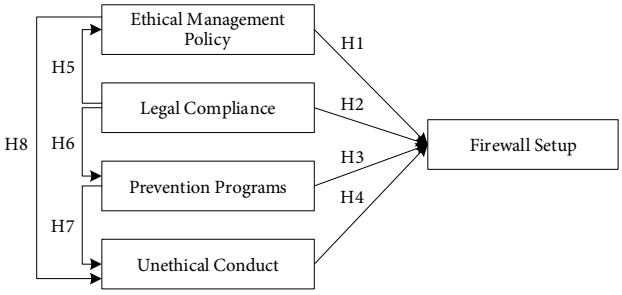

Figure 2. Structure of research hypotheses

The relationships and descriptions for each hypothesis are described below.

Hypothesis 1 (**H1:** Construct 1 to Construct 5): Ethical management policy has a positive correlation with the firewall setup. It is possible that positive ethical conducts and management may establish a positive firewall based on statements in Categories 1 and 5.

Hypothesis 2 (**H2:** Construct 2 to Construct 5): Legal compliance has a positive correlation with the firewall setup. Corporate legal compliance altitude towards firewall setup may be positive, which does not allow unethical risks to jeopardize its business based on statements in Categories 2 and 5.

Hypothesis 3 (**H3:** Construct 3 to Construct 5): Prevention programs has a positive correlation with the firewall setup. It is possible that prevention for misconducts including firewall may reduce unethical risks based on statements in Categories 3 and 5.

Hypothesis 4 (**H4:** Construct 4 to Construct 5): Unethical conduct has a positive correlation with the firewall setup. It is believed that unethical conducts in the past can trigger the corporate firewall setup based on statements in Categories 4 and 5.

Hypothesis 5 (**H5:** Construct 2 to Construct 1): Legal compliance has a positive correlation with the ethical management policy. They are in a similar concept towards corporate conducts against unethical risks based on statements in Categories 1 and 2.

Hypothesis 6 (**H6:** Construct 2 to Construct 3): Legal compliance has a positive correlation with the prevention programs. Corporate legal compliance may involve programs against unethical risks based on statements in Categories 2 and 3.

Hypothesis 7 (**H7:** Construct 3 to Construct 4): Prevention programs has a positive correlation with the unethical conduct. One of the purposes to set up prevention programs is to minimize unethical risks based on statements in Categories 3 and 4.

Hypothesis 8 (**H8:** Construct 1 to Construct 4): Ethical management policy has a positive correlation with unethical conducts. The ethical management policy itself is to eliminate unethical conducts. This can be referred to statements in Categories 1 and 4.

4. Questionnaire design

There are three parts of the pilot survey: the first part is basic information using multiple choice questions and the second part includes five categories (28 questions) – ethical management policy (7 questions), prevention programs (6 questions), legal compliance (5 questions), unethical conduct (5 questions) and firewall setup (5 questions). The third part constitutes multiple choice questions and short answer questions. The questionnaire adopts 5-scale Likert where 1–5 represents very disagree, disagree, neutral, agree, and very agree. All questions above are derived from literature review in Section 1.

This research utilizes a popular method, Structural Equation Modelling (SEM), to verify the relationships between the variables and their corresponding hypotheses shown in Figure 2. The following abbreviations are listed as follows: Commitment (EP1), Implementation (EP2), Ethical management policy (EP3), Organization and responsibility (EP4), Information disclosure (EP5), Ethical management policy ethical to be reviewed and improved (EP6), Implementation of ethical management (EP7), Prevention programs (PP1), Scope of prevention programs (PP2), Accounting and internal control (PP3), Training (PP4), Performance appraisal system (PP5), Disciplinary and appeal system (PP6), Legal compliance (LC1), Policy (LC2), Conducting business comply with legal compliance (LC3), Conflict of interest (LC4), Avoidance (LC5), Prohibition of unethical conduct (UC1), Prohibition of bribery (UC2), Prohibition of illegal political donation (UC3), Improper charitable donations or sponsorship (UC4), Prohibition of unreasonable presents, offering or acceptance of unreasonable presents or hospitality, or other improper benefits (UC5), Firewall setup (FW1), Information protection (FW2), Anti-corruption legal compliance (FW3), Avoidance of Senior management corruption (FW4), Whistle-blowing system (FW5), Protection of whistleblowers (FW6).

Table 1. Reliability for pilot survey

Aspect	Test		Value
EP	Cronbach's α value		0.940
	KMO		0.788
	Barlett's sphericity test	Chi-Squared Test	172.989
		Degree of freedom	21
		Significance	0.000
PP	Cronbach's α value		0.956
	KMO		0.821
	Barlett's sphericity test	Chi-Squared Test	147.491
		Degree of freedom	15
		Significance	0.000
LC	Cronbach's α value		0.884
	KMO		0.791
	Barlett's sphericity test	Chi-Squared Test	87.588
		Degree of freedom	10
		Significance	0.000
UC	Cronbach's α value		0.908
	KMO		0.776
	Barlett's sphericity test	Chi-Squared Test	79.426
		Degree of freedom	10
		Significance	0.000

5. Survey

The pilot study is to aim at the internal personnel of top engineering consulting companies the Taiwan construction industry listed in TWSE. A pilot survey usually comprises 3–5 times of the greatest number of questions (21–35 valid returns) as principle (Chen et al., 2021). The number of the valid returns for pilot survey was 22. A random questionnaire distribution was conducted at the largest engineering consulting company in Taiwan and was stopped when the valid returns reached 22. The first part of the pilot survey is basic information, including gender, age, length of service period, total number of employees, current position, job description, job location, salary, and education. The detailed descriptions are listed as follows: (1) Gender: the analysis shows there are more male than female interviewees, which comprised 86.4% and 13.6% respectively. (2) Age: all interviewees range in the ages from 31 to 60 years old: 45.5% for 51–60, 27.3% for 41–50, and 18.2% for 31–40 years old. There are no interviewees under the age of 30 years old. (3) Length of service: the major length of service falls into the range from 26 to 30 years, 31.8% of the total. 18.2% of the total are from 21 to 25 years. It shows that most interviewees have more than 10 years of service experience. (4) Total number of employees: the companies with more than 1000 employees are the largest proportion, 63.6% of the total. Companies with 200–350 employees make up 18.2% of the total. (5) Current position: the largest proportion for current position is engineer, 36.4% of the total, followed by manager with 22.7% of the total. (6) Job description: the most common job description is construction engineering related work, 31.8% of the total, followed by project management, 22.7% of the total. (7) Job location: almost two third of job location is inland compared to one third for offshore. (8) Monthly salary: the largest range falls into the range from NTD 50,000 to 75,000, one third of the total. (9) Education: over 90% of subjects have B.S or above degrees where 54.5% of the total have master degrees. Table 1 shows the pilot study's reliability with Cronbach's α coefficient > 0.8 represents a reliable questionnaire. Also, most of KMO values in the pilot survey are greater than 0.7.

The full survey was to randomly distribute questionnaires to 1,000 employees hired by top 5 and TWSE listed engineering companies in the Taiwan construction industry. The questionnaire is illustrated in Appendix. The returns reach 391 in a total. Excluding the invalid survey, the study has 314 valid returns. The studies in 1998 and 2021 recommend the number of SEM valid samples should be greater than 300 (Suleiman, 2022; Xie et al., 2022; Chen et al., 2021; Niu et al., 2021; Li, 2020; Ma et al., 2020; Durdyev et al., 2018); therefore, the research fulfills the standard.

6. Analysis and discussions

The results from the analyses based on 314 valid returns are similar to those of the pilot study and summarize as follows: (1) Gender: the ratio for male and female subjects is 74.2% to 25.8%. (2) Age: subjects with 31–40 and 41–50 years old make up 18.2% and 15%, respectively. (3) Length of service: more than 80% of subjects have work experience over 10 years. (4) Total number of employees: the companies with more than 3000 employees are the largest proportion, 57.6% of the total. Companies with 2000–3000 employees make up 18.2% of the total. (5) Current position: the largest proportion for current position is engineer, 43.0% of the total, followed by manager or above with 30.6% of the total. (6) Job description: the most common job description is construction engineering design related work, 22.9 % of the total, followed by coordinator and field management 22.3%, and 10.2% of the total, respectively. (7) Job location: subjects are either inland or offshore for their locations. (8) Monthly salary: the largest range falls into the range from NTD 50,000 to 75,000, 29.9% of the total. Subjects with monthly salary from NTD 75,000 to 125,000 make up the largest proportion at 42.6%. (9) Education: Over 80% of subjects have B.S or above degrees where 42.0 % of the total have master degrees.

Table 2 shows the study's reliability with Cronbach's α coefficient > 0.9 represents a reliable survey. Also, All KMO values are greater than 0.8. Table 3 demonstrates the Confirmatory Factor Analysis (CFA) adjustment including χ^2/df, GFI, AGFI, NFI, CFI, RMR, SRMR, and RMSEA tests. The CFA adjustment is usually used to adjust if the SEM questionnaire result fits the criteria (Chen et al., 2021). There are two values = 3.806 and 0.095 which do not meet the criteria of χ^2/df and RMSEA before carrying out CFA adjust-

ment. Based on the Modification Indices (MI) suggestions by deleting 2 questions with the largest MI values, the right column in Table 3 shows that the adjusted results for all indices meet the criteria. For the factor impact ranking, Table 5 shows the details for each factor. All responses for the questions fall between agree and strongly agree (between 4 and 5) from 3.99 to 4.46. Factor of EP1, EP3, EP4, PP1 and LC2 have top 5 highest average values, representing that they are more significant. The first three, EP1, EP3 and EP4, show that the staff working in the top engineering consulting companies the Taiwan construction industry have high recognition on commitment, ethical management policy, and organization and responsibility. Ethical management policy is a key to establish sustainable corporate management. Moreover, PP1 with a high average value = 4.32 clarifies the concern for prevention. Subjects in the survey highly suggest that corporates setup policies to prevent unethical conduct in order to refrain unethical conduct by cooperation with necessary procedures. LC2 with its average = 4.30 explains that the corporate management should abide in operational philosophies of honesty, transparency, and responsibility. Avoiding risk and attained legal compliance requires policies in essence of ethical management to establish corporate governance and risk control and management mechanism.

Table 2. Reliability for full survey

Aspect	Test		Value
EP	Cronbach's α value		0.96
	KMO		0.899
	Barlett's sphericity test	Chi-Squared Test	2704.326
		Degree of freedom	21
		Significance	0.000
PP	Cronbach's α value		0.926
	KMO		0.912
	Barlett's sphericity test	Chi-Squared Test	1515.543
		Degree of freedom	15
		Significance	0.000
LC	Cronbach's α value		0.939
	KMO		0.889
	Barlett's sphericity test	Chi-Squared Test	1433.090
		Degree of freedom	10
		Significance	0.000
C	Cronbach's α value		0.964
	KMO		0.906
	Barlett's sphericity test	Chi-Squared Test	1908.460
		Degree of freedom	10
		Significance	0.000
FW	Cronbach's α value		0.930
	KMO		0.897
	Barlett's sphericity test	Chi-Squared Test	1524.198

Table 3. CFA adjustment

Index	Criteria	Before adjustment	After adjustment
χ^2/df	Between 1–3	3.186	2.810
GFI	>0.8	0.869	0.898
AGFI	>0.8	0.828	0.860
NFI	>0.8	0.931	0.945
CFI	>0.8	0.952	0.964
RMR	<0.05	0.024	0.020
SRMR	<0.05	0.039	0.029
RMSEA	<0.08	0.084	0.076

Table 4. Path analysis

Hypothesis (path)	Estimate	Standard Error	Critical Ratio	p	Outcome
H1: EP to FW	–0.255	0.136	–1.869	0.062	Reject
H2: LC to FW	1.056	0.340	3.105	0.002	Reject
H3: PP to FW	–0.302	0.305	–0.991	0.322	Reject
H4: UC to FW	0.463	0.077	6.026	***	Stand
H5: LC to EP	0.817	0.050	16.397	***	Stand
H6: LC to PP	0.951	0.047	20.132	***	Stand
H7: PP to UC	0.474	0.093	5.115	***	Stand
H8: EP to UC	0.488	0.101	4.853	***	Stand

Note: ***: $p < 0.01$ significant.

Table 5. Ranking of factors' average

Factors	Average	Standard Deviation	Ranking
EP1	4.46	0.728	1
EP3	4.36	0.764	2
EP4	4.36	0.720	2
PP1	4.32	0.735	3
PP3	4.19	0.815	11
PP4	4.23	0.769	9
PP5	4.18	0.865	12
PP6	4.04	1.023	13
LC1	4.25	0.779	7
LC2	4.30	0.750	4
LC3	4.22	0.772	10
UC3	4.24	0.760	8
UC4	4.26	0.785	6
UC5	4.27	0.808	5
FW1	4.24	0.769	8
FW2	3.99	0.913	14
FW4	4.04	0.876	13

Next, Figure 3 illustrates the SEM result using Amos Graphics software.

Table 4 presents the path analysis. There are 17 out of original 28 factors related to anti-corruption of top engineering consulting companies the Taiwan construction industry illustrated in Figure 3. Based on the SEM results, the findings summarize the legal compliance framework for engineering consulting companies as shown in Figure 4. It suggests prohibit unethical conduct procedures, a discipline system for the unethical conduct, and whistle blow channel for the unethical conduct. On the other hand, the ethical management policy may cover the correspondence with related beneficial owner or business parties' relationship to avoid conflict of interest to strictly follow corporate ethical moral principle for sustainable management.

The aforesaid policies are to refrain any unethical conducts to obtain a well function legal compliance firewall to distinct risk and conflict of interest avoidance such as bribery, corruption, benefit transfer and inappropriate political donation. In practice, the findings aforesaid may identify whether the employees working in top and TWSE listed engineering consulting companies the Taiwan construction industry value and understand the concept of ethical management policy, and fulfill whether they meet the concept of legal compliance, prevention programs and firewall setup. In the premises of ethical management policy, the employees realize those unethical conduct is forbidden but corruption cases occur from time to time. Possible outcomes may lead to an unfaithful corporate culture whether corporate management does not proactively assure and fulfill prevention programs measures. Personnel may not make appropriate decisions while temptation approaches them. Corporate management needs to take firewall setup into their consideration. These findings construct the legal compliance framework for top engineering consulting firms in the Taiwan construction industry: (1) the identification and ranking for the impact factors; (2) establishment of legal compliance framework toward corporate legal compliance and anti-corruption for top engineering consulting firms in the Taiwan construction industry.

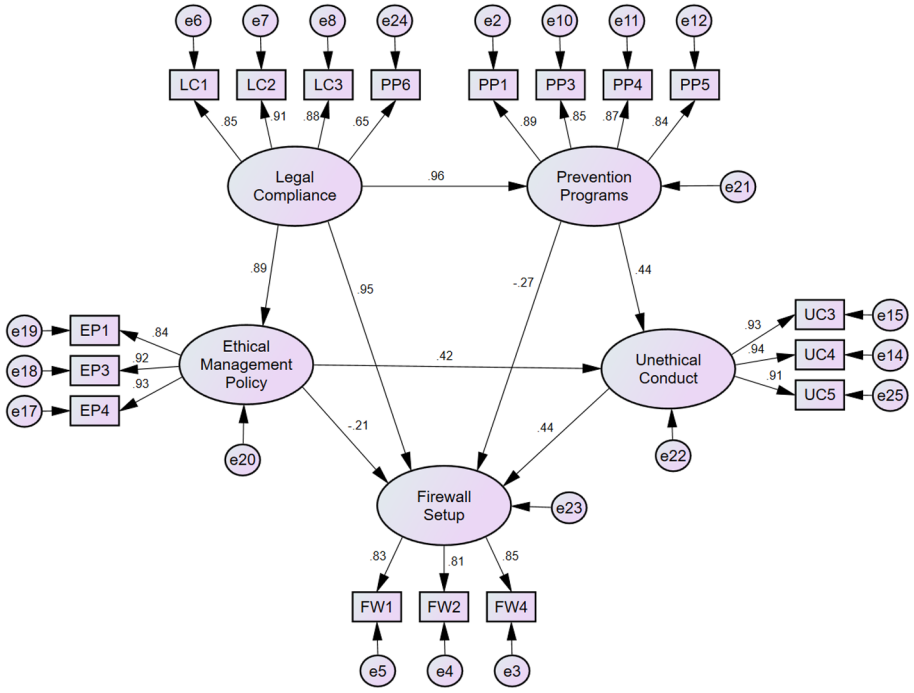

Figure 3. Results obtained by structural equation modelling (SEM)

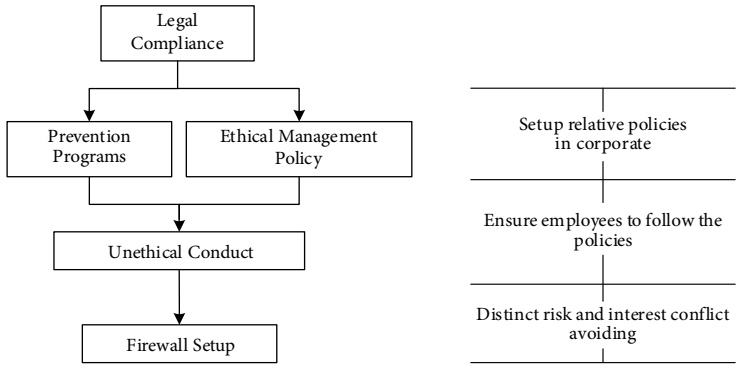

Figure 4. Legal compliance framework

7. Conclusions

This research explores the impact factors which affect legal compliance, anti-corruption, and firewall setup toward top engineering consulting companies in the Taiwan construction industry. The survey of this research utilized the EC-MBPP for TWSE listed engineering consulting companies as a literature review. At first a pilot survey assures the validity of SEM questionnaire and the full survey aimed at staff serving for top and TWSE listed engineering consulting companies in the Taiwan construction industry. The collection for the questionnaire returns lasts for 6 months and reach 391 respondents. There are only 314 valid respondents after deleting incomplete and invalid responses. The SEM analyses show that there are 17 impact factors influencing corporate legal compliance and anti-corruption: EP1, EP3, EP4, PP1, PP3, PP4, PP5, PP6, LC1, LC2, LC3, UC 3, UC4, UC5, FW1, FW2, and Fw4. Among them 5 key factors are the most significant: commitment, ethical management policy, and organization and responsibility, prevention programs, and legal compliance policy. These findings construct the legal compliance framework for top engineering consulting firms in the Taiwan construction industry. The contributions lie on (1) the identification and ranking for the impact factors, and (2) establishment of legal compliance framework toward corporate legal compliance and anti-corruption for top engineering consulting firms in the Taiwan construction industry.

Potential future work can go on with further development for firewall prevention programs that design detailed strategies case by case to fit the circumstances for engineering consulting firms the Taiwan construction industry. Ethical management policies should be clarified in details to identify to do and not to do rules. A conceptual model for ethical management can be developed accordingly as well. Responsibilities regarding corporate legal compliance for job descriptions may be modified up-to-day and dependent on regions. Different regions may require some specific legal compliance in details. Other applications involving automatic detecting system on improper conducts can be accordingly developed based on the findings of the legal compliance framework. Corporate legal compliance in other regions may take the framework to make some adjustment due to local regulations and requirements.

Acknowledgements

This paper was partly supported by the Ministry of Science and Technology (MOST) and National Science and Technology Council (NSTC), Taiwan, under the project for promoting academic excellence at universities under grant numbers NSTC 111-2221-E-008-027-MY3 and 111-2622-E-008-017; MOST 110-2221-E-008-052-MY3, 110-2622-E-008-018-CC2, and 109-2622-E-008-018-CC2. Any opinions, findings, conclusions, and recommendations expressed in this paper are those of the authors and do not necessarily reflect the views of the MOST/NSTC.

References

Arnold, D. H., Arnold, K., & Arnold, V. J. (2010). Managing ethical risks and crises: Beyond legal compliance. *Beijing Law Review*, *1*(1), 1–6. https://doi.org/10.4236/blr.2010.11001

Bird, R. C., & Orozco, D. (2014). Finding the right corporate legal strategy. *MIT Sloan Management Review*, *56*(1), Article 81.

Chang, M., & Lim, Y. L. (2016). Late disclosure of insider trades: Who does it and why?. *Journal of Business Ethics*, *133*(3), 519–531. https://doi.org/10.1007/s10551-014-2413-3

Chen, S. J., Zhang, J. A., Gao, H. Z., Yang, Z. L., & Mather, D. (2020). Trust erosion during industry-wide crises: The central role of consumer legitimacy judgement. *Journal of Business Ethics*, *175*(1), 95–116. https://doi.org/10.1007/s10551-020-04588-0

Chen, J.-H., Chou, T.-S., Wang, J.-P., Wei, H.-H., & Yang, T.-H. (2021). Sustainable corporate governance: The impact factors for top consulting engineering companies in Taiwan. *Sustainability*, *13*(14), Article 7604. https://doi.org/10.3390/su13147604

D'Avanzo, E., Franch, M., & Borgonovi, E. (2021). Ethics and sustainable management: An empirical modelling of Carroll's pyramid for the Italian landscape. *Sustainability*, *13*(21), Article 12057. https://doi.org/10.3390/su132112057

Durdyev, S., Ihtiyar, A., Banaitis, A., & Thurnell, D. (2018). The construction client satisfaction model: A PLS-SEM approach. *Journal of Civil Engineering and Management*, *24*(1), 31–42. https://doi.org/10.3846/jcem.2018.297

Ermongkonchai, P. (2010). Understanding reasons for employee unethical conduct in Thai organizations: A qualitative inquiry. *Contemporary Management Research*, 6(2), 125–140. https://doi.org/10.7903/cmr.3550

Hassan, S., Kaur, P., Muchiri, M., Ogbonnaya, C., & Dhir, A. (2022). Unethical leadership: Review, synthesis and directions for future research. *Journal of Business Ethics*, *183*, 511–550. https://doi.org/10.1007/s10551-022-05081-6

Jagniatinskis, A., Fiks, B., Mickaitis, M., & Sukys, R. (2017). Features of sound classification scheme designated to label building in Lithuania. *Journal of Civil Engineering and Management*, *23*(3), 409–420. https://doi.org/10.3846/13923730.2016.1269021

Kidder, D. L. (2005). Is it 'who I am','what I can get away with', or 'what you've done to me'? A multi-theory examination of employee misconduct. *Journal of Business Ethics*, *57*(4), 389–398. https://doi.org/10.1007/s10551-004-6713-x

Kyaw, K., Olugbode, M., & Petracci, B. (2017). The role of the institutional framework in the relationship between earnings management and corporate social performance. *Corporate Social Responsibility and Environmental Management*, *24*(6), 543–554. https://doi.org/10.1002/csr.1426

Lasakova, A., Remisova, A., & Bajzikova, L. (2021). Differences in occurrence of unethical business practices in a post-transitional country in the CEE region: The case of Slovakia. *Sustainability*, *13*(6), Article 3412. https://doi.org/10.3390/su13063412

Li, X. J. (2020). Research on investment risk influence factors of prefabricated building projects. *Journal of Civil Engineering and Management*, *26*(7), 599–613. https://doi.org/10.3846/jcem.2020.12917

Lin, X. L., Clay, P. F., Hajli, N., & Dadgar, M. (2018). Investigating the impacts of organizational factors on employees' unethical behavior within prganization in the context of Chinese firms. *Journal of Business Ethics*, *150*(3), 779–791. https://doi.org/10.1007/s10551-016-3209-4

Ma, D. Y., Li, X. D., & Cheng, C. (2020). The impact of the international construction standard application capability on contrac-

tors' competitiveness: Chinese contractors' experience. *Journal of Civil Engineering and Management*, *26*(8), 757–774. https://doi.org/10.3846/jcem.2020.13749

Niu, Y. L., Zhao, D, Deng, X. P., Lu, R. Y., & Zhao, X. B. (2021). Determinants for coopetition strategies of international joint ventures in high-speed railway projects. *Journal of Civil Engineering and Management*, *27*(5), 331–345. https://doi.org/10.3846/jcem.2021.15021

O'Mara-Shimek, M., Guillen, M., & Gomis, A. J. B. (2015). Approaching virtuousness through organizational ethical quality: toward a moral corporate social responsibility. *Business Ethics-A European Review*, *24*, S144–S155. https://doi.org/10.1111/beer.12102

Owusu, E. K., Chan, A. P. C., Hosseini, M. R., & Nikmehr, B. (2020). Assessing procurement irregularities in the supply-chain of Ghanaian construction projects: A soft-computing approach. *Journal of Civil Engineering and Management*, *26*(1), 66–82. https://doi.org/10.3846/jcem.2020.11659

Peale, N. V., & Blanchard, K. (1988). *The power of ethical management*. William Morrow.

Ruban, D. A., & Yashalova, N. N. (2022). Corporate pro-environmental behavior on the seas: Eco-ethical prescriptions of the largest cruise companies. *Journal of Marine Science and Engineering*, *10*(3), Article 380. https://doi.org/10.3390/jmse10030380

Schuler, D., Rasche, A., Etzion, D., & Newton, L. (2017). Corporate sustainability management and environmental ethics introduction. *Business Ethics Quarterly*, *27*(2), 213–237. https://doi.org/10.1017/beq.2016.80

Suleiman, A. (2022). Causes and effects poor communication in the construction industry in the Mena region. *Journal of Civil Engineering and Management*, *28*(5), 365–376. https://doi.org/10.3846/jcem.2022.16728

Tabish, S. Z. S., & Jha, K. N. 2012. The impact of anti-corruption strategies on corruption free performance in public construction projects. *Construction Management and Economics*, *30*(1), 21–35. https://doi.org/10.1080/01446193.2011.654128

Trevino, L. K., & Nelson, K. A. (2021). *Managing business ethics: Straight talk about how to do it right*. John Wiley & Sons.

Valle, M., Kacmar, K. M., & Zivnuska, S. (2019). Understanding the effects of political environments on unethical behavior in organizations. *Journal of Business Ethics*, *156*(1), 173–188. https://doi.org/10.1007/s10551-017-3576-5

Wang, W. C., Yu, W. D., Yang, I. T., Lin, C. C., Lee, M. T., & Cheng, Y. Y. (2013). Applying the AHP to support the best – value contractor selection – Lessons learned from two case studies in Taiwan. *Journal of Civil Engineering and Management*, *19*(1), 24–36. https://doi.org/10.3846/13923730.2012.734851

Xie, L. L., Xu, T., Han, T., Xia, B., Chen, Q., & Skitmore, M. (2022). Influence of institutional pressure on megaproject social responsibility behavior. *Journal of Civil Engineering and Management*, *28*(3), 177–195. https://doi.org/10.3846/jcem.2022.16235

Young, C. (2019). Putting the law in its place: Business ethics and the assumption that illegal implies unethical. *Journal of Business Ethics*, *160*(1), 35–51. https://doi.org/10.1007/s10551-018-3904-4

Zhelyazkova, A., Kaya, C., & Schrama, R. (2016). Decoupling practical and legal compliance: Analysis of member states' implementation of EU policy. *European Journal of Political Research*, *55*(4), 827–846. https://doi.org/10.1111/1475-6765.12154

APPENDIX

Survey

A Study on Legal Compliance in Anti-Corruption: A Case Study of Engineering Consulting Companies in Taiwan

To whom it may concern,

Thank you for taking the time to fill out the questionnaire despite your busy schedule. This questionnaire aims to understand your attitudes and opinions regarding the anti-corruption efforts of your company or organization. Through your assistance, we hope to gain insights into the thoughts and opinions of employees within Taiwan's engineering consulting companies regarding anti-corruption measures. This information will serve as a reference for the future management and development of the engineering industry in our country. The questionnaire is divided into eight parts, and each part is accompanied by explanations. Please read the instructions carefully before answering. The questionnaire is anonymous, and the data collected will be used solely for academic research purposes. It will not be disclosed or used for any other purposes. Your provided information will be kept strictly confidential, so please feel free to answer. The seventh part allows you to provide valuable feedback regarding any additions, reductions, consolidations, simplifications, or corrections to the questions. After completing the questionnaire, please reply via email or fill out the electronic form online. If you have any questions while answering the questionnaire, please contact us immediately. Your valuable opinions will greatly contribute to the value of this research. Once again, we sincerely appreciate your time and effort in filling out this questionnaire despite your busy schedule.

Weblink: https://www.surveycake.com/s/ZXq2K

[Reminder]

1. If your questionnaire is valid and you recommend it to your friends in the consulting or engineering industry to fill out, you will have a chance to enter a prize draw. Please provide your contact information or email address for prize notification and the opportunity to receive carefully prepared gifts! If you wish to participate in the prize draw, please answer questions 14 and 15 in the first part of the questionnaire. The winners will be contacted via email.
2. If the questionnaire is incomplete or deemed to be an invalid sample, the eligibility for the prize draw will be cancelled.
3. We kindly ask for your assistance in carefully reading the questions and providing answers without omitting any items.
4. Non-winners will not be notified separately.

[40 rewards]

(1) Project Engineering Contract Management (2nd Edition) Book for 20 people
(2) Cash $200 for 10 people
(3) 7–11 $100 coupon for 10 people

Best regards,

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September 26, 2020

Section 1: Background

Please check the option that applies to you or fill in the information at the indicated space. This data will be used for academic research and analysis purposes only, and it will be anonymous. The information you provide will be kept confidential, so please feel free to answer. Thank you!

1. Gender: (1) ☐ male (2) ☐ female;
2. Age: (1) ☐ < 30 (2) ☐ 31–40 (3) ☐ 41–50 (4) ☐ 51–60 (5) ☐ >61 years old;
3. Experience: (1) ☐ < 5 (2) ☐ 6–10 (3) ☐ 11–15 (4) ☐ 16–20 (5) ☐ 21–25 (6) ☐ 26–30 (7) ☐ 31–35 (8) ☐ > 36 years
4. Your organization: _____;
5. The total asset of your organization (NTD): (1) ☐ < 1 million (2) ☐ 1–5 million (3) ☐ 5–10 million (4) ☐ 10–50 million (5) ☐ 50–100 million (6) ☐100–500 million (7) ☐ 500 million–2 billion (8) ☐ 2–5 billion (9) ☐ 5–7.5 billion (10) ☐ 7.5–10 billion (11) ☐ > 10 billion;
6. Total employee: (1) ☐ < 50 (2) ☐ 51–200 (3) ☐ 200–350 (4) ☐ 351–500 (5) ☐ 501–750 (6) ☐ 751–1,000 (7) ☐ > 1,000 people;
7. Present/former section head: (1) ☐ administration head (2) ☐ project head (3) ☐ never (4) ☐ others _____ _____;

8. Present/former job title: (1) ☐ secretary for director board (2) ☐ auditor (3) ☐ financial specialist (4) ☐ accountant (4) ☐ director (5) ☐ consultant (6) ☐ vice president or above (7) ☐ associate vice president (8) ☐ manager (9) ☐ professional engineer (10) ☐ legal representative (11) ☐ engineer (12) ☐ assistant (13) ☐ sale representative (14) ☐ administration staff (15) ☐ others_____;
9. Job description: (1) ☐ general management (2) ☐ board of directors (3) ☐ auditing (4) ☐ finance (5) ☐ accounting (6) ☐ administration (7) ☐ personnel (8) ☐ project costing (9) ☐ project management (10) ☐ sales (11) ☐ contract management (12) ☐ designing (13) ☐ procurement (14) ☐ construction (15) ☐others _____ (e.g. IT or R/D);
10. Job regime: (1) ☐ domestic (2) ☐ overseas (3) ☐ both;
11. Job location: (1) ☐ office (2) ☐ construction site (3) ☐ precast site;
12. Monthly salary: (1) ☐ < $35,000 (2) ☐ $35,001–50,000 (3) ☐ $50,001–75,000 (4) ☐ $75,001–100,000 (5) ☐ $100,001–125,000 (6) ☐ $125,001–150,000 (7) ☐ > $150,001;
13. Education background: (1) ☐ high school diploma (2) ☐ B.S. in vocational college (3) ☐ B.S. in comprehensive university (4) ☐ M.S. (5) ☐ Ph.D.

    ☐ Email: _____

    ☐ Other information: _____
14. Please recommend 2–3 individuals to fill out the questionnaire for a chance to enter the prize draw!! Please provide the contact information of the recommended individuals, including their name, mobile number, and email address.

    Thank you!

    (1) ☐ none

    (2) ☐ contact information (3 persons)

    - **Person #1**
      - » Name: _____
      - » Cell phone number: _____
      - » Email: _____
      - » Other information: _____
    - **Person #2**
      - » Name: _____
      - » Cell phone number: _____
      - » Email: _____
      - » Other information: _____
    - **Person #3**
      - » Name: _____
      - » Cell phone number: _____
      - » Email: _____
      - » Other information: _____

Please continue to the next page!

Please select the option that best represents your subjective personal opinion. The degree of agreement is measured on a scale of 1 to 5, where 1 indicates strongly disagree, 2 indicates disagree, 3 indicates neutral, 4 indicates agree, and 5 indicates strongly agree. This data will be used for academic research and analysis purposes only, and it will be anonymous. The information you provide will be kept confidential, so please feel free to answer. Thank you! (If further information is needed for each sub-question in this item, please provide detailed explanations.)

Section 2: Opinion on the commitment and implementation of the company's integrity policy

Ethical Management Policy (EP)	Agreement level				
	1	2	3	4	5
EP1 Your company/organization's directors and senior management have issued a statement on "Integrity in Business Operations" and require employees to comply with the integrity policy as a condition of employment.	☐	☐	☐	☐	☐
EP2 Your company/organization has explicit statements regarding the "Integrity in Business Operations" policy in its regulations, external documents, and company website. The board of directors and senior management actively commit to implementing the integrity policy, ensuring its execution in internal management and business activities. Furthermore, there are documented information and proper preservation of related procedures, systems, and records.	☐	☐	☐	☐	☐
EP3 Your company/organization operates based on the principle of integrity, conducting business activities in a fair and transparent manner. Before engaging in any commercial transactions, careful consideration is given to the legality of agents, suppliers, customers, or other business counterparts, ensuring that they are not involved in any dishonest practices. Transactions with individuals or entities engaged in dishonest behavior are avoided.	☐	☐	☐	☐	☐
EP4 The directors, supervisors, managers, employees, appointees, and substantial controllers of your company/organization all have a fiduciary duty to exercise diligent management, ensuring the prevention of dishonest behavior within the company/organization. They are responsible for continuously reviewing the effectiveness of implementation and seeking ongoing improvements to ensure the enforcement of the integrity policy.	☐	☐	☐	☐	☐
EP5 Your company/organization has established quantifiable data to promote integrity in business operations. Continuous analysis and evaluation are conducted to assess the effectiveness of the integrity policy. The company/organization discloses the measures taken, performance, quantifiable data, and progress of the policy on its website, annual reports, and public disclosure documents. Additionally, the contents of the integrity guidelines are disclosed on the Public Information Observation Platform.	☐	☐	☐	☐	☐
EP6 Your company/organization is vigilant regarding the development of integrity-related regulations both domestically and internationally. It encourages directors, senior management, supervisors, managers, and employees to provide suggestions for reviewing and improving the integrity policy and its implementation measures. This is done to enhance the effectiveness of integrity in business operations within the company/organization.	☐	☐	☐	☐	☐
EP7 The integrity guidelines of your company/organization are implemented after being approved by the board of directors or senior management. They are also shared with the supervisors and reported to the shareholders' meeting or the governance level of the organization. Any amendments to the guidelines also follow the same process.	☐	☐	☐	☐	☐

Section 3: Opinions on the company's anti-corruption and prevention program

Anti-corruption Prevention Programs (AP)	Agreement level				
	1	2	3	4	5
AP1 Your company/organization has formulated a code of conduct policy, and has clearly and comprehensively established specific practices for ethical operation and a program to prevent dishonest behavior (hereinafter referred to as the "prevention program"). This includes operational procedures, behavioral guidelines, educational training, company documents, relevant systems, and regulations.	☐	☐	☐	☐	☐

AP2 Your company/organization has established a mechanism to assess the risks of dishonest behavior. It regularly analyzes and evaluates business activities within its scope to identify higher risks of dishonest behavior. Based on these findings, it formulates the prevention plan and regularly reviews its adequacy and effectiveness.	☐	☐	☐	☐	☐
AP3 Your company/organization has established effective accounting systems, internal control systems, or relevant systems for business activities with higher risks of dishonest behavior. Based on the assessment results of dishonest behavior risks, you formulate relevant audit plans, specify audit targets, scope, items, frequency, etc. The audit results are reported to senior management and dedicated units, and audit reports are submitted to the board of directors.	☐	☐	☐	☐	☐
AP4 The Chairman, CEO, or senior management of your company/organization regularly emphasizes the importance of integrity to the board of directors, governance level, employees, and appointees. They also conduct regular education and training programs for directors, supervisors, managers, employees, appointees, and substantial controllers. These programs aim to raise awareness and understanding of the company's commitment, policies, prevention plans, and consequences of engaging in dishonest behavior. Additionally, the company invites customers or vendors to participate in these programs to ensure they have a full understanding of the company's commitment to ethical operation.	☐	☐	☐	☐	☐
AP5 Your company/organization integrates the code of conduct policy with employee performance evaluation and human resources policies. It establishes clear and effective reward and disciplinary systems or relevant systems.	☐	☐	☐	☐	☐
AS6 Your company/organization has established and published clear disciplinary and grievance procedures or relevant systems for violations of the code of conduct policy. It promptly discloses information regarding individuals who have violated the policy, including their job titles, names, date of violation, nature of the violation, and the actions taken, on the company's internal website.	☐	☐	☐	☐	☐

Section 4: Opinions on company's compliance with laws and regulations and avoidance of conflicts of interest

Legal Compliance (LC)	Agreement level				
	1	2	3	4	5
LC1 The company/organization I currently work for has established a system for compliance with laws and regulations, or relevant systems and regulations.	☐	☐	☐	☐	☐
LC2 Your company/organization has adopted a business philosophy rooted in integrity, transparency, and responsibility, which has been approved by the board of directors or senior management. It has formulated policies or relevant principles based on integrity and established robust corporate governance and risk management mechanisms. These measures are aimed at creating a sustainable business environment for long-term development.	☐	☐	☐	☐	☐
LC3 The directors, senior management, and substantial controllers of your company/organization adhere to legal requirements and the prevention plan when carrying out their business activities.	☐	☐	☐	☐	☐
LC4 Your company/organization has developed a policy to prevent conflicts of interest. This policy serves as a basis for identifying, monitoring, and managing the risks of dishonest behavior arising from conflicts of interest. It provides appropriate channels for directors, governance level, supervisors, managers, and other stakeholders attending or participating in board meetings to proactively disclose any potential conflicts of interest with the company/organization.	☐	☐	☐	☐	☐
LC5 The directors, senior management, and substantial controllers of your company/organization do not use their positions or influence within the company to obtain undue benefits for themselves, their spouses, parents, children, or any other individuals.	☐	☐	☐	☐	☐

Section 5: Opinions on dishonest behavior

Unethical Conduct (UC)	Agreement level				
	1	2	3	4	5
UC1 The directors, supervisors, managers, employees, appointees, or individuals with substantial controlling power (hereinafter referred to as substantial controllers) of your company/organization do not directly or indirectly provide, promise, request, or accept any improper benefits or engage in other dishonest behaviors that violate integrity, laws, or breach entrusted obligations in the course of conducting business activities, with the aim of obtaining or maintaining personal interests.	☐	☐	☐	☐	☐
UC2 The directors, supervisors, managers, employees, appointees, and substantial controllers of your company/organization do not directly or indirectly provide, promise, request, or accept any form of improper benefits from clients, agents, contractors, suppliers, public officials, or other stakeholders in the course of conducting business activities.	☐	☐	☐	☐	☐
UC3 The directors, supervisors, managers, employees, appointees, and substantial controllers of your company/organization comply with the Political Donations Act and internal operational procedures when directly or indirectly providing donations to political parties or organizations involved in political activities. They do not engage in such donations for the purpose of seeking commercial benefits or transaction advantages.	☐	☐	☐	☐	☐
UC4 The directors, senior management, supervisors, managers, employees, appointees, and substantial controllers of your company/organization comply with relevant laws and internal operational procedures regarding charitable donations or sponsorships. There have been no occurrences of disguised bribery in this regard.	☐	☐	☐	☐	☐
UC5 The directors, senior management, supervisors, managers, employees, appointees, and substantial controllers of your company/organization do not directly or indirectly provide or accept any unreasonable gifts, hospitality, or other improper benefits to establish business relationships or influence business transactions.	☐	☐	☐	☐	☐

Section 6: Opinions on the establishment of a firewall in the company

Fire Wall (FW)	Agreement level				
	1	2	3	4	5
FW1 The firewall implemented in various departments of the company includes administrative regulations, segregation, internal monitoring, IT systems, and other measures to prevent corrupt practices that could harm the interests of clients or the company from occurring between departments.	☐	☐	☐	☐	☐
FW2 Core client and work information between different departments should not be disclosed to one another.	☐	☐	☐	☐	☐
FW3 The company adheres to the laws established by the government to prevent the occurrence of corrupt practices.	☐	☐	☐	☐	☐
FW4 The company has implemented a firewall to prevent potential corrupt practices that may arise from the relationship between managers serving as executives in subsidiary companies.	☐	☐	☐	☐	☐
FW5 The company has established and publicized channels for internal and external personnel to report any wrongdoing, and has implemented a system to protect whistleblowers.	☐	☐	☐	☐	☐
FW6 The unit responsible for handling reports within the company should possess independence, and the files provided by whistleblowers should be encrypted to ensure their protection.	☐	☐	☐	☐	☐

Section 7: Other suggestions

_____

_____

The questionnaire is now fully completed. Please kindly confirm once again if there are any unanswered questions. Thank you very much for your assistance.