Advances in Management & Applied Economics, vol.2, no.4, 2012, 185-208
ISSN: 1792-7544 (print version), 1792-7552 (online)
Scienpress Ltd, 2012

The Board Structure and Performance of Private Universities

Hsiang-Tsai Chiang[1] and Mei-Chih Lin[2,*]

Abstract

This study applies the structure and operations of private universities' board to analyze the establishment of the structure and operating mechanism for the private universities boards as well as the relevance with school performance. The analysis of board forms shows that the numbers of educational experts and corporate experts in the sample schools are compatible while the number of educational experts is higher than that of corporate experts. The number of meetings for board operations and the indicators for different school performance also appear in negative relationship, indicating that the more meetings does not necessarily imply better school performance.

JEL classification numbers: G32, I23
Keywords: Board structure, Performance, The Boards of Private Universities

1 Introduction

In the past twenty years, Taiwan has encountered drastic changes regardless in the political, social or economical dimensions. The rapid change also takes place in higher education, resulting in a substantial growth in the number of

[1] Department of Accounting, Feng Chia University, e-mail: htchiang@fcu.edu.tw
[2] Department of Marketing and Logistics Management, St. John's University, e-mail: maylin@mail.sju.edu.tw
[*] Corresponding Author

Article Info: *Received* : July 24, 2012. *Revised* : August 30, 2012
Published online : November 15, 2012

schools or students. The number of private universities and colleges grew from 58 institutions to 149 institutions from the 1994 to the 2009 academic year, whereas the number of undergraduates grew from 300,000 people to approximately 1.01 million people and the number of graduates grew drastically from 39,000 people to 217,000 people. Currently due to the varying demographic structure of low birth rate and the increasing number of universities and colleges, the university admission rate for 2009 academic year reached 97.14% (MOE, 2010a), driving the new student recruitment strategy to become the issue not to be ignored by universities each year, particularly for private universities and colleges. It is commonly observed from the ranking list for university examination filled out by the university freshmen each year, where the national universities topping the priorities of students than private universities.

Due to the development information technology in the past ten years, the changes in social-economic environment, including transformation from elite education to mass higher education system, reducing government funding investment, the proposal of new management approach (such as the New Public Management of managerialism), and competition between universities, have urged the universities to face with pressure from reforms (Shattock;1999; Amaral and Magalhães 2002; Chevaillier 2002; Salter and Tapper 2002; Melo et al., 2010). Although the government has not abandoned control over higher education, the government has turned to take the supporting role and encourages the universities to take initiative through a more indirect approach, thereby to achieve the target efficacy and efficiency as well as the changes in social demand (Goedegebuure et al. 1994).

Governance is the structure and process which forms decision in higher education (Sporn, 2006), where university governance is further divided into external governance mechanism and internal governance mechanism. External governance mechanism is mainly the supervision on universities and colleges from the Ministry of Education (hereinafter referred to as MOE) and the specification of university laws. The internal governance mechanism is determined by the relationship between academic affairs meetings, board of directors and the president. The academic affairs meeting is the highest decision-making meeting in the university, however such decision model is only intended to prevent arbitrary decisions. Although the intensions are good, the actual implementation could cause unknown responsibilities and powers in university as well as ineffective dilemma (Chen, 2002).

To enhance university teaching quality and competitiveness, the MOE promotes teaching excellence program, where the universities propose plans to compete, in attempt to encourage the universities with enhancement in teaching quality and develop the model for domestic university of teaching excellence through competitive incentive mechanisms (MOE, 2010b). The ministry also launches an assessment system which was previously organized by the MOE or commission to professional academic institutions. Currently, the system is now organized by the Foundation Higher Education Evaluation Center (abbreviated as

FHEEC). The FHEEC was founded in 2005 under the co-sponsorship by the MOE and 153 universities and colleges. FHEEC started accepting commission from the MOE to organize a periodic university and departments assessment work in every five year.

A litany of scandals with the national profit-seeking enterprises in recent years, including the Enron from the United States and the Procomp case of Taiwan, one of the main reasons that led to the scandals were the deviation of responsibilities and powers, where most of the company supervisors are empowered with decision-making and supervision. The leaders in these scandals acted both as the supervisors, who held the rights to the company without liabilities. Hence, "corporate governance" becomes the key tools to prevent scandals. A number of countries have passed relevant laws such as the SOX Act which emphasizes one key on the strengthening of consistency in the responsibilities and power of "supervisors" specified with the amendment provisions of Taiwan's corporate Acts. The implementation of corporate governance for years also proves the consistency in responsibilities and powers will have positive effect on the company's performance while "governance" system also shifts gradually from profit-seeking enterprises to non-profit seeking enterprises.

In view of the provisions set forth in private university law, the governance framework of private universities is similar to corporate governance framework. With the exception for lack of shareholder meeting, private universities also apply board of directors as the decision-making organ, where the president serves as the ranking similar to the general manager of the company. Although private universities are set up with board of directors and general manager (president) similar to corporations, the responsibilities and powers of the board of directors and president different substantially from those of the company. In addition, the board of directors of a company is mostly constituted by the major shareholders, whose stakes are closely related to the interests of the company. Consistency in responsibilities and powers will lead to commitment in the company management which jointly protects the interest of small shareholders and stakeholders. The directors of private universities are not the shareholders but they are held responsible for the custody of the academic affair funding. It is clear that the specification of the inconsistency between responsibilities and powers differ from those of general profit-seeking companies. There are a limited number of domestic studies related to whether if the school board of directors commit in the school management similar to the directors of a company.

The school performance is the exhibition of school quality, which is therefore the evaluation with more objective measuring standards and multi-dimensions. The study applies assessment results outside of school, acquisition of teaching excellence funding from the MOE and funding for the overall development awards to evaluate the school performance of universities. To offer reference on the establishment and research of university governance

mechanism for the universities, academic fields and competent agencies of education based on objective empirical results.

2 Literature Review

2.1 University Governance

The university governance aims to facilitate university development, effective innovation and pass on knowledge, and enhance education quality and competitiveness, in order to cultivate talents needed by the society and to provide services for the society. The concept of university governance stresses that each university is obliged to pursue diversity and excellence under its criteria and environment, to develop outstanding education with characteristics (Huang, 2008). Cheng (2002) suggested that the external governance mechanism in terms of future development in university governance is referred to the incorporation of public universities and the repositioning of the relationship between the Ministry of Education and the universities. The internal governance mechanism is adjusted to the internal operational mode of universities by establishing responsibility-power consistent decision-making system.

Universities are currently facing with an increasing number of universities and low birth rates in the society, whereas the source of students declines year by year. Implementing the concept of corporate management performance to school performance concept is perhaps the opportunity of fully and rationally utilizing sustainable management for schools and education resources. The strengthening of corporate governance is the consistent objective of the government and the enterprises, while the purpose of strengthening corporate governance aims to protect the interests of stakeholders and manage enterprises under excellent supervision mechanism. Taiwan Securities and Futures Institute (hereinafter referred to as SFI has undergone assessment on the information disclosure of enterprises since 2003, which announces the results as reference for stakeholders and gradually reinforces the specification to help the company comply with the requirement for information transparency.

Stakeholder theory is a theory about organizational management and commercial ethics, which is mainly used for solving the ethical and value issues in organizational management. Stake holder theory claims that all stakeholders must jointly participate in the governance; the corporate manager must develop a strategy meeting the needs for different stakeholders in order to maintain sustainable development (Freeman, 1984). The Association of American University Professors constructed a joint governance theory based on the board of directors, administration and faulty, which is also based on the stakeholder theory (Li, 2007).

2.2 School Performance

The implementation of university governance must be operated through school organization framework, and therefore the school performance is also exhibited through the operation of organizational framework. Performance refers to the measurement of the degree of achievement for organizational objectives, using indicators and measurement methods to present the degree of achievement for plans in terms of mission, objectives and purposes (Duquette and Stowe, 1993), which could also be used to reflect the behaviors taken by individuals in order to achieve organizational objectives, guiding the resource allocation of future organization (Campbell, 1990).

The school performance requires additional evaluation mechanism in addition to following the measurement of internal administrative management system. The purpose of higher education assessment aims to enhance the teaching, research and management quality for higher education institutions, which can be divided into internal assessment and external assessments. The purpose of internal assessment aims to establish the self-control mechanism to improve the education quality of the institution. The external assessment the other hand requires external group or team to execute the assessment activity based on external certification or accrediting requirement, in order to comply with the performance requirement as the main purpose (Su, 1997).

Higher Education Evaluation & Accreditation Council of Taiwan (hereinafter referred to as HEEAC) accepts commission from the MOE to execute the evaluation work to enhance quality in higher education. Based on the premise of university autonomy and incorporation of separation between evaluation of academic affairs and subject professional evaluation, the evaluation works include the follows: (1) Evaluation of Academic Affairs, (2) Evaluation of Departments and Colleges, (3) Performance Statistics Analysis (HEEACT, 2010). The process of evaluation accredited results from the departments and colleges are submitted for review if the report "passed" with proposal of self-improvement plan and execution results. If the report is "to be observed," it will require self-improvement plan and execution results, followed by accepting "follow-up evaluation." If the report is "failed," then it requires proposal of self-improvement plan and execution results, followed by acceptance and re-evaluation (HEEACT, 2006 a).

The Department of Higher Education states that department and colleges having participated in the 2004 chemistry subject evaluation may be exempted from taking evaluation from university department evaluation while departments applying to Institute of Engineering Education Taiwan (IEET) for accreditation may apply to re-exemption for the 2006 and 2007 university department evaluations. The IEET and evaluation council has completed the accreditation results with corresponding reference standards. The IEET certification with "passed" and "conditionally passed" are corresponding to the department evaluation results with "passed" while certification with "failed" shall correspond

to the department evaluation with "passed." The departments without passing the certification are required to take the re-evaluation from the evaluation council in one year after the announcement of IEET results (HEEACT, 2006 b).

The evaluation of vocational colleges is commissioned by the Ministry of Education to Taiwan Assessment and Evaluation Association (TWAEA) for organization. The assessment results are divided into administration, professional colleges and professional departments for announcement. The assessment results are divided into "Class 1 (Excellence), Class 2 (Good) and Class 3 (To be improved)." To continue the follow-up of assessment of subsequent teaching quality improvement for various schools, the three assessment classes for departments (colleges) will organize the counseling visits and follow-up assessment, while other schools will re-organize comprehensive assessment for other schools in 4 years(TWAEA, 2005).

Due to facing with international competition and poor domestic finance, the MOE apply limited resources to universities with the most potential for development in order to maintain quality in higher education by formulating the "competitive educational funding;" where the universities compete in the evaluation and the outstanding schools that outperform others shall receive the grants (Liu, 2009). Competitive research funds can only be allocated according to school performance using assessment classification due to the massive amount (Gai, Liu, 2006; HEFCE, 2000). To guide the university with classified development, the MOE corrected the university inclination with over emphasis on research and less on teaching by improving the teaching quality in universities. The MOE started implementing the application for "Incentives for University Teaching Excellence Program" (hereinafter referred to as Teaching Excellence Program) in 2004 and announced the review results in 2005 with the awarded schools and the amount of grant. The budget for this program includes the: NT1 billion for 2005 and sum of NT15 billion between 2006 and 2008, in attempt to improve the reform and construction of the overall school system to enhance the overall teaching quality of universities and develop the model of excellent for the domestic university teaching (MOE, 2005). The MOE follows the development overview of the school and their program report when giving teaching excellence program grants, thereby determining the schools and amount for receiving the grants through in-field visits from the committee. Hence, whether if the universities are awarded with grants and the amount of grants, are regarded as the evaluation results from the MOE towards the development research or teaching from the school. Hence the Teaching Excellence Program grant can be used as the objective standard for evaluating the school performance.

In the relevant researches regarding the important evaluation principles that affect students choosing schools, Coccari and Javalgi (1995) summarized the literatures through explorative research and proposed 20 projects, namely faculty quality, course level, tuitions, convenience in life, teaching quality, curriculum arrangement, school locations, student-faculty ratio, faculty-student interaction, scholarship, admission permit, teaching equipments, course counseling, sport class,

employment services, university libraries, computer equipments, health insurance service, barrier-free environment, and campus safety. It is clear that the factors which students take into consideration are wide and diverse. The changes in student number can explain the comprehensive results of students choosing schools, which are also regarded as their cognition to school quality. The changes in recruitment and student number are the focus of attention for the universities under the currently competitive environment. For this reason, the study applies the effectiveness of school recruitment as the external performance indices for measuring the school performance of schools.

2.3 Board Governance Mechanism and School Performance

This section discusses the structure and operations of private university BOD. The governance framework of general companies apply shareholder meeting as the highest resolution institutions, whereas the directors and presidents are selected from. According to Article 202 of company law, "The implementation of company business shall be resolved by the BOD, with the exception of this law or the articles of association that are specified at the shareholder resolution." Basically, the BOD meetings for publicly traded companies are called once for each quarter. Under the non-frequent assembly, the daily business of the company the responsibility of the manager, while the general manager serves as the executing unit and the general manager is the highest supervisor to managers. Under the corporate governance mechanism, the BOD serves as the decision-making unit and the general manager serves as the executing unit, while the general manager receives command from the BOD to demand their subordinate department managers for business execution. In case of violating the laws and articles of association as well as shareholder's resolution during the execution that draws damage to the companies, the directors participating in the resolutions shall be deemed responsible for compensation to the company (Article 193 of Company Law). In view of the aforementioned corporate governance mechanism, the BOD has the decision-making rights to supervise the managers on behalf of the shareholders, who possess rights including the employment, supervision, approval, decision over managers' salary and remuneration. Therefore the BOD has the right to replace manager with poor performance and can effectively control the conflict of interests between the shareholders and higher level manager (Walsh and Seward 1990), improving company performance (Weisbach, 1988) while the general manager has full rights of implementation with responsibility to the BOD.

The major governing rules and regulations for university governance in private universities are private school law. It is specified in Article 41 of private school law: "The president manages academic affairs according to the laws, regulations and school rules, in addition to executing resolutions reached from BOD of schools with supervision and assessment while reprehending the school

within the scope of functions." In view of the regulations on private school law, the governance framework of private universities are similar to the governance framework of companies, and with the exception for shareholder meeting, private universities also apply BOD as decision-making organs while the president serves as the general manager of companies.

2.4 BOD Structure and Director Terms

In corporate governance, the BOD is mainly constituted by directors selected by shareholders. These independent directors have been established to meet the requirement from Article 14-2 of Securities and Exchange Law. The so-called "independent" directors refer to those independent from the company, which purpose aims to independently execute the power to supervise the company through these independent directors without have direct relation to the interest of the company, thereby to protect the rights of all stakeholders. Moreover, the company governance specified independent directors in order to prevent affecting the independence due to long term. In the past, studies show that independent system can enhance company governance effectiveness and improve enterprise performance through strengthening of supervising capability. For example, the director system can facilitate solving the agency issues for enterprise organization (Fama 1980；Fama and Jensen 1983), increase returns of remuneration to the stock price (Yeh and He, 2003) as well as enhancing company performance (Lee, Rosenstein and Wyatt 1999; MacAvoy and Millstein 1999).

The BOD structure consist of president concurrently served as general manager, ratio between internal directors and external directors, BOD scale, BOD shareholding and director salary (Finegold *et al.* 2007). Jensen (1993) suggested that if the BOD consists of 7 or 8 members, the function of BOD will be lowered and BOD is likely to be controlled by the CEO. Bonn and Ingrid (2004) revealed that the BOD scale of Japanese companies have negative impact on the company performance while larger BOD are less likely to be communicated and coordinated, which could not have better company decision. The BOD scale in Australian companies does not affect company performance. Chiang and Lin (2007) suggested that smaller BOD in Taiwan can reduce the problems with bureaucracy in Taiwan and so that the BOD will have better operational efficacy. Article 15 of private school law has specification on the BOD scale between 7~21 people.

Article 17 of private school law indicated specification on the director term, where each director term is 4 years and re-election permitted. Kerr and Gade(1989) suggested that the BOD member terms should be at least 2 years in order to obtain in-depth understanding to the university and campus. Ingram (1993) stated that there is no ideal director term however 3 years is more appropriate (Chang Kuopao, 2003). According to Article 16 of private school law, the directors having

spouses, relatives of consanguinity and relatives by marriage, may not exceed one third of the total number. Filatotchev *et al.* (2005) also suggested that family controlling the BOD seats will result in negative impact for the company performance.

Private universities are incorporated organization without shareholders, and therefore they are not nominated by shareholders and elected as directors. Moreover, private school laws do not describe the nomination methods of directors. Private universities are constituted by three types in Taiwan: 1. Fixed enterprise establishment with long-term support. 2. Religious establishment and long-term support for school. 3. Other non-enterprise and non-religious supported school. The study first analyzes the election methods for BOD in various private universities, including whether if the nomination mechanism and director terms are specified as well as which type of director will affect the teaching effectiveness. In addition, due to the independent directors in corporate governance is established to protect all stakeholders (Fama and Jensen 1983), the study will further analyze whether if the directors of private universities could imitate the generation of independent directors and propose laws and regulations to correct the suggestions. The operation of BOD meeting, include the number of BOD meetings and attendance rate will affect school performance, is one issue merits concerns.

2.5 Professional Background of Directors

To establish independent director in publicly traded companies, the guidelines requiring professional backgrounds for independent directors should be followed, including the academic background and background with experience related to enterprise management. At least two independent directors are required to allow the independent directors enhance supervising effects by possessing professional knowledge and experience related to the enterprise (Yeh and Li, 2003; Fama, 1980 ; Rechner, 1989 ; Kaplan and Minton, 1994 ; Lee, Rosenstein, and Wyatt, 1999 ; McDaniel, Martin and Maines, 2002).

Past studies indicated that relevant professional knowledge, financial or legal professional practices or independent directors of financial experts can facilitate the enhancement of supervision performance for independent directors or audit committee (Chiang and He, 2006; Abbott, Parker, Peters, and Raghunandan, 2003; Saad, Evans and Sori, 2006), improve internal quality control (Krishnan, 2005; Chien, 2007; Qin, 2007; Yan, 2007; Zhang, Zhou and Zhou, 2007), exposing quality (Gul and Leung, 2004; Karamanou and Vafeas, 2005; Kelton and Yang, 2008) and quality of financial report (Yeh, 2008; Defond, Hann and Hu, 2005; Krishnan and Visvanathan, 2008), thereby to reduce the likelihood of financial restatement (Abbott , Parker and Peters 2004), with more inclination of adopting more conservative and steady accounting practices (DeZoort, Hermanson and Houston 2008; Krishnan and Visvanathan 2008), and improving company

performance (Liao, Li and Wu, 2006; Chen and Chen, 2007). In sum of the above, the following hypothesis has been established:

H : The BOD structure and operations have difference on school performance.

3 Research Design

3.1 Research Samples

The total number of schools for private universities in the 2010 academic year was 97 (including 36 general private universities and 61 private technology universities and technical colleges). The study applies the BOD from the 97 private universities as the research objects. The data on BOD structure and operations are issued with questionnaire survey to collect relevant data.

The source for the overall development grant from MOE and the teaching excellence program grant comes from the statistics announced by MOE (MOE 2010c). The source of assessment data on private universities comes from the departments and colleges assessment results announced by the Foundation Higher Education Evaluation Center (HEEACT, 2010) while the source of assessment data for private technology universities and technical colleges comes from the department and college assessment results announced by the Taiwan Assessment and Evaluation Association (TWAEA, 2010). The total asset amount of sample schools is acquired from the financial report announced by each school.

3.2 Dependent Variables

The study applies school performance as the dependent variables while the school performance applies assessment results, overall development grant from the Ministry of Education and the teaching excellence grant as the proxy variables of school performance and the variable operational definitions, described in the follows :

1. Assessment Results (EVA) : The latest assessment results for the school are measured by the Ministry of Education. The assessment accreditation system for general universities and the assessment classification system adopted by vocational colleges have inconsistence in the standards of assessment results. The treatment for the accredited results assessed by general universities will be submitted in reports for review if assessed with “passed.” The report requires follow-up assessment if assessed with “to be observed” and requires re-assessment if assessed with “failed.” If the vocational colleges are assessed with three departments, the schools will require consultation and counseling for academic affairs, visits and follow-up assessment, while other schools will take comprehensive assessment in 4 years, and consequently there will not be

projects "failed." To provide more consistent standards for measurement, the study must determine whether if to take follow-up assessment as the verification basis.

2. Overall Development Grant (DEV) : DEV is the natural logarithm which the school receives the 2010 Ministry of Education Incentives for the Academic Affairs Development Plans of Private Universities and the natural logarithm of the 2010 Ministry of Education Grant for the Overall Development Grants of Private Vocational Colleges. The overall development grant from the Ministry of Education is offered to council private universities with integral development, balance educational resources in private and public universities, and thereby to enhance education quality and competitiveness as well as assisting the school with sound and characteristic development. The 2010 incentive for private university development program reached a total grant of NT 2,952,243,000; in which the subsidy accounts for 20% and the scholarship accounts for 80% (MOE, 2010c). Due to the data announced by the Ministry of Education is presented in total amount which could not distinguish the scholarship and subsidy amount for each school. The scholarship amount accounts for 80%, and therefore the total amount of grants is the measurement of school performance. Although the amount has not reached 100%, the amount still shows 80% of effects. The 2010 Ministry of Education grant subsidizing to the overall funding of private vocational schools are described by the subsidy and grants for each school. Hence the overall development grant for vocational colleges is measured by the grants.
3. Teaching Excellence Program Grant (EXC) : The natural logarithm for the total amount of incentive to 2009~2010 university teaching excellence grant from the Ministry of Education. The MOE has approved 1.5 years of grant from 2009 to 2010. The number of schools receiving grants consists of 20 private universities and 24 private vocational colleges.

3.3 Independent Variables

1. Number of Meeting (MEET): The average number of meetings held by the BOD in each academic year for the past three years.
2. Attendance Rate (ATTD): The average attendance rate to BOD meetings for the past 3 years.
3. BOD Scale (BODS): The total number of existing directors for that school.
4. Chairman Seniority (CHAIR): The seniority for the existing chairman position.
5. Director Seniority (DIRE): The seniority for the existing director position.
6. Family Members (FAMY): The total number of people from the founding family members of existing directors.
7. Education Experts (EDUC): The total number of existing directors who have professional background in university administrative supervisor or teaching, or

having worked as the directors for other schools.
8. Enterprise Experts (ENPR): The total number of people from the existing directors with professional background in enterprises, government or other experiences.
9. Total Assets (TA): The natural logarithm for the school's total assets in 2008.

3.4 Private University BOD and School Performance Research Model

The regression analysis is used to analyze the BOD structure and operations as well as the relation with school performance. The following regression model has been built:

$$EVA = \alpha + \beta_1 MEET + \beta_2 ATTD + \beta_3 BODS + \beta_4 CHAIR + \beta_5 DIRE + \beta_6 FAMY + \beta_7 EDUC + \beta_8 ENPR + \varepsilon \quad (1)$$

$$EVA = \alpha + \beta_1 MEET + \beta_2 ATTD + \beta_3 BODS + \beta_4 CHAIR + \beta_5 DIRE + \beta_6 FAMY + \beta_7 EDUC + \beta_8 ENPR + \beta_9 TA + \varepsilon \quad (2)$$

$$DEV = \alpha + \beta_1 MEET + \beta_2 ATTD + \beta_3 BODS + \beta_4 CHAIR + \beta_5 DIRE + \beta_6 FAMY + \beta_7 EDUC + \beta_8 ENPR + \varepsilon \quad (3)$$

$$DEV = \alpha + \beta_1 MEET + \beta_2 ATTD + \beta_3 BODS + \beta_4 CHAIR + \beta_5 DIRE + \beta_6 FAMY + \beta_7 EDUC + \beta_8 ENPR + \beta_9 TA + \varepsilon \quad (4)$$

$$EXC = \alpha + \beta_1 MEET + \beta_2 ATTD + \beta_3 BODS + \beta_4 CHAIR + \beta_5 DIRE + \beta_6 FAMY + \beta_7 EDUC + \beta_8 ENPR + \varepsilon \quad (5)$$

$$EXC = \alpha + \beta_1 MEET + \beta_2 ATTD + \beta_3 BODS + \beta_4 CHAIR + \beta_5 DIRE + \beta_6 FAMY + \beta_7 EDUC + \beta_8 ENPR + \beta_9 TA + \varepsilon \quad (6)$$

4 Empirical results analysis

4.1 Board of Directors Data questionnaire survey statistics

There were totally 97 private universities for the 2010 academic year (including 36 general private universities and 61 private vocational colleges). The Board of Director data questionnaire surveys of the study were issued to the board secretaries of private universities (including vocational colleges. The questionnaires were issued in September 2011 and re-issued in mid October for follow-up questionnaires. The total number of questionnaires issues was 97 and the total number recovered in November was 34 with a recovery rate of 35%. One questionnaire was deducted of incompletion for analysis, and hence the number of valid questionnaire for analysis was 33. Among the 33 questionnaires, 12 private universities and 21 vocational colleges underwent the goodness-to-fit test, where $\chi^2 = 0.0081 < \chi^2_{0.05} = 3.841$; accepting sample allocation fitting population allocation.

4.2 Descriptive and Statistical Analysis of BOD Data

The descriptive and statistical analysis for the various variables of the overall samples in this study is shown in Table 1. The assessment results (EVA) showed the measurement of the latest assessment results from the Ministry of Education to that school with the worse ratio of approved departments or colleges for school obtaining Level 2 or above was 0.267, while the optimal school has obtained Level 1 or approved for all assessed departments and colleges at the university.

The overall development award grants (DVE) is provided by the Ministry of Education to counsel private universities with sound development, balancing educational resources for private and public schools, enhancing education quality and competitiveness, and assisting schools with sound characteristics development. The overall development award grant is basically offered to all schools. However, due to one of the sample schools was founded in 2009 while the Ministry of Education did approve the allocation of funding to the school in 2010. Hence the least grant received was NT0 while the school receiving maximum grant of up to NTD143, 851,068. The effective number after taking the natural logarithm was 32, indicating that 32 schools from the samples received grants, with the minimum value of 15.624 and the maximum value of 18.784.

The MOE encouraged University Teaching Excellence Program (EXC) with grants offered from 2009 to 2010. The universities receiving grants included 20 general private universities and 24 private vocational colleges. Not all universities received grants from Teaching Excellent Program, hence the university receiving the minimal grant for the Teaching Excellence Program was NT0 and the maximum was NT135 million. The grant for Teaching Excellence Program as taken with natural algorithm to yield the effective number of 16, indicating that 16 schools from the samples received grants, with the minimum value of 17.313 and the maximum value of 18.721.

According to Article 31 of private school law, the BOD shall be convened in accordance with the specifications set forth in the articles of association. In case the BOR has not been convened in two semesters, the incorporated supervisor agency may follow the application or functions of at least two existing directors, to indicate the directors with convening BOD meetings. Hence the BOD meeting (MEET) should be held once at each academic year' whereas the sample universities shall at least convene the BOD twice for each academic year, with the maximum 12 times and the average of 4 times. The average attendance rate for the directors at the BOD (ATTD) was 80%.

Article 15 of the private school law specified on the number of directors (BODS) falling between 7~21 people, whereas the sample schools include at least 7 people, the maximum number was 15 people and the average of 12 people. According to Article 17 of private school law, each director may serve a 4-year term and can be reelected. The term of current chairperson of directors (CHAIR) in the sample schools may not fall less than 1 year with the maximum up to 38

years and the average number of 9 years. The average term of the existing directors (DIRE) is at least 3 years with maximum up to 12 years. According to Article 16 of private school law, the directors having spouses, relatives of consanguinity and relatives by marriage (FAMY), may not exceed one third of the total number. The minimum number of people from the founder family members in the samples was 0 and the maximum number of 5 people; while the average was 1.7 people. The BOD pattern was analyzed, indicating that the number of educational experts (EDUC) in the school BOD was 2 people, the maximum was 13 people and the average was 7 people. The number of enterprise experts (ENPR) was at least 0 people, maximum of 13 people and the average was 6 people, showing the school BOD mostly constituted by members of educational experts. The minimum value of the total assets (TA) was NT900 million and the maximum of NT231 million, while the natural logarithm take value was 20.690 and the maximum of 23.810.

Table 1: The overall samples descriptive statistics

	N	Minimum	Maximum	Mean	Median	Std. Deviation
EVA	32	0.267	1.000	0.926	1	0.138
DEV	32	15.624	18.784	17.141	16.874	0.941
EXC	16	17.313	18.721	17.710	17.526	0.468
MEET	33	2	12	3.948	3	2.422
ATTD	33	0.510	1.000	0.795	0.800	0.079
BODS	33	7	15	11.788	11	2.870
CHAIR	33	0	38	9.179	7	9.535
DIRE	33	3	12	6.000	4	2.739
FAMY	33	0	5	1.697	1	1.741
EDUC	33	2	13	7.182	7	2.910
ENPR	33	0	13	6.000	5	3.708
TA	33	20.690	23.810	21.994	21.972	0.740

Note : Variables definition : EVA: The latest assessment results for the school are measured by the MOE. DEV: The natural logarithm of the 2010 Ministry of Education Grant for the Overall Development Grants. EXC: The natural logarithm for the total amount of university teaching excellence grant from the MOE. MEET: The average number of meetings held by the BOD. ATTD: The average attendance rate to BOD meetings. BODS: The total number of existing directors for that school. CHAIR: The seniority for the existing chairman position. DIRE: The seniority for the existing director position. FAMY: The total number of people from the founding family members of

existing directors. DUC: The total number of existing directors who have professional background in education. ENPR: The total number of people from the existing directors with professional background in enterprises, government or other experiences. TA: The natural logarithm for the school's total assets in 2008.

4.3 Private University BOD and School Performance Correlation's Analysis

The Pearson's correlation analysis for the variables of the overall samples in the study is shown in Table 2. The number of BOD meetings and assessment results has significant negative correlation. The number of years for director term and the total asset amount has significant positive correlation with the results of the overall development grand, where the total asset amount has significant positive correlation to the results of teaching excellent program grants. The scale of BOD and member of BOD have significant positive correlation with the number of enterprise experts, while the seniority of president and the member of BOD family has negative correlation but significant positive correlation with the number of education experts. We can preliminarily understand from the correlation analysis table that the structure of school BOD has relevance with the various indicators for school performance.

Table 2: The overall samples Pearson's correlation analysis

	EVA	DEV	EXC	MEET	ATTD	BODS	CHAIR	DIRE	FAMY	EDUC	ENPR	TA
EVA	1											
DEV	-0.272	1										
EXC	0.003	0.590 **	1									
MEET	-0.557 ***	-0.176	-0.397	1								
ATTD	0.089	-0.155	-0.180	-0.037	1							
BODS	-0.195	0.132	0.087	0.118	-0.088	1						
CHAIR	0.191	0.005	0.141	-0.250	-0.061	-0.120	1					
DIRE	0.148	0.313 *	0.190	0.082	-0.129	-0.103	-0.054	1				
FAMY	0.108	-0.201	-0.299	-0.178	-0.330 *	0.249	-0.320 *	0.066	1			
EDUC	0.266	0.022	0.260	0.017	0.192	0.154	0.464 ***	-0.016	-0.334 *	1		
ENPR	-0.202	0.225	0.408	-0.011	-0.195	0.687 ***	0.119	0.012	0.228	-0.177	1	
TA	0.045	0.735 ***	0.447 *	-0.383 **	-0.214	0.132	-0.091	0.204	0.109	-0.153	0.278	1

Note : Variables definition: EVA: The latest assessment results for the school are measured by the MOE. DEV: The natural logarithm of the 2010 Ministry of Education Grant for the Overall Development Grants. EXC: The natural logarithm for the total

amount of university teaching excellence grant from the MOE. MEET: The average number of meetings held by the BOD. ATTD: The average attendance rate to BOD meetings. BODS: The total number of existing directors for that school. CHAIR: The seniority for the existing chairman position. DIRE: The seniority for the existing director position. FAMY: The total number of people from the founding family members of existing directors. DUC: The total number of existing directors who have professional background in education. ENPR: The total number of people from the existing directors with professional background in enterprises, government or other experiences. TA: The natural logarithm for the school's total assets in 2008.
***, **, and * indicate significance at the 1, 5 and 10 percent levels respectively.

4.4 Applying regression analysis for the structural operation in the BOD

The overall sample regression analysis results for the operations of BOD structure and school performance are shown in Table 4.3. The assessment results (EVA) are used as the proxy variables. Empirical results show that the number of BOD meeting (MEET) and assessment results under model (1) and model (2) have significant negative correlation, indicating that as the number of BOD meetings held increases, the worse results the assessment becomes. The number of education experts (EDUC) and assessment results has significant positive correlation, indicating that as the number of education experts increases, the better results the assessment become. The number of family members in BOD (FAMY) and the assessment results in model (1) has significant positive correlation, indicating that as the number of family members in BOD increases, the better results the assessment become.

Empirical results discovered from the proxy variables in the funding of overall development grants (DEV) for school performance that the number of family members in the BOD and the overall development grant funding results under model (3) and model (4) have significant negative correlation, indicating that the assessment results worsen with the funding of the overall development grants. It is discovered from model (3) that the increasing number of meetings held has significant negative correlation with school performance, whereas the school scale (TA) and school performance have significant positive correlation in model (4). It implies that as the number of BOD meetings increases, the assessment results of the overall development grants worsen, while the bigger the school scale, the better the assessment results for the overall development grants.
The proxy variables using teaching excellence program funding (EXC) as school performance shows in the empirical results that the number of BOD meetings, the attendance date and the results of teaching excellence program funding have significant negative correlation under model (5) and model (6), indicating that as the number of BOD meetings held and the attendance rate (ATTD) increase, the results of teaching excellence program grants worsen. The number of education

Table 3: the overall samples regression analysis

Variables	EVA		DEV		EXC	
	Model(1)	Model(2)	Model(3)	Model(4)	Model(5)	Model(6)
(Constant)	0.871 ***	1.579 *	19.718 ***	-1.007	20.603 ***	16.677 **
	(0.003)	(0.076)	(0.000)	(0.844)	(0.000)	(0.039)
MEET	-0.031 ***	-0.036 ***	-0.150 **	-0.010	-0.338 **	-0.303 *
	(0.001)	(0.002)	(0.039)	(0.877)	(0.017)	(0.053)
ATTD	0.096	0.022	-3.383	-1.224	-3.463 **	-3.400 *
	(0.724)	(0.939)	(0.126)	(0.475)	(0.046)	(0.064)
BODS	-0.014	-0.014	0.027	0.043	-0.049	-0.036
	(0.290)	(0.276)	(0.791)	(0.582)	(0.400)	(0.575)
CHAIR	-0.001	-0.002	-0.035	-0.006	-0.033 **	-0.028
	(0.814)	(0.609)	(0.169)	(0.750)	(0.025)	(0.102)
DIRE	0.010	0.012	0.106 *	0.063	0.025	0.017
	(0.175)	(0.135)	(0.079)	(0.169)	(0.397)	(0.620)
FAMY	0.026 *	0.022	-0.317 **	-0.209 **	-0.078	-0.068
	(0.090)	(0.162)	(0.011)	(0.030)	(0.161)	(0.265)
EDUC	0.024 **	0.025 **	0.020	0.005	0.170 **	0.166 **
	(0.031)	(0.030)	(0.812)	(0.945)	(0.014)	(0.023)
ENPR	-0.003	0.000	0.081	0.009	0.070	0.057
	(0.771)	(0.970)	(0.305)	(0.888)	(0.138)	(0.274)
TA		-0.029		0.846 ***		0.167
		(0.391)		(0.000)		(0.550)
N	32	32	32	32	16	16
F-Value	3.784 ***	3.414 ***	1.979 *	5.143 ***	3.502 *	2.891
Adjusted R^2	0.418	0.412	0.202	0.546	0.572	0.531

Note: Variables definition: EVA: The latest assessment results for the school are measured by the MOE. DEV: The natural logarithm of the 2010 Ministry of Education Grant for the Overall Development Grants. EXC: The natural logarithm for the total amount of university teaching excellence grant from the MOE. MEET: The average number of meetings held by the BOD. ATTD: The average attendance rate to BOD meetings. BODS: The total number of existing directors for that school. CHAIR: The seniority for the existing chairman position. DIRE: The seniority for the existing director position. FAMY: The total number of people from the founding family members of existing directors. DUC: The total number of existing directors who have professional background in education. ENPR: The total number of people from the existing directors

with professional background in enterprises, government or other experiences. TA: The natural logarithm for the school's total assets in 2008.
***, **, and * indicate significance at the 1, 5 and 10 percent levels respectively.

experts and results of teaching excellence program grants have significant positive correlation, indicating that as the number of education experts in BOD increases, the better results the teaching excellent program grant become. The results of model (5) show that the president seniority (CHAIR) and the results of teaching excellence program grant have significant negative correlation, indicating that as the president seniority increases, the less that teaching excellence program grant are received in contrast.

According to the aforementioned different indices for school performance, the variables with significant impact also differ. The number of meetings under the BOD operations and the three different indices for school performance has negative correlation, indicating that school performance does not necessarily become better as the number of meetings increases or more meetings should be called for because of worsened school performance. The director attendance rate and the indices for the teaching excellence program grant from the MOE have negative correlation. Due to the Ministry of Education grant is given by the allocation specified by the Ministry of Education which does not appear in consistent correlation with the BOD operations. In a BOD structure, president seniority has a significant negative correlation with the teaching excellence grant, indicating that the higher the president seniority, the worse results the teaching excellence grant become. The number of family members in BOD has significant positive correlation with the assessment results, however with significant negative correlation with the results of overall development grant as well as a negative correlation with the teaching excellence program grant. Therefore, the correlation between the number of family members and school performance differs according to the different objectives.

The scale of BOD and number of enterprise experts do not have significant impact on school performance. Nonetheless, the number of education experts in BOD, the assessment results and the results of teaching excellence program grants has significant positive correlation while having a positive correlation with the assessment results of the overall development grant, indicating that the more number of education experts in BOD, the better the school performance. Hence, H is accepted: The Structure and operations of Board of Directors have difference with the school performance.

5 Conclusion and Recommendation

The study applies internal governance to carry out research to comprises the BOD structure and operations of private universities by analyzing the

establishment and differences of private university governance mechanism as well as the relation of school performance, using objective performance measurement data to analyze and discuss.

The structure and operations of private university BOD, using perspective from corporate governance, combining the governance mechanism of universities to discuss the school performance of private universities. From the perspective of private school law, the governance structure of private universities are similar to the corporate governance structure, with the exception of shareholding meetings, private universities also apply board of directors as the decision-making organs while the president acts in the ranking similar to a general manager of the company. A rare number of studies have conducted studies related to this area. Chang Kuopao (2003) conducted a survey on the organizational operation and functional overview of private university BODs with emphasis placed on the cognitive analysis of BOD members and school related personnel to the organizational operations and functional efficacy of board of directors.

The study applies multi-functional and objective measurement standards to assess the school performance, such as the assessment performance, teaching excellence program grants, overall development grants and other external performance, that are used to evaluate the school performance of universities. Empirical results discover the structure and operations of the BOD in the school show great difference in terms of the number of BOD meetings held for each academic year, BOD scale and resident seniority. The average director attendance rate for the BOD does not show much difference. The establishments mainly consist of non-religious and non-enterprise establishments. The analysis using BOD model shows comparable number of education-expert based and enterprise-expert based schools from our sample schools, whereas the education expert model is slightly more than the enterprise experts and the average number of education experts from the school BOD is higher than the number of enterprise experts.

According to the different school performance indices established by the study, the variables with significant impact also differ. The number of BOD operated meetings and the different school performance indices all have negative relation, indicating that the more number of meetings does not necessarily guarantee better school performance or require frequent meetings to discuss due to worse school performance situations. The direct term and the different school performance indices all have negative relation, where the longer the director term, the more likely that the school development will be hindered. In contrary, when the director term prolongs, more contributions will be made to school performance. The attendance rate and the MOE grant funding indices have negative relation due to the MOE grant is allocated according to the guidelines specified by the MOE while the BOD operations are not necessarily consistent.

Due to the competent authorities did not require compulsory disclosure of information related to BOD structure and operations, the data acquisition becomes relatively difficult. The study could only analyze based on the questionnaires and

recovered sample school overview. Although the data yields overview on the overview of the BOD operations in private universities and the relevance between school performances, the transparency of information on the BOD structure and operations specified by laws and regulations, can make comprehensive understanding to the relevance of private school BOD and the various school performance, similar to the government agencies specifying corporate governance mechanism with standards to achieve the function of reviving the interests and removing the faults. The results of the empirical study shows how the university governance management team of private universities enhance school performance and administrative performance satisfaction, providing the reference for universities, the academic field and educational competent authorities towards the university governance of BOD mechanism establishment and research.

ACKNOWLEDGEMENTS. The authors appreciate excellent comments made by the editor and two anonymous reviews, resulting in a significant improvement in the quality of this paper.

References

[1] L. Abbott, S. Parker, G. Peters and K. Raghunandan, The Association between Audit Committee Characteristics and Audit Fees, *Auditing*: *A Journal of Practice and Theory*, **22**, (2003), 17-32.

[2] L. Abbott, S. Parker and G. Peters, Audit Committee Characteristics and Restatements, *Auditing: A Journal of Practice and Theory*, **1**, (2004), 69-87.

[3] A. Amaral and A. Magalhães, *The Emergent Role of External Stakeholders in European Higher Education Governance*, in: A. Amaral, V. L. Meek and I. M. Larsen (Eds.) *Governing Higher Education: National Perspectives on Institutional Governance*, Dordrecht: Kluwer Academic Publishers, 2002.

[4] Bonn, and Ingrid, Board structure and firm performance : evidence from Australia, *Journal of the Australian and New Zealand Academy of Management*, **10**(1), (2004), 14-24.

[5] J.P. Campbell, Modeling the Performance Prediction Problem in Industrial and Organizational Psychology. *Handbook of Industrial and Organizational Psychology*, Consulting Psychologists Press, Palo Alto, CA, **1**, (1990), 687-732.

[6] K. Chang, *A study on organizational operation and authority effectiveness of the boards of trustee of private universities in Taiwan*, National Taiwan Normal University, Doctoral thesis, 2003.

[7] W. Chen, New Development of University Governance: The study of University Governance Mechanisms, *NTU Alumni Bimonthly*, **23**, (2002).

[8] X. Chen and Y. Chen, The Impact of Independent Board of Directors on Corporate Governance and Firm Performance-Evident from Listed companies in Taiwan, *8th Management territory academic conference proceedings*, (2007), 147-174.
[9] T. Chevaillier, *University Governance and Finance: The Impact of Changes in Resource Allocation on Decision Making Structures*, in: A. Amaral and G. Jones (Eds.) *Governing Higher Education: National Perspectives on Institutional Governance*, Dordrecht: Kluwer Academic Publishers, 2002.
[10] H. Chiang and L. He, *Board Structure, Board Supervision Capability and Information Transparency*, Accounting Theory and Practice Conference, Taipei, Soochow University, 2006.
[11] M. Chiang and J. Lin, The Relationship between Corporate Governance and Firm Productivity: evidence from Taiwan's manufacturing firms, *Corporate Governance: An International Review*, **15**(5), (2007), 768-779.
[12] R.L. Coccari and R. G. Javalgi, Analysis of students' needs in selecting a college or university in a changing environment, *Journal of Marketing for Higher Education*, **l6**(2), (1995), 27-39.
[13] M.L. DeFond, R. N. Hann and X. Hu, Does the Market Value Financial Expertise on Audit Committees of Board of Directors? *Journal of Accounting Research,* **43**, (2005), 153-193.
[14] F. DeZoort, D. Hermanson and R. Houston, Audit Committee Member Support for Proposed Audit Adjustments: Pre-SOX versus Post-SOX Judgments. *Auditing: A Journal of Practice & Theory,* **27**(1), (2008), 85-104.
[15] D.J. Duquette and A. M. Stowe, A Performance Measurement Model for the Office of Inspector General, *Government Accountants,* **42**(2), (1993), 27-50.
[16] E.F. Fama, Agency Problems and the Theory of the Firm, *Journal of Political Economy,* **88**, (1980), 288-307.
[17] E.F. Fama and M.C. Jensen, Separation of Ownership and Control, *Journal of Law and Economics,* **26**, (1983), 301-325.
[18] Filatotchev, Igor, Y. Lien and J. Piesse, Corporate Governance and Performance in Publicly Listed, Family-Controlled Firms: Evidence from Taiwan, *Asia Pacific Journal of Management*, **22**, (2005), 257-283.
[19] D. Finegold, G.S. Benson and D. Hecht, Corporate boards and company performance: review of research in light of recent reforms, *Corporate Governance: An International Review*, **15**(5), (2007), 865-878.
[20] Freeman and R. Edward, *Strategic management: A stakeholder approach*, Boston, Pitman, (1984).
[21] Z. Gai, X. Liu, The relationship of higher education performance index and the university subsidy funds, The 2nd higher education forum Guangzhou: South China University of Technology, (2006).
[22] L. Goedegebuure, F. Kaiser, P. Maassen and E. De Weert, *Higher Education Policy in International Perspective*. Pergamon, (1994).
[23] HEEACT The Program of Private Universities Department Evaluation, 2006, http://www.heeact.edu.tw/lp.asp?ctNode=402&CtUnit=154&BaseDSD=7&mp=2

(accessed 15December, 2010), (2006a).
[24] HEEACT Evaluation Bimonthly, 3, 39. http://www.heeact.edu.tw/mp.asp?mp=2 (accessed 15December, 2010), (2006b).
[25] HEEACT, http://www.heeact.edu.tw/mp.asp?mp=2 (accessed 15December, 2010), (2010).
[26] HEFCE, *Funding Higher Education in England: How the HEFCE allocates its funds*. England: Higher Educaiton Funding Council for England, (2000).
[27] Z. Huang, The idea and practice of University Governance, Taipei: Great Scholar Publishing Co., LTD, (2008).
[28] M.C. Jensen, The Modern Industrial Revolution, Exit, and the Failure of Internal Control Systems, *Journal of Finance,* **48**, (1993), 831-880.
[29] S.N. Kaplan, and B. A. Minton, Appointments of Outsiders to Japanese Boards: Determinants and Implications for Managers. *Journal of Financial Economics*, **36**, (1994), 225-258.
[30] I. Karamanou and N. Vafeas, The Association between Corporate Boards, Audit Committees, and Management Earnings Forecasts, *Journal of accounting research*, **43**(3), (2005), 453-486.
[31] A. Kelton and Y.Yang, The Impact of Corporate Governance on Internet Financial Reporting, *Journal of Accounting and Public Policy*, **27**, (2008), 62-87.
[32] J. Krishnan, Audit Committee Quality and Internal Control: An Empirical Analysis, *Accounting Review*, **80**(2), (2005), 649-675.
[33] G. Krishnan and G. Visvanathan, Does the SOX Definition of an Accounting Expert Matter? The Association between Audit Committee Directors' Accounting Expertise and Accounting Conservatism, *Contemporary Accounting Research,* **25**(3), (2008), 827-857.
[34] Y.S. Lee, S. Rosenstein, and J. G. Wyatt, The Value of Financial Outside Directors on Corporate Boards, *International Review of Economics and Finance*, **8**(4), (1999), 421-431.
[35] F. Li, Stakeholder theory and University Governance Mechanisms on Innovation, *Educational Research*, **7**, (2007).
[36] X. Liao, J. Li and X.Wu, The study of board structure characteristic and firm performance-Discussing the influence of Taiwan's Family firms factor simultaneously, *Soochow Journal of Economics and Business*, **54**, (2006), 117-160.
[37] A. Liu, *The Influence of Competitive funds on higher education development*, the 5th higher education forum-Humanities, management and higher education conference, Taoyuan County, Yuan Ze University, 2009.
[38] P.W. MacAvoy, and M. Millstein, The Active Board of Directors and its Effect on the Performance of the Large Publicly Traded Corporation, *Journal of Applied Corporate Finance*, **11**(4), (1999), 8-20.
[39] L. McDaniel, R. D. Martin and L. A. Maines, Evaluating Financial Reporting Quality: The Effects of Financial Expertise vs. Financial Literacy, *Accounting Review,* **77**, (2002), 139-167.

[40] A.I. Melo, C.S. Sarrico and Z. Radnor, The Influence of Performance Management Systems on Key Actors in Universities: The case of an English university, *Public Management Review,* **12**(2), (2010), 233-254.
[41] MOE, Higher Education, Technological & Vocational Education Newsletter, (2005), http://www.news.high.edu.tw, (accessed 15December, 2010).
[42] MOE 1994-2009 our country educates the development statistical analysis, August 2010 the 8th national education conference, (2010a), http://www.news.high.edu.tw, (accessed 15 December, 2010).
[43] MOE Program for Promoting Teaching Excellence of Universities, (2010b), http://www.csal.fcu.edu.tw/Edu/program_start.asp, (accessed 15 December, 2010).
[44] MOE, Higher Education, Technological & Vocational Education Newsletter, (2010c), http://www.news.high.edu.tw, (accessed 15 December, 2011).
[45] B. Qin, The Influence of Audit Committee Financial Expertise on Earnings Quality: U.S. Evidence, *The Icfai Journal of Audit Practice* **4**(3), (2007), 8-28.
[46] P.L. Rechner and D.R. Dalton, The Impact of CEO as Board Chairman on Corporate Performance: Evidence vs. Rhetoric. *The Academy of Management Executive*, **12**, (1989), 141-143.
[47] S.S. Saad, J.G. Evans and Z.M. Sori, Senior Managers' Perceptions on Audit Committee Composition and Effectiveness: Some Evidence from Malaysia, SSRN, *Working Paper*, (2006).
[48] B. Salter and T. Tapper, The External Pressures on the Internal Governance of Universities, *Higher Education Quarterly*, **56**(3), (2002), 245-256.
[49] M. Shattock, Governance and Management in Universities: The Way We Live Now, *Journal of Education Policy*, **14**(3), (1999), 271-282.
[50] B. Sporn, Governance and Administration: Organizational and Structural Trends, in James J. F. Forest & Philip G. Altbach (Eds.), International handbook of higher education, Netherlands, Springer, p. 141-157, 2006.
[51] J. Su, The Evaluation theory and practice on higher education. Taipei: Wu-Nan Book Inc, (1997).
[52] TWAEA, The Program of Private Universities of Science and Technology's Assessment and Evaluation, (2005), (accessed 15 December, 2011), http://www.twaea.org.tw/ps_display.php?H=1&No=1&AutoNo=17
[53] TWAEA, Assessment and Evaluation Information, (2010), (accessed 15 December, 2011), http://tve-eval.twaea.org.tw/
[54] J.P. Walsh and J. K. Seward, On the Efficiency of Internal and External Corporate Control Mechanisms, *Academy of Management Review,* **15**, (1990), 421-458.
[55] M.S. Weisbach, Outside Directors and CEO Turnover, *Journal of Financial Economics,* **20**, (1988), 431-460.
[56] Y. Yeh and C. Li, Independent directors system reform in Taiwan – policy suggestion, *Accounting Research Monthly,* **213**, (2003), 66-85.
[57] Y. Yeh, *The practice company governs - Taiwan group enterprise's merit and the mistake*, Taipei, Linking Publishing Co., LTD, 2008.

[58] Y. Zhang, J. Zhou and N. Zhou, Audit Committee Quality, Auditor Independence, and Internal Control Weaknesses, *Journal of Accounting and Public Policy*, **26**, (2007), 300-327.

Appendix

University BOD data survey questions

1. The establishments of your university is : (1)Fixed enterprise with long-term support for school (2) Religious establishment and long-term support for school (3) others
2. The number of existing BOD members in your incorporation.
3. The professional background of existing BOD and BOD members of your incorporation:
   (1) Number of people with university supervisor experience (University chairman, vice-chairman or dean of academic affairs, dean of student affairs and dean of general affairs)
   (2) Number of people with university administrative experience (Administrative supervisors of universities)
   (3) Number of people with university teaching experience (Having held the position as a university faculty)
   (4) Number of people having held position as directors for other school or part-time director for other schools.
   (5)Number of people from the business industry
   (6)Number of government personnel
   (7)Other numbers of people
4. The number of years having already served as the current chairman.
5. The average number of years serving for current chairman.
6. The number of founding family members taking position as the directors.
7. The average number of meetings held by your BOD for each academic year in the last three years.
8. The average attendance rate for BOD meeting in the last three years.