Effects of Corporate Governance on Accounting Education and Enterprise Value in High-Tech Industry

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ABSTRACT
Corporate governance, an important study on enterprise operation and management, aims to have an enterprise effectively supervise organizational activity and operation through favorable management and supervision systems or mechanisms. When a company presents sound corporate governance, the managers would maximize corporate value and shareholders’ equity to enhance the business performance and corporate value.

Listed high-tech industries in Shanghai are sampled for this study. The data are acquired from China Economic and Financial Research Database. The research results conclude 1.significantly positive correlations between corporate governance and Accounting Education, 2.remarkably positive correlations between Accounting Education and enterprise value, 3.notably positive correlations between corporate governance and enterprise value, and 4.mediation effects of Accounting Education between corporate governance and enterprise value. The results could provide reference for managers in domestic high-tech industries making investment decisions and governmental authorities formulating relevant regulations. Good match with corporate governance allows a company thoroughly developing the benefit of capital expenditure to further create higher corporate value.

Keywords: high-tech industries, corporate governance, accounting education, enterprise value

INTRODUCTION
In the past decade, the so-called “corporate governance” has become an important study on enterprise operation and management. After the series of malpractice, e.g. Enron event and WorldCom, enterprises have gradually stressed on corporate governance systems. “Corporate governance” aims to have an enterprise effectively supervise organizational activity and operation, prevent from malfeasance and malpractice, and guarantee the rights and interests of all stakeholders (shareholders, creditors, employees, and other stakeholders) through favorable management and supervision systems or mechanisms to realize corporate social responsibilities. Under the trend of trade liberalization and market internationalization, product innovation is fast and diversified, product lifecycle is shortened, and market change becomes rapid with fierce competition. For this reason, when a company presents sound corporate governance mechanisms, the managers would maximize corporate value and shareholders’ equity to enhance the business performance and corporate value.

Since business performance is mainly presented with financial statement information, the evaluation value of accounting information of earnings and book value are important for investors. Under the assumption of the sustained-yield management of a company, stock value reflects the future profitability and definitely reflects the capability of dividend payout, cash generation, or making excess earnings (abnormal earnings) of a company in the future. As earnings information could not reflect the earnings quality, the accounting information in the financial statement is the business performance of a company as well as the important information source for investors understanding the operating condition. The forecast relevance and persistence of current excess earnings and next-period excess earnings information of a company are closely related to the factors in corporate governance and the
persistence of future excess earnings. Corporate governance towards accounting education and enterprise value in high-tech industries is therefore discussed in this study.

LITERATURE REVIEW

Corporate Governance

From social points of view and general aspects, Fama & French (2015) pointed out corporate governance as guiding, controlling, and regulating various activities among members with power under the social organization with social legal systems as well as formulating internal systems and relationship to maximally enhance the common interests of the group (Mao & Renneboog, 2015). The core value of an effective corporate governance system lied in standardizing board of shareholders and board of directors. With the division of authority and responsibility between shareholders and directors, board of shareholders controlled the appointment and removal of directors and the final approval of systems as well as supervised directors. Board of directors, on the other hand, was responsible for the benefits of shareholders and the company as well as supervised management echelon by grasping the power of financial policies and personnel management to ensure the sustained yield management of the company (Beaudoin et al., 2015). Reed (2015) explained corporate governance as to ensure capital providers being able to acquire deserved rewards. Syriopoulos & Tsatsaronis (2012) defined corporate governance as the system to instruct and control a company that the corporate governance structure should enhance transparent and efficient markets, establish consistent law, and clearly explain the division of responsibilities among supervision, control, and authority and responsibility execution units.

Referring to Huang & Ni (2017), the following dimensions are utilized for measuring corporate governance in this study.

1. Manager holdings: Van der Colff (2015) indicated that managers, on whom the company concentrated the holdings more, inclined to maximizing shareholders’ wealth in the decision-making.

2. External shareholders: Khan et al. (2013) proposed two opinions. One was “efficiency supervision assumption” which considered that institutional investors presented more professional knowledge and technology on supervising managers than on small shareholders, and the supervision cost was lower. Increasing institutional investors therefore could effectively reduce agency problems, enhance the operation performance of an enterprise, and appear positive intention to the beneficial acquisition for the enterprise.

3. Board size: Schnatterly & Johnson (2014) considered that the smaller board size could more effectively supervise CEO’s action.

Accounting Education

The quality characteristics of accounting education refer to the provided information being able to help users make economic decisions (Hwang et al., 2013). Kouwenberg et al. (2014) classified accounting education into accrual quality, predictability, stationarity, persistence, value relevance, timeliness, and robustness. The robustness of accounting information, from the viewpoint of income statement, could be rapidly measured from good and bad news of earnings response to further extend to the capital market. Zagorchev & Gao (2015) considered that accounting robustness could be promoted through accounting education, and the robustness was the multiple of bad news coefficient of earnings response in good news coefficient of earnings response. When the value was higher than 1, the earnings conformed to the robustness principle. Positive accounting operation has become a tactic for a company with the intention of fraud that a healthy corporate governance system should avoided the situation through accounting education. Company accountants (and firm’s CPA) often encounters moral dilemma as they are responsible for the company management (firm’s clients) and the public that they present dual identity. Under the pressure of dual identity, the decisions are not made with accounting profession, but take socio-psychological
into account, when encountering moral dilemma. Both current situation and organizations are the factors in the moral decision making (Filbeck et al., 2013). Abernathy et al. (2014) pointed out the high complexity of current commercial environment that listed ethics or codes of conduct could not provide complete behavior directions for corporate accountants. For this reason, a school should provide professional morality courses to train students and cultivate the moral judgment ability (Charles et al., 2016).

Referring to Ni et al. (2017), professional ethics, ethical value, and professionalism are applied to measure accounting education in this study.

**Enterprise Value**

Lew & Wu (2013) indicated that the real value of a company could not be determined with traditional accounting standards, where tangible asset-centered and amount-emphasized enterprise evaluation model could not completely estimate the true value of high-technology and high value-added industries. Dhaliwal et al. (2012) regarded enterprise value as the process of an enterprise creating wealth for the shareholders through the enhancement of stock value and the distribution of dividend. Otsubo (2017) also mentioned that tangible asset-centered enterprise evaluation model could not completely measure the true value of an enterprise. Kim et al. (2014) considered that the key in creating enterprise value focused on the viewpoints of shareholders and customers and the application of correct strategies as course of action and guidelines to achieve the final objective of enterprise value. Baber et al. (2012) divided enterprise value into 1. the value of tangible assets, 2. the value of intangible assets, and 3. the synergy value operated by effectively integrating tangible assets and intangible assets.

Habib et al. (2013) measured enterprise value with financial indicators and non-financial indicators. The common financial indicators contained price per book value, Tobin’s Q, and economic profits, which presented clear definitions and definite calculation, that they were not difficult to measure. Non-financial indicators included customer satisfaction, product quality, and organizational stability, which were more difficult and not easily identified. As a result, financial indicators were used in most studies for measuring enterprise value. The idea of Tobin’s Q has been proposed for more than four decades. Tobin’s Q, proposed by James Durbin, a Nobel laureate in economics, in 1969, aims to assist in predicting the investment decision of an enterprise beyond economic factors. The equation is the ratio of the market value of an asset and the replacement cost. Tobin’s Q larger than 1 stands for high growth of the company, while Tobin’s Q smaller than 1 represents the low growth. The Tobin’s Q approximate equation proposed by Shieh et al. (2016) is utilized in this study. By multiplying the stock value of a company by the market value of outstanding shares and outstanding preferred stocks, adding the book value of long-term liabilities as well as the market value of short-term liabilities, and then being divided by the book value of total assets, the result is similar to Tobin’s Q.

**Research Hypothesis**

Fama & French (2012) indicated that the basis of the external environment of corporate governance was to establish the regulation and law enforcement system to effectively regulate a company. Without proper accounting standards, shareholders or the external could not know the situation when controlling shareholders or the managerial level did not take the responsibilities or appear non-arm’s length. Besides, when illegal things appear in administering authorities, appropriate legal punishments are necessary to stop such behaviors. Accountant education is therefore necessary in corporate governance for promoting the ability and literacy of accounting profession. Tan (2012) indicated that different governance mechanisms in various countries would affect accounting education and the relationship between information and stock value changes as well as the liquidity of capital market, as investors would be willing to invest in a company when they, to some degree, confirmed the invested capitals not being infringed by the management. Vintila & Gherghina (2012) mentioned that controlling shareholders might not provide accounting education for reflecting real transactions but consider self-interest when agency problems existed in between controlling shareholders and external shareholders. In this case, controlling shareholders might manipulate earnings to cover the effect of wealth encroachment on earnings or report the earnings with total amount, but ignore the details. Such behaviors could result in accounting education losing the reliability. When external investors did not trust financial accounting information, the correlation between earnings information and stock value reward would be reduced (Zagorchev & Gao, 2015). For this reason, the following hypothesis is proposed in this study.

H1: Corporate governance presents significantly positive correlations with accounting education.

Huang & Ni (2017) discovered that company accountants could promote the professional skills through accounting education to create financial earnings of the company and enhance enterprise value. Syriopoulos & Tsatsaronis (2012) compared the suitability between accounting earnings and cash flow for measuring company performance. As the shorter performance measuring period and longer company operating cycle would increase the importance of accrued receivables, in which the figures of earnings were included, it was considered that
earnings could better measure company performance than cash flow. Besides, the accounting measuring ability relied on an enterprise practicing accounting education to effectively measure enterprise value (Tone & Tsutsui, 2014). Corporate accounting supervisors or firm’s accountants should provide effective and correct information based on good faith principle. Accounting profession was therefore responsible for unspecific statement users, and reliability and ethics were emphasized characters beyond professional skills. Furthermore, accounting environment allowed flexible accountant selection that business managers would engage in legal or illegal enterprise value management due to self-interest or other factors (Hung et al., 2014). Accounting professionals often encountered moral judgment. At the time, perceived professional ethics would determine the accounting processing method. Accounting education therefore was necessary for promoting accountants’ professionalism and professional ethics perception so as to enhance the reliability of enterprise value information (Zahra, 2014). The following hypothesis is therefore proposed in this study.

H2: Accounting education shows remarkably positive correlations with enterprise value.

Different holding structures would determine distinct organization structures of enterprises to further determine various governance structures and eventually determine the behavior and value of such enterprises. Internal governance arrangement of a company, e.g. board of directors structure and managers’ shareholding incentive, is the internal power allocation of the company; and, holding structure is the direct reaction of the internal power allocation of the company (Qian & Yeung, 2015). Based on board of directors’ selection for proper goals and propose suggestions, Walls & Hoffman (2013) indicated that, when time permitted, board of directors should proposed suggested goals by matching company requirement and considering directors and potential directors’ capabilities. Large board of directors was not as efficient as small board of directors (Hwang et al., 2013). Relevant research discovered the smaller board size, the better business performance (Mao & Renneboog, 2015). Van der Colff (2015) indicated that independent directors, compared to general directors, did not present self-serving motivation but presented higher independence that they could objectively play the role of a supervisor. Besides, most seats of board of directors should be left for external directors in order to enhance the supervision function. Huang & Ni (2017) also proved that the establishment of two seats for independent directors and one seat for independent supervisor showed positive correlations with corporate performance, revealing that the system could actually enhance company performance. The independent directors and supervisor mechanism could benefit the sound operation of board of directors and promote enterprise value. Accordingly, the following hypotheses are proposed in this study.

H3: Corporate governance reveals notably positive correlations with enterprise value.

H4: Accounting Education appears mediation effects between corporate governance and enterprise value.

**RESEARCH DIMENSION AND METHOD DESIGN**

**Definition of Research Dimension**

(1) Corporate governance
Huang & Ni (2017), manager holding, external shareholders, and board size are used in this study for measuring corporate governance.

(2) Accounting Education
Referring to Ni et al. (2017), professional ethics, ethical value, and professionalism are applied in this study to measure Accounting Education.

(3) Enterprise value
In order to overcome the problem of an enterprise’s replacement cost data being hard to acquire, Shieh et al. (2016) proposed a Tobin’s Q approximate equation. By multiplying the stock value of a company by the market value of outstanding shares and outstanding preferred stock, adding the book value of long-term liabilities and the market value of short-term liabilities, and then being divided by the book value of total assets, the result is similar to Tobin’s Q.

**Research Object**

Listed high-tech industries in Shanghai are selected as the research samples. The data are acquired from China Economic and Financial Research Database. To complete the data of the research samples, a company with missing data would be deleted when collecting corporate governance, Accounting Education, enterprise value, and financial ratio related variables.
Analysis

Regression Analysis is utilized for understanding the relations among corporate governance, Accounting Education, and enterprise value.

ANALYSIS AND DISCUSSION

Correlation Analysis of Corporate Governance and Accounting Education

Regression Analysis is used for testing the hypotheses and theoretical structure in this study. The analysis of the first regression is shown in Table 1, where the regression equation achieves the significance (F=26.552, p<0.001). “Manager holding”, “external shareholders”, and “board size” in corporate governance show notably positive effects on professional ethics, reaching the significance (β=2.127, p<0.001; β=2.224, p<0.001; β=2.044, p<0.01). The analysis of the second regression is displayed in Table 1, where the regression equation reaches the significance (F=31.438, p<0.001). “Manager holding”, “external shareholders”, and “board size” in corporate governance present remarkably positive effects on ethical value, achieving the significance (β=2.224, p<0.001; β=2.371, p<0.001; β=2.446, p<0.001). The analysis of the third regression is shown in Table 1, where the regression equation reaches the significance (F=37.263, p<0.001). “Manager holding”, “external shareholders”, and “board size” in corporate governance reveal notably positive effects on professionalism, achieving the significance (β=2.476, p<0.001; β=2.253, p<0.001; β=2.325, p<0.001). Accordingly, H1 is supported.

Correlation Analysis between Corporate Governance, Accounting Education and Enterprise Value

Regression Analysis is applied to test the hypotheses and the theoretical structure in this study. The analysis of the first regression is listed in Table 2, where the regression equation reaches the significance (F=33.275, p<0.001). “Manager holding”, “external shareholders”, and “board size” in corporate governance appear notably positive effects on enterprise value, achieving the significance (β=2.433, p<0.001; β=2.382, p<0.001; β=2.516, p<0.001). H3 is therefore supported.

The analysis of the second regression is shown in Table 2, where the regression equation reaches the significance (F=36.834, p<0.001). “Professional ethics”, “ethical value”, and “professionalism” present remarkably positive effects on enterprise value, achieving the significance (β=2.188, p<0.001; β=2.297, p<0.001; β=2.622, p<0.001). In this case, H2 is supported.
Mediation Effect Analysis between Corporate Governance, Accounting Education and Enterprise Value

The mediation effect of Accounting Education is shown as the Hierarchical Regression Analysis in Table 3. Corporate governance reveals significant explanation on enterprise value ($F=33.275$, $p<0.001$). According to Model 2, where the effects of corporate governance and Accounting Education on enterprise value are taken into account to discuss the mediation effect of Accounting Education, it is discovered that $\beta$ of manager holding remarkably drops from 2.433 ($p<0.001$) down to 2.172 ($p<0.001$), revealing that Accounting Education would reduce the direct effect of manager holding on enterprise value. Furthermore, $\beta$ of external shareholders notably drops from 2.382 ($p<0.001$) to 2.069 ($p<0.001$), showing that Accounting Education would reduce the direct effect of external shareholders on enterprise value. Moreover, $\beta$ of board size significantly drops from 2.516 ($p<0.001$) to 2.243 ($p<0.001$), presenting that Accounting Education would reduce the direct effect of board size on enterprise value. According to the research results, Accounting Education appears partial mediation on corporate governance and enterprise value that H4 could be supported.

CONCLUSION

Corporate governance is a management issue commonly concerned in academia and business circles. After Asian Financial Crisis, landmine stock event, and a series of false financial statements of US large enterprises, governments in various countries adopted several measures to reinforce the corporate governance mechanism, expecting to enhance the overall governance standard of listed companies through the basic norms and effective practice of legal institution. Good corporate governance is the commitment to investors investing in capitals for acquiring reasonable rewards as well as the efficient operation of investment. Corporate governance therefore would affect the funding ability of high-tech industries in the capital market. Besides, corporate governance is
closely related to national economic performance as high-tech industries play an important role in the production and allocation with rare economic resources. Corporate governance in high-tech industries could supervise the managerial level of a company and guarantee investors’ basic equity through accounting education, but the final objective is to increase company value to thicken the long-term development of high-tech industries. When the capital market presents certain efficiency, stock value is the specific reflection of company value and shareholder wealth in high-tech industries. Consequently, the key in driving high-tech industries to apply higher-level governance mechanisms lies in the relationship between corporate governance and company value. That is, governance quality would affect stock value of a company in high-tech industries, and the adoption of good accounting education could have investors trust the accounting information and further be willing to invest. The funding capability and enterprise value in the capital market would be promoted.

**SUGGESTION**

Aiming at the research results of corporate governance, Accounting Education, and enterprise value in high-tech industries, the following suggestions are proposed in this study.

I. High-tech industry investors should actively participate in corporate governance systems. In addition to promoting the corporate governance quality of high-tech industries, they could reduce the investment risks. Institutional investors with long-term funds present social moral responsibility on investors’ capitals that institutional investors, by thoroughly developing the market influence, could lead the sound corporate governance of high-tech industries as well as ensure the risks and the rights & interests of the mass investors.

II. Pure cultivation of business operation ability is lack of ethical care about the world and active function to develop commercial behaviors for human wellbeing. High-tech industries are therefore suggested to include versatile business ethics courses in accounting education, covering the topics of information ethics, environmental ethics, consumer ethics, labor ethics, competitor-in-business ethics, government ethics, shareholder ethics, decision-making ethics internal control (supervision) ethics, international society ethics, and corporate social responsibility. Multiple teaching approaches of discussion questions for moral development, case method, value clarification, and role-playing method could be used for achieving the goal.

III. Investors should take corporate governance into account when selecting stocks. In addition to the profitability of listed companies in high-tech industries, institutional investors’ shareholding ratio, employment of external directors, frequent information openness and disclosure, and future business risks hid in too many holdings of insiders should be pay attention to. Such variables related to corporate governance in high-tech industries should be concerned.

**REFERENCES**


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