FAMILY FIRMS CONTROL STRUCTURE AND CORPORATE SUSTAINABILITY

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Abstract

A company with CSR devotion reflects this company aims not only in making profit, but also in sustainability. Family-owned companies have possessed of both control and operation right of the company, and family will devote themselves in CSR to signal the company’s commitment and then gains good image in order to sustainable and to maximize family benefit. The result indicated a positive relation between sustainability and the percentage of control shareholding, and negative relations between sustainability and two kinds of characteristic of family firms, which are the internal degree of the Board of Directors and the firm directed by single family. The evidence can offer stakeholders or the public to judge or predict the future development of the family firm.

Keywords: Family Firms, Sustainability, Corporate Social Responsibility (CSR), Corporate Sustainability Awards (CSA)

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1 Introduction

Corporate Social Responsibility (CSR) is a popular topic to the firms nearly across the globe. Chapple and Moon (2005) and Arya and Zhang (2009) suggest the results of studies done regarding CSR between the whole of Asia and new developing countries are inconsistent, because of inconsistencies in both environment and culture. In Taiwan, because the gap between rich and poor is greater, food safety issues like the “Gutter Oil” scandal hit like a storm, and environmental issues are piling up more and more. In response, the population has lost their trust in both enterprises and the government. How can we improve CSR and sustainability management besides only the pursuit for economic progress in enterprises is now an extremely important topic. Thus the performance in sustainability is really an important issue in the economic market.

Corporate Social Responsibility has been recognized as a key indicator of company’s commitment to the society, a company with CSR devotion reflects this company aims not only in making profit, but also in sustainability. Family-owned company is the majority type in Asian countries. Companies established by founders, then the family member succeed both the ownership and control, and then they wish to keep this succeeding model as long as possible. Family-owned companies have possessed of both control and operation right of the company, therefore, company’s performance is tightly connected with family’s benefit, to maximize family benefit, family will devote themselves in CSR to signal the company’s commitment and then gains good image in order to sustainable.

The performance of CSR has been received increasing attention from regulators, government, investors, and enterprises. What drives or hinders the performance on environmental, social, and governance is gaining prominence (Aguilera, Rupp, Williams, & Ganapathi, 2007; Campbell, 2007). Corporate governance aims to balance interests of different stakeholders of the firm has been shown that has influent on corporate social responsibility (Jo & Harjoto, 2011). Whether the corporate governance or the national economic policy influence the relationship between family ownership and the performance on environment and society is an important issue.

The national economic systems have influence on corporate behavior regarding to social, environmental, and ethical issues (Campbell, 2007; Kang & Moon, 2012). Aguilera et al.(2006) suggested that excellent ESG(Environmental, social and governance) performance can get the competitive advantage, and Edmans(2011) also indicated some ESG developments may advance the performance of operation. William & Tatiana (2014) suggested closely held equity and more family shareholdings are associated with lower ESG levels. They used quantile regressions to examine the relationship between ownership and ESG levels, and they obtained the result that family ownership has a strong negative impact to ESG rankings, which firms have relatively high ESG scores.
Besides CSR, family firms also have gotten increasing attentions in the last few years. The vast majority of listed firms are controlled by a family, and several studies have issued that in continental Europe, Asia, and Latin America, (Faccio & Lang, 2002). Since family firms play a major role in economic activity globally. In addition, the family firm is also very popular in Taiwan, in which the stockholders are mainly consistent of the family members. The second or the third generation of the family firm is not as efficient as the founder in terms of performance of management. This is because of a great deal of reasons such as the changing of the economic environment, globalized competition, insufficient human resources and the limitation on the profession of management. However, it is both very common that family members serve as executive administrators or directors and the power of management of the company is passed on to the future generation. The basis of this research is built on the tradition that family firms gets passed on from generation to generation, it is also based on the traditional Chinese custom of passing on possessions. Therefore we assume family firms will blindly pursue the tradition of passing on assets to the next generation.

To enhance the improvement on environmental, society, and governance performance has been a major challenge and an important object for corporations. If a corporate could provide disclosure and be transparent in terms of CSR, it would improve the governance of corporations more clearly. And then it can gain trust from the public, even other companies will follow. In recently, the Taiwan Corporate Sustainability Awards (TCSA) has been developed, and it is mainly awarded to enterprises that reach achievements in balanced development and general management, in terms of the environment and the social issues. According to information in 2014, the sum of sales of the attended TCSA enterprises has accounted for 71% GDP of Taiwan, it is obvious enterprises pay attention to sustainability and TSCA more. In the paper, we regard the TCSA as the objective measurement indicator of the performance of sustainability management. Since family firms occupy a highly percentage in the economic market and that has described as above, to study family firms and sustainability is both important and useful, especially for the management of enterprises, environmental protection and a balanced society.

A large body of literature has explored CSR and family firms, but few studies have examined the sustainability. The development of sustainability needs to be promoted in the highest form. It is the purpose this paper to focus on the exploration of performance of sustainability management and it will be much different to prior research in CSR. We use TCSA data from the Taiwan Institute for Sustainable Energy (TISE) to measure the performance of a firm’s sustainability. We then match this data with Taiwan Economic Journal (TEJ) data, which results in a sample of 204 firm-year over a period from 2008 to 2013. After controlling for firm characteristics and control variables, we find that several characteristics of family firms i.e. ownership control, deviance of control and distribution, and single family directors board, are related to sustainability.

Since investors would prefer to invest firms which could be sustainable in operation, we suggest that TCSA firms would be preferred by them. In addition, family member also aim to be sustainability because of the inheriting from generation to generation. If firms can’t reach the goal of sustainability, which would face many problems like losing trust by the public population, violating the formulation, decreasing the market value, and even be forced to end up the operation. This paper makes several contributions to the literature and the practice of management. On one hand, we provide the evidence of the relationship between characteristics of family firms and sustainability, and that it can offer reference to sustainability and other researches in the future. On the other hand, the result can offer stakeholders or the public a platform to judge or predict the future development of the firm by the characteristic of family firm. If investors prefer TCSA firms, it increases incentives and encourages the firm to get TCSA approval and awards. Consequently, it further brings forward influence in terms of society and environment.

The remainder of this paper proceeds as follows. The next section presents the literature review and hypothesis development. The research methodology section describes our sample selection and provides variable definitions. The empirical results and analysis section explains and discusses the empirical results. The final section concludes the study with implications and limitations.

2 Literature review and hypotheses development

2.1 Taiwan Corporate Sustainability Awards (TCSA)

CSR has been a popular and important topic followed by many in the international economical trade arena and continues to be a much discussed topic. A lot of international companies are beginning to focus on CSR, and define CSR as one of enterprise's critical strategic activities. The object of an enterprise is to operate continuously and indefinitely alongside creating economic value and growing the shareholder's income (Friedman, 1970). It continues to seek and attain the interests and agreements of stakeholders, to ensure the legitimacy of the company, and to achieve strategic management of CSR, or to meet the management goal which is favorable to stakeholders. Thereby it is in accordance of the triple bottom line of economy, society and environmental protection (Hart & Milstein, 2003; Jose & Lee, 2007).

Based on CSR definition, it has reflected the requirements of society and responsibilities of
enterprises. 'Social Responsibility of the Businessman' published in 1953 by Howard R. Bowen, who is known as the Father of CSR, has defined CSR as one of the most important directives that will guide the enterprise in the future, it should be in accordance with social values and satisfy all factions of society when the enterprise makes policies and decisions. The majority of prior studies recognize that enterprises should simultaneously be in accordance with the expectations, standards and values of society while capturing interest (Davis at the same time, 1960, Fredrick, 1960, Sethi, 1975). The enterprise must do more in its responsibilities to society and promote welfare for the public (McGuire, 1963, Arrow, 1973). CSR was regarded as a spontaneous behavior of the enterprise (Manne&Wallich1, 1972), in which the enterprise should pay attention to the investor, its labor force, rights and interests of consumers, community participation, management of environmental impact, and elevate the information disclosure of financial statements and responsibility to stakeholders under the principle of following morals and public service (Goodpaster,1991).

'The Earth Summit' held by The United Nations in 1992, encouraged various countries to devote themselves in pursuing continuous development for mankind. 'United Nations Commission on sustainable development' built in 1993, mainly supervised and assisted various countries to develop sustainability. TISE encourages enterprises to issue sustainability reports of the enterprise and has been doing so continuously since 2008, in order to strengthen industries and continuously develop in a healthy manner, protecting and being environmentally friendly and pay attention to and being of public service.

'TSCA 2014' includes eight major rewards, these are: (1) Ten Major Taiwan Paragon Enterprises of Sustainability Award (2) Enterprises Sustainability Report Award (3) Climate Leader Award (4) Innovation and Growth Award (5) Transparent Information and Reliability Award (6) Innovation and Communication Award (7) The Society Cooperated Award (8) The Management of Supply-Chain Award. These key indicators of evaluation by means of awards are dependent on: (1) The sustainability vision and strategy of enterprises, the effect of corporate governance, the effect of social service, the effect of environmental protection, and the realistic rewards of CSR that are relevant domestic and international (2)The situation of the sustainability report published by enterprises, the information disclosure of CSR and sustainability on the CSR website (3)The assessment and response to the risk and opportunity of climate transition, the management tactics and practice to carbon emissions, and the revealing and decrement performance of carbon emissions (4)Innovation ability, growth together, and innovative values (5)The transparent degree of enterprises governance procedure, the reliable practice and implement of business operation (6)The refinement of stakeholders and key topic analysis, the tactics and mechanism of innovative communication, and the assessment and performance of the effect to communicate (7)The key goal and vision, the relation between the key ability and operating tactics of enterprises, promotion mechanism, and the assessment of performance (8) The management policy/goal of the Supply-chain, the criterion of sustainability to screen suppliers, the assessment mechanism of risk/conflict to suppliers, and the effect of implementation and the practice to progress greatly.

In addition, Dow Jones Sustainability Index (DJSI) was introduced by the Dow Jones Company U.S.A. (Dow Jones) and Sustainable Asset Management Company Switzerland, Zurich (SAM) Cooperatively in 1999, it is a kind of ‘investment of social responsibility’ index. It evaluates performance of the enterprise according to 3 sides of the environment and society, awarding the first 10% of more than 2500 large-scale companies from the whole world which performs best in economy, environmental protection and societal issues. It is also the first index of community responsibility to oversee enterprises around the world. And Dow Jones 2014 contains 6 large fields of such innovative management, the surveillance for the quality and quantity of products, the responding strategy of climate transition, the developed management of environmental sustainability, health and security, and risky management. The assessment indicator ‘TSCA’ in our study is an obvious conformity with the global sustainability indicator. Alternately the ‘TSCA’ is the only indicator to evaluate or assess sustainability of enterprises in Taiwan.

2.2 Management theory of family firms

As shown by Barnes and Hershon (1976), Rosealblatt et al.(1985), and Stern (1986), a few families composed of the substantial shareholders of a firm is the obvious characteristic of the family firm, and simultaneously they have the power to manage and operate the firm, moreover, there are at least two members in the family to deal with the affairs of the enterprises directly. Rechner, et al. (1989) defined the family firm as, there are two generations in the same family at least participating in management, and there is a relation by inheritance between two generations, so that there are joined influence between management performance, the interests, and the target of the company. Much of the definition of the family firm is based mainly on ownership and power of management. Handler (1994) indicated family firms operate practically their own companies through holding seats on the board of directors, except having ownership, and more, transmit the power of management to future generations. As such, the family firm is defined in the paper, that the percentage of shareholders by family members or their control firms exceed 10% and they have seats on the board of directors, or the percentage of seats in the board of directors by family members is more than half.
Largely studies examined how the performance and the value of the company are influenced by control shareholder of families in recent years. McConaughy, Walker, Henderson and Chandra (1998), Anderson and Reeb (2003), Maury (2006) and Saito (2008) find that family firms having higher market value and better capacity to get profits than non-family firms. Sraer and Thesmar (2007) present evidence in France, they suggest that the business performance of family firms, which is managed by the family CEO, is significant greater than non-family firms. Fama and Jensen (1983) and Ng and Roberts (2007) indicate if family firms can express the function of the board of directors, especially in corporate inside governance, the performance and value of company can be improved effectively.

Some studies like Morck, Strangeland and Yeung (2000), Schulze, Lubatkin, Dino and Buchholtz (2001), Claessens, Djankov, Fan and Lang (2002), Miller, Breton-Miller, Lester and Cammella Jr. (2007) maintain that family controlled shareholders are inclined to injure the performance and value of company, perhaps in another side to hinder the development of innovation. Shleifer and Vishny (1997), DeAngelo and DeAngelo(2000) display a higher deviation intensity of controlled shareholders to induce more serious conflict between stakeholders. Daily and Dollinger (1991) find the family-firm is one type of the most low-cost organization, the expenses causes by excessive management influence the performance of company severely. Otherwise, Miller et al. (2007) propose the performance of family firms is worse than non-family firms of American.

As for listed Companies of Taiwan, it is generally ownerships concentrate on the a few families. There are two opposing views, the positive one is the agency cost can be reduced by shares are within the family, and then the value of company can be enhanced. The other one, the acquisition performance of the family firm influenced by control shareholders is negative whether the term is long or short. Because the minority stockholder recognizes the problem of information asymmetry is more serious in family control shares, when there is an innovative topic declared by the family firm in Taiwan, the market generally reacts badly and offers the poor appraisal (Chang, Wu &Wong, 2009). In addition, family firms are inclined to employ family’s CEO although whose knowledge or talents are inadequate, or experience is insufficient, or the external supervise mechanism is not work properly, overall it is concluded when the rate of holding share by control shareholders is too high, which is easier to make the decision that injure enterprises (Fama & Jensen, 1985; Schulze et al.,2001). Anderson et al. (2003) indicate the ownership of the family firm is a kind of special model of control shareholders, which has unique incentives and power structure.

In Taiwan, family members commonly possess the decision power, and serve as executive administrators and directors. Chami (1999) recognized family’s stock or the company is realized as heritage can spread to members or successors of the family, but not the general consumed wealth. Whether the company could operate continuously forever is the primary concern by family members, because passing the company to descendants but not only giving wealth is the aim object of the family and it depends on the sustainability of the firm. Therefore, family members relative to other majority shareholders trend to maximize the value of company rather than the stockholder's equity when facing interest conflicts.

2.3 Relation between family firms and Corporate Sustainability Awards (CSA)

Anderson and Reeb (2003) noted two main agency problems of family firms, the first is executives may adopt the decision-making violating the maximum benefit of shareholders due to self-interest, it is arise from the separation of ownership and control. The second agency problem stems from the conflict between control and non-control shareholders, the former may be at the expense of the latter based on self-interest. Several features, the overall interests of enterprises consist with the interests of the family business, supervising executives more strictly and effectively, having long-term programs, can moderate the first agency problem. That is the alignment effect of interest, and therefore family firms perform excellently and operate robustly. However, if the family firm takes advantage of running of the board of directors, and as the voting right of controlling owners exceed their cash flow right, the controlling owners may seek their own interests at the expense of minority shareholders (Shleifer & Vishny, 1997), and that is the entrenchment effect of the second agency problem.

The nearly study suggests that when the equity is held by institutions closely, the improvement in governance may benefit the performance in society and environment, but rather than in the presence of family ownership, the governance may be less effective (William & Tatiana, 2014). The result from the research in India, it suggests that the government should build an effective corporate governance mechanism for family business and provide support for affiliating family firms while it improves policies on information disclosures (Lodh, Nandy & Chen, 2014). The ownership structure of a firm is important because the concentration on ownership may resolve agency problems efficiently (Shleifer & Vishny, 1997). Large shareholders generally focus on long-term development because they care about the stability of the firm (Choi et al., 2012). Families normally hold their stakes for a long time and target in greater benefits, such as the growth for firms, innovation on technology and long-term firm survival (Anderson & Reeb, 2003; Le Breton-Miller et al., 2011).

One stream of research argues that firms commit to strong governance standards and transparent
disclosure in order to reduce agency problems and information asymmetry. They pay close attention to corporate governance. Firms which commit themselves to higher disclosure standards voluntarily should be interpreted with caution, and controlling families with weaker protection may choose to retain their private benefits (Chung, Cho & Kim, 2014).

The performance of family firms drops dramatically after the first generation, and the different of negative performance is due to the more conservative decision made by successor generations (Essen et al, 2015). There is a negative relationship between family ownership and performance; it is mediated by family firms’ weak international diversification. However, Arregle, Naldi, Nordqvist, and Hitt (2012) find that potentially negative effects on firm performance by family ownership can be mitigated by judicious governance choices.

The disclosure of relationships within family member and representative and firms is important to investors. The performance of family firms could be improved by limiting family members and family representatives to participate in firms (Chen, Gray & Nowland, 2013). To minority shareholders, family members and family representatives’ involvement are associated with higher agency costs. (Jensen & Meckling, 1976; Shleifer & Vishny, 1986) Prior studies indicate that family involvement is negatively related to performance, because of the higher agency costs between the controlled family and minority shareholders (e.g., Bae, Kim, & Kim, 2012; Bertrand, Johnson, Samphantharak, & Schoar, 2008).

As the inference building on each theory, the superior or defective impact of the controlling shareholder on the business can’t be distinguished obviously. Thus, we can’t discern whether the benefit from the advantage of the family firm is enough to compensate for the cost it derive. Moreover, the probability of the occurrence in fraud to family firms is significantly lower than non-family firms, it means the interest alignment effect is greater than the entrenchment effect. In the context of our study, the performance of controlled family firms on CSR is following proposed by Jensen and Meckling (1976). Given ‘the convergence of interest hypothesis’, we separately explore the relevance between characteristics of family firms and CSA as follows.

2.3.1 Family Ownership and Corporate Sustainability Awards (CSA)

Consistent with the interest alignment effect, the higher proportion of family ownership will converge the interests of family shareholders and minority shareholders (Fan & Wong, 2002). According to the results, when the family shareholding ratio is higher, the minority shareholders are less likely to participate in the decision-making of the company, controlling owners have relatively strong incentive to reduce agency costs, although the business operation is built on the basis of ownership distribution (Berle & Means, 1932, Gadhoun, 2006). Agrawal and Mandelker (1990) proposed active monitoring hypothesis, if the share concentration of controlling owners is higher, they have more incentives to supervise, and then the company performance is more outstanding. Followed by Jensen and Meckling (1976), if the ratio of family ownership is higher, it is more effective in reducing agency costs, and thus moderating Type I agency problem.

As the shareholding ratio of family-controlled owners is higher, the association of family wealth and corporate performance is more closely (Andres, 2008), and also the family firm is treated as assets inherited to the next generation (Chami, 1999). Moreover, due to the association of family wealth and firm value closely, the incentives to supervise management and strengthen loyalty of employees are more strongly, and then the long-term status and reputation of the firm can be maintained. As a consequence, our study suggests a firm accessing CSA is represent the firm incline aim to sustainable development, pursue benefits and seek recognition for all stakeholders, besides creating economic value and earning profits for shareholders. We therefore hypothesize that:

H1: There is a significant positive correlation between ownership control of the family firm and CSA.

2.3.2 The Seats Controlled Ratio of Family Directors & Supervisors and CSA

The evidence of influence on family firms, by the board of directors, suggests by expanding the scale of the board of directors, it can enhance the company’s performance and value effectively. On the one hand, external directors can have a positive effect in terms of supervisory roles, and balance in the board of directors. On the other hand, the more external directors there are, problems and privileged consumption caused by the general manager can be moderated (Brickley & James, 1987). Prior studies have shown that when external directors have been assigned by the board of directors, stock prices responded by increasing in value (Rosenstein & Wyatt, 1990). The higher the ratio of external directors, the more independence the board of directors will have, and the better the corporate performance will be (Huson, Parrino & Starks, 2001). Other studies have proposed that there is no significant relationship between the proportion of external directors and corporate performance (Hermalin & Weisbach, 1991). In contrast, Agrawal and Knoebel (1996) argued that the majority of directors are hired due to political influence, so there is significant negative relationship between the proportion of external directors and corporate performance. There are different versions on the impact on corporate performance by the structure of the board of directors. Thus we hypothesize that:

H2: There is a significant negative correlation between the seats controlled ratio of family directors & supervisors and CSA.
2.3.3 The Deviation from Family Control & Ownership and CSA

Following prior mentioned type I agency problem mainly due to the separation of ownership and control, and type II agency problem is mainly derived from the conflict between controlling owners and minority shareholders (Maury, 2006). As the family shareholders own control rights completely, it is more inclined to have a conflict of interest with the minority (Shleifer & Vishny, 1997). If family ownership is more balanced, type I agency problem is more likely to be moderated effectively, yet type II agency problem not only can’t be solved, but might become serious (Gomez-Mejia, Nunez-Nickel & Gutierrez, 2001). Villalonga and Amit (2006) presented, when family members are controlling owners, it suggests that type II agency problem would be more than type I agency problem. Moreover, if the deviation from ownership and control rights by controlling owners in family firms are serious, they will have more incentives to exploit interests from minority shareholders (Schulze et al., 2001.). Comprehensive to a large argument and evidence proposed, the higher the intensity of deviation from control and ownership in family firms, the more cause of conflict between the interests of the minority shareholders and majority shareholders. As the above discussions suggest the enterprise that gets CSA seeks benefits for all stakeholders and strives for recognition by the masses, therefore we hypothesize that:

H3: There is a significant negative correlation between the intensity of deviation from the control and ownership in family firms and CSA.

2.3.4 The Governance Centralization of Family Firms and CSA

Hiring a professional CEO can improve performance when a firm demands high managerial skills (Lin & Hu, 2007). Maury (2006) indicated if the general manager of the family participates in the operation actively, the profitability of the firm can be heightened. Schulze et al. (2001) presented that family firms frequently hire incompetent CEO’s, it results in problems of heightened moral hazard and adverse selection, and then the competitiveness of enterprises is injured and market share is decreased. Otherwise, the competitiveness of enterprises is decreasing more and more due to family descendants inheriting the position of general manager (Morck et al., 2000.), and the corporate performance will be damaged seriously resulting from the general manager of family continuously operating in an incompetent manner (Schulze, Lubatkin & Dino, 2003).

Chrisman, Chua and Litz (2004) find that outside general managers have much more networking clout, it is more helpful to associate with corporate resources from an external environment, thus to enhance the company's competitiveness. In terms of the family’s general manager also being the Chairman of the board, it could easily lead to the power being excessively centralized, thereby the conflicts of interest will be induced and aggravated and the corporate performance will be damaged (Booth, Cornett & Tehranian, 2002). In accordance with prior research, if the operational power of family is excessively concentrated, it will tend to easily decrease more in corporate value, and thus the prediction compares and assesses in all aspects that the CSA would relatively bad. In addition, there are three common types in corporate governance, patterns into a single family, shared-governance family and professional managers. Since the single family refers to the family with at least two or more family members serving as directors and supervisors, or serve as manager, that is exposed by the annual report, it suggests that if a firm is directed by a single family, it is a kind of centralization on corporate governance. Due to a lack in research, we assume the performance and assessment in terms of CSA will be worse if the family firm is directed by single family, according to the theoretical foundation of internalization on the senior executives. Thus we propose hypotheses as follows:

H4-1: There is a significant negative correlation between the internalization degree of managers in family firms and CSA.

H4-2: There is a significant negative correlation if the family firm is directed by the single family and CSA.

3 Research methodology

3.1 Sources

The indicator of corporate sustainability award is mainly based on the sustainable development considered from the corporate governance, social responsibility and environmental protection enterprises, which is promoted by TISE. And the selection for TCSA is also considered with criteria of international indicators which are complemented with three aspects of integrity, reliability, and communication.

We gather by hand the TCSA amounts of the enterprise as dependent variable which is sustainability index of the firm, and put all winners as the study sample. In the study, independent variables and control variables are collected from the database of Taiwan Economic Journal (TEJ).

3.2 Sample Selection and the Sample Period

TISE has praised enterprises that get TCSA since 2008, the sample data is during 2008 to 2014, sums to 7 years and 87 winners as a raw material. The selected sample companies are listed or OTC companies, excluding the bias from different economic system or organizational structure. We have information available for all variables used in our analyses. It leads
to 315 firm-years samples. In order to correspond with the study purpose, family firms and sustainability, we retain 241 firm-years with family information as the main samples to analysis, the other non-family information as the comparison samples for contrast to family firms. In Table1, we present the sample selected.

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<th>Table 1. Description on Sample Selected</th>
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<td>Numbers of original samples</td>
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<td>Less: Numbers of non-listed or non-OTC companies</td>
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<td>Less: Numbers of non-family samples</td>
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<td>Number of family-firm samples</td>
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### 3.3 Variables

**Dependent Variables:** Index of Corporate Sustainability Awards (ICSA)

These variables are collected by hand from TCSA winner by TISE, getting 1 score by each item of award, sustainability indicators is measured by summing the amount of the score every year. Thus, as a firm get higher score, presenting its performance of sustainability and execution is comparatively excellent.

**Independent Variables**

1. **The Percentage of Control Shareholding (CTR%)**

   Shares of control, also known as the voting right, is the rate controlled by shareholders who control ultimately. TEJ calculate as (shareholding directly % + shareholding indirectly %).

2. **The Percentage of Control Seats (SEATS%)**

   Control seats of the directors and supervisors, is the internal degree of the Board of Directors. TEJ calculated as (the seats of directors and supervisors controlled by those who ultimately control / all seats of directors and supervisors).

3. **The Deviation from Control and Ownership (SHAR_ERNG_DIV)**

   That is the extent of deviation from the control power of the share and distribution rights of surplus. TEJ calculated as (control power of the share / distribution rights of surplus).

4. **The Internalization Degree of Managers (INSIDE_MANAGER)**

   The internalization degree of Managers is the rates that company managers held by the ultimate controller. TEJ calculated as (ultimate controller as managers / the number of managers).

5. **The Firm Directed by Single Family (SINGL_FAML)**

   TEJ is defined as at least two or more family members serve as directors and supervisors of companies in the same group, or serve as manager (or above), that is exposed required by the prospectus and annual report. That directed by single family is dummy, thus we suggest the variable is 1 if a firm directed by a single family, and otherwise is 0.

**Control variables**

1. **Firm Size (SIZE)**

   As for relative scale, the larger enterprises get the more attention, which will disclose the information more comparatively in order to response the demand of the stakeholders. Firm size is the natural log of the firm’s total assets.

2. **The Ratio of Liabilities to Assets (DEBT%)**

   According to the arrangement of financial theory, the leverage degree would be smaller if the performance of firms is better. It is the ratio of the total debts to total assets.

3. **The Evaluation Rating of Information (INFO_RANK)**

   Disclosure and transparency of information is the basis of policy decision on corporate governance acquired by investors, companies and countries all over the world. If the company really disclose information, then it is able to enhance the transparency of the capital market. It is in accordance with TEJ data. The control variable is a dummy variable, we suggest the variable is 1 while the rating is above A, and 0 otherwise.

4. **The Risk Insured for Directors and Supervisors (DIRECTOR_INSU)**

   It is defined by TEJ. When the directors, supervisors, or managers perform operations or business, may be requested for compensation proposed by the third person due to errors or other acts of obligation violation. In order to make these particular persons settle down to carry out the business, companies insure for them. Commonly the insured objects are mostly directors and supervisors. The control variable is a dummy variable, we suggest the variable is 1 while there are risks insured for directors and supervisors, and 0 otherwise.
3.4 The Research Model

To explore the relationship between family firms and CSA, we construct the regression equation (1) as our empirical model as follows:

\[ \text{ICSA}_{it} = \alpha_0 + \alpha_1 \text{CTR}_{it} + \alpha_2 \text{SEATS}_{it} + \alpha_3 \text{SHAR}_{E R N G_D I V jt} + \alpha_4 \text{INSIDE}_{M A N A G E R jt} + \alpha_5 \text{SINGL}_{F A M L jt} + \alpha_6 \text{SIZE}_{jt} + \alpha_7 \text{DEBT}_{jt} + \alpha_8 \text{INFO}_{R A N K jt} + \alpha_9 \text{DIRECTOR}_{I N S U jt} + \epsilon_{jt} \]

(1)

In order to have the contrast for family firms, we compare the differences and characteristic of non-family firms and family firms. Because the contrast samples belong to non-family firms, we remove both independent variables INSIDE_DIRECTOR and SINGL_FAML, thus increasing empirical regression equation (2) for non-family firms as follows:

\[ \text{ICSA}_{jt} = \alpha_0 + \alpha_1 \text{CTR}_{jt} + \alpha_2 \text{SEATS}_{jt} + \alpha_3 \text{SHAR}_{E R N G_D I V jt} + \alpha_4 \text{INSIDE}_{M A N A G E R jt} + \alpha_5 \text{SIZE}_{jt} + \alpha_6 \text{DEBT}_{jt} + \alpha_7 \text{INFO}_{R A N K jt} + \alpha_8 \text{DIRECTOR}_{I N S U jt} + \epsilon_{jt} \]

(2)

4 Empirical results and analysis

4.1 Descriptive statistics

In Table 2, we present the descriptive statistics of our pooled sample separately for family firms and non-family firms. As discussed above, we have 241 accounts for family firms and 74 accounts for non-family firms. For the sake of brevity, we describe the statistics for family firms only. The mean (median) of Index of Corporate Sustainability Awards (ICSA) is 1.560 (1). For independent variables, the mean (median) of the percentage of control shareholding (CTR%) is 31.395(28.97), the percentage of control seats (SEATS%) is 62.258(62.5), the deviation from control and ownership (SHAR_ERNG_DIV) is 5.213(1.14), the internalization of managers (INSIDE_MANAGER) is 3.661(0), the firm directed by Single Family (SINGL_FAML) is 0.544(1). The descriptive statistic of other control variables are also generally in line, which presents that our sample is representative.

<table>
<thead>
<tr>
<th>Table 2. Descriptive Statistics based on the TCSA sample by family firms and non-family firms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of observations</td>
</tr>
<tr>
<td>------------------------</td>
</tr>
<tr>
<td><strong>Dependent Variables</strong></td>
</tr>
<tr>
<td>ICSA</td>
</tr>
<tr>
<td><strong>Independent Variables</strong></td>
</tr>
<tr>
<td>CTR%</td>
</tr>
<tr>
<td>SEATS%</td>
</tr>
<tr>
<td>SHAR_ERNG_DIV</td>
</tr>
<tr>
<td>INSIDE_MANAGER</td>
</tr>
<tr>
<td>SINGL_FAML</td>
</tr>
<tr>
<td><strong>Control Variables</strong></td>
</tr>
<tr>
<td>SIZE</td>
</tr>
<tr>
<td>DEBT%</td>
</tr>
<tr>
<td>DIRECTOR_INSU</td>
</tr>
</tbody>
</table>

CTR% is the percentage of control shareholding. SEATS% is the percentage of control seats. SHAR_ERNG_DIV is the deviation from control and ownership. INSIDE_MANAGER is the internalization degree of managers. SINGL_FAML is directed by single family. SIZE is firm size. DEBT% is the ratio of liabilities to assets. INFO_RANK is the evaluation rating of information in accordance with TEJ data, it could be 1 while the rating is above A, and 0 otherwise. DIRECTOR_INSU is the risk insured for directors and supervisors, it could be 1 while there are risk insured for directors and supervisors, and 0 otherwise.

4.2 Pearson correlation coefficient analysis

Any interpretation and reliability to prediction depends on strength of relevance between all variables. The regression analysis is based by correlation analysis basically, which may cause bias about regression resulting if there is collinearity among the variables. Thus we use Pearson correlation coefficient analysis to examine whether there is collinearity among the variables. If the correlation coefficient is above 0.8, there is high correlation among the variables, we should consider excluding the variables whose impact is weak. It is intermediate if the correlation coefficient is between 0.4 and 0.8, and the correlation is low if the correlation coefficient is under 0.4. Table 3-1 reports Pearson correlation coefficients among the variables of regression equation (1). As seen in the table, except the correlation between Firm Size (SIZE) and The Ratio of Liabilities to Assets (DEBT%) is intermediate, all the correlation among remaining variables are low, it indicates that the explanatory ability of the independent variables to
dependent variables would not be reduced due to variables have substitutability between each other. Table 3-2 reports Pearson correlation coefficients among the variables of regression equation (2). As seen in that table, except the correlation between The Percentage of Control Shareholding (CTR%) and The Percentage of Control Seats (SEATS%), CTR% and Firm Size (SIZE) are intermediate, the other correlation among remaining variables are low.

**Table 3-1. Pearson Correlation Coefficients Analysis based on variables by the family firms**

<table>
<thead>
<tr>
<th></th>
<th>ICSA</th>
<th>CTR%</th>
<th>SEATS%</th>
<th>SHAR_ERNG_V</th>
<th>INSIDE_MANAG</th>
<th>SINGL_FAML</th>
<th>SIZE</th>
<th>DEBT%</th>
<th>INFO_RANK</th>
<th>DIRECTOR_INSU</th>
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</thead>
<tbody>
<tr>
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<td></td>
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</tr>
<tr>
<td>ICSA</td>
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<tr>
<td>CTR%</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SEATS%</td>
<td>**</td>
<td>0.18</td>
<td>**</td>
<td>**</td>
<td>1</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SHAR_ERNG_V</td>
<td>**</td>
<td>-</td>
<td>**</td>
<td>**</td>
<td>1</td>
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<tr>
<td>DIV</td>
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<td></td>
</tr>
<tr>
<td>INSIDE_MAN</td>
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<td>-</td>
<td>**</td>
<td>-</td>
<td>**</td>
<td>**</td>
<td>**</td>
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<td>AGER</td>
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<td>SINGL_FAML</td>
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<td>-</td>
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<td>-1.99</td>
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<td>**</td>
<td>0.0</td>
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<tr>
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<td>0.02</td>
<td>0.2</td>
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<tr>
<td>DIRECTOR_INSU</td>
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<td>-</td>
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<td>0.1</td>
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</tbody>
</table>

***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

CTR% is the percentage of control shareholding. SEATS% is the percentage of control sharehold. SHAR_ERNG_DIV is the deviation from control and ownership. INSIDE_MANAGER is the internalization degree of managers. SINGL_FAML is directed by single family. SIZE is the firm size. DEBT% is the ratio of liabilities to assets. INFO_RANK is the evaluation rating of information in accordance with TEJ data, it could be 1 while the rating is above A, and 0 otherwise. DIRECTOR_INSU is the risk insured for directors and supervisors, it could be 1 while there are risk insured for directors and supervisors, and 0 otherwise.

**Table 3-2. Pearson Correlation Coefficients Analysis based on variables by the non-family firms**

<table>
<thead>
<tr>
<th></th>
<th>ICSA</th>
<th>CTR%</th>
<th>SEATS%</th>
<th>SHAR_ERNG_V</th>
<th>INSIDE_MANAG</th>
<th>SIZE</th>
<th>DEBT%</th>
<th>INFO_RANK</th>
<th>DIRECTOR_INSU</th>
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<tr>
<td>SHAR_ERNG_DIV</td>
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<td></td>
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<td>-</td>
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<td>0.368</td>
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<tr>
<td>DEBT%</td>
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<td>-0.042</td>
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<td>INFO_RANK</td>
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<td>DIRECTOR_INSU</td>
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</tbody>
</table>

***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

CTR% is the percentage of control shareholding. SEATS% is the percentage of control seats. SHAR_ERNG_DIV is the deviation from control and ownership. INSIDE_MANAGER is the internalization degree of managers. SINGL_FAML is directed by single family. SIZE is the firm size. DEBT% is the ratio of liabilities to assets. INFO_RANK is the evaluation rating of information in accordance with TEJ data, it could be 1 while the rating is above A, and 0 otherwise. DIRECTOR_INSU is the risk insured for directors and supervisors, it could be 1 while there are risk insured for directors and supervisors, and 0 otherwise.
4.3 The Analysis of Empirical Results

Table 4 presents the empirical results of regressions. Model 1 in Table 4 reports regression of ICSA on characteristics of family firms and controls. Model 2 in Table 4 reports regression of ICSA on characteristics of non-family firms and controls, it is used contrast to family firms. The positive relation between the percentage of control shareholding (CTR%) and index of corporate sustainability awards (ICSA) is statistically significant, which supports H1. That represents the ratio of family-controlled shareholding is higher, the firm is more inclined to aim at sustainable development, focus more on CSR issues, seek benefits for all stakeholders and recognition by the public, beside creating economic value or earning profits for shareholders. Consisting with the study by Chami (1999), it referred to if the family firm is regarded as inherit passed to the next generation, then presumably controlling shareholders will maintain long-term status of corporate and reputation in order to achieve the goal of sustainable development. It is also in line with Gomez-Mejia, Nunez-Nickel and Gutierrez (2001) referred that as the concentration of family ownership is higher, it is more able to moderate the type I agency problem effectively.

The correlation between the Percentage of Control Seats (SEATS%) and index of corporate sustainability awards (ICSA) is significantly negatively, which supports H2. Consisting with the study by Chen el. (2013), it referred to that the performance of family firms could be improved by limiting family members and family representatives to participate in firms. It suggests the higher seats control of the family firm is difficult to meet the requirements of governance, society and environment that CSR concerns about.

The correlation between the firm directed by single family (SINGL_FAML) and index of corporate sustainability awards (ICSA) is significantly negatively, which supports H4-2. It proposes the management is too concentrated, when the family firm is operated mainly by a single family, the competitiveness of the firm may be insufficient or human resources may be stored, and then unable or without a will to pursue the sustainable operation of the firm.

Comparisons of the regression results of non-family firms, there is only one significantly negative correlation between the Percentage of Control Seats (SEATS%) and index of corporate sustainability awards (ICSA). In additional, the original sample data of CSA winners is summed of 315 accounts, after selected 241 samples of family firms for our study, it is accounted for about 77% of CSA winners are family firms. Thus, the comprehensive results of empirical evidence and comparison suggest family firms would pay more attention to the balanced development of governance, society and environment and then has better performance on sustainable business, depending by the strong motivation to pursue sustainable development. Thereby if the firm’s controlled ownership is more concentrated, the likelihood of getting sustainability award is higher. There is negative correlation between getting sustainability award and those, the higher internal degree of the Board of Directors and the family firm directed by single family. But we can’t infer all according to non-family firms.

Table 4. Regression tests of characteristics of firms and ICSA based on family firms and non-family firms

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Model 1</th>
<th>Coefficient</th>
<th>Sign</th>
<th>Model 2</th>
<th>Coefficient</th>
<th>Sign</th>
</tr>
</thead>
<tbody>
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<td>CTR%</td>
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<td>***</td>
<td>?</td>
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</tr>
<tr>
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<td>***</td>
<td>?</td>
<td>-0.0208</td>
<td>***</td>
</tr>
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<td>0.0037</td>
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<td>INSIDE_MANAGER</td>
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<tr>
<td>Control Variables</td>
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</tr>
<tr>
<td>SIZE</td>
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<td>-</td>
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<td>Adj R²</td>
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<td>26.30%</td>
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<td>F Value</td>
<td>5.95</td>
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</table>

***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

CTR% is the percentage of control shareholding, SEATS% is the percentage of control seats, SHAR_ERNG_DIV is the deviation from control and ownership, INSIDE_MANAGER is the internalization degree of managers, SINGL_FAML is directed by single family. SIZE is firm size, DEBT% is the ratio of liabilities to assets, INFO_RANK is the evaluation rating of information in accordance with TEJ data, it could be 1 while the rating is above A, and 0 otherwise. DIRECTOR_INSU is the risk insured for directors and supervisors, it could be 1 while there are risk insured for directors and supervisors, and 0 otherwise.
5 Conclusion

How enterprises are blamed for CSR and carry out the goal of sustainable development beside the pursuit of economic interests, the target is to align with sustainability goals in Taiwan, which are, to strengthen the protection of the environment and ecology, to guarantee social equality and justice, to promote economic development, and to build a Green Taiwan, it is an primary issue in capital markets. Family firms are popular in Economic market, whether CSA of firms are influenced by the characteristic of firms or not, exploring this issue is the emphasis of this study. We find that the proportion of family firms to CSA companies is high by sample selection. The empirical results show that there is a significant positive correlation between the controlled family firm and ICSA, and there is a significant negative correlation between ICSA and two characteristic of family firms, that are the internal degree of the Board of Directors, and the firm directed by a single family firm.

Financial accounting literatures researching about family firms and CSR heretofore mainly relies on business performance of enterprises, but there is little discussion about sustainability topics and achievement. However there are a lot of progressive spaces to promote sustainable performance for enterprises of Taiwan. This paper is different from other studies. We mainly consider the important intensity of family firms in the field of capital market in Taiwan, analyze how family's characteristic associate with the company's sustainable development by empirical results. Contribution to academic is that we debate and find the correlation between family firms and CSA. It concluded that family firms would burden more responsibilities for CSR, balance the development of governance, environment and society around the overall management performance, promote sustainable development and get successful performance, since they have very strong motivation to operate continuously and inherit from generation to generation.

Contribution to management practices is that can provide some perception about continuity operation of enterprises, and the prediction of sustainable development of enterprises induced by different characteristics of family firms for the public or stakeholders. We suggest that as follows. For administration, if executives get the clearly correlation between sustainability and the firm-self characteristic, they could make the more appropriate decision for future development. For outside investors, if they consider sustainability of firms which they want to invest, they could choice family firms which have high ownership or low internal degree of the Board of Directors, and they could escape the firm which is directed by a single family.

The contribution of this study is not only increasing the empirical research on family firms and sustainability, but also providing a reference for future research of sustainability issues. While firms promote sustainable excellence can simultaneously increase social benefits, enhance corporate reputation, access supports and recognition from the public and stakeholders, cooperate with the government policy and have better interactive. Furthermore, it also provide government agencies the reference concerned in promoting CSR and sustainability issues. If the market has better response to CSA winners, it could increase incentives of pursuing for CSR and CSA by other enterprises, and further brings positive impact for the community and environment.

The limitation in the study is that the sustainable award has been appreciated only for 7 years, and the publication of CSR reports is not matured, the total sample is 315 accounts, non-family firms is only 74 accounts. Thereby this empirical study focus on the family firms of CSA winners, the regression results of non-family firms is just for comparison. As CSA is assessed since 2008 and CSR repository in Taiwan market has not yet built completely, there is no actual evaluation scores, we only get listed or OTC companies of CSA as the sample source, and therefore the study results are whether infer to other SMEs (small to medium-sized enterprises) or not, it could be confirmed by study in the future. To further explore the differences between family firms and non-family firms could be carried out while be longer period and capturing more data on the future studies.

In the Final, this analysis is only for listed family firms in Taiwan. Whether the result is generalized to unlisted family firms and to other markets is also an interesting issue that is worthy to further study.

References