The Impact on Family Firms' Earnings Quality of External Monitoring

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<Abstract>

This study investigates the impact of family ownership on a company's earnings quality and monitoring power by using a set of data on Korean firms. From a sample of 3,440 firm-years listed on the Korean stock market, the group of family firms reported low quality of earnings than the group of family firms over a seven-year period of study (2000~2006). The higher is the proportion of minority shareholders and outside directors in a family firm, the greater is the impact on earnings quality. Two distinct measures of earnings quality — ADA (absolute value of adjusted discretionary accruals from the modified Jones model) and APDA (absolute value of performance-adjusted discretionary accruals) — were employed to test the difference of means between the two sample groups. The results were in line with our multiple regression models. All these findings support our conceptual framework and hypothesis, which states that family firms' quality of earnings is lower than that of non-family firms.

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Ⅰ. Introduction

Several recent studies show that family firms are at least as common among public corporations around the world as any other forms of nonfamily firms (Clasessens et al., 2000 ; Anderson and Reeb, 2003). Nearly all businesses start out as family enterprises. As the most common form of business organization in the world, family — owned or — controlled businesses account for over 80% of all firms in the US, 12% of US GDP, and 15% of the US workforce (Shanker and Astrachan, 1996). The research by Anderson and Reeb (2003) showed that between 1992 and 1999, as many as one-third of all S&P firms could be identified as family firms.

In the 1980s, family firms, which had been regarded as relics of the past, began to draw researchers' attention around the world (Aronoff and Cawley, 1990 ; Aronoff, 1998). In the US, the Family Business Review was launched in 1988, and related research papers began to be published in the magazine. This research was a natural response to the perception that family businesses are not only universal but also have played a big role in generating profits, creating jobs, and enhancing the competitiveness of national economies.

Family companies also play critical social roles. Novak (1983) and Jaffe (1991) have argued that "the foundation of the American economy and society is families, who found, control and operate companies." The importance of family companies in the community is also being recognized. Bellet et al. (1999) maintained that the founders and successors of family

companies have a strong sense of responsibility for the welfare of their communities as well as their families, realizing that families and communities are the cornerstones of a safe society and healthy economy.

With regard to Korea however, there has been scant research on family firms despite the fact that most companies in Korea have been regarded as family companies. According to Park's (1982) research, 85.44% of the companies in the manufacturing industry in Korea are family firms of various sizes. Nevertheless, hardly any Korean colleges offer a course or specialized program related to family firms and their succession plans (Nam, 2002). This is probably due to a lack of interest in family firms and prejudices against them in Korea, despite the immeasurable influence on organizational management that is exerted by family life. Financing during the early stage of a Korean company traditionally comes mainly from family relations, and this trend remains strong to this day. On top of this, socio-cultural factors such as Confucianism, large family structures, and communal lifestyles have played a crucial role in developing the family-owned Korean corporate culture.

Most family firms are run by owner-managers. Accordingly, they suffer from uncertain growth prospects and discontinuity due to the diverse problems that they face. As a result, many family firms fail because of conflicts among numerous interested parties, resulting in court receivership, the squandering of assets, or even irrecoverable ruin. Many of these complicated problems experienced by family firms can be addressed by efficient governance. This is because efficient governance requires responsibility from both the firms and the family shareholders, and allows for the making of family policies that can buffer the impact of business decisions on uninvolved family members (Nam, 2000).

This study investigates the impact of family ownership on earnings quality

in Korean firms not only because Korea provides a unique setting for ownership structure that differs from that of family-owned businesses in the US but also because prior studies have not examined this relationship in Korea. This study finds that compared to family firms, non-family firms in Korea exhibit less positive discretionary accruals. Therefore, it could be concluded that there is a negative impact of family firms on earnings quality. This study also shows that family firms with higher equity ownership by minority shareholders and a high proportion of outside directors on the corporate board tend to exhibit higher earnings quality.

This study is organized as follows. Section 2 reviews the relevant literature and summarizes the main hypotheses. Section 3 outlines the research design of this study and its model specification. Section 4 discusses the empirical measurements and reports the results of the empirical tests. Finally, Section 5 provides conclusions and further avenues for research.

Ⅱ. Background and Hypothesis Development

1. Agency theory

Agency theory often has been used to argue that a family firm is more efficient than a non-family business (Morck et al., 1988). As a framework, it is used to test the effects of family businesses on earnings quality. Fama and Jensen (1983) propose that family-controlled firms should be more efficient than professional firms, as monitoring costs are less in a family business. On the other hand, managerial ownership has a low agency cost. Managers have

easy access to information and can maintain low information asymmetry. Managers have greater incentives to consume perks, and thus reduced incentive to maximize job performance. Fan and Wong (2002) argue that concentrated ownership limits accounting information flow to outside investors.

Shleifer and Vishny (1997) state that large shareholders address the agency problem in that they have both a general interest in profit maximization and enough control over the assets of the firm to have their interest respected. The costs of large shareholdings and entrenchment are introduced in the model of Stulz (1988). As managerial ownership and control increase, the negative effects on a firm's value associated with the entrenchment of manager-owners starts to exceed the incentive benefits of managerial ownership. Claessens et al. (2000) found that more than two-thirds of East Asian firms are controlled by a single shareholder. This control goes beyond simple ownership stakes and appears in the forms of pyramid structures, cross-holdings among firms, and dual-class shares with deep involvement in both management and the board. We have examined the relative importance of incentive and entrenchment effects in Korea because ownership is highly concentrated and the divergence between cash-flow rights and control rights is large while manager-owner conflicts are generally limited. These firms may have defective corporate governance because of ineffective monitoring mechanisms by the board. Fan and Wong (2002) state that concentrated ownership can limit accounting disclosure to investors. Francis et al. (2005) also suggest that information asymmetry lowers the transparency of accounting disclosures.

2. Family firms with earnings quality

The corporate ownership structure has been considered to be the strongest influence on the corporate system. Due to the separation of ownership and control in the corporate form of business organization, agency issues arise around investment, compensation, and reporting decisions. However, the impact of effective family firms is related to the level of managerial entrenchment. Entrenchment occurs when management has ultimate power and control over decision making (Jensen and Meckling, 1976). The degree of entrenchment has been found to affect a firm's value and cost of capital as well as its investments and compensation decisions. Pergola (2005) outlines a theoretical case for the relationship between governance quality and earnings management, suggesting that a board's effectiveness is compromised when management is entrenched. Yep et al. (2002) find that the informativeness of earnings decreases with increased managerial entrenchment. The entrenchment effect predicts that family firms are associated with a supply of lower earnings quality.

However, given the family directors' business knowledge and effective monitoring, firms with a greater number of family directors can mitigate agency problems as well as suppressing any potential earnings management arising from managers' self-interested behavior (Anderson and Reeb, 2004 ; Anderson et al., 2003 ; Jiraporn et al., 2007 ; Villalonga and Amit, 2010 ; Villalonga and Amit, 2006). Therefore, family members of a firm can effectively monitor managers to discourage this type of managerial expropriation, resulting in a lesser extent of earnings management.

Accordingly, ex ante, it is unclear whether family firms will manipulate earnings more or less than nonfamily firms ; thus, we examine this issue

empirically. [Hypothesis 1] is posited as follows.

[Hypothesis 1] : Family firms listed on the Korean stock market have a negative impact on earnings quality than non-family firms.

3. Family firms with their monitoring power

Even among family firms, those with a large number of outsider minority shareholders are exposed to high pressure from external capital markets compared to those with relatively few outsider minority shareholders. Therefore, monitoring by minority shareholders is a component of the set of monitoring mechanisms available for reducing information asymmetry. The outside minority shareholders have the burden of agency costs due to the difficulty in accessing information, meaning there is greater information asymmetry. These investors therefore will impose more pressure for higher earnings quality.

Anderson and Reeb (2004) demonstrate that founding-family firms' performance depends on the board's composition. Family firms can be governed by a board of directors, a CEO, or the family. However, in general, family firms experience shortcomings such as nepotism or discord arising from issues of succession or inheritance, and a board of directors is believed to play a great role in offsetting these shortcomings. This is particularly true in Korea, where power is concentrated in an owner-manager (Korean Economic Daily, 1997).

Ward (1991) insists that the existence of an active board of directors is the most essential variable for the survival and prosperity of any company. According to Corbetta and Montemerlo (1999), 88% of Italian companies (74% family companies and 69% non-family companies) and 69% of Spanish

companies have a board of directors. While having a board of directors is not closely correlated with company size, having one correlates highly with the company's competitiveness. Regardless of the type, the board of directors also is beneficial for the growth and development of the company.

The board of directors is organized as follows. In family firms, the board of directors is composed of family members only, outside members only, or both family members and outside members. Of these three types, the latter is the most common. An observed tendency is that family CEOs are highly satisfied when the outside members include some family executives. In Switzerland, most boards of directors are composed of family members and outside members. In the case of Italy, the board of directors usually includes inside directors who are shareholders or managers, and one or more outside directors. It is considered a general phenomenon that large companies or companies with long histories have a board of directors that includes outside directors. Accordingly, we formulate the following hypotheses.

[Hypothesis 2]: Family firms with higher equity ownership by minority shareholders have a positive impact on earnings quality than non-family firms.

[Hypothesis 3]: Family firms with a higher proportion of outside directors have a positive impact on earnings quality than non-family firms.

Ⅲ. Research Design and Model Specification

1. Sample and definition of the family firm

The sample firms were obtained from companies listed on the Korea Stock Exchange (KSE) from 2000 to 2006. Data regarding family businesses were collected manually from DART (Data Analysis, Retrieval, and Transfer system). We analyzed the listed manufacturing companies whose fiscal year ended in December during the six-year period from 2000 to 2006, excluding the companies with capital erosion and those for which financial and ownership structure data were unavailable. According to these criteria, the size of the sample available for selection was reduced to 3,440 firm-year companies.

[Table 1 Sample description]

Classification	Family firms	Non-family firms	Total
FMD1	1,129	2,311	3,440
FMD2	1,651	1,789	3,440
FMD3	1,532	1,908	3,440
FMD4	1,659	1,781	3,440
FMD5	1,622	1,818	3,440
FMD6	1,670	1,770	3,440
FMD7	1,422	2,018	3,440
FMD8	2,233	1,207	3,440

Classification	Definition
FMD1	SH_CSR_SUM ＝＞ 0.5 or FM ＝＞ 2 or FMR ＝＞ 0.5 or CSHR_BOD_SUM ＝＞ 0.5
FMD2	SH_CSR_SUM ＝＞ 0.2 or FM ＝＞ 2 or FMR ＝＞ 0.5 or CSHR_BOD_SUM ＝＞ 0.5
FMD3	SH_CSR_SUM ＝＞ 0.5 or FM ＝＞ 2 or FMR ＝＞ 0.2 or CSHR_BOD_SUM ＝＞ 0.5
FMD4	SH_CSR_SUM ＝＞ 0.5 or FM ＝＞ 2 or FMR ＝＞ 0.2 or CSHR_BOD_SUM ＝＞ 0.2
FMD5	SH_CSR_SUM ＝＞ M_S or FM ＝＞ M_FM or FMR ＝＞ M_FMR or CSHR_BOD_SUM ＝＞ M_CSHR_BOD_SUM
FMD6	SH_CSR_SUM ＝＞ N_S or FM ＝＞ N_FM or FMR ＝＞ N_FMR or CSHR_BOD_SUM ＝＞ N_CSHR_BOD_SUM
FMD7	SH_CSR_SUM ＝＞ 0.05 and FM ＝＞ 2 or FMR ＝＞ 0.2
FMD8	SH_CSR_SUM ＝＞ N_S or FM ＝＞ 1

SH_CSR_SUM： Percentage of common stock owned by family members.
FM： No. of family members with executive officers.
FMR： Percentage of family members with executive officers.
CSHR_BOD_SUM： Percentage of common stock owned by family members with executive officers.
M_S： Ave. % of common stock owned by family members.
M_FM： Ave no. of family members with executive officers.
M_CSHR_BOD_SUM： Ave. % of family members with executive officers.
N_S： Median % of common stock owned by family members.
N_FM： Median no. of family members with executive officers.
N_CSHR_BOD_SUM： Median % of common stock owned by family members with executive officers.

One of the important issues studied in this type of research is the definition of family and non-family firms. Different authors have used different definitions for family and non-family firms. The different methodological approaches employed across the studies might account for the ambiguous findings. The definitions of what constitute a family firm have varied widely across different studies. Some scholars have defined a family firm as being a "family firm" rather subjectively, basing firm classification on whether the respondent believed the firm was a "family firm," while other researchers have based their definition on more objective criteria such the percentage of family ownership or the number of family members occupying managerial or board positions. Therefore, some studies likely include firms in their "family firm" sample that would not have been included in other study samples, and such mixed definitions might account for the ambiguous findings.

Table 2 provides an overview of the related literature on the definition of family firms and summarizes the current definitions of family firms in recent studies. As there has been no universally agreed definition of a family firm, in order to secure the reliability of the results of this study, we have classified various types of family firm into the following eight categories by revising the methods used in previous research.

[Table 2 Family-firm definitions used in pevious studies]

Previous Studies				Current Study
Definition of Family Firm	Author(s)	Performance Measures	Findings (significant unless otherwise stated)	Definition of Family Firm
(a)family members are member of board directors and top management	Martinez et al (2007)	ROA	(+)	(1)FMD1 : companies with at least 50% ownership by family members, or at least two executive officers having a family relationship, or at least half of the executive officers being part of the same family, or at least 50% of executive officer ownership being held by family members.
(b)family business associated with svs		ROE	(+)	
(c)family mebers have majority stake over 50% in ownership and influence over other shareholders		Tobin's Q	(+)	
Firms have multiple family members as insiders(officers or directors) or large owners(5% or more of the firm's equity) at the same time or over the life of the company as family descendants	Miller (2007)	Tobin's Q	(+)	(2)FMD2 : companies with at least 20% ownership by family members, or at least two executive officers having a family relationship, or at least half of the executive officers being part of the same family, or at least 50% of executive officer ownership being held by family members.
founder or a member of his or her family by either blood or marriage is an officer, a director, or a stockholder	Villalonga & Amit (2006)	Tobin's Q	(+)	(3)FMD3 : companies with at least 50% ownership by family members, or at least two executive officers having a family relationship, or at least 20% of the executive officers being part of the same family, or at least 50% of executive officer ownership being held by family members.
(a)founding family members or descendents hold shares	Jim Lee(2006)	Employment	(+)	(4)FMD4 : companies with at least 50% ownership by family members, or at least two executive officers having a family relationship, or at least 20% of the executive officers being are part of the same family, or at least 20% of executive officer ownership being held by family members.
(b)they are present on the board of directors		Revenues	(+)	
		Income	(+)	
		Profit margin	(−)	
(a)largest controlling shareholder holding at least 10% of the voting rights is family	Maury(2006)	Tobins's Q ROA	(+)active family control and ownership	(5)FMD5 : companies with at least the average percentage of ownership by family firms, or the average percentage number of executive officers having a family relationship, or the average percentage of number of executive officers being part of the same family or the average percentage of executive officer's equity ownership being held by family members.
(b)family controllng shareholder is an unlisted firms				
(c)largest controlling shareholder is an identified family or individual			(+)active control and ownership	
(d)active family control i.e. controlling shareholder is a family or individual who holds the CEO, honorary chairman, chairman or vice chairman position				

Previous Studies				Current Study
Definition of Family Firm	Author(s)	Performance Measures	Findings (significant unless otherwise stated)	Definition of Family Firm
Percentage of ownership, number of family menbers in management and family successor chosen	Chrisman et al (2004)	sales growth	Mixed	(6)FMD6 : companies with at least the median percentage of ownership by family firms or median percentage number of executive officers having a family relationship or median percentage of number of executive officers being part of the same family or median percentage of executive officer's equity ownership being held by family members.
(a)family continues to have an equity ownership stake in firm (b)family possesses board seats (c)founding CEO is still acting CEO or descendent of CEO is action CEO	Anderson & Reeb (2003)	Tobin's Q Return on assets Return on equity	(+) (+) (+)	(7)FMD7 : companies with at least 5% ownership by family members, or at least two executive officers having a family relationship, or at least 20% of executive officer ownership being held by family members.
Single individual or clasely knit group of individuals, Founder and families/individuals affiliated with the founder	Cronqvist and Nilsson (2003)	Tobin'sQ Return on assets	( )	(8)FMD8 : companies with a percentage of ownership by family members greater than the median percentage of ownership by family firms, or at least one executive officer having a family relationship.
Arthur anderson center for family business	Schulze et al (2001, 2003)	Sales growth	(+)	
one shareholder holds at least 5% of voting rights and at least 20% of voting rights	Faccio and Lang (2001)	Market Capitalisation	(−)	
largest shareholder and stake is greater than a 20% or 10% voting control	Morck et al (2000)	GDP, per capita	(−)	
50% or more of wonership held by a single family; single family group is effectively controlling and managing the business	Tanewski et al (2003)	product innovation, process innovation, leader strategy, structure, nprospect or strategy leader strategy	mixed : family firms less innovative but greater prospecting orientation	

We define a “family firm” as a company that falls in line with the following criteria.

(1) FMD1： companies with at least 50% ownership by family members, or at least two executive officers with a family relationship, or at least half the executive officers being part of the same family, or at least 50% of the shares being owned by family members who are also board members.

(2) FMD2： companies with at least 20% ownership by family members, or at least two executive officers with a family relationship, or at least half the executive officers being part of the same family, or at least 50% of the shares being owned by family members who are also board members.

(3) FMD3： companies with at least 50% ownership by family members, or at least two executive officers with a family relationship, or at least 20% of the executive officers being part of the same family, or at least 50% of the shares being owned by family members who are also board members.

(4) FMD4： companies with at least 50% ownership by family members, or at least two executive officers with a family relationship, or at least 20% of the executive officers being part of the same family, or at least 20% of the shares being owned by family members who are also board members.

(5) FMD5： companies with at least the average percentage of ownership by family firms, or the average proportion of executive officers with a family relationship, or the average proportion of executive officers being part of the same family, or the average percentage of shares being owned by family members who are also board members.

(6) FMD6： companies with at least the median percentage of ownership by family firms or the median proportion of executive officers with a family relationship, or the median proportion of executive officers being part of the same family, or the median percentage of shares being owned by family members who are also board members.

(7) FMD7 : companies with at least 5% ownership by family members, or at least two executive officers with a family relationship, or at least 20% of the shares being owned by family members who are also board members.

(8) FMD8 : companies with a percentage of ownership by family members greater than the median percentage of ownership by family firms, or at least one executive officer with a family relationship.

When family businesses in Korea were classified by the different classification methods, around 33%~65% of listed manufacturing companies in Korea, depending on the classification criteria, were identified as family companies.

2. Research Design

This study addresses the quality of earnings as the level of discretionary accruals in earnings. The reported earnings are a central piece of information in the functioning of capital markets as well as contracting.

$$ADA = \beta_0 + \beta 1FMD_{1-8} + \beta_2 LIV + \beta_3 SIZE + \beta_4 FIN + \beta_5 LEV + \beta_6 MTB + \beta_7 LOSS + \beta_8 CFO + \beta_9 VAR + \beta_{10} ROA + \beta_{11} YD + \beta_{12-18} ID + \varepsilon \quad \cdots\cdots (1\text{-}1)$$

$$APDA = \beta_0 + \beta_1 FMD_{1-8} + \beta_2 LIV + \beta_3 SIZE + \beta_4 FIN + \beta_5 LEV + \beta_6 MTB + \beta_7 LOSS + \beta_8 CFO + \beta_9 VAR + \beta_{10} ROA + \beta_{11} YD + \beta_{12-18} ID + \varepsilon \quad \cdots\cdots (1\text{-}2)$$

$$ADA = \beta_0 + \beta_1 FMD_{1-8} + \beta_2 SSH + \beta_3 FMD*SSH + \beta_4 LIV + \beta_5 SIZE + \beta_6 FIN + \beta_7 LEV + \beta_8 MTB + \beta_9 LOSS + \beta_{10} CFO + \beta_{11} VAR + \beta_{12} ROA + \beta_{13} YD + \beta_{14-20} ID + \varepsilon \quad \cdots\cdots (2\text{-}1)$$

$$APDA = \beta_0 + \beta_1 FMD_{1-8} + \beta_2 OBOD + \beta_3 FMD*OBOD + \beta_4 LIV + \beta_5 SIZE + \beta_6 FIN + \beta_7 LEV + \beta_8 MTB + \beta_9 LOSS + \beta_{10} CFO + \beta_{11} VAR + \beta_{12} ROA + \beta_{13} YD + \beta 1_{4-20} ID + \varepsilon \quad \cdots\cdots (2\text{-}2)$$

Where :

ADA = Absolute value of the adjusted discretionary accruals from the modified Jones model.

APDA = Absolute value of performance-adjusted discretionary accruals.

FMD = 1 if the sample firm is a family firm, and 0 otherwise. (see Table 2 for definitions)

SSH = Equity ownership by minority shareholders.

OBOD = Proportion of outside directors on the corporate board.

LIA = Last year's total current accruals (net income before extraordinary items minus the operating cash flow scaled by the total assets at the beginning of the year).

SIZE = Log of total assets.

FIN = 1 if the number of outstanding shares increased by at least 10%, or long-term debts increased at least 20%.

LEV = Ratio of total debt to total assets at the beginning of the year.

MTB = Market-to-book ratio.

LOSS = 1 if the firm reports a net loss for the fiscal period, and 0 otherwise.

CFO = Cash flow from operations scaled by the total assets at the beginning of the year.

VAR = Standard deviation of the net income over the prior three years.

ROA = Current year's return on assets (NI / Total assets)

ID = Dummy variable for the industry.

YD = Dummy variable for the year.

This study uses two measures of earnings quality to capture different dimensions of quality.

(a) ADA : absolute value of adjusted discretionary accruals from the modified Jones model. Jones (1991) measures the degree of earnings management and earnings quality as a function of abnormal or discretionary accruals. The estimates of earnings quality used in this study were discretionary accruals derived from the modified Jones model used in previous research (Subramanyam, 1996). However, while the modified Jones

model estimates the regression coefficient using time-series data, this study measured discretionary accruals through a cross-sectional analysis by industry and by year because of a limitation in collecting long-term time-series data in Korea. In estimating discretionary accruals, the total amount of accruals, which is the dependent variable, was calculated by subtracting the cash flow from operating activities from the net income. Non-discretionary accruals were estimated using a model equation [Eq. (1)].

Our primary model is the modified cross-sectional Jones model (Jones, 1991) as described in Dechow et al. (1995). The modified Jones model is estimated by using each of the three digits from the SIC-year grouping as follows. The use of the signed version of the residual allows for testing whether the quality of governance impacts the direction of discretionary accrual choice, by investigating the relative use of income-increasing versus income-decreasing discretionary accruals (Lobo and Zhou, 2006). Therefore, the first measure of earnings quality is the signed residual from the modified Jones model. To calculate the residual, firms are classified into industries by the three digits from the SIC code, and the coefficients are estimated by industry through the following formula.

$$TA_t/ASSET_{t-1} = \alpha_0/ASSET_{t-1} + \beta_1(\Delta SALES_t - \Delta AR_t)/ASSET_{t-1} + \beta_2 PPE_t/ASSET_{t-1} + \varepsilon \quad \cdots\cdots (1)$$

TA_t : Total accruals($NI_t - CFO_t$)
$ASSET_{t-1}$: Total assets for year t−1.
$\Delta SALES$: Change in net sales, ($SALES_t - SALES_{t-1}$).
ΔAR : Change in accounts receivable, ($AR_t - AR_{t-1}$).
PPE : Gross plant, property, and equipment.
ε : Residual (proxy of discretionary accruals).

The estimation method based on Eq. (1) uses cross-sectional data by

industry-year for the period from 1999 to 2006. In this study, the modified Jones (Dechow et al., 1995) model was used in estimation for the companies that shared the same last three digits of SIC. This was done in order to control for industry effect. The discretionary accruals for each firm are defined as the residual from Eq. (1) (DeFond and Park, 1997 ; Becker et al., 1998). This residual measures the distance from the average of the industry, and thus represents the each firm's discretionary accruals matched on the basis of industry (Peasnell and Young, 1998 ; Gul et al., 1999).

DeFond and Park (1997) and Becker et al. (1998) are some of the studies that have used the residual of the revised Jones model as a substitute for discretionary accruals. Following DeFond and Park (1997) and Becker et al. (1998), we treat the DeFond and Park (2001) estimates of the abnormal working capital accruals as the difference between actual and expected working capital accruals, where the expectation is based on the relationship between the prior-period working capital and sales.

(b) APDA： absolute value of performance-adjusted discretionary accruals. We follow Kothari et al. (2005) and Ashbaugh et al. (2003) for measuring APDA. We first estimate the modified Jones model cross-sectionally using all firm-year observations in the same three-digit SIC code. The discretionary accruals from this model are then differentiated from the discretionary accruals of a firm with the same three-digit SIC code and with the closest return on assets in the current year. We add the family-firm variables and control variables used in other studies (Ali et al., 2007).

Table 3 describes the main variables of our study.

[Table 3 Descriptions of all the variables used in the analyses]

Variable	Description
Earnings quality－1 (ADA)	Absolute value of the adjusted discretionary accruals from the modified Jones model
Earnings quality－2 (APDA)	Absolute value of performance-adjusted discretionary accruals
Family firm	1 if the sample firm is a family firm, and 0 otherwise. (see Table 2 for definitions)
Monitoring power－I (minority shareholder : SSH)	Equity ownership by minority shareholders
Monitoring power－II (outside board of director : OBOD)	Proportion of outside directors on the corporate board
LIA	Last year's total current accruals (net income before extraordinary items minus the operating cash flow scaled by the total assets at the beginning of the year)
SIZE	Log of total assets
FIN	1 if the number of outstanding shares increased by at least 10% or the long-term debts increased by at least 25%
LEV	Ratio of the total debt to total assets at the beginning of the year
MTB	Market-to-book ratio
LOSS	1 if the firm reports a net loss for the fiscal period, and 0 otherwise
CFO	Cash flow from operations scaled by the beginning of year total assets
VAR	Standard deviation of the net income over the prior three years

Variable	Description
ROA	Current year's return on assets (NI / Total assets)
ID	Industry dummy
YD	Year dummy

3. Descriptive statistics of family and non-family firms

The descriptive statistics on the variables used in the regression model are presented in Table 4[1]. The average percentage of common stock owned by family members was 25.8%. The average number of family members with executive-officer positions was 1.795. The mean percentage of family members with executive-officer positions 24.4%. Finally, the average percentage of common stock owned by family members with executive-officer positions was 14.9%. In Korea, a large percentage of firms had family members owning shares or participating in management. This suggests that, as in the worldwide trend, family firms occupy a very important position in Korea and that there should be further research on family firms in the future.

1) Descriptive statics preformed for all eight definitions for a family firm yielded similar results ; therefore, only the results for the first definition (FMD1) is shown here for the sake of brevity.

[Table 4 Descriptive statistics]

Variable	Mean	Std.	Min	1Q	Median	3Q	Max
SH_CSR_SUM	0.258	0.165	0.000	0.130	0.250	0.366	1.000
FM	1.795	1.396	0.000	1.000	2.000	3.000	14.000
FMR	0.244	0.177	0.000	0.125	0.222	0.375	1.000
CSHR_BOD_SUM	0.149	0.186	0.000	0.002	0.121	0.237	4.325
ADA	0.069	0.111	0.000	0.021	0.045	0.085	0.391
APDA	0.088	0.110	0.000	0.029	0.061	0.115	0.196
SSH	0.384	0.190	0.000	0.252	0.370	0.499	0.985
OBOD	0.210	0.155	0.000	0.125	0.200	0.286	0.769
LIA	−0.009	0.133	−3.956	−0.053	−0.006	0.042	1.678
SIZE	19.276	1.494	15.191	18.230	19.057	20.075	24.890
FIN	0.281	0.449	0.000	0.000	0.000	1.000	1.000
LEV	0.494	0.201	0.001	0.346	0.493	0.636	0.999
MTB	0.929	0.249	0.207	0.673	0.815	1.012	1.151
LOSS	0.189	0.392	0.000	0.000	0.000	0.000	1.000
CFO	0.060	0.132	−0.121	0.010	0.058	0.111	0.360
VAR	0.213	0.317	0.000	0.010	0.024	0.062	1.243
ROA	0.034	0.202	−2.929	0.006	0.034	0.071	0.236

Where :

SH_CSR_SUM : Percentage of common stock owned by family members.

FM : No. of family members with executive officers.

FMR : Percentage of family members with executive officers.

CSHR_BOD_SUM : Percentage of common stock owned by family members with executive officers.

ADA = Absolute value of adjusted discretionary accruals from the modified Jones model.

APDA = Absolute value of performance-adjusted discretionary accruals.

SSH = Equity ownership by minority shareholders.

OBODR = Proportion of outside directors on the corporate board.
LIA = Last year's total current accruals (net income before extraordinary items plus depreciation and amortization minus the operating cash flow scaled by the total assets at the beginning of the year).
SIZE = Log of total assets.
FIN = 1 if the number of outstanding shares increased by at least 10%, or long-term debts increased by at least 20%.
LEV = Ratio of total debt to total assets at the beginning of the fiscal period.
MTB = Market-to-book ratio.
LOSS = 1 if the firm reports a net loss for the fiscal period, 0 otherwise.
CFO = Cash flow from operations scaled by the beginning-of-year total assets.
VAR = Standard deviation of the net income over the preceding three years.
ROA = Current year's return on assets.

Table 5 presents the correlation matrix calculated with the full sample data. High correlations are seen between FMD 3 & 4, 3 & 7, 2 & 5, 2 & 6, and 5 & 6. Apparently, these family-firm variables are highly correlated due to the overlapping definitions of family businesses. The dependent variables and other independent variables show high correlations, which suggests that we need to consider those confounding variables in the multiple regression models not to distort the results. The ADA and APDA variables exhibit a positive relation with family firms. The analysis indicates that the ADA and APDA variables have significant negative correlations with the SSH and OBOD variables. which means that we need to include those confounding variables in the multiple regression models to minimized the distortions.

[Table 5 Pearson correlations for the test variables]

	FMD1	FMD2	FMD3	FMD4	FMD5	FMD6	FMD7	FMD8	ADA	APDA	SSH	OBOD	LIA	SIZE	FIN	LEV	MTB	LOSS	CFO	VAR	ROA
FMD1	1.000	0.789	0.833	0.786	0.799	0.782	0.777	0.587	0.070	0.047	0.038	-0.002	0.041	0.103	0.062	-0.107	-0.085	-0.051	0.020	-0.006	-0.005
		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	0.005	0.018	0.888	0.016	<.0001	<.0001	<.0001	<.0001	0.001	0.222	0.814	0.754
FMD2		1.000	0.744	0.799	0.923	0.923	0.699	0.721	0.086	0.072	0.038	-0.046	0.086	0.024	0.095	-0.168	-0.096	-0.083	0.023	-0.060	-0.003
			<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	0.017	0.005	<.0001	0.111	<.0001	<.0001	<.0001	<.0001	0.164	0.024	0.821
FMD3			1.000	0.943	0.792	0.778	0.951	0.704	0.065	0.047	0.091	-0.045	0.048	0.012	0.096	-0.114	-0.071	-0.030	0.012	-0.044	0.014
				<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	0.005	<.0001	0.006	0.005	0.442	<.0001	<.0001	<.0001	0.049	0.478	0.102	0.363
FMD4				1.000	0.848	0.833	0.897	0.747	0.072	0.053	0.081	-0.056	0.059	-0.005	0.105	-0.127	-0.065	-0.037	0.010	-0.054	0.013
					<.0001	<.0001	<.0001	<.0001	0.002	<.0001	0.001	0.001	0.755	<.0001	<.0001	<.0001	<.0001	0.014	0.541	0.042	0.370
FMD5					1.000	0.978	0.746	0.734	0.075	0.064	0.056	-0.045	0.073	0.017	0.099	-0.139	-0.080	-0.060	0.010	-0.057	-0.014
						<.0001	<.0001	<.0001	0.000	0.000	0.000	0.006	<.0001	0.259	<.0001	<.0001	<.0001	<.0001	0.557	0.032	0.365
FMD6						1.000	0.733	0.751	0.073	0.065	0.074	-0.045	0.082	0.010	0.103	-0.139	-0.083	-0.062	0.000	-0.059	-0.014
							<.0001	<.0001	<.0001	<.0001	<.0001	0.006	<.0001	0.490	<.0001	<.0001	<.0001	<.0001	0.988	0.026	0.338
FMD7							1.000	0.670	0.062	0.043	0.110	-0.045	0.053	-0.026	0.093	-0.111	-0.081	-0.024	-0.001	-0.069	0.015
								<.0001	0.000	0.009	<.0001	0.005	0.002	0.084	<.0001	<.0001	<.0001	0.112	0.960	0.009	0.334
FMD8								1.000	0.081	0.047	0.157	-0.035	0.072	0.025	0.132	-0.131	-0.076	-0.034	-0.009	0.026	0.004
									<.0001	0.005	<.0001	0.033	<.0001	0.100	<.0001	<.0001	<.0001	0.024	0.585	0.334	0.799
ADA									1.000	0.643	-0.105	-0.024	-0.351	-0.147	0.102	0.102	-0.231	0.180	-0.244	0.004	-0.262
										<.0001	<.0001	0.142	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	0.872	<.0001
APDA										1.000	-0.104	0.025	-0.014	-0.085	0.088	0.065	-0.185	0.138	-0.129	0.134	-0.056
											<.0001	0.134	0.408	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	0.001
SSH											1.000	-0.018	-0.126	-0.006	0.051	0.190	0.097	0.223	-0.168	0.105	-0.046
												0.266	<.0001	0.704	0.001	<.0001	<.0001	<.0001	<.0001	<.0001	0.004
OBOD												1.000	-0.014	0.238	-0.016	0.008	0.104	-0.012	0.010	0.263	-0.014
													0.407	<.0001	0.323	0.625	<.0001	0.455	0.537	<.0001	0.389
LIA													1.000	-0.003	0.019	-0.180	-0.052	-0.291	-0.268	-0.036	0.392
														0.859	0.277	<.0001	0.003	<.0001	<.0001	0.184	<.0001
SIZE														1.000	0.000	0.142	0.024	-0.161	0.198	0.454	0.013
															0.988	<.0001	0.128	<.0001	<.0001	<.0001	0.378
FIN															1.000	0.103	0.076	0.075	-0.107	-0.020	-0.033
																<.0001	<.0001	<.0001	<.0001	0.459	0.028
LEV																1.000	0.074	0.262	-0.128	-0.001	-0.062
																	<.0001	<.0001	<.0001	0.967	<.0001
MTB																	1.000	0.061	-0.027	0.100	0.051
																		<.0001	0.104	0.000	0.001
LOSS																		1.000	-0.303	-0.038	-0.205
																			<.0001	0.152	<.0001
CFO																			1.000	0.191	0.294
																				<.0001	<.0001
VAR																				1.000	0.101
																					0.000
ROA																					1.000

Ⅳ. Empirical Results

Table 6 shows the difference between the means-test results for the two sample groups : FM and NFM. The tests were conducted for the various family groups defined in this study, and every FM shows higher discretionary accruals than NFM does. This implies that family firms have a lower quality of earnings than non-family firms. With regard to ADA, family firms show means in the range of 0.078~0.089 as opposed to 0.063~0.065 for non-family firms with a t-value of 3.850 (up to 5.290), which is statistically significant at the 1% level.

[Table 6 Empirical results on abnormal accruals to family and non-family firms]

Group			ADA			APDA		
		N	Mean	t-value	p-value	Mean	t-value	p-value
FMD1	Family firms	1,129	0.078	4.300	<.0001	0.094	2.820	0.005
	Non-family firms	2,311	0.063			0.084		
FMD2	Family firms	1,651	0.083	5.290	<.0001	0.100	4.340	<.0001
	Non-family firms	1,789	0.063			0.083		
FMD3	Family firms	1,532	0.079	3.990	<.0001	0.095	2.810	0.005
	Non-family firms	1,908	0.064			0.085		
FMD4	Family firms	1,659	0.081	4.420	<.0001	0.097	3.160	0.002
	Non-family firms	1,781	0.064			0.084		

Group			ADA			APDA		
		N	Mean	t-value	p-value	Mean	t-value	p-value
FMD5	Family firms	1,622	0.082	4.640	<.0001	0.099	3.870	0.000
	Non-family firms	1,818	0.064			0.084		
FMD6	Family firms	1,670	0.081	4.490	<.0001	0.099	3.920	<.0001
	Non-family firms	1,770	0.064			0.084		
FMD7	Family firms	1,422	0.078	3.850	0.000	0.095	2.610	0.009
	Non-family firms	2,018	0.064			0.085		
FMD8	Family firms	2,233	0.089	4.980	<.0001	0.100	2.830	0.005
	Non-family firms	1,207	0.065			0.086		

Where :

ADA = Absolute value of the adjusted discretionary accruals from the modified Jones model.

APDA = Absolute value of performance-adjusted discretionary accruals.

1. Earnings quality

The results from the earnings-quality regression analysis for family firms appear in Table 7. The model presented in this paper includes ADA and APDA as the dependent variables, and the presence of family control as an independent variable. Other independent variables were incorporated to control for the firm and industry characteristics.

[Table 7 Family firms and earnings quality, 2000~2006(n = 3,340)]

Dependent Variable : ADA

	FMD1			FMD2			FMD3			FMD4			FMD5			FMD6			FMD7			FMD8		
	Parameter	t Value	Pr>|t|	Parameter	t Value	Pr>|t|	Parameter	t Value	Pr>|t|	Parameter	t Value	Pr>|t|	Parameter	t Value	Pr>|t|	Parameter	t Value	Pr>|t|	Parameter	t Value	Pr>|t|	Parameter	t Value	Pr>|t|
Intercept	0.120	3.93	***	0.115	3.75	***	0.113	3.67	***	0.113	3.67	***	0.115	3.75	***	0.113	3.7	***	0.112	3.65	***	0.112	3.66	***
FMD	0.010	2.32	**	0.008	1.95	**	0.010	2.41	**	0.009	2.29	**	0.008	1.94	**	0.009	2.14	**	0.009	2.24	**	0.010	2.35	**
LIA	-0.312	-11.22	***	-0.311	-11.21	***	-0.312	-11.25	***	-0.313	-11.25	***	-0.313	-11.26	***	-0.313	-11.26	***	-0.312	-11.21	***	-0.313	-11.27	***
SIZE	-0.003	-1.99	**	-0.003	-1.84	*	-0.003	-1.79	*	-0.003	-1.78	*	-0.003	-1.83	*	-0.003	-1.81	*	-0.003	-1.76	*	-0.003	-1.83	*
FIN	0.007	1.59		0.007	1.59		0.007	1.53		0.007	1.52		0.007	1.56		0.007	1.55		0.007	1.53		0.007	1.55	
LEV	0.002	3.12	***	0.002	3.15	**	0.002	3.15	***	0.002	3.15	***	0.002	3.14	***	0.002	3.14	***	0.002	3.21	***	0.002	3.17	***
MTB	-0.038	10.9	***	-0.037	10.84	***	-0.038	10.91	***	-0.038	10.89	***	-0.037	10.83	***	-0.038	10.87	***	-0.038	10.89	***	-0.038	10.92	***
LOSS	-0.088	-13.41	***	-0.087	-13.37	***	-0.088	-13.4	***	-0.088	-13.4	***	-0.087	-13.36	***	-0.087	-13.35	***	-0.088	-13.39	***	-0.087	-13.36	***
CFO	-0.350	-11.42	***	-0.350	-11.42	***	-0.352	-11.47	***	-0.352	-11.48	***	-0.352	-11.46	***	-0.352	-11.46	***	-0.351	-11.43	***	-0.353	-11.5	***
VAR	0.000	4.73	***	0.000	4.74	***	0.000	4.7	***	0.000	4.71	***	0.000	4.73	***	0.000	4.72	***	0.000	4.72	***	0.000	4.6	***
ROA	-0.380	-10.95	***	-0.380	-10.96	***	-0.378	-10.92	***	-0.378	-10.92	***	-0.378	-10.9	***	-0.378	-10.9	***	-0.380	-10.95	***	-0.376	-10.85	***
YD	Included			Included			Included			Included			Included			Included			Included			Included		
ID	Included			Included			Included			Included			Included			Included			Included			Included		
F	235.62		***	235.27		***	235.71		***	235.59		***	235.26		***	235.43		***	235.54		***	235.65		***
Adj R-Sq	0.5549			0.5545			0.555			0.5549			0.5545			0.5547			0.5548			0.5549		

Dependent Variable: APDA

	FMD1			FMD2			FMD3			FMD4			FMD5			FMD6			FMD7			FMD8		
	Parameter	t Value	Pr>|t|	Parameter	t Value	Pr>|t|	Parameter	t Value	Pr>|t|	Parameter	t Value	Pr>|t|	Parameter	t Value	Pr>|t|	Parameter	t Value	Pr>|t|	Parameter	t Value	Pr>|t|	Parameter	t Value	Pr>|t|
Intercept	0.193	4.96	***	0.189	4.84	***	0.186	4.75	***	0.185	4.73	***	0.189	4.83	***	0.189	4.81	***	0.185	4.71	***	0.182	4.65	***
FMD	0.014	2.64	***	0.008	1.51		0.011	2.11	**	0.011	2.09	**	0.008	1.57		0.008	1.48		0.011	2.07	**	0.014	2.56	**
LIA	-0.028	-0.43		-0.028	-0.44		-0.024	-0.37		-0.025	-0.39		-0.028	-0.43		-0.028	-0.44		-0.023	-0.36		-0.028	-0.43	
SIZE	-0.007	-3.22	***	-0.006	-3.08	***	-0.006	-3.03	***	-0.006	-3.01	***	-0.006	-3.06	***	-0.006	-3.05	***	-0.006	-3.00	***	-0.006	-3.03	***
FIN	0.007	1.25		0.007	1.26		0.007	1.21		0.007	1.21		0.007	1.24		0.007	1.25		0.007	1.22		0.007	1.22	
LEV	-0.011	-0.76		-0.011	-0.73		-0.011	-0.75		-0.012	-0.79		-0.011	-0.77		-0.011	-0.77		-0.011	-0.76		-0.012	-0.84	
MTB	-0.039	8.82	***	-0.039	8.63	***	-0.039	8.73	***	-0.039	8.72	***	-0.039	8.64	***	-0.039	8.62	***	-0.039	8.73	***	-0.040	8.83	***
LOSS	-0.028	-3.07	***	-0.028	-3.06	***	-0.028	-3.07	***	-0.028	-3.07	***	-0.028	-3.06	***	-0.028	-3.05	***	-0.028	-3.05	***	-0.027	-3.01	***
CFO	-0.183	-2.99	***	-0.183	-2.99	***	-0.180	-2.94	***	-0.182	-2.97	***	-0.183	-2.99	***	-0.183	-2.98	***	-0.179	-2.92	***	-0.185	-3.02	***
VAR	0.000	8.89	***	0.000	8.88	***	0.000	8.86	***	0.000	8.86	***	0.000	8.87	***	0.000	8.86	***	0.000	8.88	***	0.000	8.73	***
ROA	-0.382	-5.11	***	-0.381	-5.1	***	-0.386	-5.16	***	-0.385	-5.15	***	-0.381	-5.1	***	-0.380	-5.09	***	-0.388	-5.18	***	-0.379	-5.08	***
YD	Included			Included			Included			Included			Included			Included			Included			Included		
ID	Included			Included			Included			Included			Included			Included			Included			Included		
F	40.16		***	39.6		***	39.86		***	39.85		***	39.62		***	39.59		***	39.84		***	40.11		***
Adj R-Sq	0.1779			0.1758			0.1768			0.1767			0.1758			0.1757			0.1767			0.1777		

After analyzing the relevant regression coefficients, the main finding of this study is that the family firms' coefficient shows a positive value, which suggests that discretionary accruals are more negative for non-family firms when compared to those of family firms.

Compared to non-family firms, family firms were found to have a lower quality of earnings. This result is different from the reports of previous research, suggesting that it is relatively hard to monitor family firms compared to non-family firms. Also, the control and management of family firms is usually in the hands of family members, resulting in a lack of transparency in managerial decisions. This tendency is more prevalent in the family-centered cultures of Asian countries. Probably for this reason, the quality of profits is even lower in Korean family firms.

2. Monitoring power

Table 8 shows multiple regressions for family firms and the monitoring power of minority shareholders. In this table, there is a positive association within family firms between the level of equity ownership by minority shareholders and the earnings quality. Companies with higher equity ownership by minority shareholders are more likely to have higher earnings quality.

Even among family firms, those with a large number of outside minority shareholders are exposed to high pressure from external capital markets compared to those with relatively few outside minority shareholders. Thus, a monitoring group can execute effective monitoring activities for family firms with a significant number of outside minority shareholders. Accordingly, it is also understood that outside minority shareholders are playing a useful role as a monitoring group over such companies.

[Table 8 Family firms and monitoring power of minority shareholders, 2000~2006(n=3,340)]

Dependent Variable : ADA

	FMD1			FMD2			FMD3			FMD4			FMD5			FMD6			FMD7			FMD8		
	Parameter	t Value Pr>|t|		Parameter	t Value Pr>|t|		Parameter	t Value Pr>|t|		Parameter	t Value Pr>|t|		Parameter	t Value Pr>|t|		Parameter	t Value Pr>|t|		Parameter	t Value Pr>|t|	
Intercept	0.096	2.9	***	0.089	2.68	***	0.092	2.77	***	0.092	2.8	***	0.092	2.75	***	0.092	2.76	***	0.092	2.76	***	0.093	2.81	***
FMD	0.018	1.89	**	0.020	2.32	**	0.017	1.98	**	0.015	1.71	*	0.016	1.84	*	0.016	1.84	*	0.016	1.8	*	0.015	1.83	*
SSH	-0.013	-0.98		-0.026	-2.18	**	-0.014	-2.98	**	-0.015	-2.97	**	-0.019	-1.31		-0.017	-1.13		-0.016	-2.06	**	-0.023	-2.09	**
FMD*SSH	-0.024	-1.96	*	-0.048	-2.01	**	-0.026	-2.07	**	-0.022	-1.91	**	-0.031	-2.3	**	-0.028	-1.96	*	-0.026	-2.47	**	-0.032	-2.19	**
LIA	-0.322	-10.71	***	-0.322	-10.72	***	-0.323	-10.75	***	-0.323	-10.74	***	-0.323	-10.72	***	-0.323	-10.73	***	-0.323	-10.74	***	-0.323	-10.7	***
SIZE	-0.001	-0.85		-0.001	-0.68	*	-0.001	-0.74		-0.001	-0.73	*	-0.001	-0.71	*	-0.001	-0.72	*	-0.001	-0.71	*	-0.001	-0.76	*
FIN	0.009	1.83	*	0.008	1.75	*	0.009	1.79	*	0.009	1.79	*	0.009	1.8	*	0.009	1.8	*	0.009	1.8	*	0.009	1.86	*
LEV	-0.033	-2.67	***	-0.032	-2.59	**	-0.033	-2.64	***	-0.034	-2.69	***	-0.033	-2.65	***	-0.033	-2.66	***	-0.033	-2.63	***	-0.034	-2.71	***
MTB	-0.043	-11.05	***	-0.043	-11	***	-0.043	-11.03	***	-0.042	-10.96	***	-0.042	-10.95	***	-0.043	-10.97	***	-0.043	-10.98	***	-0.042	-10.88	***
LOSS	-0.086	-12.09	***	-0.086	-12.03	***	-0.086	-12.05	***	-0.086	-12.06	***	-0.086	-12.02	***	-0.086	-12	***	-0.086	-12.04	***	-0.086	-12.03	***
CFO	-0.376	-11	***	-0.377	-11.05	***	-0.378	-11.04	***	-0.377	-11.03	***	-0.377	-11.02	***	-0.377	-11.02	***	-0.377	-11.01	***	-0.377	-11	***
VAR	0.000	4.05	***	0.000	4.03	***	0.000	4.04	***	0.000	4.02	***	0.000	4.02	***	0.000	4.03	***	0.000	4.03	***	0.000	4.04	***
ROA	-0.404	-10.3	***	-0.402	-10.24	***	-0.402	-10.24	***	-0.402	-10.25	***	-0.402	-10.25	***	-0.402	-10.25	***	-0.402	-10.24	***	-0.403	-10.27	***
YD	Included			Included			Included			Included			Included			Included			Included			Included		
ID	Included			Included			Included			Included			Included			Included			Included			Included		
F	165.26		***	165.31		***	165.18		***	164.96		***	164.97		***	164.99		***	165.02		***	164.94		***
Adj R-Sq	0.564			0.564			0.5639			0.5635			0.5635			0.5636			0.5636			0.5635		

Dependent Variable : APDA

	FMD1			FMD2			FMD3			FMD4			FMD5			FMD6			FMD7			FMD8		
	Parameter	t Value Pr>|t|		Parameter	t Value Pr>|t|		Parameter	t Value Pr>|t|		Parameter	t Value Pr>|t|		Parameter	t Value Pr>|t|		Parameter	t Value Pr>|t|		Parameter	t Value Pr>|t|	
Intercept	0.167	4.09	***	0.166	4.05	***	0.169	4.13	***	0.169	4.15	***	0.168	4.11	***	0.169	4.13	***	0.169	4.14	***	0.173	4.23	***
FMD	0.014	2.19	**	0.010	2.89	***	0.006	3.59	***	0.005	2.51	***	0.006	2.54	**	0.006	2.6	***	0.006	3.51	***	0.002	2.25	**
SSH	-0.052	-3.2	***	-0.077	-4.26	***	-0.058	-3.14	***	-0.062	-3.26	***	-0.071	-3.92	***	-0.077	-4.12	***	-0.058	-3.2	***	-0.067	-2.51	**
FMD*SSH	-0.026	-2.86	***	-0.055	-1.85	*	-0.021	-3.72	***	-0.025	-2.83	***	-0.040	-1.34		-0.048	-3.62	***	-0.021	-2.71	***	-0.015	-2.45	**
LIA	0.146	2.2	**	0.150	2.25	**	0.145	2.18	**	0.146	2.19	**	0.150	2.25	**	0.151	2.27	**	0.145	2.17	**	0.150	2.24	**
SIZE	-0.006	-2.91	***	-0.006	-2.83	***	-0.006	-2.91	***	-0.006	-2.92	***	-0.006	-2.88	***	-0.006	-2.9	***	-0.006	-2.92	***	-0.006	-2.92	***
FIN	0.007	1.17		0.007	1.11		0.007	1.17		0.007	1.16		0.007	1.16		0.007	1.16		0.007	1.17		0.007	1.18	
LEV	0.005	0.33		0.005	0.33		0.005	0.29		0.005	0.3		0.005	0.35		0.006	0.36		0.005	0.3		0.004	0.25	
MTB	-0.034	-7.03	***	-0.033	-6.8	***	-0.034	-6.87	***	-0.034	-6.85	***	-0.033	-6.76	***	-0.033	-6.74	***	-0.034	-6.84	***	-0.033	-6.61	***
LOSS	-0.026	-2.78	***	-0.027	-2.85	***	-0.027	-2.8	***	-0.027	-2.82	***	-0.027	-2.85	***	-0.027	-2.87	***	-0.027	-2.81	***	-0.027	-2.88	***
CFO	0.018	0.26		0.020	0.3		0.017	0.26		0.017	0.26		0.021	0.31		0.021	0.32		0.017	0.25		0.023	0.35	
VAR	0.000	8.23	***	0.000	8.11	***	0.000	8.16	***	0.000	8.14	***	0.000	8.12	***	0.000	8.1	***	0.000	8.14	***	0.000	8.14	***
ROA	-0.577	-7.39	***	-0.574	-7.35	***	-0.573	-7.32	***	-0.572	-7.31	***	-0.574	-7.36	***	-0.574	-7.35	***	-0.573	-7.3	***	-0.579	-7.4	***
YD	Included			Included			Included			Included			Included			Included			Included			Included		
ID	Included			Included			Included			Included			Included			Included			Included			Included		
F	27.28		***	27.56		***	27.19		***	27.21		***	27.39		***	27.51		***	27.19		***	27.2		***
Adj R-Sq	0.1769			0.1785			0.1764			0.1766			0.1776			0.1783			0.1764			0.1765		

Table 9 shows multiple regressions for family firms with high proportions of outside directors and monitoring power. This table shows that companies with a higher proportion of outside directors on their corporate board are more likely to have higher earnings quality. It has been found in previous research that outside directors play a very important role as a monitoring group. The same could be said of our study as well that among family firms, those with a higher percentage of outside directors are monitored more efficiently than those without. This suggests that outside directors have a positive effect on the quality of earnings in family firms.

[Table 9 Family firms and monitoring power of outside directors, 2000～ 2006(n = 3,340)]

Dependent Variable : ADA

	FMD*		FMD2		FMD3		FMD4		FMD5		FMD6		FMD7		FMD8	
	Para meter	t Value Pr>|t|	Para meter	t Value Pr>|t|	Para meter	t Value Pr>|t|	Para meter	t Value Pr>|t|	Para meter	t Value Pr>|t|	Para meter	t Value Pr>|t|	Para meter	t Value Pr>|t|
Intercept	0.090	2.19 **	0.094	2.24 **	0.085	2.03 **	0.088	2.1 **	0.100	2.38 **	0.101	2.39 **	0.087	2.06 **	0.110	2.51 **
FMD	0.007	2.65 ***	0.004	2.35 ***	0.005	4.49 ***	0.002	3.15 ***	0.010	2.92 ***	0.011	2.98 ***	0.003	2.74 ***	0.018	2.17 **
OBOD	-0.071	-2.67 ***	-0.081	-2.67 ***	-0.067	-2.31 **	-0.073	-2.39 **	-0.102	-3.35 ***	-0.108	-3.48 ***	-0.071	-2.6 ***	-0.137	-2.82 ***
FMD*OBOD	-0.005	-2.16 ***	-0.020	-2.55 ***	-0.001	-3.02 **	-0.008	-3.22 ***	-0.050	-1.39	-0.058	-2.58 **	-0.007	-2.19 *	-0.079	-2.52 **
LIA	-0.343	-10.46 ***	-0.343	-10.46 ***	-0.344	-10.48 ***	-0.344	-10.47 ***	-0.343	-10.46 ***	-0.343	-10.47 ***	-0.343	-10.47 ***	-0.343	-10.43 ***
SIZE	0.000	0.01	0.000	0.11	0.000	0.15	0.000	0.13	0.000	0.06	0.000	0.06	0.000	0.15	0.000	0.03
FIN	0.008	1.38	0.008	1.37	0.008	1.35	0.008	1.37	0.008	1.38 *	0.008	1.36 *	0.008	1.36 *	0.008	1.35 *
LEV	-0.029	-1.9 *	-0.029	-1.92 *	-0.029	-1.91 *	-0.029	-1.92 *	-0.029	-1.92 *	-0.030	-1.93 *	-0.029	-1.92 *	-0.030	-1.93 *
MTB	-0.045	-9.48 ***	-0.044	-9.35 ***	-0.044	-9.41 ***	-0.044	-9.39 ***	-0.044	-9.39 ***	-0.044	-9.41 ***	-0.044	-9.39 ***	-0.044	-9.38 ***
LOSS	-0.094	-10.75 ***	-0.094	-10.72 ***	-0.094	-10.72 ***	-0.094	-10.72 ***	-0.094	-10.67 ***	-0.094	-10.66 ***	-0.094	-10.71 ***	-0.094	-10.62 ***
CFO	-0.411	-10.66 ***	-0.412	-10.68 ***	-0.412	-10.69 ***	-0.412	-10.69 ***	-0.413	-10.71 ***	-0.413	-10.72 ***	-0.412	-10.68 ***	-0.412	-10.67 ***
VAR	0.000	4.36 ***	0.000	4.36 ***	0.000	4.32 ***	0.000	4.33 ***	0.000	4.46 ***	0.000	4.49 ***	0.000	4.34 ***	0.000	4.29 ***
ROA	-0.426	-9.81 ***	-0.425	-9.77 ***	-0.425	-9.78 ***	-0.425	-9.77 ***	-0.424	-9.76 ***	-0.425	-9.77 ***	-0.425	-9.77 ***	-0.425	-9.76 ***
YD		Included		Included		Included		Included		Included		Included		Included		Included
ID		Included		Included		Included		Included		Included		Included		Included		Included
F	151.12	***	150.79	***	150.89	***	150.8	***	151.14	***	151.29	***	150.83	***	151.19	***
Adj R-Sq	0.6147		0.6142		0.6144		0.6142		0.6148		0.615		0.6143		0.6149	

Dependent Variable : APDA

	FMD*		FMD2		FMD3		FMD4		FMD5		FMD6		FMD7		FMD8	
	Para meter	t Value Pr>|t|	Para meter	t Value Pr>|t|	Para meter	t Value Pr>|t|	Para meter	t Value Pr>|t|	Para meter	t Value Pr>|t|	Para meter	t Value Pr>|t|	Para meter	t Value Pr>|t|
Intercept	0.201	3.91 ***	0.205	3.92 ***	0.191	3.65 ***	0.193	3.68 ***	0.211	4.03 ***	0.214	4.08 ***	0.196	3.71 ***	0.220	4.01 ***
FMD	0.030	2.41 **	0.014	1.02	0.026	1.98 **	0.025	1.8 *	0.007	2.54 ***	0.004	2.31 **	0.019	2.49 **	0.002	2.08 *
OBOD	-0.025	-2.77 ***	-0.028	2.73 ***	-0.034	-2.94 ***	-0.038	-1.81 **	-0.008	-2.21 ***	-0.003	-1.09 *	0.013	-3.39 ***	-0.013	-1.72 *
FMD*OBOD	-0.087	-2.08 **	-0.079	-1.76 *	-0.090	-2.07 **	-0.093	-2.09 **	-0.049	-1.1	-0.042	-1.94 **	-0.064	-2.49 **	-0.014	-1.62 *
LIA	0.187	2.43 **	0.192	2.49 **	0.191	2.48 **	0.192	2.49 **	0.192	2.49 **	0.193	2.5 **	0.192	2.49 **	0.195	2.52 **
SIZE	-0.008	-2.81 ***	-0.007	-2.72 ***	-0.007	-2.62 ***	-0.007	-2.63 ***	-0.007	-2.74 ***	-0.008	-2.76 ***	-0.007	-2.6 **	-0.008	-2.78 ***
FIN	0.007	0.94	0.007	0.95	0.007	0.89	0.007	0.89	0.007	0.93	0.007	0.94	0.007	0.89	0.007	0.93
LEV	0.012	0.61	0.011	0.58	0.011	0.57	0.010	0.52	0.011	0.57	0.011	0.57	0.012	0.6	0.011	0.57
MTB	-0.040	6.74 ***	-0.039	6.56 ***	-0.039	6.57 ***	-0.039	6.56 ***	-0.039	6.54 ***	-0.039	6.54 ***	-0.039	6.58 ***	-0.039	6.52 ***
LOSS	-0.034	-2.91 ***	-0.035	-2.96 ***	-0.034	-2.88 ***	-0.034	-2.91 ***	-0.035	-2.95 ***	-0.035	-2.96 ***	-0.034	-2.86 ***	-0.035	-2.93 ***
CFO	0.050	0.65	0.055	0.71	0.054	0.69	0.055	0.71	0.056	0.72	0.056	0.72	0.055	0.71	0.057	0.74
VAR	0.000	8.51 ***	0.000	8.35 ***	0.000	8.39 ***	0.000	8.34 ***	0.000	8.41 ***	0.000	8.41 ***	0.000	8.47 ***	0.000	8.61 ***
ROA	-0.759	-8.24 ***	-0.761	-8.26 ***	-0.765	-8.29 ***	-0.765	-8.3 ***	-0.762	-8.27 ***	-0.763	-8.27 ***	-0.767	-8.3 ***	-0.766	-8.3 ***
YD		Included		Included		Included		Included		Included		Included		Included		Included
ID		Included		Included		Included		Included		Included		Included		Included		Included
F	27.66	***	27.44	***	27.52	***	27.51	***	27.23	***	27.23	***	27.31	***	27.09	***
Adj R-Sq	0.2281		0.2266		0.2272		0.2271		0.2253		0.2252		0.2258		0.2243	

Ⅴ. Conclusions

This study represents an initial attempt to study the relations between family firms and earnings quality. Although the literature on earnings quality is vast and well developed, no prior study has examined the links between family firms and earnings quality in Korea. Also, to the extent that the accounting literature has examined family firms, most of the focus has been on ownership itself. This study extends this subject by including proxies for family firms' control and management level.

In contrast to Wang (2006) and Ali et al. (2007), this study finds that reported earnings are of better quality for non-family firms as compared to those of family firms. Our finding is consistent with the notion that family firms are less efficient because concentrated ownership creates incentives for the controlling shareholders. As family members usually hold important positions in management and on a company board, these firms may be prone to ineffective monitoring by the board.

This study has found that a higher level of equity ownership by minority shareholders and a higher proportion of outside directors on a family firm's board have a great impact on the earnings quality. The result is a significant addition to the growing body of literature, which finds a link between the inherent mechanisms of family firms and various facets of financial reporting.

However, the interpretation of the results presented here may be limited because the sample period only covers from 2000 to 2006. The paper could not cover current period since the data for gathering key variables such as directors' ownership, family status, etc. could not be fully hand-collected in time of the research.

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＜국문초록＞

가족 구성원의 소유지분 및 경영참여가 이익의 질에 미치는 영향

고 윤 성

본 연구는 우리나라의 상장기업을 대상으로 가족 구성원의 소유지분과 경영참여가 기업의 이익의 질에 어떠한 영향을 미치는 가를 검토하였다. 연구결과는 가족 구성원에게 집중된 소유지분과 경영참여는 그들의 사적편익을 추구하는 경향으로 인하여 기업의 이익의 질에 부정적인 영향을 주는 것으로 나타났다. 그러나 가족 구성원을 모니터링 할 수 있는 소액주주와 사외이사의 비율이 높은 가족기업의 경우에는 가족 구성원이 이익의 질에 미치는 부정적인 영향이 완화되는 것으로 나타났다. 본 연구의 의의는 가족기업에 대한 평가와 가족기업의 지배구조가 나아가야 할 방향을 제시하였다는 데 의의가 있다고 할 것이다.