Congruence within the Top Management: How "Old Boy Network" Affects Executive Appointment and Performance[*]

DAEMIN AHN[**]

Korea University Business School
Seoul, Korea

WOOJIN KIM[***]

Seoul National University Business School
Seoul, Korea

EUN JUNG LEE[****]

Hanyang University
Ansan, Korea

KYUNG SUH PARK[*****]

Korea University Business School
Seoul, Korea

[**]   Ph.D. Student, Korea University Business School, E-mail: dminny@korea.ac.kr, Tel: 82-2-3290-1950.
[***] Corresponding author, Professor, Seoul National University Business School, E-mail: woojinkim@snu.ac.kr, Tel: 82-2-880-5831.
[****] Associate Professor, Hanyang University, E-mail: ejunglee@hanyang.ac.kr, Tel: 82-31-400-5645.
[*****] Professor, Korea University Business School, E-mail: kspark@korea.ac.kr, Tel: 82-2-3290-1950.

ABSTRACT

This paper examines the determinants and the consequences of congruence between the CEO and other executives focusing on the role of previously-built school and regional ties. Using a sample of 2,129 firm-years from 2003 to 2006 for all firms listed on the Korea Stock Exchange, we find that executives are more likely to share the same school or regional background as the CEO when the firm is small, foreign ownership is low, or the CEO is a family member of the controlling shareholder. We also find that such congruence increases firm value when the firm is young and foreign ownership is large, but decreases firm value in firms tightly controlled by family member CEOs through large voting rights. These results suggest that congruence within the top management may facilitate communication when the nature of information being transmitted is "soft," but may aggravate agency problems when CEOs are entrenched.

Keywords: Social networks, communication, organizational design, congruence, executives, Korea

INTRODUCTION

Effective communication among agents within any hierarchical organization with delegated authority and division of labor is one of the most crucial elements that may affect its outcome. Literature on optimal design of organizations has largely evolved around the idea that communicating and processing information is (privately) costly, the extent of which depends on the nature of information and the congruence between communicating parties.

Traditional perspective on the role of congruence among members is that any form of heterogeneity in preferences would adversely affect organizational efficiency (e.g. Dessein 2002) mostly due to misalignment of interests. And this effect would be more pronounced when the nature of information being processed is "soft" rather than "hard."[1] On the other hand, more recent theoretical developments point out that too much congruence may induce "rubber stamping" of subordinates (Dewatripont and Tirole 2005), and thus suggest that some level of tension between the chief executive officer (CEO) and other executives may promote a more productive communication environment by forcing the agents to rely on more

---

1) Stein (2002) defines "soft information" as those that cannot be directly verified by anyone other than the agent who produces it, and "hard information" as verifiable information such as accounting figures.

objective information (Landier, Sraer, and Thesmal 2009).

In this paper, we evaluate the degree of congruence between the CEO and other executives within the top management based on their previously-built social ties and examine how such congruence, if any, affects corporate performance. Social ties are by definition one of the most critical elements that shape the degree of homogeneity in preferences. For example, Dewatripont and Tirole (2005) consider commonality in the two parties' background, language or references as exogenous factors that affect communications' informativeness. Social network theory suggests that preferences are affected by the boundaries of people that one interacts with. Thus, people with similar social, educational, and regional background tend to develop similar preferences. Consistent with this perspective, recent research documents that similarities in executives' social background may lead to similarities in corporate policies across firms (Fracassi 2011; Shue 2011; Berger, Kick, Koetter, and Schaeck 2013).

Although there is a growing body of research that examines the implications of social networks on various aspects of financial market outcomes and corporate decisions, the focus has been exclusively on *external* relationship between the top management and the following *outside* groups; politicians or government officers, board members, stock analysts or mutual fund managers, and top executives of other firms.[2] In contrast, much less attention has been paid to the 'internal' relationship within the top management between the CEO and other executives.[3]

In this paper, we focus on the role of previously-built internal social ties on executive appointment decision by the CEO and its impact on firm value. Our approach is distinct from the previous research on political economy, board effectiveness, or similarities in corporate policies, in that we exclusively focus on *internal* relationship between the CEO and other executives while most of the previous research examine *external* social networks between insiders and outsiders. Specifically, we first examine whether decision to

---

2) For papers on political economy, see Faccio (2005), Fisman (2001), Johnson and Mitton (2003), Khwaja and Mian (2005), and Goldman, Rocholl, and So (2009). Hwang and Kim (2009) among many others examine the effectiveness of friendly boards. Cohen, Frazzini, and Malloy (2008, 2010) explore the information flow from corporate managers to mutual fund managers or stock analysts.

3) One notable exception is Landier, Sraer, and Thesmar (2008) who examine the relative 'independence' of executives from the CEO.

hire an executive by the CEO is influenced by commonalities in alma mater and place of birth. Recent research emphasizes the role of CEOs in influencing various corporate policies (e.g. Bertrand and Schoar 2003). One of the key elements of CEO's power, as suggested by Landier, Sraer, and Thesmar (2008) and Kim and Lu (2011), is her potential influence on recruiting executives. Despite its importance, it is rather surprising that executive hiring decision by the CEO has not received much academic attention. Our test extends this perspective and sheds further light on how CEOs may exercise their power in hiring subordinates with similar background.

Next, we explore whether this tendency to favor candidates with similar school or regional background leads to cross-sectional variations in firm value. Social networks formed by school ties may provide more accurate information about the candidate's hidden ability especially if the enrollment involves a highly selective process. A natural drawback of school ties, accordingly, is that they may not be purely exogenous. As emphasized by Manski (1993) and Shue (2011), school ties are subject to traditional identification challenge arising from selection. Regional ties on the other hand are randomly established by definition, and thus reflect purely exogenous social networks free from any selection issues.[4] Examining the effect of regional ties would help us draw causal inferences about the impact of *internal* social networks on performance.

We apply this approach to a sample of corporate executives hired by firms listed on the Korea Stock Exchange (KSE). There are a number of reasons why we focus on Korea. First, Korean corporate executives are highly concentrated in terms of which high school or university they graduated from.[5] Close to half of all Korean corporate executives are produced by only 20 high schools and more than half of all Korean executives graduated from only a handful of 5 universities. This concentration provides an ideal setting where we may draw meaningful statistical inferences about unconditional probabilities of an executive being produced by a certain school and examine how such probabilities are affected when conditioned on having the same school background as the CEO. This allows us

---

4) Shue (2011) resorts to randomly assigned sections at Harvard Business School as an exogenous social network. Our regional ties play a similar role.

5) According to our dataset, top 5 (top 20) high schools produced 18% (40%) of all executives, above general manager level. The corresponding numbers for top 5 and top 20 universities are 51% and 83% respectively.

to directly test whether "old boy network" influences top executive hiring decision.[6]

Second, Korean CEOs are very powerful in terms of hiring executives, since vast majority of them are the controlling shareholders themselves (or family members) with substantial voting rights. This implies that CEOs are rarely replaced, unless the company goes bankrupt and the control is transferred to the creditor banks, or the CEO passes away and the control is passed down to the next generation within the family. Thus, we may reasonably assume that all executives at a certain point in time were directly hired by the current CEO or at least under strong influence of the CEO. This setting is quite distinct from Landier, Sraer, and Thesmar (2008) where the key variable of interest is whether the executive was hired before or after the current CEO's tenure.

Third, Korea Listed Companies Association (KLCA) provides a unique dataset that contains detailed background information for all executives above the general manager level within the top management. Such comprehensive study would not be feasible using ExecuComp provided by Standard & Poors used in most of the previous research,[7] since it only covers top 5 best paid executives.

Using a sample of 2,129 firm-years from 2003 to 2006 for all firms listed on the KSE, we first document the extent to which CEO's prefer candidates with the same school or regional background as the CEO when hiring executives. Our results suggest that CEO's in general tend to prefer candidates that share the same school or regional background. For example, top-ranked high school in our sample produced 5.09% of all Korean executives. But in firms where the CEO graduated from this school, the proportion of non-CEO executives with the same high school background amounts up to 9.6%, which is almost as twice as large. More interesting fact is that this tendency is more pronounced in less prestigious schools. These findings suggest that executives in Korean listed companies have close previously-built social ties with the CEO.

---

6) An old boy network, or society, can refer to social and business connections among former pupils of male-only private schools. For example, in U.K., the affiliation between graduates of private schools, as well as Oxford University and/ or Cambridge University, is known as an old boys network. (www.wikipedia.org) In this paper, we use the term in a more broad sense to refer to both school ties and regional ties.

7) For example, Fracassi (2011) and Shue (2011) among many others.

Cross-sectionally, the tendency to favor candidates with the same background is stronger in small firms, firms with low foreign ownership, and also in firms run by CEOs who are family members of the controlling shareholder. This suggests that CEOs of small firms may value production and transmission of "soft information," consistent with the arguments provided in Stein (2002). However, congruence may also facilitate "rubber stamping" and aggravate agency problems in firms under weak monitoring by foreign investors and tight control by the controlling families.

More importantly, we also find that congruence within the top management has positive impact on firm value for young firms. This effect is largely being driven by regional ties, which are free from any endogeneity issues, allowing us to draw causal inferences with respect to the effect of congruence on performance in young firms. This is again consistent with Stein (2002) that production and transmission of soft information may be important in young organizations. In addition, congruence positively affects firm value when foreign ownership is large, which is consistent with monitoring role of foreign investors.

On the other hand, congruence destroys value in firms where the CEO is a family member of the controlling shareholder or the voting rights of the largest shareholder are substantial. These results suggest that when CEOs exercise tight control over their firms, more congruence within the top management may simply induce more "rubber stamping" and thus aggravate agency problems. Congruence also deteriorates value for firms in industries with strong product market competition. Overall, these results suggest that congruence between CEO and other executives may be considered two sides of the same coin. It may facilitate effective communication when the nature of information being produced is 'soft', but aggravate agency problems when the CEOs are entrenched.

The remainder of the paper is organized as follows. Section I provides an overview of the related literature on social networks, and Section II outlines our hypotheses. Section III describes our data source and the sample. Section IV presents our main empirical results, and section V concludes.

RELATED LITERATURE

Our main research question is how previously-built social ties affect executive hiring decision by the CEO and how such congruence affects corporate performance. In this respect, there are three broad classes of literature related to our work; the role of effective communication in optimal organizational design, which we have reviewed in the introduction, social ties and hiring decisions developed in labor economics and management literature, and the role of *external* social networks on various corporate and financial market outcomes.

A number of papers in labor economics provide formal models where hiring decision is influenced by "old boy network" or referrals through unofficial channels. For example, Saloner (1985) shows that referrals can function as an effective screening device, while Taylor (2000) argues that such exclusive grouping may lead to exclusion of qualified non-members too often. Simon and Warner (1992) show that workers hired through referrals earn higher initial salaries and stay on the job longer than otherwise comparable workers hired from outside the network. This stream of research focuses more on the effect of informal information channels on general employee recruiting, rather than how previously-built social ties within the top management affect firm performance which is the main focus of this paper.

Collins and Clark (2003) examine the relationship between social networks within the top management and firm performance as we do, but from a management perspective. This approach, however, relies on subjective survey data obtained from the management responses to selected questionnaires, which may well be biased due to the usual problems that accompany any survey data.

Studies on *external* social networks generally focus on political economy, board effectiveness or information flow. Extant literature examines the effect of social networks between the management and politicians or government officials on firm value. This phenomenon is often referred to as "crony capitalism" and could potentially lead to economic entrenchment (Faccio 2005; Fisman 2001; Johnson and Mitton 2003; Khwaja and Mian 2005; Goldman, Rocholl, and So 2009). Another stream of research covers how friendly boards may affect executive compensation, pay-performance sensitivity,

and turnover-pay sensitivity (For example, Hwang and Kim 2009). Recent works by Cohen, Frazzini, and Malloy (2008, 2010) examine school ties between corporate managers or board members and mutual fund managers or sell side analysts.

There is also a new stream of research that examines the effect of social ties on managerial decisions and corporate policies. These studies build on social network theory developed in sociology which notes that individual's decisions are affected by peer networks. For example, Fracassi (2011) and Shue (2011) show how different firms in which executives are connected through social ties exhibit similar investment patterns, executive compensation, and acquisition strategy. All of these papers focus on how *external* relationships might affect the level of government favoritism, the strength of outside monitoring, information leakage by the managers, or similarities in corporate decisions rather than how *internal* congruence affects communication *within* the top management.

Perhaps the study that is most closely related to ours is Landier, Sraer, and Thesmar (2008), where they show that 'independence' of executives from the CEO within the top management affects corporate performance. They focus on whether an executive was appointed before or after the current CEO's tenure as the key determinant of independence. Our approach is similar to theirs to the extent that we examine *internal* relationship between the CEO and other executives within the management. We extend and complement Landier, Sraer, and Thesmar (2008) by providing a more comprehensive analysis on how different types of previously-built social ties and firm characteristics interact and influence performance. In addition, we also examine the effect of previously-built social ties on the probability of being appointed as an executive, which has received little attention in the previous literature.[8]

HYPOTHESIS DEVELOPMENT

Theoretical studies on organizational design suggest that

---

8) Berger, Kick, Koetter and Schaeck (2013) examine whether social ties between board members and an outside candidate affect executive appointment in German banks, and find that similarities in age and gender increase the probability while similarities in education do not.

congruence among members is a key determinant of organizational efficiency. In this study, we focus on previously-built social ties as a measure of congruence within the top management. Social ties within the top management may facilitate either "soft information" flow as implied in Stein (2002) or aggravate agency problems through "collusion" or "rubber-stamping." Especially in emerging economies where the general level of trust among economic agents is low, preference for candidates that the CEO can trust based on previously-built social ties might even be stronger.

On the bright side, it is possible that members of a homogeneous group share common preferences, which would promote convergence of interests. Under such congruence, managerial decisions may be made in a more timely and effective manner, especially in young, small firms or firms in emerging economies. On the other hand, CEOs may prefer to appoint executives with the same school or regional background who would not challenge but rather rubber-stamp the CEO's directions or initiatives (Dewatripont and Tirole 2005). Such motive may be amplified when the CEO has tight control and exhibits interests in pursuing various forms of private benefits.[9] In summary, we expect congruence within the top management to be motivated by both the nature of information being produced and pursuit of private benefits.

> **H1:** The tendency to favor candidates with the same school or regional background as the CEO in hiring executives will be higher when the nature of information being processed is soft or the firm is more vulnerable to agency problems.[10]

We consider several firm characteristics that may reflect the degree of softness of information; size, age, growth and uncertainty. In newly established small firms that are experimenting with various business opportunities, the nature of information being produced is more likely to be soft, and we expect more favoritism in these firms. We measure the degree of agency problems or (lack of) corporate governance based on several dimensions; how tightly the firm is

---

9) Pursuit of private benefits may benefit minority shareholders to the extent that some of the expropriated corporate resources may be used to lobby politicians or bureaucrats to obtain government contracts or approvals.

10) Executive hiring includes both promotions from general manager level within the firm or recruiting an outsider.

controlled by the controlling shareholders thereby reducing the probability of a takeover, how effective are outside monitoring by foreign (institutional) investors, how much free cash flow the firm has, and how strong the product market competition is. We expect that CEO's favoritism is more likely to occur in firms with tight family control, less foreign ownership, high free cash flow and less product market competition.

To the extent that effective communication within the top management is critical for corporate performance, tendency to favor candidates with similar background also has implications for firm value. In early stages of business development, the degree of standardization is typically low and important decisions could be made in an *ad hoc* manner. Under such environment, prompt and bold decision making among homogeneous individuals could turn out to be crucial. Thus, if the CEO's preference for executives with similar background is indeed motivated by her intention to promote effective communication of "soft" information, such tendency should positively affect firm value when "soft" information is important, i.e. in small, young, growth firms.

> **H2-1:** The relationship between firm value and tendency to hire candidates with the same school or regional background as the CEO will be positive for small, young, growth firms with more uncertainty.

Above hypothesis highlights the potential positive aspect of tendency to favor executives with similar background. However, too much congruence within the top management may deter objectivity in evaluating investment projects as pointed out by Dewatripont and Tirole (2005) and Landier, Sraer, and Thesmar (2009). The adverse effect could be aggravated when such preferences are motivated by pursuit of private benefits or collusion among members. We expect that such negative effect would be more pronounced in firms that are more vulnerable to agency problems.

> **H2-2:** The tendency to hire candidates with the same school or regional background as the CEO will have a negative impact on firm value in firms more vulnerable to agency problems, such as those with tight family control, less foreign ownership, high free cash flow and less product market competition.

DATA AND SAMPLE

Data source and sample construction

Our primary source of information on corporate executives is the Management Database maintained by the Korea Listed Companies Association (KLCA). This database provides comprehensive information on corporate executives above general manager level employed by all listed firms in Korea Stock Exchange (KSE) at annual frequency. Direct translations of various titles of Korean executives are as follows; director, managing director, senior managing director, vice president, president, vice chairman, and chairman. These titles are similar to Japanese executive titles, but are somewhat confusing since director sometimes refers to board members. Regardless of the title, these executives are largely comparable to vice president or executive vice president in U.S. corporations. The information provided for each executive includes the name of the alma mater, both high school and university, date of birth, place of birth at metropolitan/province level, and previous career path or employment history.

From the raw dataset, we first check for all cases where the names of the schools have changed over time and identify them as unique schools. Out of some 43,000 executive-year observations, we initially start with 18,709 executive-years after excluding all non-executive board members or outside directors. Next, we sort all executives by their name and date of birth as well as the company's name and augment any missing cells. Finally, we augment this dataset with 4 other on-line databases that contain biographical information, similar to Marquis Who's Who,[11] and also with press releases from large business groups which contain information on executive personnel assignments or relocations. If there is a discrepancy across the databases, we first do a web search to reconcile and clarify the facts. If this is infeasible, we give priority to the KLCA database, and then to multiple sources that provide more common information.

---

11) The on-line databases that we referred to are; http://people.search.naver.com, http://people.chosun.com, http://www.joins.com/ people, and http://www.lawmarket.co.kr/people.

CEOs in Korea are typically referred to as "representative director" again following the Japanese legal tradition. Unfortunately, they seldom use the title "CEO" in official documents. Hence, we need to infer which executive is actually the CEO for a given firm-year. Our approach is to look for the following titles with the specific ordering in mind; representative director & chairman, representative director & vice chairman, representative director & president, chairman, chairman of the board. For example, if a representative director & chairman title is listed for a given firm-year, we identify this executive as the CEO. If not, we look for the next title, representative director & vice chairman, and identify this person as the CEO, and so on. If more than two individuals share the same title, we give priority to the family members of the controlling shareholder. In this process, we also obtain information on whether the CEO is a family member of the controlling shareholder or not.

For accounting and ownership information, we resort to TS2000, a database maintained by KLCA which is comparable to S&P's Compustat. Our sample period starts from 2003 and ends in 2006. The final sample consists of 2,129 firm-years, and 30,472 executive-years with high school information, 32,042 executive–years with university information, and 29,476 executive-years with place of birth information. These numbers suggest that average number of executives per firm is around 17 to 19 in our dataset, which is far more comprehensive than 5 best paid executives available from S&P's ExecuComp. Total number of high schools per year ranges from 2,031 to 2,144 while the corresponding numbers for universities are from 341 to 349.

Summary statistics

In Table 1, we present the proportions of all corporate executives at listed firms in Korea Stock Exchange (KSE), including the CEO, who graduated from the top 20 most attended high schools and universities. We also report the relative representation of executives for 12 regions based on their place of birth.[12] Panels A, B, and C

---

12) Officially, there are a total of 16 regions within the Republic of Korea (South) that consists of 9 provinces and 7 metropolitan areas, including Seoul. We combine each metropolitan area other than Seoul with the province that physically surrounds them, which yields 10 regions. There are some executives who were born in North Korea or overseas, both of which we treat as separate regions.

Table 1. Concentration of Executives from Top Schools and Regions

This table presents the cumulative proportions of corporate executives, including the CEO, who graduated from the top-ranking high schools or universities in percentages. The rankings are based on the number of executives produced by each school in 2003. We also report the proportion of executives from each region based on place of birth. Cumulative proportions of CEO's from certain schools or region provided separately. Panels A, B and C present the proportions for high schools, universities and regions, respectively. The last two rows in panel A and the last three rows in panel B present the total number of schools and the number of schools that produced at least one executive for that year. The sample includes all firms listed on the Korea Stock Exchange (KSE) from 2003 to 2006.

Panel A: Proportion of Executives from Top High Schools (%)

	2003		2004		2005		2006		2003-2006	
	All	CEO's	All	CEO's	All	CEO's	All	CEO's	All	CEO's
Top 5 High Schools	18.28	32.52	17.47	30.48	16.32	31.26	15.52	30.81	16.84	31.27
Top 6–10 High Schools	10.22	11.49	9.89	12.69	9.14	11.60	8.88	11.20	9.50	11.74
Top 11–15 High Schools	7.38	9.06	6.93	7.74	6.79	8.91	6.41	8.07	6.86	8.45
Top 16–20 High Schools	6.52	5.66	6.54	5.44	6.46	5.04	6.45	4.78	6.49	5.23
Top 20 High Schools	42.41	58.74	40.84	56.34	38.71	56.81	37.26	54.86	39.69	56.70
Number of Executives	7,084	618	7,388	607	7,765	595	8,235	607	30,472	2,427
Total Number of Schools	2,031		2,080		2,095		2,144		n.a.	
Executive Producing Schools	567		571		606		628		n.a.	

report the results for top 20 high schools, top 20 universities, and 12 regions, respectively. For each year reported in each panel, the first column presents the proportion of all executives representing a certain sub-group of schools or regions. The second column presents

---

Hence, our final number of regions is 12.

Table 1. (continued)
Panel B: Proportion of Executives from Top Universities/Colleges (%)

	2003		2004		2005		2006		2003-2006	
	All	CEO's	All	CEO's	All	CEO's	All	CEO's	All	CEO's
Top 5 Universities	53.38	63.10	51.92	61.93	49.98	59.94	48.19	58.94	50.74	60.99
Top 6–10 Universities	15.12	10.23	15.20	9.52	15.84	10.49	16.24	9.64	15.63	9.97
Top 11–15 Universities	9.99	13.64	10.04	13.26	10.25	15.10	10.33	15.09	10.16	14.27
Top 16–20 Universities	6.17	5.12	6.57	5.77	6.04	5.56	6.24	6.07	6.25	5.63
Top 20 Universities	84.66	7.91	83.72	9.52	82.11	8.90	81.00	10.26	82.78	9.15
Number of Executives	7,375	645	7,722	641	8,176	629	8,769	643	32,042	2,558
Total Number of Universities	169		171		173		175		n.a.	
Total Number of Univ. & Colleges	346		347		349		341		n.a.	
Executive Producing Univ. & Colleges	143		149		154		165		n.a.	

the proportion of CEO's from a certain sub-group of schools or regions.

The numbers from Panel A of Table 1 indicate that 16.84% of all executives employed by publicly traded firms in Korea is produced by a handful of only five high schools during the sample period. The concentration is even more severe when we restrict our attention to only the CEO's high school background. Specifically, 31.27% of all CEOs at Korean publicly traded firms graduated from the top five most attended high schools. Once we extend the number of high schools to top 20, the proportions increase to 39.69% for all executives and 56.7% for CEOs. These results indicate that close to a half of all Korean corporate executives are produced by only 20 high schools among more than 2,000 high schools located across the whole country. Part of this result is driven by the fact that high school entrance up until 1973 involved extremely selective process.

Table 1. (continued)
Panel C: Proportion of Executives from Certain Regions (%)

	2003		2004		2005		2006		2003-2006	
	All	CEO's	All	CEO's	All	CEO's	All	CEO's	All	CEO's
Region 1	29.35	32.73	29.79	34.34	29.21	34.78	29.15	34.64	29.37	34.12
Region 2	18.09	18.92	17.92	18.00	17.77	17.31	17.97	18.31	17.94	18.14
Region 3	16.46	14.86	16.74	15.28	16.90	16.07	16.95	15.89	16.77	15.52
Region 4	8.55	6.31	8.34	6.05	8.20	6.96	8.13	6.81	8.30	6.53
Region 5	7.90	5.86	7.63	6.05	7.66	5.56	7.63	5.60	7.70	5.77
Region 6	6.17	5.56	5.89	4.69	6.43	5.10	6.44	5.75	6.24	5.28
Region 7	4.09	4.35	4.12	4.69	3.96	4.79	3.86	3.03	4.00	4.21
Region 8	3.53	3.15	3.70	3.18	3.80	2.47	3.95	2.72	3.75	2.88
Region 9	2.94	3.75	2.92	3.33	3.03	2.32	3.08	2.42	2.99	2.96
Region 10	1.49	1.05	1.53	1.51	1.70	2.16	1.67	2.72	1.60	1.86
Region 11	0.92	2.85	0.80	2.42	0.69	2.16	0.60	1.97	0.75	2.35
Region 12	0.50	0.60	0.63	0.45	0.65	0.31	0.58	0.15	0.59	0.38
Number of Executives	7,168	666	7,265	661	7,401	647	7,642	661	29,476	2,635

In Panel B of Table 1, we report the cumulative proportions of corporate executives from top universities. The proportion of all corporate executives from the top five most attended universities amounts up to 50.74%, suggesting that more than half of all executives at listed firms in KSE are graduates of only a handful of five universities. Finally, Panel C presents the proportions of corporate executives from the 12 different regions based on place of birth. The proportion of executives from the most represented region (Region 1) is 29.37% and that from second region 17.94%, indicating that almost half of all executives are from certain two regions.

EMPIRICAL FINDINGS

Measures of congruence within the top management

Previous analysis suggests that there is a substantial level of concentration in the educational background of Korean executives. In this section, we directly examine whether previously-built social ties between the CEO and candidates affect the probability of executive hiring decision. Since high school (up to 1973) and

university entrance involves a highly competitive process in Korea, simply calculating proportions of executives that share the same educational background as the CEO may overstate the degree of social ties especially when the CEO is from a prestigious school. To address this issue, we employ the following approach.

First, for each firm-year in the sample, we identify the high schools from which the executives, including the CEO, graduated from. Then we record the proportion of all non-CEO executives that share the same high school background as the CEO. For example, if there are 10 executives, including the CEO, in Firm A, and 3 of non-CEO executives share the same high school background as the CEO, the recorded proportion would be a third (= 3/9). This quantity ranges from zero to one and more congruence within the top management implies a larger number. This process yields a series of *raw congruence measure* for each firm-year in the sample.

Since these quantities do not adequately control for the quality of or self selection into these schools, we next calculate *unconditional school representation* across all executives as a benchmark. Specifically, we divide the number of all executives from a specific school by the total number of executives in all KSE listed firms for each year during our sample period. For example, if there are 200 executives who graduated from school X in 2003, and there are a total of 8,000 executives in KSE listed firms as a whole, the *unconditional school representation* would be 2.5%. This serves as an expected degree of congruence when there is no bias for the same background. Note that this quantity is defined at the school level so that *unconditional school representations* are calculated for each school-year.

Finally, we match the school of the CEO with the *unconditional school representation* and subtract off the latter from the firm level *raw congruence measure* for each firm-year in the sample. This difference is our final *abnormal congruence measure,* which controls for the effect of the school quality or general representation across all executives. For example, if this quantity is greater than zero, it implies that the CEO prefers graduates from the same high school by more than what is warranted by the average representation of this school among all executives. We implement a similar exercise for each university and region and obtain similar *abnormal congruence measures* for each firm-year.

Table 2 reports both *raw* and *abnormal* congruence measures

averaged over each school or region that the CEO's are from. The reported numbers essentially represent the extent of previously-built social ties between the CEO and other executives within a firm. Panels A, B, and C report congruence measures based on high school, university, and regional ties, respectively. In panels A and B, each line, from 1 to 20 represents a specific school and the ordering is based on the total number of executives produced from that specific school in 2003. In Panel C, we report the results for top 5 regions in a similar manner. The last line in each panel presents the aggregated results for the remaining schools or regions.

The first column in each panel presents the unconditional proportion of executives produced from each school or region. The second column presents the number of firms where the CEO is from that specific school or region. The third column reports the averages of firm-level *raw congruence measures* as defined above. The last two columns report the averages of *abnormal congruence measures* and related *t*–stats. For example, consider the case of the top-ranked high school (i.e. the first line in Panel A). The numbers indicate that unconditionally, 5.09% of all executives in KSE listed firms were produced from this school, and the number of CEOs that graduated from this school is 297. Among these 297 firms, firm-level *raw congruence measure* or the proportion of non-CEO executives that share the same school background as the CEO is 9.6% on average. The difference between the raw congruence measure, 9.6%, and unconditional school representation, 5.09%, denoted as *AbCongruenceHS*, is 4.51% and is statistically significant. This result implies that in firms where the CEO is from a certain school (in this case the top-ranked high school), he exhibits a tendency of hiring executives with the same school background by more than what is expected based on unconditional school representation.

Among the top 20 high schools, all of them exhibit positive abnormal congruence measures of which 11 are statistically significant, and 3 are marginally significant. The last line reports the averages of unconditional school representation as well as the congruence measures for the remaining schools. The numbers indicate that the tendency to favor high school alumni when the CEOs are from less prestigious high schools is almost as five times as large as the unconditional school representation. This suggests that the abnormal congruence we observe is not simply being driven by a few highly selective schools, but rather reflects a general

Table 2. Measures of Congruence within the Top Management

This table presents measures of congruence between the CEO and other executives. Panels A, B and C present the results for high schools, universities, and regions, respectively. The first column presents the unconditional proportion of executives produced from each school or region. The second column presents the number of firms where the CEO is from that specific school or region. The third column reports the averages of firm-level *raw congruence measures* defined as the proportion of all non-CEO executives that share the same school or regional background as the CEO within a given firm. The next column reports the averages of the *abnormal congruence measures* defined as the difference between the firm-level raw congruence measure and the unconditional representation, denoted as *AbCongruenceHigh, AbCongruenceUniv, AbCongruenceRegion* in panels A, B, and C, respectively. The last column presents the t–stats for testing the null that abnormal congruence measure is zero. Panels A and B report the school-level results for top 20 schools based on the number of executives produced in 2003. Panel C reports analogous results for top 5 regions. The last row presents the averages for the remaining schools and regions.

Panel A: Proportion of Executives by Graduating High Schools (%)

School Ranking	*Unconditional School Representation*(A)	Number of CEOs	*RawCongruence* (B), mean	*AbCongruenceHS*: = (B) − (A)	
				mean	t-stat
1	0.0509	297	0.0960	0.0451	(4.98)
2	0.0359	198	0.0498	0.0139	(2.31)
3	0.0348	130	0.1167	0.0819	(4.21)
4	0.0268	67	0.1142	0.0874	(3.70)
5	0.0234	65	0.1306	0.1072	(5.08)
6	0.0210	65	0.0344	0.0135	(1.42)
7	0.0221	62	0.1012	0.0791	(3.35)
8	0.0193	49	0.0431	0.0238	(1.68)
9	0.0176	33	0.1833	0.1657	(3.51)
10	0.0168	75	0.0289	0.0121	(1.99)
11	0.0146	77	0.0584	0.0438	(3.68)
12	0.0148	44	0.1639	0.1491	(6.78)
13	0.0138	38	0.0267	0.0129	(1.73)
14	0.0132	24	0.0201	0.0069	(0.78)
15	0.0137	22	0.0149	0.0013	(0.24)
16	0.0131	34	0.1437	0.1306	(4.74)
17	0.0137	30	0.0145	0.0008	(0.10)
18	0.0122	26	0.0577	0.0455	(1.42)
19	0.0138	20	0.0250	0.0112	(0.45)
20	0.0126	17	0.0433	0.0307	(1.69)
Others	0.0052	1045	0.0244	0.0191	(8.29)

Table 2. (continued)
Panel B: Proportion of Executives by Graduating Universities (%)

School Ranking	*Unconditional School Representation*(A)	Number of CEOs	*RawCongruence* (B), mean	*AbCongruenceUniv*: = (B) − (A)	
				mean	t-stat
1	0.1940	579	0.2396	0.0456	(4.65)
2	0.0965	314	0.1112	0.0147	(1.63)
3	0.0890	313	0.1348	0.0459	(4.19)
4	0.0810	234	0.0954	0.0144	(1.36)
5	0.0522	109	0.0894	0.0372	(2.09)
6	0.0423	60	0.1195	0.0772	(4.19)
7	0.0303	24	0.1073	0.0770	(1.94)
8	0.0283	78	0.0676	0.0393	(3.60)
9	0.0303	32	0.1079	0.0776	(3.26)
10	0.0245	60	0.0321	0.0076	(0.65)
11	0.0218	77	0.0083	-0.0135	(-3.55)
12	0.0211	158	0.0471	0.0260	(3.62)
13	0.0234	18	0.0213	-0.0020	(-0.21)
14	0.0170	69	0.0926	0.0756	(2.60)
15	0.0185	43	0.2104	0.1919	(4.25)
16	0.0174	39	0.0000	-0.0174	(-118.28)
17	0.0154	36	0.0618	0.0463	(3.67)
18	0.0104	5	0.0400	0.0296	(0.74)
19	0.0092	47	0.0869	0.0777	(3.49)
20	0.0095	17	0.0282	0.0187	(2.12)
Others	0.0048	230	0.0366	0.0318	(4.06)

Panel C: Proportion of Executives by Regional Background (%)

Region Ranking	*Unconditional School Representation*(A)	Number of CEOs	*RawCongruence* (B), mean	*AbCongruenceRegion*: = (B) − (A)	
				mean	t-stat
1	0.2937	898	0.3453	0.0516	(6.09)
2	0.1796	473	0.4052	0.2256	(14.86)
3	0.1678	408	0.3367	0.1689	(11.18)
4	0.0828	170	0.1398	0.0570	(4.26)
5	0.0769	152	0.1495	0.0726	(3.97)
Others	0.0374	523	0.2071	0.1697	(14.57)

phenomenon that does not depend on the quality of the schools.

In Panel B of Table 2, we report the results based on CEO's graduating universities. The proportion of Korean executives who

graduated from the top-ranked university is 19.4%, while the proportion of non-CEO executives within those firms whose CEO is from the top-ranked university is 23.96% on average. The difference between the two values (*AbCongruenceUniv*) is positive (4.56%), and statistically significant. Among the top 20 universities, 12 of them exhibit statistically significant positive abnormal congruence measures while 2 of them actually exhibit significantly negative values.

In Panel C of Table 2, we present the results based on CEOs' place of birth. We report the results for the top 5 regions separately while the remaining 7 regions are aggregated. The unconditional proportion of executives from the most represented region is 29.37%, while the proportion of non-CEO executives within those firms whose CEO is from this region is 34.53% on average. The abnormal congruence measures based on regional ties are all positive and statistically significant.[13] Overall, the results from Table 2 suggest that the decision to hire an executive is influenced by the candidate's school or regional ties with the CEO.

We consider two additional measures of abnormal congruence, *AbCongruenceAll*, and *AbCongruenceSch*. *AbCongruenceAll* is based on the proportion of non-CEO executives who share at least one of the three dimensions of previously-built social ties. *AbCongruenceSch* is constructed similarly and reflects the proportion of non-CEO executives who share either the same high school or university background as the CEO. We report the firm-level distribution of abnormal congruence measures in the first 5 lines of Table 3. The numbers indicate that mean values of abnormal congruence measures are all positive.

Firm characteristics

The analyses so far suggest that there is a general tendency to favor candidates with the same school or regional background when CEOs hire executives. In what follows, we examine the factors that may affect the degree of congruence and its impact on firm value. Specifically, we consider four firm characteristics intended

13) There is a possibility that the location of company headquarters might induce preferences for local executives. In our subsequent analysis, we control for such biases.

Table 3. Summary Statistics of the Main Variables

This table presents the distribution of the main variables used in the empirical analysis. The sample includes all firms listed on the Korea Stock Exchange (KSE) from 2003 to 2006, which yields 2,129 firm-years. Variables with prefix "*AbCongruence*" indicates measures of abnormal congruence within the top management based on previously-built social ties between the CEO and other executives, defined as the proportions of non-CEO executives that share same school or regional background as the CEO net of the unconditional representation of that school or region among all executives in KSE listed firms. *AbCongruenceAll* incorporates all three dimensions of social ties simultaneously, while *AbCongruenceSchool* reflects social ties based on either high school or university. *AbCongruenceRegion*, *AbCongruenceHS*, and *AbCongruenceUniv* incorporate single dimensional social ties each of which reflect regional, high school, or university ties with the CEO, respectively. *Tobin's q* refers to natural log of market value of equity plus book value of debt and preferred shares divided by total assets. *Age* is the natural log of number of years since establishment. *Size* is the natural log of total assets (in Korean Won million). *Growth* is the average of sales growth rate during the past 3 years. *Volatility* is the standard deviation of daily log returns during the recent 5 years, and *CF* is the cash flow from operations normalized by total assets. *HHindex* refers to 1 minus Herfindahl-Hirchman index defined at 2 digit Korean SIC. *ForOwn* refers to foreign ownership share, and *Voting* refers to total control rights held by the largest shareholder and its related parties. *Family* is a dummy variable set to one if the CEO is a family member of the controlling shareholder. *ROA* is return on assets and *Leverage* is total liability over total assets.

Variables	N	mean	median	s.d.	min	max
AbCongruenceAll	2129	0.1142	0.0889	0.2408	-0.5295	0.6689
AbCongruenceSch	2107	0.0349	-0.0084	0.1597	-0.3276	0.6814
AbCongruenceRegion	2111	0.0958	0.0437	0.2373	-0.3538	0.6737
AbCongruenceHigh	1933	0.0332	-0.0052	0.1058	-0.0577	0.6841
AbCongruenceUniv	2031	0.0224	-0.0160	0.1487	-0.2288	0.6848
Tobin's q	2129	-0.0633	-0.1369	0.4737	-1.0298	1.8878
Age	2129	3.5286	3.6109	0.5108	1.3863	4.7095
Size	2129	12.4033	12.1542	1.4240	9.0495	17.9366
Growth	2129	0.0792	0.0595	0.1856	-0.3647	1.6722
Volatility	2129	0.0753	0.0414	0.0603	0.0191	0.2622
CF	2129	0.0472	0.0502	0.0804	-0.3659	0.2889
HHindex	2129	0.9099	0.9504	0.0961	0	0.9639
ForOwn	2129	0.1076	0.0247	0.1595	0	0.9411
Voting	2129	0.3315	0.3157	0.1799	0	0.9999
Family	2129	0.6745	1	0.4687	0	1
ROA	2129	0.0431	0.0456	0.0656	-0.3452	0.1888
Leverage	2129	0.4601	0.4596	0.1930	0.0260	0.9894

to capture "softness" of information and five variables that proxies for the degree of agency problem or (lack of) corporate governance, based on our hypotheses.

Variables that proxies for softness of information are: *Age* (the natural logarithm of number of years since establishment), *Size* (the natural logarithm of total assets in KRW million), *Growth* (the average of sales growth rate during the past 3 years), and *Volatility* (the standard deviation of daily log returns during the recent 5 years). Variables that measures the degree of agency problem or governance mechanisms are; *CF* (cash flows from operating activities normalized by total assets), *HHindex* (1 minus Herfindahl-Hirschman index defined at 2 digit Korean SIC), *ForOwn* (proportion of shares held by foreign investors), *Voting* (total control rights held by the largest shareholder and its related parties), and *Family* (a dummy variable that takes a value of one if the CEO is the controlling shareholder or a family member of the controlling shareholder). We also consider *ROA* (operating income divided by total assets), and *Leverage* (total liability divided by total assets) as standard control variables when analyzing the determinants of firm value. The detailed distribution of these firm characteristics are reported in the remaining lines in Table 3.

Determinants of abnormal congruence within the top management

In this subsection, we directly examine what factors affect the degree of abnormal congruence within the top management in a multivariate context. Our key dependent variables are the five abnormal congruence measures developed in sub-section 1. The main explanatory variables are the firm characteristics outlined in the previous sub-section. We also consider two more control variables; *TopSchool,* which is a dummy variable set to one if the CEO graduated from the top 5 high school or university, and *HQ* which is also a dummy variable that equals one when the company is headquartered in the same region as the CEO's place of birth. *HQ* is motivated by the findings in Faccio and Parsley (2009) who show that the location of corporate headquarter matters in establishing political connections.

Table 4 presents the results from pooled OLS regressions. Columns (1) through (4) report the results for abnormal congruence based on all three dimensions of previously-built social ties.

The remaining columns from (5) through (12) present results for abnormal congruence based on school (either high school or university), region, high school, and university respectively. The results from columns (1) through (4) clearly indicate that *Size* is significantly negatively related with overall abnormal congruence within the top management. A closer examination of the remaining columns suggests that this negative relationship is largely being driven by abnormal congruence based on regional background. That is, CEOs from smaller firms tend to prefer executives that share the same regional background as the CEO, potentially to facilitate flow of soft information.

We also find that the coefficient on foreign ownership (*ForOwn*) is significantly negative, while the coefficient for CEO's family ties with the controlling shareholder (*Family*) is significantly positive in most of the specifications. These results are consistent with our hypothesis that less monitoring and tight control may lead to more congruence motivated by pursuit of private benefits.

The results for the two additional control variables, *TopSchool*, and *HQ* are highly significant in most cases. This suggests that CEOs from most prestigious school and CEOs running firms in their hometowns are more vulnerable to favoritism when hiring subordinate executives. On the other hand, coefficients on *Age*, *Growth*, *CF*, and *Voting* variables are largely insignificant except for a few specifications, indicating that these variables have only limited role in explaining the degree of abnormal congruence within the top management.

Interestingly, the coefficients for *Volatility* are mostly negative and significant, while those for *HHindex* are generally positive. These results suggest that CEOs in firms with lower stock return volatility and stronger product market competition are more likely to exhibit favoritism, which seems puzzling and runs counter to our initial expectations as outlined in Hypothesis H1. One possible interpretation is that since firms with low stock market volatility face less business uncertainty, they may have more room to allow (value-reducing) favoritism. In the next sub-section, however, we reconcile this somewhat puzzling finding by exploring how firm value is affected when CEOs insist favoritism when they should not.

Table 4. Determinants of Abnormal Congruence within the Top Management

This table presents the OLS regression results where the dependent variables are various measures of abnormal congruence within the top management. Variables with prefix "*AbCongruence*" indicates measures of abnormal congruence within the top management based on previously-built social ties between the CEO and other executives, defined as the proportions of non-CEO executives that share same school or regional background as the CEO net of the unconditional representation of that school or region among all executives in KSE listed firms. *AbCongruenceAll* incorporates all three dimensions of social ties simultaneously, while *AbCongruenceSchool* reflects social ties based on either high school or university. *AbCongruenceRegion, AbCongruenceHS,* and *AbCongruenceUniv* incorporate single dimensional social ties each of which reflect regional, high school, or university ties with the CEO, respectively. *Tobin's q* refers to natural log of market value of equity plus book value of debt and preferred shares divided by total assets. *Age* is the natural log of number of years since establishment. *Size* is the natural log of total assets (in Korean Won million). *Growth* is the average of sales growth rate during the recent 5 years, and *CF* is the cash flow from operations normalized by total assets. *Volatility* is the standard deviation of daily log returns during the past 3 years. *HHindex* refers to 1 minus Herfindahl-Hirchman index defined at 2 digit Korean SIC. *ForOwn* refers to foreign ownership share, and *Voting* refers to total control rights held by the largest shareholder and its related parties. *Family* is a dummy variable set to one if the CEO is a family member of the controlling shareholder. *ROA* is return on assets and *Leverage* is total liability over total assets. *TopSchool* is a dummy variable set to one if the CEO graduated from the top 5 high school or university, and *HQ* is a dummy variable that equals one when the company is headquartered in the same region as the CEO's place of birth. *t*-statistics are reported in parentheses. The sample includes all firms listed on the Korea Stock Exchange (KSE) from 2003 to 2006, which yields 2,129 firm-years.

| | Dependent Variables | | | | | | | | | | | |
| | AbCongruenceAll | | | | AbCongruenceSch | | AbCongruenceRegion | | AbCongruenceHigh | | AbCongruenceUniv | |
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Intercept	0.2761	0.2994	0.3166	0.3237	-0.0043	0.0098	0.3619	0.3969	0.1160	0.1406	-0.0156	-0.0152
	(2.93)	(3.17)	(3.41)	(3.49)	(-0.07)	(0.15)	(3.83)	(4.26)	(2.45)	(2.97)	(-0.26)	(-0.25)
Age	-0.0026	-0.0012	-0.0065	-0.0056	-0.0140	-0.0127	-0.0049	-0.0083	-0.0192	-0.0197	0.0047	0.0043
	(-0.20)	(-0.09)	(-0.52)	(-0.45)	(-1.64)	(-1.49)	(-0.38)	(-0.66)	(-3.15)	(-3.26)	(0.57)	(0.52)
Size	-0.0197	-0.0226	-0.0200	-0.0224	0.0062	0.0036	-0.0297	-0.0299	-0.0013	-0.0030	0.0033	0.0037
	(-3.85)	(-4.34)	(-3.99)	(-4.39)	(1.81)	(1.03)	(-5.83)	(-5.98)	(-0.51)	(-1.21)	(1.01)	(1.11)

Table 4. (continued)

| | Dependent Variables | | | | | | | | | | | |
| | AbCongruenceAll | | | | AbCongruenceSch | | AbCongruenceRegion | | AbCongruenceHigh | | AbCongruenceUniv | |
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Growth	0.0397 (1.17)	0.0524 (1.53)	0.0387 (1.16)	0.0453 (1.35)	0.0394 (1.72)	0.0490 (2.14)	-0.0002 (0.00)	-0.0011 (-0.03)	0.0144 (0.88)	0.0200 (1.22)	0.0409 (1.87)	0.0407 (1.84)
Volatility	-0.4922 (-4.66)	-0.4951 (-4.67)	-0.5326 (-5.12)	-0.5211 (-5.01)	-0.2343 (-3.29)	-0.2314 (-3.24)	-0.2676 (-2.54)	-0.3043 (-2.93)	-0.0433 (-0.84)	-0.0350 (-0.68)	-0.2006 (-2.91)	-0.2046 (-2.95)
CF	0.1191 (1.50)	0.1009 (1.26)	0.0578 (0.74)	0.0541 (0.69)	0.0271 (0.50)	0.0149 (0.28)	0.0522 (0.65)	-0.0022 (-0.03)	-0.0557 (-1.42)	-0.0577 (-1.47)	0.0389 (0.75)	0.0368 (0.71)
HHIndex	0.1351 (2.13)	0.1289 (2.03)	0.1088 (1.75)	0.1034 (1.66)	0.0484 (1.14)	0.0422 (0.99)	0.1346 (2.13)	0.1092 (1.76)	0.0060 (0.18)	0.0081 (0.24)	-0.0112 (-0.28)	-0.0081 (-0.20)
ForOwn	-0.1905 (-4.26)	-0.1758 (-3.91)	-0.1859 (-4.23)	-0.1784 (-4.05)	-0.0803 (-2.67)	-0.0691 (-2.29)	-0.1230 (-2.76)	-0.1193 (-2.72)	-0.0341 (-1.55)	-0.0284 (-1.30)	-0.0523 (-1.81)	-0.0527 (-1.82)
Voting	0.0230 (0.68)	0.0294 (0.87)	0.0011 (0.03)	0.0040 (0.12)	-0.0267 (-1.18)	-0.0216 (-0.96)	0.0253 (0.75)	0.0043 (0.13)	-0.0377 (-2.31)	-0.0350 (-2.15)	0.0436 (1.99)	0.0435 (1.99)
Family	0.0738 (5.47)	0.0758 (5.61)	0.0612 (4.60)	0.0626 (4.70)	0.0193 (2.13)	0.0208 (2.30)	0.0855 (6.34)	0.0733 (5.51)	0.0344 (5.30)	0.0327 (5.06)	0.0063 (0.72)	0.0058 (0.66)
TopSchool		0.0367 (2.80)		0.0312 (2.43)		0.0347 (3.94)				0.0269 (4.27)		-0.0059 (-0.71)
HQ			0.1215 (9.59)	0.1201 (9.49)				0.1158 (9.17)				
Year FE	no	yes	yes	yes	no	yes	no	yes	no	yes	no	yes
N	2129	2129	2129	2129	2107	2107	2111	2111	1933	1933	2031	2031
adj-R^2	0.0597	0.0628	0.0986	0.1007	0.0134	0.0198	0.0671	0.1023	0.0245	0.0362	0.0071	0.0055

The effect of abnormal congruence on firm value

So far, we have examined the potential cross-sectional factors that may affect the degree of abnormal congruence. In this subsection, we examine how such abnormal congruence interacts with other firm characteristics to ultimately influence firm value. Traditional perspective is that any form of heterogeneity in an organization may adversely affect its performance due to misalignment of interests, thus favoring positive function of congruence among members. However, more recent perspective points out that too much congruence may limit effective communication within an organization by relying less on objective information and facilitating "rubber stamping" of subordinates (Dewatripont and Tirole 2005; Landier, Sraer, and Thesmar 2009). Our objective is to empirically identify the situations under which congruence within the top management may benefit or harm corporate performance.

To disentangle different impacts of abnormal congruence on firm value, we interact firm-level indices of abnormal congruence with various dummy variables designed to capture either softness of information or degree of agency problem. Table 5 presents the OLS regression results where the dependent variable is the natural log of Tobin's q, defined as market value of equity plus book value of debt and preferred shares divided by total assets, and the explanatory variables are various measures of abnormal congruence, denoted as *Index*, and their interactions with different firm characteristics.

In all specifications, coefficients on measures of abnormal congruence (*Index*) are not statistically significant by itself. This suggests that abnormal congruence within the top management exhibits neither unilateral positive nor unilateral negative influence on firm value. Rather, it is the interaction between such congruence and firm characteristics that influences firm value.

For example, overall abnormal congruence positively affects firm value for young firms in columns (1) and (2) which is largely being driven by regional preference (columns (5) and (6)). This result is consistent with H2-1 that favoritism could enhance performance for young firms, where decision making process is more likely to be *ad hoc* than standardized and the nature of information being processed is soft than hard. Since the positive relationship can mostly be attributed to regional ties, which is free from any endogeneity

concerns, this results strengthens our causal inference on the effect of congruence on firm value.

Abnormal congruence in high growth firms and high volatility firms is also positively correlated with firm value, but the relationship is statistically significant only for a subset of congruence measures. For example, abnormal congruence based on regional ties positively affects firm value in firm with high return volatility, consistent with H2-1. Combined with results from Table 4, this suggests that although firms are more likely to exhibit favoritism under low volatility, but when they actually do, it destroys firm value.

In addition, abnormal congruence under substantial foreign ownership also increases firm value. This effect is mostly due to school ties, especially university ties, within the top management. Our interpretation is that effective monitoring by foreign investors complements congruence based on merit-based school ties.

On the other hand, in firms where the CEO is a family member of the controlling shareholder or the largest shareholder has strong voting rights, more congruence tends to destroy firm value, which is consistent with hypothesis H2-2. The negative relationship is observed mostly from school ties, but also in regional ties albeit to a lesser extent. Tough product market competition also implies a negative relationship between congruence and firm value, which is counter to our original hypothesis H2-2. Our interpretation is that product market competition serves as a constraint on favoritism and pursuing congruence by overriding such constraint may adversely affect firm value.

Overall, above results suggest that when the firm is more tightly controlled through large voting rights or management participation by the controlling family, more congruence adversely affects firm value, possibly through "rubber stamping" by the subordinate executives. Congruence also hurts firm value when firms are under tough product market competition. On the other hand, in young firms and firms with substantial foreign ownership, more congruence leads to higher Tobin's q. This suggests that congruence may improve effective communication when the content of information is soft and when outside monitoring mitigates authoritarian decision making.

Table 5. The Effect of Abnormal Congruence within the Top Management on Firm Value

This table presents the OLS regression results where the dependent variable is the natural logarithm of *Tobin's q* defined as market value of equity plus book value of debt and preferred shares divided by total assets.. *Index* reflects the 5 measures of abnormal congruence within the top management; *AbCongruenceAll*, *AbCongruenceSch*, *AbCongruenceRegion*, *AbCongruenceHS*, and *AbCongruenceUniv*. We interact these measures of abnormal congruence with various firm characteristics. *Young* is a dummy variable set to one if *Age*, defined as the natural log of number of years since establishment, is less than the sample mean. *HiGrowth* is a dummy variable set to one if *Growth*, defined as the average of sales growth rate during the past 3 years is greater than the sample mean. *HiVol* is a dummy variable set to one if *Volatility*, defined as the standard deviation of daily log returns during the recent 5 years, is greater than the sample mean. *HiCF* is a dummy variable set to one if *CF*, defined as the cash flow from operations normalized by total assets, is greater than the sample mean. *Family* is a dummy variable set to one if the CEO is a relative of the largest shareholder. *HiHHIndex* is a dummy variable set to one if *HHindex*, defined as 1 minus Herfindahl-Hirchman index, is greater than the sample mean. *HiForOwn* is a dummy variable set to one if *ForOwn*, defined as foreign ownership share, is greater than the sample mean. *HiVoting* is a dummy variable set to one if *Voting*, defined as total control rights held by the largest shareholder and its related parties, is greater than the sample mean. *Size* is the natural log of total assets (in Korean Won million), *Leverage* is total liability over total assets, and *ROA* is return on assets. *t*-statistics are reported in parentheses. The sample includes all firms listed on the Korea Stock Exchange (KSE) from 2003 to 2006, which yields 2,129 firm-years.

	Index= AbCongruenceAll		Index= AbCongruenceSch		Index= AbCongruenceRegion		Index= AbCongruenceHigh		Index= AbCongruenceUniv	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Intercept	-0.0423	-0.0479	-0.0699	-0.1330	-0.0461	-0.1207	-0.0663	-0.2601	-0.0669	-0.1243
	(-3.66)	(-0.52)	(-6.55)	(-1.46)	(-4.10)	(-1.29)	(-5.97)	(-2.77)	(-6.25)	(-1.36)
Index	0.0338	-0.0904	0.3299	0.2364	-0.0787	-0.1336	-0.1092	-0.0356	0.3150	0.2297
	(0.31)	(-0.87)	(1.81)	(1.40)	(-0.67)	(-1.21)	(-0.35)	(-0.12)	(1.61)	(1.27)
Index *Young	0.2094	0.2042	0.1731	0.1647	0.2274	0.2067	0.1746	0.0759	0.1634	0.1872
	(3.23)	(3.40)	(1.57)	(1.62)	(3.39)	(3.33)	(1.00)	(0.47)	(1.31)	(1.63)
Index *HiGrowth	0.0796	0.0263	0.1801	0.1423	0.0385	-0.0318	0.2394	0.1364	0.2525	0.1613
	(1.21)	(0.43)	(1.58)	(1.35)	(0.56)	(-0.49)	(1.40)	(0.86)	(1.96)	(1.35)
Index *HiVol	0.0897	0.0946	0.0515	0.0437	0.1388	0.1400	0.1588	0.0603	-0.0062	0.0322
	(1.30)	(1.48)	(0.40)	(0.37)	(1.97)	(2.14)	(0.79)	(0.33)	(-0.04)	(0.25)

Table 5. (continued)

	Index= AbCongruenceAll		Index= AbCongruenceSch		Index= AbCongruenceRegion		Index= AbCongruenceHigh		Index= AbCongruenceUniv	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Index *HiCF	0.1199 (1.87)	0.0938 (1.57)	-0.0297 (-0.27)	-0.0327 (-0.32)	0.0565 (0.84)	0.0273 (0.44)	0.1905 (1.11)	0.1264 (0.79)	-0.1558 (-1.23)	-0.1561 (-1.33)
Index *Family	-0.1818 (-2.27)	-0.1473 (-1.98)	-0.2946 (-2.35)	-0.2560 (-2.21)	0.0339 (0.38)	0.0337 (0.41)	-0.1268 (-0.54)	-0.0959 (-0.44)	-0.2546 (-1.89)	-0.1981 (-1.59)
Index *HiHHIndex	-0.2600 (-3.95)	-0.1996 (-3.25)	-0.2480 (-2.20)	-0.2518 (-2.42)	-0.2497 (-3.64)	-0.1924 (-3.01)	-0.0632 (-0.38)	-0.1468 (-0.96)	-0.2164 (-1.75)	-0.1934 (-1.69)
Index *HiForOwn	0.1895 (2.42)	0.2366 (3.16)	0.3635 (2.75)	0.4342 (3.49)	0.0576 (0.68)	0.0809 (1.01)	0.2899 (1.39)	0.3282 (1.68)	0.4093 (2.69)	0.5012 (3.52)
Index *HiVoting	-0.2054 (-3.18)	-0.0994 (-1.54)	-0.2717 (-2.45)	-0.1744 (-1.68)	-0.2509 (-3.72)	-0.1456 (-2.20)	-0.4240 (-2.59)	-0.2206 (-1.41)	-0.2057 (-1.69)	-0.1408 (-1.24)
Size		-0.0366 (-5.06)		-0.0320 (-4.48)		-0.0318 (-4.38)		-0.0219 (-3.01)		-0.0317 (-4.41)
Leverage		0.7463 (14.58)		0.7534 (14.66)		0.7320 (14.22)		0.7484 (13.91)		0.7380 (13.93)
ROA		1.2427 (7.96)		1.2311 (7.94)		1.4146 (8.99)		1.1757 (7.06)		1.3040 (8.24)
Voting		-0.1470 (-2.57)		-0.1733 (-3.19)		-0.1310 (-2.31)		-0.1531 (-2.68)		-0.2009 (-3.66)
Year FE	no	yes	no	yes	no	yes	no	yes	no	yes
N.	2129	2129	2107	2107	2111	2111	1933	1933	2031	2031
adj-R^2	0.0294	0.1704	0.0128	0.1599	0.0244	0.1656	0.0037	0.1490	0.0095	0.1564

CONCLUSION

The dynamics of interpersonal relationship among the members of top management is undoubtedly one of the key determinants of its overall performance or outcome. Although there have been some theoretical discussions on the implications of congruence among members within an organization focusing on the role of effective communication and the nature of information being transmitted, empirical literature has been largely silent on this issue, presumably due to a lack of appropriate dataset.

In this paper, we fill this gap and directly examine the dynamics of interpersonal relationship within the top management. We make use of a unique dataset in Korea which provides detailed information on all executives above general manager level for all firms listed in the Korea Stock Exchange (KSE). Specifically, we examine whether CEOs prefer candidates with the same school or regional background as themselves when hiring subordinate executives, and if so, which factors affect the degree of such favoritism. Then, we explore how such congruence within the top management may affect firm value in different circumstances.

We first find that unconditionally, CEOs tend to favor candidates with the same school or regional background as themselves when hiring executives. This tendency is more pronounced in small firms and firms tightly controlled by the CEOs who are family members of the controlling shareholders. This suggests that both the nature of information being produced and pursuit of private benefits may drive CEOs to favor candidates with the same school or regional background.

We next link the degree of congruence with firm value by interacting measures of congruence with various firm characteristics. Our results indicate that in young firms and firms with substantial foreign ownership, congruence positively affects firm value while in firms tightly controlled by family related CEO's or through large voting rights, congruence negative affects firm value.

Overall, our results indicate that favoritism based on previously-built social ties exists within the top management, and this tendency is being driven by both information related concerns and agency related motivations. More importantly, the effect of congruence on firm value critically depends on the circumstances under which

such congruence prevails. Specifically, congruence motivated to facilitate soft information increases firm value, while those driven by agency related motives decrease firm value. Our study mostly focuses on the effect of school and regional ties within the top management on firm value. Extending this analysis by incorporating additional dimensions of social ties or considering the effect of social ties on specific corporate actions would be interesting topics for future study.

REFERENCES

Berger, A. N., T. Kick, M. Koetter, and K. Schaeck (2013), "Does It Pay To Have Friends? Social Ties and Executive Appointments in Banking," *Journal of Banking and Finance*, 38, 2087-2105.

Bertrand, M., and A. Shoar (2003), "Managing with Style: The Effect of Managers on Firm Policies," *Quarterly Journal of Economics*, 116, 901-932.

Cohen, L., A. Frazzini, and C. J. Malloy (2008), "The small world of investing: Board connections and mutual fund returns," *Journal of Political Economy*, 116, 951-979.

Cohen, L., A. Frazzini, and C. J. Malloy (2010), "Sell Side School Ties," *Journal of Finance*, 65, 1409-1437.

Collins, C. J., and K. D. Clark (2003), "Strategic Human Resource Practices, Top Management Team Social Networks, and Firm Performance: The Role of Human Resource Practices in Creating Organizational Competitive Advantage," *Academy of Management Journal*, 46, 740–751.

Dessein W. (2002), "Authority and Communication in Organizations," *Review of Economic Studies*, 69, 811–838.

Dewatripont, M., and J. Tirole (2005), "Modes of Communication," *Journal of Political Economy*, 113, 217-1238.

Faccio, M. (2006), "Politically Connected Firms," *American Economic Review*, 96, 369-386.

Faccio, M., and D. C. Parsley (2009), "Sudden Deaths: Taking Stock of Geographic Ties," *Journal of Financial and Quantitative Analysis*, 44, 683-718.

Fisman, R. (2001), "Estimating the Value of Political Connections," *American Economic Review*, 91, 1095-1102.

Fracassi, C. (2011), "Corporate Finance Policies and Social Networks," *Working Paper*.

Goldman, E., J. Rocholl, and J. So (2009), "Do Politically Connected Boards

Affect Firm Value?" *Review of Financial Studies*, 22, 2331-2360.

Hwang, B., and S. Kim (2009), "It Pays to Have Friends," *Journal of Financial Economics*, 93, 138-158.

Johnson, S., and T. Mitton (2003), "Cronyism and Capital Controls: Evidence from Malaysia," *Journal of Financial Economics*, 67, 351-382.

Khwaja, A.I., and A. Mian (2005), "Do Lenders Favor Politically Connected Firms? Rent Provision in an Emerging Financial Market," *Quarterly Journal of Economics*, 120, 1371-1411.

Landier, A., D. Sraer, and D. Thesmar (2008), "Bottom-Up Corporate Governance," NYU Working Paper No. FIN-05-011, New York, NY.

Landier, A., D. Sraer, and D. Thesmar (2009), "Optimal Dissent in Organizations," *Review of Economic Studies*, 76, 761-794.

Manski, Charles F. (1993), "Identification of Endogenous Social Effects: The Reflection Problem," *Review of Economic Studies*, 60, 531-542.

Saloner, G. (1985), "Old Boy Networks and Screening Mechanisms," *Journal of Labor Economics*, 3, 255-267.

Shue, K. (2011), "Excutive Networks and Firm Policies: Evidence from the Random Assignment of MBA Peers."

Simon, C. J., and J. T. Warner (1992), "Matchmaker, Matchmaker: The Effect of Old Boy Networks on Job Match Quality, Earnings, and Tenure," *Journal of Labor Economics*, 10, 306-330.

Taylor, C.R. (2000), "The Old Boy Network and the Young Gun Effect," *International Economic Review*, 41, 871-891.