

# Value of Friendship: Instrumental and Sentimental Motivations for Corporate Executives' Networking Behavior

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## ABSTRACT

We examine how corporate executives form and retain interpersonal ties with other executives. Drawing on social exchange theory, we argue that corporate executives have instrumental and sentimental motivations in their efforts to develop ties with other executives. Our results show that the higher (lower) instrumental (sentimental) motivations of an executive, the higher the likelihood of friendship seeking tie, since executives pursue different benefits from ties. Executives also seek advice from more competent executives, and the instrumental motivation continues to impact executive's retention of friendship ties. Utilizing social network data among Korean executives, our empirical data provide support for our arguments.

**Keywords:** Corporate Executives, Networking Motivations, Social Networks, Social Exchange Theory

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## INTRODUCTION

Organizational scholars have long been interested in how corporate executives' personal attributes can affect corporate resources, policies, and performances. A key attribute that has gradually gained attention is the executive's social networks. A central theme of the literature on executives' social networks is that interpersonal ties among corporate elites influence the leaders' behavior, subsequently altering their firms' strategic outcome (e.g., Cohen, Frazzini, and Malloy 2010; Fracassi 2017; Nguyen 2012; Shue 2013). Studies show that corporate executive's interpersonal ties affect executives' strategic decision making in merger and acquisition, firm performance, and strategic change (D'Aveni and Kesner 1993; Ingram and Roberts 2000; McDonald and Westphal 2003). The focus in this literature has been primarily on the consequences of executives' social networks. Yet, despite the growing consensus that executives' interpersonal ties matter, our understanding of corporate executives' motivations in networking behavior remain relatively unclear. Prior studies have mainly relied on social homophily literature to explain tie formation between corporate executives, emphasizing affect-based, sentimental motivations, such as personal trust, empathy, and reciprocity (Ingram and Roberts 2000; McDonald and Westphal 2003). Although these sentimental motivations are important antecedents for interpersonal tie seeking, relatively little research attention has been paid to an alternative networking motivation of corporate executives: instrumental motivation. Studies found that opportunity-based network motivation is clearly present in the organizational domain (Casciaro and Lobo 2008; Kleinbaum 2017). Considering that the main objectives of corporate executives are to ensure the growth of their firm or their career (Davis, Schoorman, and Donaldson 1997; Jensen and Meckling 1976), it is unreasonable to assume that interpersonal ties of corporate executives are only based on social homophily alone.

The present study attempts to fill this gap in the literature by considering the duality of motivations in executives' networking behavior. Building on the social psychological perspectives on friendship (Silver 1990), and social exchange theory (Blau 1964; Molm and Cook 1995), we consider the motivations underlying executives' networking behavior: instrumental and sentimental

motives. We define the instrumental motivation as individual objectives to pursue potential economic benefit and value arising from the relationship. By examining how corporate managers can benefit from interpersonal ties, we explore how instrumental motivation influences networking behavior of corporate executives. On the other hand, we define sentimental motivation as individual objectives to pursue trust, empathy, and reciprocity in the executive's network building. We draw frameworks from social embeddedness (Granovetter 1985) and social homophily literature (Lazarsfeld and Merton 1954; McPherson and Smith-Lovin 1987) to directly examine the sentimental motivation of interpersonal tie seeking.

Our interviews with corporate executives<sup>1)</sup> revealed that instrumental motivations to utilize individual ties as a source of future business opportunities are clearly present in the executives' networking behavior or building "friendship ties" (Ingram and Roberts 2000; Kilduff and Krackhardt 1994). For instance, an executive from the service industry noted, "building friendships with other executives is important since other executives and their firms can become our potential clients. Ties with other executives are directly related to future deals and projects." Another executive noted that "friendships with other executives become our very own human resources. These relationships might not immediately transform into a concrete inter-firm relationship, but I consider them to be an investment for the future." Finally, an executive even considered potential indirect contacts to be a gain in the individual's social capital as he commented, "it is not only the executive that I become friends with. His network of ties become my indirect assets."

Our interviews also revealed that instrumental motivations are essential in executives' seeking for "advice ties", another type of interpersonal network ties where executives seek consultancy from other executives on the matters of their strategic decision making (Doreian and Stokman 1997; Gibbons 2004; Lindenberg 1990; McDonald and Westphal 2003). For instance, one executive

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1) We conducted semi-structured interviews with five executives who participated a semester-long executive education program held in a large public university in S. Korea. The executives represented different sectors of the industry, including manufacturing, service, and professional service (accounting firm) sectors. Interviews were conducted in person and lasted between 30 minutes to an hour. Interviews were first transcribed in Korean and translated to English by the first author.

commented “I consider other person’s age and whether that person is an experienced manager. I seek advice from executives from big firms because executives from big organizations are equipped with specific know-hows and details.” On the other hand, the same executive highlighted how his advice tie seeking, that is instrumentally motivated, is also influenced by the very sentimental aspect of friendship ties. He commented, “asking advice on management discloses one’s weakness - so we are careful in seeking advice. I seek advice from executives that I consider to be close friends with.”

Acknowledging the duality of executives’ networking behavior allowed us to ask the following research questions and pursue related theoretical contributions. First, to the extent that executives’ network seeking behavior is influenced by the dual motivations, it will be important to excavate their reflective indicators, the markers individuals notice in their social interaction. We examine the managerial and organizational characteristics indicating the instrumental and sentimental dimensions of corporate executives’ network seeking behaviors. Considering the two motives simultaneously, our paper provides a synthesis for the antecedents of the executives’ networking behavior. Second, our enhanced understandings of the instrumental and sentimental motivations allow us to examine the interaction of the friendship and advice-seeking ties. While these two types of executive networking behavior have been extensively studied in the literature, few studies explored how the two types of interpersonal network ties interact with each other. One stream of research emphasizes that individuals seek advice from their friends (Anderson and Williams 1996; Fischer 1982; Rosen 1983), while the other stream argues that individuals seek advice from others who they perceive more competent regardless of the friendship (Doreian and Stokman 1997; Lindenberg 1990). We reconcile these two arguments on executives’ advice seeking behavior by showing that executives’ advice seeking is contingent on both the instrumental and sentimental aspect of a friendship seeking behavior.

Finally, delineating the two motivations also allows us to consider the retention of executive ties over time. Tie retention is another subject of executive networking behavior which received less research attention (Dahlander and McFarland 2013; Kleinbaum 2017). Corporate executives selectively decide to continue some

interpersonal ties while letting other ties decay. Examination of network forming motivations also allows us to consider how these motivations relate to the retention of ties between corporate executives. We examine how the initial influence of sentimental and instrumental motives in the executives' tie seeking behavior is continued to be observed in the executives' tie maintenance efforts.

In this study, we use network survey data on top executives' friendship and advice seeking in an executive program context (e.g. Marsden 1990). We collected survey data from a semester-long executive program for corporate executives held in a large university in South Korea. This program is specially designed to enrich the corporate executive participants with practical business knowledge and provide a context for corporate executives to meet and build networks with other executives from different industries. By conducting network surveys with two different waves on the same cohort, we also examine our proposed theoretical framework on networking motivations in continued friendship and advice tie seeking. We constructed dyads among the survey respondents and analyzed directional ties instead of mutual ties because our theoretical interest mainly lies in analyzing the underlying motivations of how one corporate executive evaluates networking opportunity with another.

## THEORETICAL BACKGROUND

The effect of executives' social networks on firms' policies and their performance outcomes has remained an important research topic in organizational studies. Previous research has suggested that executives' social networks influence firms' strategic change efforts (D'Aveni and Kesner 1993; McDonald and Westphal 2003; Nguyen 2012; Shue 2013), establishment of other related economic ties (Siegel 2007; Vissa 2011), and ultimately, firm performance outcomes (Ingram and Roberts 2000). Prior studies also suggested that CEOs' interpersonal ties with the board of director members impact the CEO's political power within the firm (Westphal 1999; Westphal and Zajac 1997). These studies identified social and psychological processes such as peer effect, normative control, and in-group identification that explain how social networks of executives affect the executive's decision-making process. For

example, Shue (2013) found that executives that were placed in the same executive program section are more likely to display similar policies in compensation and acquisitions strategy due to peer influence formed during the executive program. The study also finds that executives continue social interactions with their peers even after executive program ends. Thus, corporate policies among the peers tend to converge, especially the year after alumni reunions. As this study demonstrates, social interactions of corporate executives are likely to influence the decisions of executives where they take leadership positions.

Studies in this domain primarily operationalized interpersonal ties between corporate executives in two ways. First, a bulk of research considered executives to be connected if they shared past employment, educational affiliation or memberships in clubs (Cohen, Frazzini, and Malloy 2010; D'Aveni and Kesner 1993; Fracassi 2017; Nguyen 2012; Shue 2013). While these studies have offered important insights on firms' strategic outcomes, they primarily assumed that interpersonal ties exist between the executives without validating the existence of ties. This assumption of tie existence, however, is problematic. For example, in Fracassi (2017), social ties between top executives are assumed to exist if they share educational affiliation and past employment. The study shows that if more types of social ties are shared between two firms' top executives, it is more likely that the two firms would implement similar corporate investment policies. Yet, an alternative explanation could be that individuals cultivate similar values when they share common experiences even before they meet each other, and this shared value, instead of social ties might be the cause underlying the similar policies. Thus, without examining the nature of interpersonal ties, it is difficult to assert that similarity in corporate policies is caused by interpersonal ties.

Second, some researchers have managed to conduct network surveys on executives regarding their friendship and advice relationships with other executives (Ingram and Roberts 2000; McDonald and Westphal 2003; Vissa 2011; Westphal 1999). Their empirical data on social networks provides more plausible results regarding how executives' social networks affect firms' outcomes. While the presence of interpersonal ties is supported by social network data, less is known about the antecedents that create these ties. Most studies have mainly assumed similarity in personal

attributes as the primary antecedent to friendship formation and social homophily as the mechanism to tie generation. These studies relied on affect-based or sentimental motivation to explain why friendship ties between executives were present. Yet, as Ingram and Roberts (2000) emphasized, managers also consider future business opportunities in pursuing friendships with other managers. Thus, the picture is only half-complete if we focus on sentimental motivation as an antecedent to executives' social tie formation and maintenance.

### **Instrumental and Sentimental Motivations of Friendship**

Social psychological perspectives on friendship suggest multi-dimensions of motivations underlying friendship seeking behaviors. For instance, Silver (1990) emphasizes the distinction between sentimentality (personal) and instrumentality (impersonal) dimensions in friendships. The two dimensions are differentiated based on the reasons why the friendships are constructed. In personal friendships, the study notes, instrumental conditions of the bond are collateral or inessential because this aspect of friendship is based on true affect. It implies that an individual does not engage in relationships with the goal of achieving personal objectives. In contrast, a friendship is more instrumental to the extent that substitution of the friendship partner is inconsequential for its constitutive features. Impersonal friendships are guided by instrumental conditions in this type of friendship, and individuals can be easily substituted by other individuals since such relationships were formed with objectives out of sentimental reasons. In other words, friendship based on instrumentality sees the relationship as a tool to achieve a personal objective.

This distinction in friendship resembles fundamental differences in individual motivations acknowledged by social psychologists. Self-determination theory emphasizes the difference between intrinsic and extrinsic motivation (Deci and Ryan 1985). Motivation is intrinsic to the extent that action is taken because it is inherently interesting or enjoyable. Extrinsic motivation, on the other hand, leads to actions to attain a separable outcome existing outside of the action itself (Ryan and Deci 2000). This simple dichotomy in motivation can be applied to interpersonal relationships. For example, since sentimentality in friendships emphasizes the

importance of individuals within the relationship, this dimension is represented by intrinsic motivation. On the contrary, instrumentality in friendships reflects extrinsic motivation since the target of relationship is chosen primarily to attain personal objectives, a separable outcome to be achieved by rewards accompanied by but separable from the relationship.

Social exchange theory also shows how relationship building process is guided by instrumental concerns. The theory considers interpersonal relationships as an exchange process where individuals, as exchange partners, seek to maximize the benefits and minimize the costs of their social relationships (Blau 1964; Molm and Cook 1995). Blau specifically defined exchange behavior as “voluntary actions of individuals that are motivated by the returns they are expected to bring” (Blau 1964: 91). In accordance with Blau (1964), Homans (1974) puts forth two propositions regarding the “degree of reward” (1974: 25) in social exchange behaviors between individuals. One is the ‘value proposition’ which states that “the more valuable to a person is the result of his action, the more likely he is to perform the action” (Homans 1974: 25). This proposition suggests that probability of establishing a social relationship with an alter increases if the potential value of the relationship increases. The second proposition is the ‘rationality proposition’ which posits that a person is likely to choose a social interaction partner who is most likely to bring the value. This proposition is based on economic decision theory, which suggests that an intelligent and well-informed actor formulates probabilities and estimates expected utilities for alternative actions prior to any decision making. This implies that people generally calculate the possibility of attaining value before deciding to establish a social tie with another individual among the available candidates. Taken together, social exchange theory suggests that individuals act in a rational fashion, by assessing the economic benefit and cost of establishing and maintaining interpersonal ties.



## **HYPOTHESES DEVELOPMENT**

### **Organizational Characteristics as Reflective Indicators of Instrumental Motives**

Building on these two dimensions of networking motivation, we elucidate the mechanisms underlying an executive's decision to form and retain ties with other executives. We have suggested that instrumental dimension of networking motivation refers to seeking friendships that may increase their economic value. From previous literature, we believe instrumental motivation of executives in forming networks would be to advance their objectives of growth of the firm or their career. As economic actors in the business society, corporate executives' main objective is to enhance firm's performance and meet shareholder's demands (Davis, Schoorman, and Donaldson 1997). Successful performance of their firm also enhances the social prominence, public prestige, and political power of the senior executives, in addition to the increase in compensation and bonus. Corporate executives, however, may directly attain personal benefits by setting advancement in career and social standing as primary objective. Agency theory suggests that corporate executives could divert from the objectives of enhancing firm's performance and utilize the firm's resources to enhance one's personal pursuit of perquisite or prestige (Jensen and Meckling 1976).

In instrumental relationships, value and reward are often represented by monetary concerns of the exchange subjects (Bearman 1997; Sahlins 1972). Casciaro and Lobo (2008) also posits that a critical component of interpersonal relationships is the complementary of task-related skills. To corporate executives, both monetary and non-monetary concerns are important in their consideration of career advancement within the firm or the industry. Thus, following Silver (1990) and social exchange theory, our conception of the instrumental motivation focuses on economic value in terms of the focal actor's potential opportunities in the firm or the industry by establishing interpersonal ties with other executives.

We believe that the potential for economic opportunities, both for the firm and the executive, could be inferred from the managerial characteristics of the alter executive. As corporate executives rely on

simplified mental models of reality to organize their knowledge (Cyert and March 1963; March and Simon 1958), executives evaluate potential relationship's economic value based on characteristics that signal quality. Moreover, executives may objectify others, based on their power to interpret others as tools in attaining personal gain (Casciaro, Gino, and Kouchaki 2017; Gruenfeld et al. 2008). Thus, we believe executives would evaluate other executives based on their managerial characteristics such as corporate rank and their firms' size, which signal the presence of future opportunities such as board appointments, strategic alliances or resource exchange.

Personal attributes such as values, age, and place of birth is less likely to provide any information that individuals need to assess a potential relationship's benefits. Information on opportunities is more likely to come from executives who occupy higher positions in the firms since these executives are able to influence their firm's policies (Quigley and Hambrick 2015) or influence the appointment of executives and directors of other firms (Finkelstein 1992; Westphal 1999; Useem 1984). Executives in lower ranks would, therefore, build friendships with higher ranked executives to establish alliance or collaboration or receive board appointments. Thus, the hierarchical distance in rank in their respective firms shows whether an alter executive is a valuable source to form a tie or not.

As with an executive's rank in a firm, the size of the firm that the executive represents also signals instrumental opportunities. Holl and Pickering (1988) note that a firm's size reflects resource availability, larger the firm, the more resources at their disposal, implying that larger firms have more resources that they could invest. Additionally, since larger firms are more visible, they draw more spotlight from external stakeholders (Dobbin et al. 1993; Edelman 1990; Waddock and Graves 1997). If executives of small firms are able to build an alliance or collaborate with large firms, their firms would also gain the attention of other stakeholders. In addition, the larger the size of the firm, the more power this firm has over its network partners (Shipilov 2006). Larger firms are therefore more able to impose favorable conditions of exchange on its partner firms and make demands. Executives of smaller firms can benefit from this power imbalance by seeking friendship with executives from larger firms. For instance, executives from larger firms may force its partner firms to establish an exchange relationship with the

firms that are led by close friends. In another note, since larger firms occupy the central position in the collaborative networks, executives of large firms would have greater access to novel information and knowledge than executives from smaller firms. Thus, corporate executives from smaller sized firms would seek friendship with executives from larger sized firms for the potential opportunities of obtaining resources, social capital, information, and knowledge.

Taken together, we believe that the organizational characteristics of the potential network partner, particularly the executive's corporate rank and firm size, indicate the availability of numerous potential corporate opportunities such as board appointments, alliances or resource exchange. This interpretation was confirmed in our interviews with corporate executives. Three of our interviewers commented that first impression and evaluation of another executive were mainly established by the prestige, reputation and size of the firm that the executives represented. Another interviewer also noted that "the reputation of the other person's firm and that person's corporate rank in that firm greatly influenced my impression of that person." The weight of another executive's firm's size and corporate rank, however, is relative to focal executive's firm size and rank. As Kilduff and Krackhardt (1994) suggests, the same set of characteristics can be differently perceived depending on the position occupied by the perceiver, influencing the dynamics underlying the focal actors' decisions on who to become friends with. Thus, the evaluation will be processed based on the organizational characteristics of both the focal and alter executives. As the relative difference in these characteristics increases between the focal executive and his/her potential network alter, more opportunities would be present for the focal actor. Thus, we propose the following hypothesis:

**H1:** The higher the distance along the indicators of instrumental motives (corporate rank and firm size) between the focal and the alter executive, the more likely the focal executive seeks a friendship of the alter.

### **Individual Attributes as Reflective Indicators of Sentimental Motives**

Studies on social homophily suggest that close friends share similar characteristics (Lazersfeld and Merton 1954; McPherson

and Smith-Lovin 1987), and similar beliefs, opinions, and values (Ibarra 1992; Suitor and Keeton 1997). Friendships formed from these similarities increase the ease of communication and the predictability of behavior, leading to relationships with trust, empathy, and reciprocity (Kanter 1977; Lincoln and Miller 1979).

In our interviews, we were able to confirm that corporate executives' networking behavior is not an exception from this general rule of friendship seeking, that is, social homophily, reciprocity, and sentimental motives. For instance, one executive commented, "in this program where every participant is a senior executive, we get more comfortable in terms of making friends. We resort to our basic instincts as if we are back in middle and high school and look for friends that have similar personalities and attributes." Another interviewer noted, "we befriend executives to share concerns regarding making decisions for our firms. As we gain each other's trust, we are able to share and consult these concerns with each other, and talk about possible solutions." Since senior executives need to display strong leadership and cannot reveal their weaknesses, they are in need of friends who they can trust and discuss difficulties that they experience in their respective firms. One executive emphasized, "people in top positions are lonely and make decisions in solitude, so we seek for sense of kinship and people who we can share our difficulties."

As mentioned above, the interpersonal similarity in personal attributes such as age, religion, and values foster a relationship of trust and reciprocity (Kanter 1977; Lincoln and Miller 1979). Common educational affiliation is another salient basis for sentimentality in relationships. Shared educational background imprints individuals with similar beliefs which subsequently facilitates trusting interpersonal relationships (Fracassi 2017; Marsden 1988; Rider 2012). While these attributes may signal executive's preferences and personalities, they provide less information on whether such friendships would result in economic benefits or values. As these studies suggest, we believe corporate executives would also seek friendships with other executives with similar values (political ideology, and religion), age, and educational affiliation, because these similarities are likely to foster trust, empathy, and reciprocity.

In addition, the region of origin often forms an important source of social homophily. Regionalism has a long history in Korea

(Siegel 2007), so Koreans were taught from an early age about discrimination that their regional compatriots had endured over the ages and that people from other regions should not be trusted (Yu 1990). An individual's region of origin is, therefore, an additional factor in seeking trust-based network ties. We posit that executives would be able to approach and communicate more easily with other executives who have similar age, value, and region of origin. In other words, the lower the distance (the higher the similarity) along the focal and alter executives' individual characteristics, the more likely is the friendship tie seeking. Thus, we propose the following hypothesis:

**H2:** The higher the similarity along the indicators of sentimental motives (age, values, university and region of origin) between focal and alter executive, the more likely the focal executive seeks a friendship of the alter.

### **Instrumental Motives Underlying the Advice and Friendship Tie Seeking**

Corporate executives' advice ties are defined as network "comprised of relations through which individuals share resources such as information, assistance, and guidance" (Sparrowe et al. 2001: 317). Although advice ties of corporate executives have been relatively less explored than friendship ties, advice networks of corporate executives are as influential as the corporate executive's friendship network. For example, McDonald and Westphal (2003) analyzed how CEO's advice networks are likely to cause firm's strategic inertia in times of low performance. The study suggested that poorly performing CEOs may seek advice from executives of other firms whom they socially identify with to restore their confidence in decision-making. As this study shows, focal CEO's personal advice networks with other CEOs may impact the focal firm's strategic policy more than the members of the focal firm.

Our theoretical perspective would also suggest that corporate executives seek advice from other executives that they consider to be more valuable. Studies on advice network highlight the importance of individual's perception of potential contacts' characteristics and abilities when seeking advice (Doreian and Stokman 1997; Lindenberg 1990). Revered characteristics and abilities would be primary standards that executives seek in advisors since individuals

who possess characteristics that make them valued sources of information and insight, also gain positions of advice network centrality (Klein et al. 2004). These studies suggest that people seek advice from others who are central information sources or capabilities. In the corporate executive context, valued information is more likely to come from executives who are ranked higher or represent firms that are larger. High-rank executives, by the virtue of their title, holds higher status (Giddens 1972; Mills 1958), while executives from larger firms occupy more central positions in the collaboration networks of firms (Shipilov 2006). These executives are therefore more likely to receive valuable information than smaller firms. Thus, we expect the distance along the instrumental dimension of friendship between executives to be positively associated with the likelihood of advice seeking as well.

Prior studies on advice seeking, however, have diverged in explaining from whom individuals would seek advice. A stream of research suggests that individuals would seek advice from others who they consider to be their friends (Anderson and Williams 1996; Fischer 1982; Rosen 1983). Our theoretical perspectives on the instrumental vs. sentimental motives of executive networking suggest that the instrumental motivation for the initial friendship tie seeking will be an important antecedent for the subsequent advice tie seeking. Thus, we reconcile the two arguments by suggesting that advice tie seeking is contingent on the instrumental motivations underlying the original friendship tie seeking. That is, we argue that executives seek advice from their other executives whom they were instrumentally motivated to become friends with. Instrumental motivation for friendship tie seeking, therefore, would mediate the relationship between the instrumental motives and advice tie seeking. Thus, we propose the following hypotheses:

**H3a:** The higher the distance along the indicators of instrumental motives (corporate rank and firm size) between the focal and the alter executive, the more likely the focal executive seeks an advice of the alter (main effect).

**H3b:** Friendship seeking ties that are formed by instrumental motivations will mediate the main effect of the instrumental motives indicators on the focal executive's advice seeking of the alter. (mediation effect)

### **Instrumental and Sentimental Motives Underlying the Continued Friendship Tie Seeking**

We also believe that the initial motivation for executives' tie seeking will influence their maintenance over time. Studies suggest that executives selectively decide to continue some interpersonal ties while letting other ties decay (Kleinbaum 2017). Less valuable ties discontinue unless they are actively maintained, since it takes time and effort to retain relationships. Social exchange theory predicts that individuals would minimize the cost of their relationship maintenance by discontinuing relationships that are less valuable (Blau 1964; Molm and Cook 1995). Since both value and cost determine the tie maintenance decision of the executives, ties that are more valuable are likely to be retained, while ties that are less valuable are abandoned. The advice tie seeking among executives tend to be more impromptu depending on the particular context of the advice sought after, while friendship ties tend to be managed for a longer while. Thus, we consider friendship tie seeking only for tie-maintenance here. We believe our theoretical perspectives on the continued friendship tie seeking will be also applicable to continued advice tie seeking

To the extent that tie maintenance decision reflects such a strategic cost and benefit calculation, we believe the continued friendship tie seeking will be influenced by the initial tie seeking motives. Thus, instrumental motives for the initial friendship tie seeking would be positively related to the likelihood of tie retention to the extent that the potential economic benefit remains to be present between the actors. Furthermore, if sentimental motivation is also present in the initial friendship-tie seeking phase, the likelihood that the focal executive continues to seek a friendship tie would increase. That is, the sentimental motivations underlying the initial friendship tie seeking would positively moderate the relationship between instrumental motives and the likelihood of a continued friendship tie seeking. Thus, we propose the following hypotheses on the continued friendship tie seeking among corporate executives:

**H4a:** The higher the distance along the indicators of instrumental motives (corporate rank and firm size) between focal and alter executive, the more likely the focal executive continues

to seek a friendship of the alter.

**H4b:** The indicators of sentimental motives (age, values, university and region of origin) between focal and alter executive positively moderates the relationship between the indicators of instrumental motives and the likelihood of the focal executives' continued friendship tie seeking with the alter.

## METHOD

### Sample and Data Collection

We collected network data of corporate executives from a cohort in a semester-long executive program held in a large university in South Korea. This program began in 1976, and since then, it has produced more than 5,200 alumni. Each cohort of the program span around 6 months and participants come to the university to take classes at least twice a week. In addition to classes, social events and program trips are organized, creating numerous networking opportunities.

This semester-long program provides a good context to observe the principles guiding the executives' networking behavior for two reasons. First, participants of each cohort are a representative sample of South Korean corporate executives. We interviewed with the director of the program, who stated that in the application screening process, they look for diversity in industry, positions and firm sizes. Admission is determined by program directors with the goal of creating balanced cohorts, so applicants are not admitted just because they are from more prominent firms or because they are CEOs of their firms. This increases our study's external validity. Second, in a relatively short period of time, corporate executives generate abundant friendship and advice ties with other participants in the cohort. Finally, since most of the participants have not known each other prior to the program, we can make relatively accurate inferences on how the executives formed network ties.

Our sample frame consists of 71 corporate executives from a single cohort. The analysis required collection of three different data sets. First, from the program registrar office, we collected each participant's demographic, academic and work-related variables.



Second, we conducted two network surveys to measure each executive's social networks in two time frames: once roughly 5 months after the program commenced (Time 1), and again one year after the program ended (Time 2), which is 13 months after Time 1. Network surveys measured friendship and advice relationships between executives. At Time 1, executives were informed about the survey in class and they were given sufficient time to complete the survey towards the end of the class. Time 1 survey was completed by 50 executives, a response rate of 70.4%. At Time 1, along with the network survey, we distributed value survey in which we collected each executive's self-reported response on religious belief and political ideology. At Time 2, the same network surveys were distributed to executives via mail. We distributed the surveys only to the executives that participated in Time 1 survey to examine how their social network ties evolved from Time 1 to Time 2. Out of 50 executives, 29 executives responded and mailed back their surveys, recording 58% response rate for Time 2 survey.

## Measures

*Dependent Variables.* Following the roster model of Marsden (1990), our network survey questionnaire included an alphabetical list of the entire cohort and the executives were asked to provide responses to the following questions for the entire cohort: (1) "Is this person a good friend of yours, someone you would engage in social activities with?" (2) "Do you go to this person for work-related advice?" The first question constructs the friendship network while the second question constructs the advice network. The wordings of the two questions are adapted from Baldwin, Bedell, and Johnson (1997), Ibarra (1995) and Klein et al. (2004). Responses were given on a Likert-type scale ranging from 0 (no friendship) to 3 (very good friends) for the friendship network and for the advice network, responses ranged from 0 (never asked advice) to 3 (asked advice frequently). The survey scores are then dichotomized to construct dependent variables, friendship and advice seeking ties; response of 0 and 1 indicates no tie (0) is sought from focal executive to alter executive, while 2 and 3 indicate a tie (1) is sought by the focal to the alter. These responses are preserved in a directional matrix for Time 1 and Time 2 to reflect the ties that one executive indicated for the other.

Our dependent variables are *friendship tie seeking*, *advice tie seeking* and *continued friendship tie seeking*. All the variables are calculated based on directional dyads. Friendship seeking tie indicates that focal executive considers the alter executive as a friend at Time 1 and advice seeking tie shows that focal executive seeks advice from alter executive at Time 1. Our third dependent variable, continued friendship tie seeking, integrates friendship seeking ties at Time 1 and 2. Conceptually, this tie occurs when focal executive continues to consider alter executive as a friend over time. We operationalize continued friendship tie seeking as occurring when the focal executive A reports having a friendship tie to the alter executive B at Time 2, conditional on A having reported to have friendship tie with B at Time 1.

*Independent Variables.* To operationalize instrumental and sentimental dimensions, we subtracted the focal executive's individual characteristic value from the alter's corresponding value. To construct the distance in instrumental motives, we utilized each executive's corporate rank and firm size. Corporate ranks were coded from 1 to 6 with 6 indicating CEO or chairman of the firm and 1 indicating department head of a firm. Other corporate ranks include senior executive vice president, executive director, and managing director. *Corporate rank difference* between the two executives is the alter executive's rank code minus the focal executive's rank code, so positive values indicate the alter executive to be positioned at a higher rank. Firm size was operationalized by firm sales in the previous year. *Firm size difference* between the two executives is the natural log-transformed difference in sales, subtracting focal executive's firm size from the alter executive's, so that the positive values indicate the alter executive's firm size is greater than the focal executive's. We utilized principal component analysis to attain uniform measure for the distance in the instrumental motive. *Combined rank and size difference* is a product of principal component analysis that combined difference in corporate rank and firm size into one variable.

To construct the similarity measures in sentimental motives, we reverse coded the difference between the focal and the alter executives' individual characteristics, so that increase in value indicates higher similarity. We utilized personal attributes such as age, region of origin, university affiliation, religion and political ideology. *Age similarity* indicates the reversed absolute difference in

age between focal and alter executive so that higher values indicate higher levels of similarity. We operationalized region of origin with high school location. *Region of origin similarity* is a binary indicator of whether or not two executives are from the same origin: “1” indicates that both are from the same region and “0” indicates difference. For university affiliation, I aggregated all schools each individual attended at each higher education institution to the institution level as in Rider (2012). *University similarity* is a binary indicator of whether the two executives share the same higher education institution or not. For religion, we asked the executives if they believe in a religion and if so, what religion they believe in. The three popular religions in Korea, Christianity, Buddhism and Roman Catholic, were listed with a choice of other religions or no religion. *Religion similarity* is a binary indicator of whether two executives share the same religion or not. Similarly, for executive’s political ideology, we asked the executives to identify political parties that they support in South Korea. Four political parties with seats in the Congress were listed and a choice for others or none was given. *Political ideology similarity* is a binary indicator of whether the two executives support the same political party or not. Following Belliveau, O’Reilly, and Wade (1996), we obtained *dyadic social similarity* by combining the results of 5 variables to form the index of similarity in sentimental motives for executive tie seeking.

*Control Variables.* We included a number of variables in our models to control for tie seeking behaviors that may be driven by contextual and/or empirical effects. To capture the effect of industry, we controlled for *industry difference* in the dyad. To capture the effect of being publicly listed, we controlled for *listed firm difference*. The proximity of firms’ location between two executives provides more opportunities for meeting and engenders lower cost for maintaining ties. We therefore coded *firm location difference* which measures whether the two executives’ firms are located in the same administrative district and controlled for this variable. Similarly, we controlled for current residence location as the proximity of residences also affects the chances of establishing and maintaining ties. *Current residence difference* measures whether the two executives’ residences are located in the same district or not.

We also considered various characteristics of the executive training program. First, we controlled for the placement of the program and project groups in the program. Previous research

on MBA program suggests that being placed in the same section increases the likelihood of friendship formation and retention among the members of the same group (Kleinbaum 2017; Shue 2013). Program and project group are formed by the program's registrar office with two principles: balancing the group in terms of industry, firm size and corporate rank, and minimizing overlap between program and project group. 5 different program groups were formed, each consisting roughly 15 executives. 10 different project groups were formed, each consisting roughly 7 to 8 executives. Many social events were planned in group levels and executives spend most of their time with their program group members. Thus, we controlled for the dyadic measures indicating *program group difference* and *project group difference* coded as one when the focal and the alter executive do not belong to the same program or project group.

## RESULTS

All models were estimated on the dyad-level data with binary dependent variables using logistic regression. We constructed all the possible dyadic ties between the executives and analyzed the likelihood of friendship and advice tie seeking formation. Continued friendship tie seeking analysis was constructed based on friendship tie seeking that existed at Time 1.

Descriptive statistics and bivariate correlations are shown in Table 1, and Table 2 reports the results of our logit regression analysis for hypotheses 1 and 2. Models 2-4 in Table 2 test our hypothesis 1 with respect to instrumental dimensions as an antecedent of friendship tie seeking. It is important to recall that our independent variables measure the distance between the focal executive and alter executive in managerial characteristics. The interpretation of the regression is fairly straightforward when considering distance in instrumental dimension because high values of corporate rank difference and firm size difference indicate alter executive as higher than the focal executive. Thus, our prediction would anticipate a positive regression coefficient for this variable with respect to the likelihood of friendship seeking tie from the focal to the alter. Model 2 displays a significant positive effect of corporate rank difference ( $\beta = 0.075$ ,  $p < 0.01$ ). In model 3, we incorporate both corporate rank difference and firm size difference. The coefficient for corporate rank

Table 1. Descriptive Statistics and Bivariate Correlations – Dyad Level (N = 2,436)

	Variable	Mean	S. D.	Min	Max	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	Friendship Seeking Tie (Time 1)	0.31	0.46	0.00	1.00	1.00																
2	Advice Seeking Tie (Time 1)	0.12	0.32	0.00	1.00	0.45	1.00															
3	Combined rank and size diff.	0.00	0.58	-1.99	1.99	0.08	0.01	1.00														
4	Corporate Rank diff.	0.00	2.41	-5.00	5.00	0.06	0.07	0.41	1.00													
5	Firm Size diff.	-0.01	3.44	-9.38	9.38	0.00	-0.06	0.41	-0.66	1.00												
6	Dyadic Social Similarity	0.00	2.41	-6.62	8.33	0.15	0.01	0.00	0.00	0.00	1.00											
7	Age sim.	18.07	3.86	0.00	23.00	0.21	0.13	0.00	0.00	0.00	0.48	1.00										
8	Political Ideology sim.	0.31	0.46	0.00	1.00	0.00	-0.01	0.00	0.00	0.00	0.46	-0.03	1.00									
9	Religion sim.	0.28	0.45	0.00	1.00	0.01	-0.01	0.00	0.00	0.00	0.47	-0.01	0.06	1.00								
10	University sim.	0.14	0.35	0.00	1.00	0.08	-0.04	0.00	0.00	0.00	0.50	0.12	0.01	0.04	1.00							
11	Region of Origin sim.	0.20	0.40	0.00	1.00	0.07	-0.03	0.00	0.00	0.00	0.50	0.07	0.08	0.03	0.03	1.00						
12	Project Group diff.	0.93	0.25	0.00	1.00	-0.15	-0.05	0.00	0.00	0.00	0.03	0.01	0.03	0.01	0.01	0.02	1.00					
13	Program Group diff.	0.81	0.39	0.00	1.00	-0.47	-0.25	0.00	0.00	0.00	0.03	0.03	0.05	-0.03	0.01	0.02	-0.09	1.00				
14	Current Residence diff.	0.94	0.25	0.00	1.00	-0.01	0.02	0.00	0.00	0.00	-0.10	-0.06	0.01	-0.12	-0.03	-0.03	-0.02	-0.01	1.00			
15	Work Location diff.	0.91	0.29	0.00	1.00	-0.04	-0.01	0.00	0.00	0.00	-0.02	-0.05	0.01	0.07	-0.07	-0.01	-0.05	-0.02	-0.02	1.00		
16	Industry diff.	0.87	0.34	0.00	1.00	-0.01	-0.04	0.00	0.00	0.00	0.02	-0.04	0.01	0.02	0.02	0.03	-0.06	-0.04	-0.03	0.16	1.00	
17	Listed Firm diff.	0.54	0.50	0.00	1.00	0.01	-0.02	0.01	0.02	-0.01	0.04	0.07	-0.07	-0.01	0.08	0.04	0.00	-0.02	0.00	0.00	0.04	1.00

Table 2. Models of Friendship Tie Seeking as a Function of Instrumental and Sentimental Dimensions

VARIABLES	Dependent Variable: Friendship Seeking Tie (Time 1)									
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10
Control Variables										
Industry diff.	-0.282* (0.147)	-0.285* (0.148)	-0.285* (0.148)	-0.284* (0.148)	-0.267* (0.152)	-0.292* (0.153)	-0.313** (0.154)	-0.313** (0.154)	-0.316** (0.154)	-0.331** (0.150)
Listed Firm diff.	0.0397 (0.102)	0.0328 (0.103)	0.0323 (0.103)	0.0342 (0.103)	-0.0631 (0.107)	-0.0694 (0.107)	-0.0939 (0.108)	-0.0933 (0.108)	-0.0815 (0.108)	-0.0141 (0.105)
Work Location diff.	-0.563*** (0.167)	-0.567*** (0.168)	-0.570*** (0.168)	-0.568*** (0.168)	-0.527*** (0.175)	-0.530*** (0.174)	-0.486*** (0.176)	-0.474*** (0.177)	-0.481*** (0.177)	-0.554*** (0.172)
Current Residence diff.	-0.313 (0.197)	-0.316 (0.198)	-0.322 (0.198)	-0.320 (0.198)	-0.166 (0.206)	-0.141 (0.209)	-0.112 (0.210)	-0.135 (0.212)	-0.144 (0.212)	-0.0974 (0.207)
Program Group diff.	-2.738*** (0.128)	-2.759*** (0.129)	-2.779*** (0.130)	-2.774*** (0.130)	-3.128*** (0.146)	-3.166*** (0.147)	-3.187*** (0.148)	-3.193*** (0.149)	-3.217*** (0.150)	-2.938*** (0.136)
Project Group diff.	-1.788*** (0.172)	-1.801*** (0.173)	-1.814*** (0.173)	-1.811*** (0.173)	-1.979*** (0.185)	-2.019*** (0.187)	-2.038*** (0.188)	-2.038*** (0.188)	-2.062*** (0.189)	-1.959*** (0.179)
Instrumental Dimensions										
Corporate Rank diff.		0.0765*** (0.0212)	0.145*** (0.0285)							
Firm Size diff.			0.0721*** (0.0198)							
Combined rank and size diff.				0.422*** (0.0882)						

Table 2. (continued)

VARIABLES	Dependent Variable: Friendship Seeking Tie (Time 1)									
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10
Sentimental Dimensions										
Age sim.					0.209*** (0.0174)	0.207*** (0.0175)	0.202*** (0.0176)	0.202*** (0.0176)	0.203*** (0.0176)	
Region of Origin sim.						0.527*** (0.127)	0.528*** (0.128)	0.533*** (0.128)	0.511*** (0.128)	
University sim.							0.461*** (0.146)	0.468*** (0.147)	0.467*** (0.147)	
Religion sim.								-0.0984 (0.122)	-0.111 (0.123)	
Political Ideology sim.									0.238** (0.115)	
Dyadic Social Similarity										0.211*** (0.0219)
Constant	4.013*** (0.358)	4.048*** (0.360)	4.079*** (0.361)	4.068*** (0.361)	0.495 (0.458)	0.500 (0.462)	0.513 (0.463)	0.550 (0.466)	0.511 (0.467)	4.151*** (0.370)
Observations	2,446	2,446	2,446	2,446	2,446	2,446	2,446	2,446	2,446	2,446
Likelihood Ratio $\chi^2$	620.64	633.77	647.15	643.86	800.02	816.82	826.53	827.17	831.41	717.20

Standard errors in parentheses, \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

difference remains significantly positive ( $\beta = 0.145$ ,  $p < 0.01$ ) and the coefficient for firm size difference is also significantly positive ( $\beta = 0.0721$ ,  $p < 0.01$ ). This offers preliminary support for hypothesis 1. In model 4, we test the combined measure of corporate rank difference and firm size difference. The model displays a strong positive significant effect of the combined measure on friendship seeking likelihood ( $\beta = 0.422$ ,  $p < 0.01$ ). Taken together, the results show that executives are more likely to seek friendship with other executives that signal potential opportunities generating economic value, supporting hypothesis 1.

Models 5-10 test our hypothesis 2 with respect to sentimental dimension as an antecedent of friendship tie seeking. Higher values in sentimental dimension indicate that the focal and alter corporate executives are more similar. Thus, our prediction would anticipate a positive regression coefficient for variables in this dimension with respect to the likelihood of friendship seeking tie. Models 5 to 9 incorporate age difference, region of origin difference, university difference, religion difference and political ideology difference one by one. Each variable in sentimental dimension displays anticipated positive significant effect except political ideology difference, which is negative and insignificant. In model 10, we test dyadic similarity variable indicating the sentimental dimension. The model displays a strong positive significant effect ( $\beta = .211$ ,  $p < 0.01$ ) between the social similarity and friendship seeking. This provides strong support for hypothesis 2, stating that executives also seek trust, empathy and reciprocity in friendships.

Table 3 reports the results of our logit regression analysis for hypothesis 3a and 3b with advice-seeking as the dependent variable. Models 2-4 in Table 3 test our hypothesis 3a with respect to instrumental dimensions as an antecedent for advice tie seeking. Model 2 shows a positive effect of corporate rank difference ( $\beta = 0.0936$ ,  $p < 0.01$ ) in advice tie seeking, confirming that when the alter executive's corporate rank is higher than the focal executive's rank, the focal executive is more likely to seek advice from the alter. In model 3, however, we do not observe the anticipated positive effect of firm size difference while corporate rank difference maintains positive effect ( $\beta = 0.0671$ ,  $p < 0.1$ ). We observe a positive effect for the combined measure of corporate rank difference and firm size difference in model 4 but this effect is insignificant. Thus, we only see preliminary support for hypothesis 3a with respect to the corporate



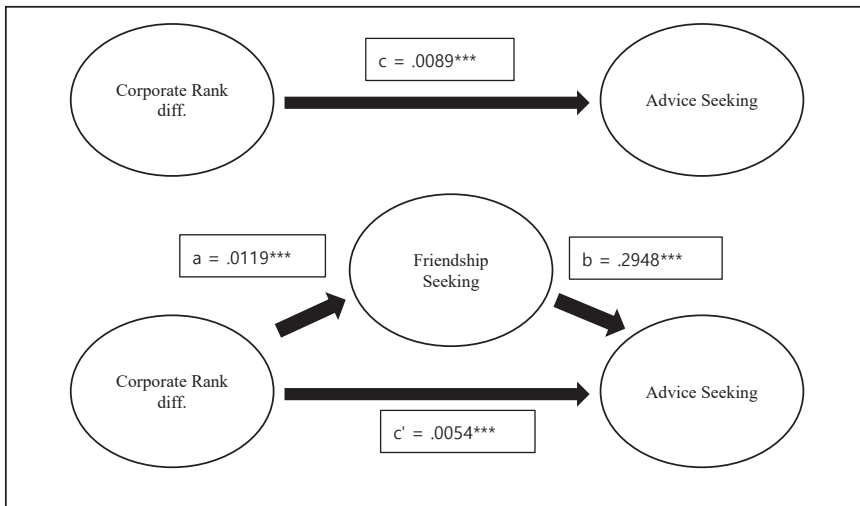
Table 3. Models of Advice Tie Seeking as a Function of Instrumental and Sentimental Dimensions

VARIABLES	Dependent Variable: Advice Seeking Tie (Time 1)									
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10
Control Variables										
Industry diff.	-0.474*** (0.183)	-0.478*** (0.184)	-0.480*** (0.184)	-0.474*** (0.183)	-0.452** (0.186)	-0.444** (0.186)	-0.433** (0.187)	-0.430** (0.187)	-0.433** (0.187)	-0.483*** (0.183)
Listed Firm diff.	-0.137 (0.132)	-0.148 (0.133)	-0.152 (0.133)	-0.138 (0.132)	-0.221 (0.135)	-0.214 (0.135)	-0.193 (0.135)	-0.192 (0.135)	-0.188 (0.136)	-0.148 (0.132)
Work Location diff.	-0.112 (0.227)	-0.111 (0.228)	-0.110 (0.228)	-0.112 (0.227)	-0.0357 (0.231)	-0.0343 (0.231)	-0.0699 (0.233)	-0.0607 (0.234)	-0.0622 (0.234)	-0.102 (0.227)
Current Residence diff.	0.137 (0.288)	0.134 (0.289)	0.134 (0.289)	0.136 (0.288)	0.247 (0.292)	0.221 (0.292)	0.214 (0.293)	0.195 (0.295)	0.192 (0.295)	0.183 (0.290)
Program Group diff.	-1.655*** (0.139)	-1.665*** (0.139)	-1.666*** (0.139)	-1.656*** (0.139)	-1.754*** (0.143)	-1.753*** (0.143)	-1.761*** (0.143)	-1.764*** (0.144)	-1.768*** (0.144)	-1.666*** (0.139)
Project Group diff.	-0.969*** (0.223)	-0.972*** (0.224)	-0.973*** (0.224)	-0.969*** (0.223)	-1.012*** (0.226)	-1.006*** (0.226)	-1.018*** (0.227)	-1.019*** (0.227)	-1.022*** (0.227)	-0.981*** (0.224)
Instrumental Dimensions										
Corporate Rank diff.		0.0936*** (0.0274)	0.0671* (0.0362)							
Firm Size diff.			-0.0285 (0.0256)							
Combined rank and size diff.				0.0487 (0.112)						

Table 3. (continued)

VARIABLES	Dependent Variable: Advice Seeking Tie (Time 1)									
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10
Sentimental Dimensions										
Age sim.					0.151*** (0.0220)	0.152*** (0.0220)	0.159*** (0.0222)	0.159*** (0.0223)	0.159*** (0.0222)	
Region of Origin sim.						-0.285 (0.177)	-0.268 (0.177)	-0.261 (0.178)	-0.266 (0.178)	
University sim.							-0.602*** (0.219)	-0.602*** (0.219)	-0.601*** (0.219)	
Religion sim.								-0.0839 (0.154)	-0.0889 (0.155)	
Political Ideology sim.									0.0784 (0.147)	
Dyadic Social Similarity										0.0398 (0.0274)
Constant	0.480 (0.467)	0.482 (0.469)	0.484 (0.469)	0.480 (0.467)	-2.378*** (0.630)	-2.354*** (0.630)	-2.374*** (0.636)	-2.347*** (0.638)	-2.360*** (0.638)	0.457 (0.467)
Observations	2,439	2,439	2,439	2,439	2,439	2,439	2,439	2,439	2,439	2,439
Likelihood Ratio $\chi^2$	146.45	158.27	159.52	146.64	202.46	205.15	213.57	213.86	214.15	148.55

Standard errors in parentheses, \*\*\* p<0.01, \*\* p<0.05, \* p<0.1



**Figure 1. Result of Friendship Seeking Tie as a Mediator between Instrumental Motives and Advice Seeking**

rank difference. Models 5-10 show our supplementary analysis of the likelihood of advice seeking tie with respect to sentimental dimensions. Unlike our results for the instrumental dimensions, we only observe positive significant effect for age similarity. Similarity in educational background (*University similarity*) is negatively associated with advice seeking, which suggests that executives may perceive different educational background as a source of potential advice. This set of results supports our underlying mechanism for Hypothesis 3a which emphasizes that focal executive's perception of other executives' competence and ability primarily decides who to seek advice from.

We utilized Sobel-Goodman mediation test to test hypothesis 3b, which examines friendship seeking tie as a mediating variable between distance in instrumental dimension and likelihood of advice seeking tie. We examined the mediation effect with the rank difference as the indicator of instrumental motivation. Figure 1 illustrates the result of Sobel-Goodman mediation test. There was partial mediation, with 40% of the effect of rank difference on advice seeking tie being mediated by the presence of friendship seeking tie. This shows that executives seek advice from higher ranked executives, at least partially conditional on the friendship present

Table 4. Models of Continued Friendship Tie Seeking as a Function of Instrumental and Sentimental Dimensions

VARIABLES	Dependent Variable: Continued Friendship Seeking			Intra-program group			Inter-program group		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Control Variables									
Industry diff.	0.263 (0.354)	0.282 (0.357)	0.249 (0.356)	-0.556 (0.732)	-0.381 (0.715)	-0.500 (0.736)	0.620 (0.447)	0.486 (0.440)	0.601 (0.455)
Listed Firm diff.	-0.497* (0.258)	-0.499* (0.258)	-0.500* (0.258)	-0.202 (0.437)	-0.189 (0.436)	-0.308 (0.447)	-0.658** (0.321)	-0.636** (0.323)	-0.572* (0.327)
Work Location diff.	0.209 (0.405)	0.205 (0.406)	0.214 (0.405)	0.137 (0.749)	0.128 (0.757)	0.0856 (0.766)	0.0933 (0.506)	0.191 (0.506)	0.121 (0.516)
Current Residence diff.	-0.120 (0.453)	-0.113 (0.454)	-0.126 (0.453)	0.435 (0.721)	0.514 (0.727)	0.472 (0.724)	-0.404 (0.561)	-0.507 (0.564)	-0.462 (0.565)
Program Group diff.	-1.098*** (0.266)	-1.095*** (0.266)	-1.102*** (0.267)						
Project Group diff.	0.357 (0.370)	0.362 (0.371)	0.352 (0.370)				0.487 (0.389)	0.526 (0.393)	0.599 (0.400)
Instrumental Dimensions									
Corporate Rank diff.	-0.00351 (0.0509)	-0.0240 (0.0748)							
Firm Size diff.		-0.0196 (0.0525)							
Combined rank and size diff.			0.0164 (0.0755)	0.250* (0.129)		0.236* (0.133)	-0.129 (0.0994)		-0.167 (0.107)

Table 4. (continued)

VARIABLES	Dependent Variable: Continued Friendship Seeking			Intra-program group			Inter-program group		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Sentimental Dimension									
Dyadic Social Similarity					-0.0038 (0.0803)	0.0389 (0.0862)		-0.0755 (0.0684)	-0.0927 (0.0706)
Combined Rank and Size diff. X Dyadic Social Similarity						0.0984* (0.0584)			0.0459 (0.0462)
Constant	1.318* (0.778)	1.299* (0.780)	1.338* (0.779)	1.838 (1.217)	1.572 (1.200)	1.909 (1.239)	0.266 (0.810)	0.396 (0.805)	0.281 (0.810)
Observations	373	373	373	183	183	183	187	187	187
Likelihood Ratio $\chi^2$	33.82	33.96	33.87	9.63	5.67	12.56	12.12	11.65	14.43

Standard errors in parentheses, \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

between the two. Thus, hypothesis 3b is supported.

Table 4 reports the results on the likelihood of continued friendship tie seeking with respect to distance in instrumental dimension. Model 1-3 show that we do not have hypothesized results - variables indicating instrumental motivations are not significant in predicting the continued friendship seeking. We further divided the data into two sub-samples: the ties between the same program group members (intra-group) and the ties between different group members (inter-group). Model 4-6 show the result of the intra-program group ties while model 7-9 show inter-program group ties. In model 4, we see the coefficient for a combined measure of rank and size difference is significant and positively associated with continued friendship seeking ( $\beta = 0.250$ ,  $p < 0.1$ ). Thus, executives within the same program-group pursues to retain friendship ties that signal potential economic value, which provides partial support for our hypothesis 4a. Hypothesis 4b was also supported in this sub-sample. To test hypothesis 4b, we add similarity in sentimental dimension to examine its effect on continued friendship. In model 6, the main effect of combined rank and size difference ( $\beta = 0.236$ ,  $p < 0.1$ ) and the interaction effect with dyadic social similarity ( $\beta = .0984$ ,  $p < 0.1$ ) are both positive and significant. This positive interaction effect shows that the main effect becomes stronger when sentimental motives increases. Taken together, this set of results indicate that executives are more likely to continue friendship tie seeking with other corporate executives who can offer them potential future economic benefits, conditional on the sentimental motives underlying the original friendship tie seeking. This sub-sample analysis provides partial support for Hypothesis 4b. Model 7-9 that examine inter-program group ties do not provide any significant coefficients.

## DISCUSSION AND CONCLUSION

In this study, we extended the prior research on corporate executives' social networks by examining the instrumental and sentimental motivations underlying the executives' interpersonal tie seeking. The results suggest that executives' networking behaviors are affected by both the instrumental and sentimental motivations. Corporate executives are likely to use differences in corporate rank

and firm size as signals of quality in assessing the value of potential relationship with another executive and seek friendship ties based on this assessment. Our results also suggest that executives are instrumentally motivated in their advice tie seeking. The results indicate that corporate rank difference is positively associated with the likelihood of advice seeking tie, implying that executives tend to seek advice from executives occupying higher rank. Against our expectation, however, the relationship between firm size difference between the executives and the likelihood of advice seeking tie is negatively associated and is not statistically significant. We believe that corporate rank difference is a more robust signal of quality than firm size difference for executives seeking advice from other executives. Our hypothesis on the mediating effect of friendship tie seeking between corporate rank difference and advice seeking is also supported. The results suggest that friendship tie seeking partially mediates the relationship between corporate rank difference and advice tie seeking. While the low response rate in the second wave of our network survey limited our analysis of the final hypothesis on the continued friendship tie seeking, our analysis of the sub-sample provided some insights. It suggested that instrumental motives continue to influence executives' friendship tie seeking, conditional on the sentimental motives underlying the original friendship tie seeking.

Our theory and supportive findings make a significant contribution to the study of corporate executives' interpersonal ties and to the larger literature on corporate leadership. Whereas the burgeoning literature on executive's social networks focuses on the consequences of interpersonal ties with other executives, we examined the antecedents that foster tie seeking between the executives. Prior studies have either assumed the presence of interpersonal ties between executives, when they share similar individual characteristics (Cohen, Frazzini, and Malloy 2010; D'Aveni and Kesner 1993; Fracassi 2017; Nguyen 2012;) or mainly relied on social homophily mechanisms to explain the formation and maintenance of interpersonal ties among executives (Ingram and Roberts 2000; McDonald and Westphal 2003; Vissa 2011; Westphal 1999). By utilizing a novel network survey dataset of corporate executives, our study offers a new perspective on the dual motivations of the executives' interpersonal tie seeking and revisit the assumptions in the prior studies. Our study also extends the

growing interest in understanding the outcome of network evolution and the antecedents underlying the tie retention (Dahlander and McFarland 2013; Kleinbaum 2017; Westphal, Boivie and Chng 2006). By considering social network data for the same cohorts in two time periods, we were able to theorize and examine continued tie seeking in executives' networking maintenance efforts.

Moreover, by examining the motivations of executives in terms of instrumental and sentimental dimensions, we elucidated much overlooked research on why and how executives form interpersonal ties with other executives. We considered the duality of motivations underlying executives' networking behavior by examining both the sentimental and instrumental motivations of executives' tie seeking. This study also reconciles the two perspectives on advice tie seeking by showing that friendship seeking is a necessary aspect for advice seeking among executives. Lastly, we contribute to the much growing literature on tie retention by exploring which ties executives want to retain why.

By evaluating other executives based on the reflective indicators of their organizations, in particular their corporate rank and size, executives consider potential business opportunities that could further their primary objectives of firm growth or career advancement. Both differences in corporate rank and firm size are positively associated with the likelihood of focal executive seeking friendship with the alter executive. The results of this study also validated sentimental motivation as an antecedent of executives' network tie seeking, suggesting that executives are likely to seek friends with others whom they can trust and rely on. The empirical results suggest that the more similar the two executives are in age, educational background, region of origin and political ideology, the more likely the focal executive seeks friendship with the alter executive.

Our study also provides important insights to the studies on the corporate elites. Our findings that executives' interpersonal tie seeking is influenced by similarity in personal background or social similarity in terms of regional background, higher-education, and political ideology reaffirms the cohesion in the corporate elites. Prior studies suggested that the social interaction among corporate executives based on social homophile often results in the similarity in corporate policies, since their diffusion path is enclosed within a nested community (e.g. Benton 2016; Davis and Greve 1997). Future



studies may investigate how the initial motivations underlying the executives' interpersonal tie seeking – either sentimental or instrumental – may influence the diffusion processes for different corporate practices. For instance, sentimental motivation may allow the focal executive to choose another executive who is more “similar” along the personal attributes in the practice diffusion process. Instrumental motivation, on the other hand, may allow the focal executive to choose another executive who is “better” along the organizational attributes. Thus, the difference in the motivations of executives' interpersonal tie seeking may shed a new light to our understanding of different patterns of corporate policy diffusion within the corporate elite community.

From a methodological standpoint, our analysis relies on a unique dataset that includes survey data on the friendship and advice ties of corporate executives from executive program at two points in time. We therefore offer unique empirical contribution to the studies of corporate executives' social networks. Like all research, however, the present study is not without limitation. The most notable limitation is the size of our sample. Our sample for Time 1 ties consisted of ties among 50 executives and Time 2 ties consisted of ties among 27 executives. This small sample poses an inherent limitation for our study with respect to its generalizability. Moreover, although our empirical context of executive training program requires executives' socializing in a closed community, we admit that this particular empirical setting is different from more conventional inter-organizational arrangements between firms.

The dyadic nature of our data also posed analytical challenges to be addressed by future studies. First, dyadic data essentially poses a question whether the observed effect comes from the focal actor, the alter, or the difference between the two. Our study mainly assumed the dynamics of the tie formation is mostly influenced by the dyadic difference between executives. However, it is possible that the focal actor's evaluation of her own capabilities may influence the tie formation dynamics. When the focal actor's self-esteem is low, fear of rejection may inhibit her from asking advice from others. Excessive self-esteem of the focal actor, similarly, may decrease the advice seeking tie seeking likelihood. Without controlling the individual actors' relevant node characteristics more carefully, it will be difficult to tease out these possibilities. Similarly, it is possible that the industry difference between the executives' companies

may induce the friendship and advice tie seeking to the extent that they want to pursue more diversity in their network portfolio. We admit that treating dyadic industry difference as a control variable is an over-simplification of our study context. Finally, dyadic data of any kind is always open to endogeneity concerns, that is, each instance of tie formation may not be independently and identically distributed. Recent studies utilize more advanced analytical methodologies to address this concern, such as QAP (quadratic assignment procedure) (e.g. Krackhardt, 1988). Future scholars may consider these advanced analytical methods to analyze dyadic data. Future research may examine whether the ties from executive programs evolve into economic ties. It would be interesting to explore whether ties that involve high distance in instrumental dimension or low distance in sentimental dimension are more likely to evolve into economic ties. Evolution of social ties from executive programs to economic ties might involve both sentimental and instrumental motivations in friendships. This will be of greater interest to the practitioners who want to transform their current social ties to economic ties. Researchers can also examine other antecedents of executives' social networks. Alternate factors of instrumental motivations of friendship such as network status and reputation can be studied as variables that affect focal executives' behavior in seeking interpersonal ties. In a similar vein, future research may analyze whether instrumentally constructed friendship ties are weak ties in terms of the focal executive's ego network. A potential research question would ask whether information on corporate opportunities spread through friendships build on instrumental dimension or sentimental dimension. This set of analysis will help us enhance our understanding of the consequences of the executive's network on important corporate decision makings and firm performance outcomes. can identify environmental differences in networking behaviors.

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