Omnes Pro Uno! Investors' Collaboration Networks to Influence Responsible Corporate Management

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OMNES PRO UNO!
INVESTORS’ COLLABORATION NETWORKS TO INFLUENCE RESPONSIBLE CORPORATE MANAGEMENT

JEGOO LEE

A dissertation submitted in partial fulfillment of the requirements of the degree of Doctor of Philosophy (Organization Studies and Corporate Responsibility) in the Carroll School of Management at Boston College

May 19, 2009

Doctoral Dissertation Committee:
William B. Stevenson
Sandra Waddock
Richard P. Nielsen
In memory of my mother

BAK, YONG-SOOK
(1938 – 2005)

and

for my wife

BAE, JEONG HEE
ACKNOWLEDGEMENT

A usual acknowledgement mentions favorable relationships. However, I feel a responsibility to appreciate both the supportive souls and disturbing fussers associated with my research activities because my personal history has been constructed with all of them. It would be unethical of me to deny the influence of opponents as well as contributions made by constituents.

I thank to my mother, as she has been always with me to care for my hurts and to share my joy. Because of her love, I survived a great many hardships and overcame numerous obstacles. I am deeply sorry because I am not able to hug or chat with her any more.

I appreciate Professor William Stevenson because he took charge of my dissertation committee. Professor Sandra Waddock has been getting along with me from the planning stages to the last sentence of this dissertation: pilot interviews, data collection, theoretical framing, and constructive critiques. Sandra is my mentor and always trusts and supports my intellectual adventures; she is also my shaman, one who sympathizes with and heals my emotional turbulence. Professor Richard Nielsen taught me about moral empiricism on which I must build my argument based on data and evidence – rather than simply speaking out propaganda.

In addition, Professor Steve Borgatti taught me the social network approach, which is one of fundamentals of this dissertation. Professor Sam Graves shared with me his insights on advanced data analysis techniques. Mr. Tim Smith at Walden Asset Management guided me the field of shareholder resolutions. Two scholars led me into the academe of management ethics in my college days: Professor John Roemer introduced me ethical perspectives in economics and business worlds, and Professor Hun-Joon Park helped me jumping into the field of corporate responsibility and business ethics. I also appreciate those who encouraged me to progress in this dissertation at the Academy of Management conference, Fordham University, Georgia Institute of Technology, Harvard Political Network Conference, Society for Business Ethics conference, University of New Mexico, and University of South Florida. This dissertation was also financially supported by the Society for Business Ethics’ Founders Award, Harvard University’s Political Network Conference Fellowship, and Boston College’s Dean’s Research Fund of Carroll School of Management and Doctoral Dissertation Fellowship of Organization Studies Department.

Without my family, I could not have made it through this challenge. My wife, Jeonghee has been a prime thought partner for my dissertating as well as all my scholarly works. Dayeon (Dianne), my daughter taught me in effective writing skills with her creative and award-winning writing pieces. With his insatiable curiosity, Yechan (Ethan), my son provoked my sincere attitudes toward my words and research.

According to Randy Pausch, an experience is “what we get when we didn’t get what we wanted.” Thanking to various experiences I had throughout this dissertation, I was able to clarify what I really want. At the same time, I endured times when my wholehearted efforts were deflowered and fade due to the reckless aristocrats. Following Gentileschi, I will respond to these aristocrats with my own “Judith Slaying Holofernes.” Now I just consider them as bad luck and appreciate my ability to survive. As Andy Dufresne said to himself:

“[Bad luck] floats around. Has to land on somebody. Say a storm comes through. Some folks sit in their living rooms and enjoy the rain. The house next door gets torn out of the ground and smashed flat. It was my turn. I was in the path of the tornado. (...) whatever mistakes I made I've paid for and then some. Feel free ...I don't think it's too much to want” (from a movie Shawshank Redemption, 1994).
ABSTRACT

The main purpose of this dissertation research is to understand the collaborative interactions among actors engaging in change efforts in the existing institutional arrangements. Specifically, this dissertation research sheds light on the collaboration networks of social investors who desire both their own financial benefits and stakeholder welfare, by filing shareholder resolutions to bring environmental or stakeholder concerns to the attention of corporate managers. My research strategy in this dissertation is to propose and write a theoretical study and two empirical studies.

I propose in chapter 2 a conceptual and theoretical framework for inquiring into social investors’ collaboration strategies to develop the field of shareholder resolutions on social issues. The key argument is researchers pay attention to focal actors, multiple actors, and the relationships among them to understand the social mechanisms which integrate active shareholders with the field of social resolutions. In order to determine social investors’ strategies to initiate and mobilize their filing activities, based on the social movement perspectives and a social network approach, I propose four conceptual dimensions from the social movement perspectives: identity, social relationships, target identification, and issue framing.

In two empirical studies, I test my propositions by analyzing 1650 shareholder resolutions filed by 267 social investors from 2002 to 2007. The first study presented in chapter 4 addresses who initiate social resolution filings, by examining determinants of social investors’ proactive initiating activities. When religious investors have brokerage positions, their initiating activity of filing social resolutions are very proactive. However,
social investors’ range of stock ownership does not go along with their brokerage positions. These findings imply that leading social investors need to have brokerage positions when they have faith-based identity, but that they don’t need social resources when they have enough financial resources, a wide range of stocks. The second study presented in chapter 5 explains how leading social investors attract to mobilize their potential followers. Interestingly, the reciprocation hypothesis, “give and take of co-filing support,” is negatively supported, indicating a division of labor in the field of social resolutions. In addition, lead-filing social investors who successfully attract and mobilize other investors aim at target companies that are well known among other social investors, and frame issues in wide angles in their social resolutions. These empirical studies demonstrate that active social investors developed their collaboration networks dependent upon their faith-based identity, social relations, targets identification and issue framing strategies.

In this dissertation, I assert the necessity and importance of studies on the activities of shareholders by demonstrating that some active investors have strategically led the socially responsible investment movement. This dissertation provides counter-evidence to the conventional assumption that corporate managers should ignore stakeholder welfare if they pursue shareholder value. It also demonstrates that the network-based movements can be a good platform for social change agents to develop their own fields. Strategically, as they interact with each other, small and weak actors can build their own field to collectively influence corporate management. In this sense, the network-based movements underscore the way the infrastructure of a field emerges.
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CHAPTER 1. INTRODUCTION:  
SOCIAL INVESTORS’ COLLABORATION NETWORKS

A specter haunts the investment field – the specter of social investors. Over the last 30 years, the terms “social investors” and “social investing” have been evolving from a new and non-traditional investment pattern to be an industry-wide practice (Waddock, 2008). Recently, more businesses organizations express themselves as responsible corporate actors by voluntarily reporting their activities and responsibilities, in order to be attractive to investors and to stakeholders. Below are some recent examples.

On October 22, 2008, Wal-Mart convened a “global supply chain summit” in Beijing. The *Wall Street Journal* reported that Wal-Mart is unveiling new environmental and labor standards for its suppliers, and that third-party auditors will help enforce the new rules. Some social investors, who have long studied and publicized Wal-Mart’s practices, argue that this new commitment was driven, in part, by their corporate responsibility activism. The *Journal* notes:

“The Rev. David M. Schilling, director of global accountability at the Interfaith Center on Corporate Responsibility, an association of faith-based institutional investors that press companies for social change, said his group has been pressuring Wal-Mart to use its leverage to improve labor and environmental conditions in its supply chain since 1994.”

(Zimmerman and Fong, 2008; Emphasis is mine.)

In another example, a mainstream investor made a commitment to social investment. On March 10, 2009, Vanguard, a $1 trillion mutual fund firm that is known for its index funds, filed preliminary proxy materials with the Security and Exchange
Committee regarding its new policy of genocide-free investing. Vanguard applied this policy to all of its 157 funds, and announced plans to screen the human rights practices of its funds’ constituents—including their involvement with the government of Sudan. Under Vanguard’s new screening policy both its passively and actively managed index funds can be structured to avoid complicity in genocide. (*International Herald Tribune*, March 11, 2009).

These phenomena show that corporate management’s concerns for social issues and stakeholder well-being have been requested by “actions socially aware investors take in the role as owners of corporations, including dialoguing with companies on issues of concern, as well as filing and voting proxy resolutions” (Social Investment Forum, 2006). Some active shareholders have been concerned about responsible management, despite decades of controversies on the necessity of moral viewpoints in business reality. Despite the shift, we still do not know much about how active shareholder or social investors move their issues to the forefront of managers’ thinking.

These phenomena show that corporate management’s concerns on social issues and stakeholder well-being have been partly initiated and influenced by “actions socially aware investors take in the role as owners of corporations, including dialoguing with companies on issues of concern, as well as filing and voting proxy resolutions” (Social Investment Forum, 2006). As a result, the business world has become concerned in practice about responsible management issues, despite decades-long controversies on the necessity for moral viewpoints in business. Despite the shift, we still do not know much about how active shareholder or social investors move their issues to the forefront of
Social Investors

Social investors are stockowners who pursue not only financial returns but also stakeholder values, by engaging in a variety of social investing methods. According to Bruyn (1987: 13), social investing is “the allocation of capital to advance the social and economic well-beings of people.” Thus, the goal of social investing is to achieve financial, market-rate returns with environmental and/or social value components. Moreover, social investing is distinguished from the conventional portfolio management practices in two ways (Rivoli, 2003). First, it considers both ethical (or social) and economic factors. Second, social funds attempt to use governance mechanisms to influence corporate behavior through what? These activities frame social investors’ efforts to integrate social issues into the asset management industry. In this sense, social investors can be defined as shareholders of companies directly or indirectly through financial institutions, engaging in activities to promote responsible practices for environment and diverse stakeholders of those companies.

The concept of social investing dawned in the mid eighteenth century by faith groups who addressed human right issues (Domini, 2001: 28-29). For example, the Society of Friends (Quakers) prohibited their members from trading slaves in 1758. In the early twentieth century, religious institutions divested their portfolios of “sin stocks”: alcohol, gambling and tobacco (Wokutch, 1982). This practice entered the mainstream in the 1970s, in response to South Africa’s apartheid policy (Domini, 2001: 34-40; for the Sullivan Principle as result of this movement, see Domini and Kinder, 1986: 230-234).
In 1971, a shareholder coalition of religious investors, the Interfaith Center for Corporate Responsibility (ICCR) was formed with the mission of basing investment decisions on social values. Since then, ICCR has organized social investors to file resolutions to effect social change on a company-level.

During the last three decades, pioneers launched the field of systematic socially responsible investment or SRI (Waddock, 2008). In the early 1980s, SRI was still on the fringes of the financial services industry, and there were only a few socially responsible mutual funds. In 1982, Trillium Asset Management (then called Franklin Research and Development) was founded as one of the first social investment service firms. In the late 1980s, in the aftermath of the Exxon Valdez disaster, individual investors, investing groups, and environmentalists formed the Coalition for Environmentally Responsible Economies (Ceres). With ICCR, Ceres has played a major role in coordinating social investors and active shareholders for many resolution filings.

Since then, however, traditional asset managers have adopted the idea of SRI. In 1995, for example, 55 socially responsible investing funds had $12 billion in assets. In the early 2000s, the number of socially responsible mutual funds, financial advisors, money managers or pension funds increases exceeded 200 (Schueth, 2003). From 1999 to 2001, especially, these social investing funds grew by 36%, in contrast to a 22% rise in all professionally managed assets (Barnett and Salomon, 2006). As of 2007, there were 260 socially screened mutual funds in the U.S., with assets of $201.8 billion. According to the Social Investor Forum (2007), by 2007 total assets in professionally managed portfolios using screening and shareholder advocacy came to $2.29 trillion or
approximately 11% of the $25.1 trillion in total assets under management tracked in Nelson Information’s Directory of Investment Managers in the U.S.

**Social Investors as Social Change Agents.** The incorporation of socially-oriented goals with economic doctrines of social investors makes them different from ordinary investors, who usually are presumed to seek their own economic profit (Berle and Means, 1932; Bruyn, 1987; Domini 2001). Social investors can be framed as social change agents in that they bring a new aspect to investor capitalism: actively putting their efforts to transform the field of corporate management by pursuing both stakeholder welfare and their own economic returns (Davis et al., 2006; Manheim, 2004). With their concern for corporate attention to social, environmental and stakeholder issues, social investors assert their status as owners of the company, requesting change in a corporation’s management practices in various stakeholder issues.

In financial and management theory and practices, the dominant paradigm has been that shareholders should pursue maximum financial returns from their investments to the exclusion of social, stakeholder and environment considerations (Fligstein, 2001). Following this paradigm, the ideological presumption of maximizing shareholder value means that corporate managers should focus on securing the highest possible financial profits to their shareholders (Friedman, 1970; Jensen and Meckling, 1976). Thus, the belief system of maximizing shareholder value encouraged corporate managers to put their full efforts toward high growth and return on their assets (Useem, 1996). Indeed, during the 1980s and 1990s, the financial community pushed firms toward financial reorganization. When managers resisted, the financial community initiated hostile
takeovers (Davis, 1991; Davis and Thompson, 1994). Moreover, Fligstein (2001) argued that firms were more likely be targeted for takeovers when their assets were undervalued and that firms were less likely be targeted when they engaged in mergers, divestitures and stock buybacks.

In contrast, social investors pursue maximizing value not only in economic terms but also in terms of stakeholder welfare. The growth of SRI over the last several decades has generated a social movement encompassing the new field of social investing. Given that social investors actively engage in embracing a new value and vision, they are social change agents. Organizational scholars of social or institutional change, and especially those of institutional entrepreneurship emphasize atypical or deviant activities of change agents (DiMaggio, 1988; Garud et al., 2002), such as a firm’s sponsorship of new technological standards (Garud et al., 2002), digital imaging in the photography industry (Munir and Philips, 2005), the rise of low-power FM radio in the radio industry (Greve et al., 2006), and the adoption of recycling programs in universities (Lounsbury, 2001). Their common research interest is the emergence of values in an established industry or a field. In short, social investors are creating a new set of values in the investment industry and ultimately attempting to influence the corporate world to adopt better environmental, social, and governance practices.

It is therefore reasonable to ask, “What are active shareholders or social investors doing to attain their dual goals of economic returns and stakeholder benefits?”

**What do Social Investors do?**

Social investors advise corporate managers on responsible corporate management
and on both stakeholder concerns and financial returns. When social investors put their money in the stocks of companies, they legally and legitimately possess the right to influence corporate management. In this case, influence is a medium of exchange (Laumann and Knoke, 1987: 153-162).

Social investors adopt four approaches to influence managers’ decisions: screening portfolios along social and stakeholder dimensions, engaging in direct dialogue with corporations, often as a result of submission of shareholder resolutions, and investing in community development financial institutions (Domini, 2001). First, screening portfolios is implemented by creating mutual funds or pension funds that are limited to stocks that meet particular non-economic criteria (Manheim, 2004). Second, in order to request management attention to stakeholder-oriented issues, some active shareholders try to have direct dialogue with a corporation, with corporate managers and board members. Third, when social investors want shareholders to pay attention to issues of responsible management, they file shareholder resolutions (Graves et al., 2001; Ryan and Schneider, 2002). Fourth, social investors invest in community development to create business models from which people or small companies can get cash flow, for example micro-credit firms, either at or below market rate.

The first three approaches are based on social investors’ efforts to create and implement new moral values in existing investment fields. Activities in these three silos make use of social and other screens to guide investments in mainstream corporations or to use shareholder activism to achieve social and environmental objectives. There are clear differences between social screening and the other three approaches. A socially-
screened portfolio is designed for indirect and long-term impacts. It includes certain companies and excludes others based on their social or stakeholder performance and activities. Beyond screening companies in their investment portfolios, socially concerned investors sometimes try to communicate *directly* with corporate managers through their shareholder resolutions and direct dialogues.

Some active social investors take advantage of shareholder resolutions to request or try to persuade corporate management to consider social and environmental issues in their strategic and other decisions. This dissertation focuses on this method of active shareholders who use shareholder resolutions while pursuing new values at the same time.

**Filing Shareholder Resolutions.** Owners of at least $2000 of a company stock, either individuals or groups of shareholders have the right to propose shareholder resolutions to the managers of this company.¹ A shareholder resolution is a recommendation or request that corporate managers take an action or change their policy with regard to corporate management.

“Social” resolutions are filed by social investors who are concerned about stakeholder or environmental welfare, influencing a company or corporate management teams, including its Board of Directors, to implement various stakeholders, environmental, or otherwise responsible *pro bono* corporate practices (Domini, 2001; Manheim, 2004). For example, social investors who are concerned about climate change issues have filed shareholder resolutions asking U.S. companies to institute energy

¹ In the U.S., shareholder resolution filing is regulated by the Section 14A of the Securities and Exchange Act, by Securities and Exchange Commission. Detailed discussion will be followed in Chapter 3.
efficiency measures, to report to shareholders on their strategies to reduce greenhouse gas emissions, or to develop renewable sources of energy. In 2005, Dell and Hewlett Packard agreed to the first recycling take-back programs in the computer industry, after dialogue with the As You Sow Foundation and the Calvert Investments Group.

Social investors have also been active in filing resolutions on companies’ governance structures and practices. In 2008, they filed resolutions at nearly 100 companies, expressing concerns to corporate boards about huge pay packages that seemed unrelated to financial performance. Through this process, social investors can initiate conversations with corporate management, submit resolutions, and vote these proxy resolutions (Graves et al., 2001; Ryan and Schneider, 2002).

In the management literature, however, social investors’ resolution filings have received little academic attention (for a review, see Margolis and Walsh, 2003; Margolis, Elfenbein and Walsh, 2007; Orlitzky, Schmidt and Rynes, 2003). Although some research papers have argued that economic actors’ dual goals of financial returns and social issues are not unusual any more, scholars have rarely paid attention to how social investors attempt to achieve these goals. Most scholars have ignored the social investors who initiate (exceptions include Graves, Rehbein and Waddock, 2001; Rehbein, Waddock and Graves, 2004; Logsdon, Rehbein and Van Buren, 2007; Ryan and Schneider, 2002; Ryan and Dennis, 2003), organize and make shareholder resolutions on social issues possible.

Nor have researchers examined the dynamic interactions and collaborations among social investors who file shareholder resolutions. Given that the social resolution
filing cases are naturally controlled settings of social investors collaborating to influence corporate management, the research here shifts the focus from economic benefits or the normative standpoint to the political power of investors. In order to close the gap in this research, this dissertation focuses on the collaborative relationships among social investors for filing shareholder resolutions.

**Why Collaboration Networks?**

From time to time, social investors collaborate to influence corporate managers’ decisions. Some investors take advantage of coalitions with other social investors while filing social resolutions to leverage their power as investors. There are at least three reasons why collaboration among social investors is important.

First, social investors try to strengthen their influence by building coalitions. Political sociologists have defined influence as “a social mechanism by which one actor persuades another to modify its behavior by communicating information that changes the perceived connection between decision and its outcome without applying sanctions” (Knoke, 1983: 1068). Following this definition, we may reframe the function of shareholder resolution filings by noting that by filing resolutions, social investors attempt to influence the decisions of companies (corporate managers of those companies to be specific) to conform to their wishes and intentions with regard to stakeholder and environmental issues. Social investors’ attempt to influence can spill over into dialogue or bargaining with corporate managers of the target companies.

Second, the collaboration networks among social investors are conducive to understanding the social mechanisms that link individual actors at the micro level and
social phenomena at the macro level (Emirbayer and Goodwin, 1994; Hedstrom and Swedberg, 1996). Social networks or the patterns of interactions among actors enable researchers to deal with phenomena of change, because the network relationships mediate between individual actors and macro social process (Alexander et al., 1987; Diani, 2003). It has been argued that what makes activities of social change agents interesting is that they organize themselves and create coalitions for achieving shared goals (Rao, 2009). Researchers interested in social change agents are shifting their attention to the relationships among change agents or movement participants (Battilana, 2006; Greenwood and Suddaby, 2006). In this sense, inquiries about the collaborative networks among social investors help researchers to interpret and understand the dynamic process of actors taking action to modify an institutional field (DiMaggio, 1988; Garud et al., 2002). Thus, this examination of the collaboration networks of social investors will explore social mechanisms by which actors initiate episodes, recruit followers, and work together to try to change in institutional arrangements.

Third, social investors create a new dimension beyond the assumptions of investor capitalism that investors are self-interested and independent agents, and that investors only seek profits from their investments in corporate stocks (Berle and Means, 1932). The underlying assumption is that both boards of directors and the financial community monitor and control corporate managers in order to produce the highest possible returns on assets and stock prices (Friedman, 1970; Jensen and Meckling, 1976). The existence of social investors who are interested in environmental, social and governance issues undermine both assumptions. Thus, by being connected and organized, social investors
provide counter-examples against a one-sided concept of investor capitalism.

For these reasons, collaborations of social investors provide a naturally controlled research setting for inquiring about the development of social movements by active investors. Furthermore, the study of collaborative relationships for filing social resolutions should help us to understand the strategy and method that innovative actors use to mobilize each other and to create collaborative networks to embrace their visions together, so called “cool mobilization” through which broad audiences are organized to be engaged in a new behaviors and experiences (Rao, 2009: 11-14), and thereby lead to build a collective agency (Emirbayer and Goodwin, 1994; Emirbayer, 1997). Using these ideas, we are able to delve into the specific research issue of this dissertation: How do some social investors initiate and mobilize the collaboration networks to develop new fields of filing social resolutions?

Dissertation Overview

This dissertation is composed of the following chapters:

Chapter 2 proposes a theoretical framework for the collaboration networks of active social investors. First, I will introduce the social mechanisms through which actors strategically organize themselves or build coalitions to achieve their change efforts. By adopting the social network approach I will argue that social relationships with many constituents results in desirable consequences (Diani and McAdam, 2003). Second, based on dimensions and mechanisms developed in social movement theory (Campbell, 2005; Hargrave and Van de Ven, 2006; McAdam et al, 1996), I propose that collaborative networks of social investors are initiated, organized and maintained by
mechanisms based on identity, relational, cognitive, and environmental mechanisms. Leading actors will be hypothesized to deal strategically with these four mechanisms when organizing their followers and constituents.

Chapter 3 will introduce the research topic of social investors’ filing shareholder resolutions on social, environmental and stakeholder issues. The conceptual boundary that defines social investors that will be used in this dissertation is introduced. Trends on the filing of shareholder resolutions by social investors from 1993 to 2007 are also presented in order to interpret the field of social resolutions. In addition, the chapter will describe the network structures of social investors in their joint or collaborative filings. The use of available datasets and the measurement network variables will be explained.

Chapter 4 investigates the specific research issue of who initiates the network collaborations among social investors? Using three theoretical concepts (faith-based identity, ownership range, and network brokerage positions), this study will determine the entrepreneurial activities of leading investors in the field of filing shareholder resolutions. This chapter includes theoretical development, corresponding hypotheses, research methods and research findings.

Chapter 5 will answer another research question: How do some investors become central in collaboration networks, and why? This study uses four dimensions derived from the social movement literatures, faith-based identity, co-filing for others, identification of popular targets, and wide issue framing, to study how some investors mobilize followers and become central. Relevant theoretical development, correspondent hypotheses, research methods and findings are included in this chapter. By exploring the
emergence of central leading actors, this study contributes to the social network study and to the institutional entrepreneurship literature.

Chapter 6 summarizes the findings from this dissertation. It also explains its theoretical contributions and implications, and concludes with a discussion of its limitations and future research direction.
CHAPTER 2. THEORETICAL FRAMEWORK
SOCIAL MOVEMENT MECHANISMS FOR COLLABORATION NETWORKS

By filing shareholder resolutions in collaborative ways, social investors try to convince corporate managers and board members to consider responsible corporate management issues such as environmental, social, and governance issues. These active shareholders ultimately attempt to create a new field of socially responsible investment. How established institutions can be influenced and changed has long been studied by organizational scholars. Recently, social phenomena related to the creation and emergence of new fields have been increasingly examined by academic scholars (for example, a special issue on institutional entrepreneurship in *Organization Studies*, 2007), especially social movement scholars (see a recent special issues on social movements in *Administrative Science Quarterly*, 2008).

However, scholars interested in institutional change processes continue to define their research based on macro-level variables, ignoring the interaction processes of actors at the micro-level (Battalina, 2006; Leca and Naccache, 2006). Furthermore, the strategic processes initiated and managed by leading actors have received little academic attention as of yet, although some existing scholarship has addressed institutional change processes (DiMaggio, 1988; Garud et al., 2002; Lounsbury and Crumely, 2007). For example, although several management scholars have examined the process by which socially responsible investment evolved as a mainstream investing method (Bruyn, 1987; Rehbein et al., 2007; Ryan and Schneider, 2002; Waddock, 2008), the dynamic interactions among socially responsible investors has received little academic attention.

To examine this research subject, the current study proposes theoretical
mechanisms for the way actors influence existing institutions and lead the process of developing a new field. Specifically, this dissertation incorporates existing scholarship from the social movement literatures into an integrated framework in order to investigate the dimensions of leading actors’ strategies. Social movement scholars have assumed that mobilizing participating people and organizations with their attendant resource base leads to the effective formation of a new field or to success of their attempts in social movements (Davis et al., 2005; McAdam et al., 1996). Given that research on social movements sheds light on the increasingly episodic and network-based nature of collective economic action (Diani and McAdam, 2003), the process of developing a new field is well-connected to the social movement perspective, which explains why and how social mobilization occurs.

This chapter is composed as follows. First, a theoretical viewpoint approaching collaboration networks as fields will be briefly introduced. Based on this viewpoint, two research issues of this dissertation research are proposed. Second, to examine leading actors’ strategies to mobilize their constituents in order to develop a new field, introduced are three conceptual elements of social mechanisms: strategic actors, multiple actors and relationships among/between multiple actors. Third, to examine the proposed research issues and theoretical terms, four mechanisms will be introduced from the social movement perspectives: identity mechanism, relational mechanism, environmental mechanism, and cognitive mechanism.

**COLLABORATION NETWORKS FOR DEVELOPING A FIELD**

The social network approach suggests that actors are embedded in connected
relationships which provide opportunities for and constraints on actors’ behaviors (Brass et al., 2004). Moreover, some social network researchers have proposed mechanisms on how network ties in one field influence the other field (Diani and McAdam, 2003; Gould, 1995; Podolny, 1993; Uzzi and Gillespie, 2002). In particular, sociologists in the community power tradition defined influence as, “a social mechanism by which one actor persuades another to modify its behavior by communicating information that changes the perceived connection between decision and its outcome without applying sanctions” (Knoke, 1983: 1068). Following this definition, we may reframe the function of shareholder resolution filings such that, by filing resolutions, a social investor attempts to influence the decisions of companies (corporate managers of those companies) to conform to her/his wishes and intentions with regard to stakeholder issues. Rather than filing by oneself, a social investor’s collaborations with other investors can provide strong influence that can spill over into dialogue or bargaining with corporate managers of the target companies.

For this situation where an actor’s network relationships effectively influence targets or targets’ behavior, Podolny (2001) introduces insightful concepts in his review of how social network uncertainty has been conceptualized in the literature: “egocentric” and “altercentric” uncertainty. The former, to large extent, has to do with the uncertainty that ego of a focal actor confronts in the relationships with others. This uncertainty is related to a metaphor, network-as-pipes by concentrating on the resource benefits from social ties for a focal actor. The latter largely deals with the alter’s or other’s uncertainty concerning the ego’s influence quality. This uncertainty is related to a network-as-prisms
metaphor – how network ties function as a market signal to alleviate uncertainty about quality facing the focal actor’s audience.

In the context of this research, “egocentric” uncertainty indicates that social investors evaluate which social investors would be effective and influential leaders of the field. In addition, “altercentric” uncertainty is applied to when a target company receives social resolutions, and its managers must evaluate whether social investors filing those resolutions would be influential or powerful. Following Podolny’s (2001) metaphors, social investors decrease “altercentric” uncertainty to target companies by building the effective “egocentric” ties with other investors. For the present research context, social investors gain competencies from collaboration relationships with other social investors, and these competencies improve the influence the social investors derive from dialogue with corporate managers on stakeholder issues. Similar social phenomena, the effect from one’s network ties on the third party, have been examined by several economic sociologists using various concepts and contexts such as the network transitivity in banking industry (Uzzi and Gillespie, 2002), the endorsement effect from interorganizational partnership for the initial public offering (Gulati and Higgins, 2003; Stuart et al., 1999), or the spillover effect in alliance among biotechnological firms (Powell et al., 1996; Owen-Smith and Powell, 2004). Despite different conceptual titles, they commonly tested a influence mechanisms of social network ties.

Accordingly, social network scholars have theoretically proposed and identified influence mechanisms – how an actor or a group of actors takes advantage of social relationships to drive target entities into accepting or following her/his or its intention.
The social network approach proposes that the social relationships with many constituents with whom a focal actor works result in desirable consequences (Freeman, 1978). Lin (2001) proposed a social resource theory as a sequential framework for how individual actors develop central positions in the social networks from which they benefit. His social resource theory indicates that an individual actor attains a desirable status and resources by mobilizing social resources based on her or his initial accessibility to those resources (Lin, 2001: 78-98).

Despite its well-framed viewpoint on the way relational structures function in social and political processes, however, most social network research has relied on a simple assumption with regard to the way to mobilize actors or followers. With regard to the effective way of mobilization, social network research has usually confirmed its naïve assumption that the similarity of a focal actor’s attributes or attitudes with those of others attracts others to follow her or him (McPherson et al., 2001). This research result does not explain the social mechanisms of how some actors emerge as focal actors by cultivating the central positions and why other actors decide to follow them (Doreian, 2001).

In other words, the social mechanisms of collaboration networks used to develop a new field is still a virgin area of research. This dissertation research will examine this issue with a concept of the network-based field and relevant research issues which are elaborated below.

**Network-based Field.** To examine mechanisms of actors attempting a social change process, first of all, we need a theoretical concept of the field, based on the
relationship networks among actors. The network-based field is defined as “the configuration of interorganizational relations among all the organizations that are members of an organizational field” (Kenis and Knoke, 2002: 275). Unlike other definitions of organizational fields defined as “those organizations that, in the aggregate, constitute a recognized area of institutional life: key suppliers, producers, regulatory agencies, and other organizations producing similar services or products” (DiMaggio and Powell, 1983: 148), which focuses on the group of actors, the network-based field emphasizes the relational property among actors as members in a field.

Through a repeating interaction process, actors create and develop their own field, which consists of a particular pattern of both present and absent links among the entire set of organizational dyads occurring in a specified organizational field. Moreover, by building coalitions and solidarity among actors who are interested in particular institutional arrangements, actors “leverage resources to create new institutions or to transform existing ones” (Maguire, Hardy and Lawrence, 2004: 657). Thus, as actors are interacting with each other, based on their network relationships, they develop the boundary for their own field.

For example, the shareholder resolution sector consisting of various investors such as faith-based investors, mutual funds, pension funds or individual foundations, through repeating collaboration process among various social investors for filing resolutions on responsible corporate management issues is a network-based field. With this concept of a network-based field, we can investigate the way a new field is developed by analyzing interaction dynamics among actors who participate in a
movement together. Then, we will inquire into collaboration networks among social investors.

**Research Issues**

With regard to the development of the field of social resolutions based on social investors’ collaboration networks, this dissertation research will examine the following two specific research issues.

First, who initiates collaboration with other social actors?

Second, how do some actors attract and mobilize other actors as followers or collaborators?

Both research questions focus on social mechanisms through which leading actors initiate and emerge as important key players in movements to develop a new field. Figure 2-1 below graphically presents these research issues. In Figure 2-1, all circles regardless of its color in black or white represent actors. Figure 2-1 (a) indicates the initial state in which all actors, presented in white circles, are same. In Figure 2-1 (b), some circles represent leading actors depicted as black circles, who initiate and organize potential followers, depicted in white circles. In addition, in Figure 2-1 (b), leading actors (black circles) initiate movement activities with other actors (white circles), for example, announcing collaborative filing of a social resolution. The first research issue “who initiates collaboration with other social actors?” is related to the transition from Figure 2-1 (a) to Figure 2-1 (b), i.e. social mechanisms with which some actors come to initiate entrepreneurial activities to other actors. In Figure 2-1 (c), arrows from other actors (white circles) to leading actors (black circles) imply that some potential followers
decide to be follow certain leading actors. Some actors, such as A, become very popular leading actors, when they are followed by more actors than other leading actors, such as B. In other words, an actor A emerges as the most central actor among other actors.

The second research issue, “how do some actors become influential actors in collaborations?” examines social mechanisms for the shift between Figure 2-1 (b) to Figure 2-1 (c). The social network approach proposes that the social relationships with many constituents with whom a focal actor works result in desirable consequences, that is, the prestige that is based on holding a central position in the network (Freeman, 1978; Freeman et al., 1979; Lin, 2001). Given that social network research emphasizes the relationships among actors, the central positions among others are highly related with leading actors (Kilduff et al., 2006). In this sense, the second research issue is to determine social mechanisms by which some social investors become central actors, in other words influential leading actors in the field of social resolutions.

![Figure 2-1. Lead-Filers, Co-Filers and Network-Based Field](image)

In order to inquire into these research issues, this dissertation research utilizes dimensions and mechanisms proposed from social movement perspectives. These
perspectives complement existing institutional change studies by demonstrating how established institutions or organizations can be disrupted by other actors seeking certain changes (Davis and Thompson, 1994; Davis et al., 2005; King, 2007), and by analyzing the interaction structures among actors in a field (Diani and McAdam, 2003). To elaborate these perspectives in this dissertation research, critical elements of social mechanisms will be reviewed below.

**ACTORS, STRATEGIES, AND COLLABORATION NETWORKS**

Following a seminal proposition by DiMaggio (1988: 14) that “new institutions arise when organized actors with sufficient resources see in them an opportunity to realize interests that they value highly,” scholars admit that actors leading institutional change processes “create a whole new system of meaning that ties the functioning of disparate sets of institutions together” (Garud, Jain, and Kumaraswamy, 2002). For the last two decades or so, the academic literature on the development of new fields has grown with various cases, such as the emergence of new industries or products (Ingram and Rao, 2004; Rao, 2004), new technology standards (Garud et al., 2002; Munir and Phillips, 2005), and new interest groups in a given field (McGuire et al., 2004; Hambrick and Chen, 2005). However, most scholars in the field of institutional change processes have tended to overlook the role of actors in creating a new field due to over-socialized or over-deterministic views on change processes (Battilana, 2006; Hirsch and Lounsbury, 1997; Hoffman and Ventresca, 2002; Lounsbury and Crumley, 2007). Therefore, it is not surprising that most past studies have been evaluated as unsuccessful in inquiring and interpreting mechanisms through which change agents develop their own fields.
Accordingly, a field is not given or created by external authority or categorization, but is developed by the network relationships among actors. In other words, actors can create their own field strategically, rather than by accident or as a by-product of external change.

**Actors and Social Mechanisms**

Strategic action for creating a new field can be described as “the attempt by social actors to create and maintain a stable social world” (Fligstein, 1997: 398). Existing empirical studies indicate that a single actor’s activities alone cannot fully manage the necessary processes for new institutional arrangements (Fligstein and Mara-Drita, 1996; Garud et al., 2002; Greenwood et al., 2002). Instead, elaborations by social change agents for their new vision are achieved by gathering necessary resources from supportive constituents as well as by political coordination with actors from diverse social groups (Levy and Scully, 2007; Stevenson and Greenberg, 2000).

To ensure the support of others, change agents must be capable of using social skills in strategic ways, so that they mobilize the interests and values of their potential allies (Fligstein, 1997; Launsbury and Crumley, 2007). Moreover, as novel field arrangements are proposed and achieved, change agents must persuade or confront the diverse social groups affected by the new field (Aldrich and Fiol, 1994; Hargrave and Van de Ven, 2005; Levy and Scully, 2007). Accordingly, actors involved in developing a new field must have the skills necessary to maintain suitable relations with supportive groups and to manage confrontation with disfavoring groups.

Leading actors in new field development processes, therefore, leads to a
consideration of designing strategy as a means of effectively interacting with diverse
social actors as well as with existing institutional arrangements. Moreover,
understanding the social and political strategies of change agents is another overlooked
research topic. To comprehend the strategic approaches used by leading actors, the
current study explicitly delves into the social mechanisms used in this process.

Social Mechanisms. Recently, some organizational scholars have supported the
utility of mechanism-based theorizing, particularly for examining newly emerging social
phenomena (Davis and Marquis, 2005). Mechanisms have been conceptualized as “a
delimited class of events that alter relations among specified elements in identical or
closely similar ways over a variety of situations” (McAdam et al., 2001: 11). In addition,
social mechanisms are conceptualized as the processes accounting for causal
relationships among variables (Campbell, 2005; Elster, 1989).

However, the social mechanisms through which actors develop their own
strategies to shape new institutional arrangements have received little scholarly attention.
One possible reason is researchers’ unawareness not only of strategic leading actors but
also of their relationships with other actors. Indeed, mechanism-based theorizing has
long been discussed by methodologists in various disciplines such as social psychology,
sociology, political science, and management in order to combine macro- and micro-level
factors (Barley and Tolbert, 1997; Coleman, 1990; Giddens, 1982; Hedstrom and
Swedberg, 1998; Nee, 2005). Despite the variety of background disciplines, these
scholars agree that, without actors, no institution or field can be maintained, reproduced,
or changed.

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Thus, organizational scholars need to contemplate social mechanisms that integrate micro- and macro-level factors simultaneously for two reasons (Alexander et al., 1987). First, unless we understand the underlying micro-level social mechanism leading to macro-level change, we will not know the genuine relationships among variables at the actor level (Hedstrom and Swedberg, 1996). Second, although no single social mechanism is likely to operate in every situation, some mechanisms may operate in multiple situations, so their specification enables us to generalize beyond atheoretical descriptions of a single case (McAdam, et al., 2001; Stinchcombe, 1998). Researchers focusing on institutional change processes need to explore the ways in which actors influence, modify, and transform institutions, not simply the manner in which actors implement and reproduce them.

To understand social change agents’ strategic approaches, the following three research issues will be considered in this dissertation: strategic leading actors, multiple actors, and relationships among multiple actors.

**Element 1: Strategic Leading Actors**

According to Emirbayer and Mische (1998: 963), agency refers to the motivation and creativity that drives actors to break away from scripted patterns of behaviors. They define agency as “a temporally embedded process of social engagement which reproduces and transforms the world through the interplay of the habits, imagination and judgment of actors.” Actors with agency are capable of innovating counter-assumptions and alternative propositions to the established institutional conditions per their own interests and values (Stevenson and Greenberg, 2000), a.k.a. the possibility of doing
otherwise (Giddens, 1982: 30). Moreover, based on temporal orientation, agency with an orientation toward the future is strategic in that actors generate possible practical judgments among alternate trajectories based on their faith, desires, or risk (DiMaggio, 1988; Dorado, 2005). Change agents who lead the process of developing new fields, therefore, must provide future-oriented visions and action plans that counter the established conditions, values, or arrangements.

However, most existing articles on institutional change processes emphasize established routines for actors from the past, the stimulus-response processes based on present institutions, or both, instead of a strategic approach that includes a future orientation. A discussion of the paradox of embedded agency is a good example. The paradox of embedded agency has been proposed as a puzzle regarding how actors can enact changes in institutions if their actions, intentions, and rationality are all conditioned and shaped by the very institution they wish to change (Greenwood and Suddaby, 2006; Holm, 1995). Given that this paradox illustrates the possible role of latent contradiction between institutional constraints and actors’ desires, it facilitates a model in which actors’ sensitivity and praxis are not developed until the external shocks or jolts challenge existing institutional arrangements. Subsequent studies examining this paradox have presumed that institutional change is caused by exogenous shocks that challenge existing institutions in a field of activity (ex. Greenwood and Suddaby, 2006). These researchers still regard actors as passive respondents who react to external stimuli.

Some organizational scholars provide an insightful research avenue that proposes change agents as autonomous actors who create and lead a field based on their own
values, desires, and strategies, rather than as passive respondents to external stimuli. This approach represents a way of integrating actors’ freedom and then constraining the power of structures. Stevenson and Greenberg (2000) found that actors lacking strong relationships with other actors usually depend on help from those in brokerage positions to achieve their movement goals, unlike those located in central positions. Stevenson and Greenberg (2000) demonstrated that actors need relationships with others in a field when they design their action plans. Leca and Naccache (2006) theoretically proposed that actors, who are constrained by existing institutions, must use the causal power of pre-existing structures to create new institutions or challenge existing ones. Moreover, Levy and Scully (2007) observed that “institutional entrepreneurs must attend to enhancing the agility, adaptive capacity, and creativity of organizations leading institutional change efforts.” In short, change needs to be understood as strategic action created and led by autonomous actors rather than by passive actors responding to external forces. Scholars interested in institutional change processes and in the development of new fields need to approach actors as active and autonomous agents who elaborate their engagements from a strategic viewpoint.

In short, scholars interested in development of new fields or in institutional change process need to approach actors as active and autonomous agents who elaborate their engagements from a strategic viewpoint.

**Element 2: Multiple Actors**

As many scholars have indicated, besides strategic approaches, change agents will be successful in their journey for developing new fields once they begin to work
collaboratively with other social actors with divergent interests and goals (Leca and Naccache, 2006; Levy and Scully, 2007; Wijen and Ansari, 2006). Researchers in this field have mostly focused on “state” issues or agency, so the view of the institutional entrepreneur as a hero featuring the role of powerful actors such as professions, actor groups, or the state has been prevalent (Battalina, 2006; Dorado, 2005; Lounsbury and Crumely, 2007). Placing too much emphasis on the roles and behaviors of a single powerful actor not only ignores the roles of other actors engaged in institutional change processes but also misconstrues them as homogeneous players instead of various players with diverse goals in this process (for example, Garud et al., 2002; Greenwood and Suddaby, 2006; Munir and Phillips, 2005).

A de facto process of the emergence and arrangement of new institutions results from “spatially dispersed, heterogeneous activity by actors with varying kinds and levels of resources, while the notion of institutional entrepreneur too often invokes ‘hero’ imagery and deflects attention away from the wider array of actors and activities” (Lounsbury & Crumley, 2007: 993). Moreover, researchers relying on a heroism view risk committing an ecological fallacy, which infers individual nature based solely on the aggregated characteristics of a group (Duneier, 2006; Van Poppel and Day, 1996), because they regard actors with diverse interests as identical players at the group level, and because this group is represented by the most powerful actor. Thus, in order to fully understand the effective strategies of change agents, social interactions at the actor level, such as dynamic behaviors among/between leading actors, supportive constituents, and politically opposite players, must be examined.
Some scholars have studied the necessity of focusing on interactions among
diverse actors. Hoffman’s (1999) early work shows the process by which government,
industry, NGOs, and insurance companies became involved in the emergence of chemical
industry environmentalism. One of Hoffman’s important findings is that these actors not
only coexist but also connect with each other around specific issues. Rao (2004)
concentrated on dynamic interactions among auto clubs, producers of automobile
reliability contests, and state governors to determine how new car firms were founded
from 1895 to 1912. In addition, investigating the anti-chain store laws from 1925 and
cooperatives to be engaged in the repeal process. Their research results confirm the
importance of social interactions among actors. It is also noted that “claim making by
institutional activist paves the way for economic entrepreneurs by fostering constitutive
legitimacy” (Rao, 2004: 380).

Rather than focusing on a single powerful hero, researchers interested in social
change agents need to pay attention to multiple actors with diverse interests and
backgrounds who share the common purpose of developing a new field.

**Element 3: Relationships among Multiple Actors**

A complete account of institutional change processes would attend not only to the
leading actors’ strategic approaches to other social actors, but also to relations and
cooperation among/between a variety of actors who are dispersed and hold divergent
interests. Throughout the institutional change process, leading actors’ efforts are
accepted by many social groups with heterogeneous interests (Aldrich and Fiol, 1994;
Leading actors have been found to be successful in leading and realizing their goals by way of creating, developing, and maintaining a coalition with supportive others (Greenwood and Suddaby, 2006; Hardy and Maguire, 2007).

Moreover, what is valuable to the change agents may turn out to be threatening for other social groups that are conservative regarding existing institutional arrangements. Thus, a leading actor of change agents must be sufficiently influential to persuade or confront disfavoring others to embrace her or his novel value or approach in the established field. Indeed, the examination of the processes of contestation and struggle among actors within and over institutional fields has been approached in political arenas (Maguire and Hardy, 2006), and the power relations associated with these processes have also been emphasized (Clemens and Cook, 1999; Levy and Scully, 2007; Lounsbury and Ventresca, 2003).

A few pioneering scholars have discussed the importance of the social and political skills of change agents in regards to both constituents and opponents. For example, Lounsbury and Crumley (2007) developed a process model of new product creation, examining the emergence of active money management in the U.S. mutual fund industry since the 1950s. In particular, they focused on the role of diverse actors such as academic finance scholars, money managers, and mutual fund organizations in creating and giving meaning to the emerging field of money management. Examining the emergence of the Kyoto Protocol, Wijen and Ansari (2006) illustrated how cooperation among numerous dispersed actors can create a global regulatory institution. Despite
diverse interests, countries forming three coalitions, such as the EU, the G77, and the JUSSCANNZ blocs negotiated with experts from the Intergovernmental Panel on Climate Change and ultimately agreed to a global climate policy. As such, leading change agents must have the ability to coordinate social relations and political contestations in effective ways.

In brief, leading actors of strategic agents in institutional change processes need to maneuver through social and political processes with other actors. Based on the three substantive factors reviewed above, (1) strategic actors, (2) multiple actors with diverse goals and (3) relationships with multiple actors, this dissertation research will examine the leading actors’ strategic methods for organizing their supportive constituents to develop their respective field. To examine this issue, this study uses conceptual dimensions and theoretical mechanisms from the social movement perspectives. In the rest of this chapter, I will briefly introduce four dominating dimensions: identity, relational, environmental and cognitive mechanisms.

**SOCIAL MOVEMENT MECHANISMS**

Some organizational scholars have introduced a new insight: organization studies must consider how contemporary social forces, such as activist shareholders or non-profit organizations, might transform and influence the corporate world (Morrill et al., 2003). Davis and McAdam (2005) argue that social movement perspectives better fit post-industrial economies than conventional organization theory because of the fluidity of the boundaries of new organization structures and the increasingly episodic and network-based nature of collective economic action.
Social movement researchers generally investigate under which specific conditions collective actions by a group of actors trying to change pre-existing institutions emerge, allowing these actors to potentially affect social and political change (King, 2007). Furthermore, social movement perspectives “allow the possibility of agency by assuming that mobilizing other people and organizations with their attendant resource base will lead to success against an initially more powerful opposition” (Stevenson and Greenberg, 2000: 654). As such, the social movement perspective offers a far more useful vocabulary for conceptualizing institutional entrepreneurs’ efforts to organize other actors strategically.

Theoretical concepts from the social movement perspectives can be seamlessly applied to social mechanisms of institutional entrepreneurs’ strategies to collaborate with other actors with the following two rationales. First, the social movement perspective proposes that change is a function of strategic, interest-driven action taken by organized collective actors (Jasper, 2004). Social movement scholars have found that dissatisfactions or grievances against status quo institutions do not automatically translate into successful organizing of social movements (McCarthy and Zald, 1977; Obershall, 1978; Tilly, 1978). In order to transform actors’ shared interests or beliefs into insurgent group of actions, certain kinds of organizing strategies are necessary (Jenkins, 1983). In addition, effective strategies for organizing potential participants well complement insufficient internal resources of leading actors (Ganz, 2000). In this sense, effective organizing or mobilizing structures are strategic mechanisms that pool individual inputs for certain goals (King, 2007).
Second, social movement perspectives especially emphasize interaction dynamics among/between diverse actors. With this concept, scholars have focused on successful or effective mobilizing and proposed that leading actors organize their supporters or followers to reach their principal goals (Davis et al., 2005; King, 2007; McAdam et al., 1996). It has also been demonstrated that proper matches between leading actors and potential participants bring about successful organizing outcomes (Jenkins and Perrow, 1977; Manheim, 2004; Wolfson, 2001). Hence, using this approach, the present study will identify the mobilizing structures of leading actors and interaction dynamics among actors.

Following these rationales, this dissertation research utilizes mechanisms from the social movement literature. A general proposition of this dissertation study is that institutional entrepreneurs with appropriate capacities for social movement strategies, particularly effective organizing of potential followers, tend to initiate and become key players in the institutional entrepreneurship process.

Scholars in the social movement perspective have proposed the following four broad factors as determinants of successful mobilizing or organizing outcomes: identity, social relationships, identifying targets, and issue framing (McAdam et al., 2001). The present research pays attention to these four determinants and correspondent social mechanisms such as relational, cognitive and environmental mechanisms (Campbell, 2005).

**Social Identity Mechanism**

Identity theory argues that an actor judges other actors by classifying them into
categories (Cator and Mischel, 1977) or by judging their qualities and labeling them (Ashforth and Humphrey, 1997). The term identity is framed and approached as an entity’s “cognitive, moral, and emotional connection with a broader community, category, practice, or institution,” based on its imagining of a shared status or relation regardless of its experience (Polletta and Jasper, 2001: 291). The recent stream of research and theorizing on the movements of corporate stakeholders has come to draw its inspiration from the social identity perspective (Rowley and Moldoveanu, 2003; Polletta and Jasper, 2001).

Some social movement scholars argue that actors’ identity serves as a basis for mobilization as it creates commitment among individual entities in a same group or category, which ultimately acts as a catalyst for organizing processes (Ashforth and Kreiner, 1999; Fireman and Gamson, 1979; Klandermans, 1984). This framework also leads to an interest among social movement researchers in the social identity approach (Friedman and McAdam, 1992), which has long argued for the pivotal role of social identification in collective action (Tajfel and Turner, 1986). According to this approach, social identification represents a more inclusive form of self-interpretation in terms of a particular group membership such as “we-ness” than does personal or individual identification such as “I” (den Hond and Bakker, 2007). The identity approach thus suggests that social identification fosters an inner obligation to behave as a ‘good’ group member (Haslam, 2001; Turner et al., 1987).

As actors interact with one another, they are involved in the process of creating their own identities, in what is called on identity negotiation process (Swann, 1987).
expressing what others can expect from her or him, an actor can strategically appeal to other actors (Schultz et al., 2000). Given that a focal actor can mobilize potential followers with her or his expressive identities, identity negotiation should be complementary to the social network approach. To become leading actors, actors must maneuver their identities in such a way as to persuade and verify themselves to as many potential followers as possible. As a result, some actors become popular and are followed by many other actors, leading to their being located in a central position among others.

Thus, organizers often concentrate on recasting “movement” identities of participators or followers to include participation itself as one of the responsibilities or benefits of group membership. Some social movement scholars argue that collective identity serves as a basis for mobilization as it creates solidarity and commitment among individual entities in the same group or category (Klandermans, 1984; Ashforth and Kreiner, 1999). Furthermore, the feeling of solidarity based on the identity is a catalyst for mobilization (Fireman and Gamson, 1979). Thus mobilization can be motivated by a desire to express a certain identity among similar entities. By participating in a movement, followers furnish certain group-ness with which they distinguish themselves from others. In this case, based on the movement identities from a collective action, followers could clearly distinguish themselves from others (Klandermans, 1997; Tarrow, 1998).

Applying this approach to the roles of leading institutional entrepreneurs, two social mechanisms can be conjectured. First, social identity of actors determines their
motivation to act or initiate. Actors’ social identity captures the pleasures and obligations that actually persuade them to mobilize (Polletta and Jasper, 2001). Thus, a leading actor’s identification with a certain group is associated with this actor’s inner obligation to participate in a collective action. Second, as social identity facilitates mobilization of collective actors, a leading actor can utilize its social identity to effectively organize its followers (Polletta and Jasper, 2001; Rowley and Moldoveanu, 2003). Thus, organizers often concentrate on appealing to the social identities of potential followers to include participation itself as one of the responsibilities or benefits of group membership (Klandermans, 1997; Minkoff, 1997; Tarrow, 1998). By way of following leading institutional entrepreneurs, participating actors furnish certain group-ness with which they distinguish themselves from others as consequences. Accordingly, this dissertation research will examine the following proposition:

Proposition 1: The organizational identity of actors influences their roles in the process of developing new fields.

Unlike social identity which is associated with a category at the group level, the following three concepts are related to leading institutional entrepreneurs’ capacities of social movement strategies, which are dynamic across time. Whereas the collective identity concept emphasizes the formal organization’s roles in the mobilization process; the following three concepts shed light on the dynamics of the mobilizing process: relational, environmental, and cognitive mechanisms (Diani and McAdam, 2003; McAdam et al., 1996; Rowley and Moldoveanu, 2003). Based on these three concepts and mechanisms, the leading change agents’ dynamic relationships with other social
actors play a critical role as they organize themselves.

**Relational Mechanism – Effective Social Relationships**

One of the important roles for leading institutional entrepreneurs is to integrate other actors together so as to generate solidarity or to build a team of collaborative institutional entrepreneurship. In this sense, the approaches for mobilizing structures function as “collective vehicles, informal as well as formal, through which people mobilize and engage in collective action” (McAdam et al., 1996: 3). Scholars using this mobilization structures concept have aimed to better understand how an actor or a group of actors overcome durable patterns of resource inequality in order to pursue their social change goals, by examining social networks of an actor or a group of actors (Edwards and McCarthy, 2004; Lin, 2001; Tilly, 1978).

Given that institutional entrepreneurs must recruit members into their collective efforts, obtain other resources, and disseminate information in order for their institutional entrepreneurship to be successful, network cultivation to utilize social relationships provides a good relational mechanism (Campbell, 2005). Note that networks, which are sets of social relationships, are not always taken as given by activists or institutional entrepreneurs. Instead, they intentionally cultivate their effective social networks or modify their relationship structures to obtain critical resources or to get support from others.

Previous research demonstrates that social networks among actors may be conceived of as preconditions constraining or facilitating the mobilization process and also as outcomes of this process (Diani, 2003; Gould, 2003; Keck and Sikkink, 1998;
Warren, 2001). In either case, though, it is agreed that the wider and more socially connected an actor’s network is, the more it is expected to effectively mobilize other followers (Edwards and McCarthy, 2004). Thus, institutional entrepreneurs can utilize this process by creating adequate relationships with other actors and by occupying a position in the relationships network among many others through which they effectively bind resources from others together (Perrone et al., 2003).

A correspondent proposition is suggested below:

**Proposition 2: The effective relationships of actors with other actors influence their roles in the process of developing new fields.**

**Environmental Mechanism – Political Opportunities**

Some scholars in the social movement field have proposed that exogenous opportunities from external environments should be considered, as they have emphasized the political opportunity concept representing opportunities as well as constraints, which are situated outside the mobilization context (McAdam et al., 1996; Tarrow, 1998; Tilly, 1978). Their key idea is that actors in social movements calculate and respond to a political opportunity structure, “a set of formal and informal political conditions that encourage, discourage, or affect movement activity” (Campbell, 2005: 44). Thus, depending upon the degree to which political authorities are open or closed to challengers of the status quo, or are willing to use repression against challengers (McAdam et al., 1996; Tarrow, 1998), social movements will be successfully mobilized or not.

Besides constraining the range of options to actors’ mobilization efforts, certain political situations can motivate movement activities of actors by providing reasons for
them to pursue a new field development or institutional change process (McAdam et al., 1996). Changes in external political structures are windows of opportunity because they signal both a weakness of the existing arrangements and a structural malleability or openness to change (King, 2007). Leading actors therefore must be wide-awake to interpret the external opportunity signaling that the time for change will arrive soon.

From a strategic viewpoint, leading actors in institutional entrepreneurship or social movements need to identify political opportunities in terms of the proper targets for their efforts, in order to encourage their constituents to attempt to influence existing institutions or targets (Meyer and Minkoff, 2004). For example, companies in an industry with a high degree of competition are vulnerable to activists, because their competitive advantage is weakened (Baron, 2001). Sometimes, institutional entrepreneurs attempt to change the external political atmosphere toward favoring their purposes. Davis and Thompson (1994) examined the efforts of corporate shareholders as institutional entrepreneurs who tried to alter the proxy voting regulation in order to transform the corporate governance system.

Depending on the existing resources and capacities, leading actors must collaborate to select and aim their efforts at appropriate targets, which could be political counterparts or the institutional status quo (Meyer and Minkoff, 2004). In this dissertation context, while proposing social resolutions a social investor must consider appropriate target companies, in this case how vulnerable each company is to shareholder resolutions. Other investors as potential followers will be encouraged to support a leading social investor’s efforts once they calculate the target companies’ likelihood of
being influenced. Thus, leading social investors must identify vulnerable targets in political situations such as targets with tarnished social reputations. This study examines an actor’s identification of vulnerable targets as an indicator in encouraging other actors join her or him as followers in filing social resolutions together. Below is a proposition:

Proposition 3: The effective identification of the political opportunity of actors influences their roles in the process of developing new fields.

Cognitive Mechanism – Issue Framing.

Frames have been proposed by scholars in the social constructionist branch in the social movement perspectives and examined as “metaphors, symbols, and cognitive cues that cast issues in a particular light and suggest possible ways to respond to these issues” (Campbell, 2005: 48). Frames provide the lenses through which actors interpret their confronting conditions and their particular situations, to decide how to pursue their objectives (McAdam et al, 1996; Zald, 1996). Thus, issue framing activity is “a cognitive mechanism of social change insofar as it affects how actors perceive their interests, identities, and possibilities for change” (Campbell, 2005: 49).

Framing processes in movements involve the strategic use of shared meanings and definitions to invoke claims on individuals’ identity and cultural sense of responsibility to a cause (Snow and Benford, 1998). Framing activities function as a “call to arms” which entails the development of agency among actors and constituents in a movement (Benford and Snow, 2000). As Gamson (1992: 56) argued, “participation in social movement frequently involves enlargement of personal identity for participation and offers fulfillment and realization of the self.” So-called new social movement
theorists emphasize that the result of the framing process is to construct a new collective identity. For example, regardless of economic backgrounds, investors recognize and identify themselves as socially responsible investors as they participate in social investment issues such as buying ethical mutual funds or screening out socially undesirable corporations from their portfolio. As such, identity construction is an inherent feature of the framing process, by enlarging individual identities in movement contexts.

Thus, framing activities motivate potential participants to join the institutional entrepreneurship process because framing issues appropriately help them to build “we-ness” as well as to interpret the external political situation. Based on an issue-framing dimension from the social movement literature, leading institutional entrepreneurs’ capacity for framing appropriate issues is an important strategic approach to change. It can be proposed that a capacity to interpret and propose legitimate issues has an impact on actors to lead institutional entrepreneurship process in effective ways. This research suggests a correspondent proposition as follows:

*Proposition 4: Appropriate issue choice of actors influences their roles in the process of developing new fields.*

This dissertation research will examine these four propositions empirically, by developing testable hypotheses accommodating theoretical viewpoints and empirical contexts which will be introduced in following chapters. Figure 2-2 below presents a research framework for two research issues: (1) “who initiates collaboration with other social actors?” and (2) “how do some actors attract and mobilize other actors as followers
or collaborators?” examined in Chapter 4 and Chapter 5 respectively, with four social movement dimensions, social identity, social relationships, target identification, and issue framing which were introduced in this chapter.
Research Framework

Social Movement Mechanisms

- Social Identity
- Social Relationships
- Target Identification
- Issue Framing

Research Issues 1 (Chapter 4)
Initiating Social Resolutions

Research Issues 2 (Chapter 5)
Attracting & Mobilizing Followers
CHAPTER 3. RESEARCH CONTEXT:
INVESTORS’ COLLABORATION NETWORKS IN THE FIELD OF SOCIAL
RESOLUTION FILINGS

This dissertation research sheds light on the field of filing shareholder resolutions by active social investors. The goal of this chapter is to introduce the field of social resolution filings based on the collaboration networks among social investors who filed shareholder resolutions on responsible corporate management issues along with some tools and methods for empirical analyses.

Challenging the position that shareholders are rarely or only passively involved in corporate management usually relies on proving that they pursue their self-interest by way of insisting on their monetary benefits. However, the phenomena of social investors’ activities provide cases in which some shareholders consider and pursue responsible corporate behavior in so called socially responsible investment (SRI) movements. In particular, some active social investors file shareholder resolutions to try to directly influence corporate managers. The field of social resolutions emerged as some active social investors have filed shareholder resolutions, and as they have collaborated with each other for filing resolutions. In this sense, by inquiring not only about social investors as resolution filers but also about the collaboration networks among social investors, researchers can understand the field of social resolutions, and the development of SRI movements.

Shareholder Resolution Filing

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2 This section refers the following various sources: Interfaith Center for Corporate Responsibility, *ICCR guideline for filing shareholder resolutions*; Social Investment Forum, *Toward a shared agenda: Emerging corporate governance and social issue trend for the 2002 proxy season*; Friend of the Earth, *A Handbook on Socially-Oriented Shareholder Activism*. 

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A shareholder resolution is a shareholder’s (or a group of shareholders’) recommendation or demand that a company or corporate management team, including its Board of Directors, take a particular action relevant to company policy (Graves et al., 2001; Ryan and Schneider, 2002). Among shareholder resolutions, “social” resolutions are filed by active investors on social or stakeholder issues such as corporate governance, environment, human rights, or diversity (e.g. inclusiveness of people of different gender and races). Using shareholder resolutions, social investors sometimes try to persuade corporate managers to change their responsible management practices (Manheim, 2004).

In the U.S., securities law governs the process by which an investor has the right to introduce a formal proposal of shareholder resolution, have the proposal circulated to all of the company’s investors, vote upon the resolution, and present it in person at annual company meetings. Following the Securities Act of 1933 and 1934, which was first established for protecting investors by requiring public disclosure of reliable information to the marketplace, the shareholder’s right to submit the shareholder proposal was initiated in the 1970s. Under the Section 14A of the Securities and Exchange Act, by Securities and Exchange Commission (SEC) rules, investors may file proposals up to 500 words in length to change corporate management practices. Only investors holding at least $2,000 worth of stock for over a year can file resolutions.

Thus, shareholder resolution filing is an easy approach for active investors because they can take advantage of this method once they possess some amount of stock in a company. In addition to the easiness for active shareholders to file social resolutions because of its straightforward manner, submission of shareholder resolutions has been
frequently regarded as more powerful than the screening portfolio approach which is also used by social investors who exclude stocks of socially irresponsible companies from their investment portfolios. For social investors utilizing the social screening approach, it is not easy to sell stocks of a company due to its irresponsible practices once the company performs well in its ordinary business practices (Domini, 2001: 80-92). On the contrary, the impact of shareholder resolutions is frequently immediate and quite tangible. According to the SEC regulations, corporate management must include these proposals in their proxy solicitation materials and give investors an opportunity to indicate their preferences (Gordon and Pound, 1993: 700-701). Therefore, social investors “know that the question was heard because we receive a response. We [social investors] can gain a promise to provide an annual report on environmental impact or on diversity initiatives. These are exciting results and can be shared both by activist who initiates the dialogue and by the many other responsible investors who vote to support the question when raised” (Domini, 2001: 24).

Because of its easiness and straightforward manner, shareholder resolution filing opened a window of opportunity for social investors to pursue their socially- and morally-oriented goals. Furthermore, the field of social resolutions has become an important sub-field of SRI movements. Of more interesting importance is that social investors seem to take advantage of coalitions with other social investors while filing social resolutions (ex. Manheim, 2004) in their movements. In the management literature, unfortunately, this characteristic of the dynamic interactions and collaborations among social investors to file social resolutions have not been really been examined yet (cf.
Shareholder Resolution Filing as Research Settings: Scholarly literatures on shareholder resolutions can be classified into the following two research streams: financial economics and corporate responsibility areas.

First, academic research on social investing has been done mostly by scholars in financial economics, emphasizing whether social investment brings economic benefits. Research in financial economics has generally had two foci, the characteristics of target companies and the effectiveness of shareholder resolutions. In the first stream of research, financial economists agree that a company is more likely to be targeted by shareholder resolutions, when its size is large, its performance is poor, or its institutional ownership is relatively big (Gordon and Pound, 1993; Karpoff et al., 1996; Wahal, 1996).

Some scholars have shown significant influences from shareholder proposals by institutional investors (Campbell et al., 1999; Gillian and Stark, 2000): the Teachers Insurance Annuity Association-College Retirement Equities Fund (TIAA-CRE) proposed corporate governance issues for 45 firms, and more than 87% of targeted firms subsequently took actions to comply with these issues (Carleton et al, 1998). In addition, with regard to corporate governance issues, 72% of targeted firms by the California Public Employees’ Retirement System (CalPERS) adopted proposed changes (Smith, 1996). However, the effects of social resolutions on market performance are mixed (Carleton et al., 1998; Prevost and Rao, 2000; Smith, 1996). A series of research results found that CalPERS earned relatively higher investor wealth from its aggressive activism in submitting shareholder proxies (Smith, 1996; Crutchley et al., 1998). On the contrary,
stock price of target firms did not increase when the proposal was announced about those firms’ business activities in South Africa despite its apartheid policy (Teoh et al., 1999) and corporate governance issues (Bizjak and Maquette, 1996). Thus, suspicious attitudes toward the efficacy of shareholder resolutions are dominant among scholars in financial economics.

Second, the issue of social resolutions is relatively new to scholars in non-financial areas (cf. Bruyn, 1987; Useem, 1996). A few pioneering scholars in corporate responsibility fields have examined comprehensive trends associated with submission of social resolutions (Graves et al., 2001; Rehbein et al., 2004). Graves and his colleagues (2001) find four patterns over time in issues for social resolutions: consistent over time (human rights, and energy issues), falling out of fashion over time (South Africa, military-related, animal rights issues), emerging over time (tobacco, labor, governance, political action and compensation issues), and waxing-and-waning over time (environment and diversity issues). In addition, researchers have conducted empirical tests examining the characteristics and responsiveness of target companies. Rehbein and her colleagues (2004, 2007) and Van Buren and Paul (2001) found that large companies are usually targeted by social investors’ shareholder resolutions. Recently, Logsdon et al (2007) examined when firms choose to engage in dialogue with stakeholder groups. They find that companies are more likely to engage in dialogue with social investors when the issue of concern involves social justice, when the firm’s size is smaller, when there are more outside directors of the corporation’s board, and when corporate visibility is high.
The past scholarship is still incomplete in that scholars have not shed light on those who file shareholder resolutions, but mostly paid attention to market reactions to and to target companies of social resolutions. Those scholars have not been fully aware of the importance of resolution filers, a critical factor for developing the field of social resolutions. As the concept of network-based field was defined in a previous chapter, the field must be approached with actors and their relationships, both of which constitute the field. In this sense, researchers in the field of social resolutions or SRI movements need to investigate the collaboration networks among social investors who file social resolutions.

Collaboration Networks of Social Investors: The Field of Social Resolutions

Although studying collaboration networks among social investors for resolution filings is pristine territory for scholars, there are many cases suggesting that the field of social resolutions is a naturally controlled setting for researchers to examine dynamic interactions and collaborations among diverse social investors. Two examples are following:

For example, a group of social investors have pressed executive managers of Wal-Mart to consider environmental issues,

“Conrad McCarron, head of supply chain programme at As You Sow, which co-ordinates pressure on companies from ethical investors, questions how the new approach would work in a world where […] (Financial Times, ‘Wal-Mart to seek greener supply chain’, Oct 22, 2008. Emphasis in italics is mine).
For another example, in 2007, Boston Common Asset Management and over 20 U.S. social investors signed a letter to Toyota Motor Company regarding its allegations of abuse in its factories, including reports that it brought guest workers from Southeast Asia to Japan to work under sweatshop conditions for far less than minimum wage. This collective activity led to unflattering media coverage and a commitment to reform from Toyota. (Laura Compere, Boston Common Asset Management, at the Web Conference of Ethical Trading Initiatives, the United Nations Principles for Responsible Investment, October, 26, 2008).

These examples of collaboration among social investors are quite normal. Figure 3-1 below is a typical example of a social resolution collaboratively proposed by diverse social investors. As Figure 3-1 presents, each resolution includes information on the target company, the resolution subject, the year the resolution is filed, who the lead-filers initiating the resolution filing are, and who are the co-filers voluntarily supporting the resolution proposed by lead-filers. For example, Figure 3-1 indicates that the lead-filer is the Citizens Advisor, and that there are three co-filers, the Trillium Asset Management Corporation, the As You Sow Foundation, and the Evangelical Lutheran Church in America. Moreover, this resolution was filed at Johnson & Johnson (target) and dealt with a cosmetics safety issue (subject) in 2002 (year).

According to a database compiled by the Interfaith Center for Corporate Responsibility, more than a half of shareholder resolutions are filed collaboratively. Figure 3-2 illustrates the distribution of the number of filers including lead-filers and co-filers in social resolutions filed from 1993 to 2007. This distribution is very much...
skewed to the right, implying that most social resolutions were filed by a few social
investors, but that some of them were filed by a large number of filers. Among the
presented 2680 social resolutions in this 15-year period, 1359 social resolutions were
proposed by a single filer, and more than half, or 1421, were by at least two collaborators.
The maximum number of filers for a social resolution is 38, and the mean value for the
number of filers is almost 3 (2.98).

**Figure 3-1.**
An Example of Collaborative Resolution Filing

![Image](https://example.com/image.png)

Data Source: The Investor Environmental Health Network

Figure 3-2 shows that collaborative social resolutions are not rare. Moreover,
joint filings provide research opportunities for scholars to investigate the collaborative
relationships and coalitional dynamics that have evolved among social investors. Specifically, Figure 3-2 provides evidence that the filed of social resolutions has been developed not by a single powerful “hero” but by cooperation among coalitions of diverse social investors. Once researchers deeply delve into the patterns of collaboration among social investors, they will find clues to interpreting the developing patterns of SRI movements.

**Figure 3-2.**
**Distribution of Number of Filers in Social Resolutions**
(n=2680, 1993–2007)

Using the available data exemplified in Figure 3-1 and 3-2, matrices of collaboration relationships among social investors can be created. Figure 3-3 below presents a network structure among social investors who collaborate with each other for resolutions filed on diversity (inclusiveness) issues in 2005, a sub-field of social
resolutions. In Figure 3-3, the grey circles denote social investors involved in social resolution filings on diversity issues in 2005, and the lines between any two circles imply that these two social investors jointly filed at least one social resolution. (Note that these matrices are directional: arrows go from co-filers to leading-filers. For presentation convenience, I removed arrow heads in Figure 3-3.)

**Figure 3-3.**
*A Sub-Field of Social Resolutions: Collaboration Network of Social Investors Filing on Diversity Issues in 2005*

Figure 3-3 obviously shows that there are patterns in collaborations among social investors. This network diagram provides numerous possibilities for analyzing the constellation of social investors in filing resolutions. First of all, it is easy to determine from this figure that two social investors, Walden (Walden Asset Management) and NYC
Pension (New York City Pension Funds) are the two most popular or central actors in this area of activism. In network terms, these three social investors have high in-degree centrality on this collaboration network. Further, Trillium (Trillium Asset Management) is located at a unique position bridging the three most central actors, SisCharityElizabeth, Walden, and NYCpension. From the network perspective, Trillium is located at a betweenness-central position which links many of two other disconnected actors. It can be conjectured that these four social investors function as important players in organizing social investors for filing resolutions on diversity issues in 2005. Meanwhile, most other actors follow them and are ultimately located in the peripheral area with only one tie to central actors. In addition, the Episcopal Church and the Christus Health are two social investors who filed social resolutions by themselves without any co-filing supports from other social investors. They can be called single lead-filers, as compared to collaborative lead-filers who received support from co-filers. In the network-based field (Kenis and Knoke, 2002), all these actors need to be included.

**Lead-Filers and Co-Filers.** As illustrated in Figure 3-3, some social investors initiate social resolutions as lead-filers, while others co-sponsor them as co-filers. Thus, instead of an indifferent equivalent filer position, social investors have division of labor under two categories: lead-filers and co-filers.

In fact, the Interfaith Center for Corporate Responsibility (or ICCR) describes the collaborative nature of filing social resolutions either as lead- (or primary) filers or as co-filers as follows (ICCR, 1998):

- A leading (or primary) filer should coordinate efforts of other primary filers or
of active co-filers on the resolutions.

- A co-filer is someone wishing to be involved in the decisions related to the resolution and any related campaign with the company.

As the ICCR guidelines implies, collaborations among social investors as lead-filers or co-filers are so widespread that social investors delimit roles and functions in their division of labor as lead-filers or as co-filers.

Moreover, as identified in Figure 3-3, a social investor can propose a social resolution as a single lead-filer or a collaborative lead-filer. The former does not need any co-filers, but the latter works jointly with other co-filers. Compared to the former case, the latter case is more complicated because of mobilization process among diverse social investors, but it is potentially more effective because a group of social investors is more powerful than a single investor. Table 3-1 below summarizes number of lead-filers for collaborative social resolutions and for single social resolutions for each year of the study.

<table>
<thead>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaborative lead-filers</td>
<td>43</td>
<td>37</td>
<td>32</td>
<td>41</td>
<td>46</td>
<td>41</td>
<td>109</td>
</tr>
<tr>
<td>Single Lead-filers</td>
<td>32</td>
<td>37</td>
<td>21</td>
<td>35</td>
<td>23</td>
<td>30</td>
<td>82</td>
</tr>
<tr>
<td>Total number of filers</td>
<td>131</td>
<td>105</td>
<td>126</td>
<td>148</td>
<td>135</td>
<td>161</td>
<td>806</td>
</tr>
</tbody>
</table>

As Table 3-1 shows, over 30 social investors (32 at minimum and 46 at maximum) initiated collaborative social resolutions every year from 2002 to 2007. In total, 109 different social investors initiated at least one collaborative social resolution.
during this 6-year period. Thus, out of 191 lead-filers for this 6-year period, more than half of them are collaborative lead-filers.

Figure 3-4 below presents the detailed audit of lead-filers for 6-years period, from 2002 to 2007. The total number of social investors who participated in social resolution filing activity at least once in this period is 267; 109 of them were collaborative lead-filers and 82 of them were single lead-filers. Moreover, 60 of them led social resolutions both as a collaborative lead-filer and as a single lead-filer.

![Figure 3-4](Distribution of Single/Collaborative Lead-Filers (2002–2007))

<table>
<thead>
<tr>
<th></th>
<th>Collaborative Lead-Filers</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Single</td>
<td>145</td>
</tr>
<tr>
<td>Lead-Filers</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>(167)</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Based on Table 3-1 and Figure 3-4 below, it can be determined that, on average, a lead-filer in either category proposed about 6 social resolutions (806/(109+82−60) = 6.15). The rest 145 (=267−(109+82−60)) social investors did not lead any social resolutions, but co-filed at least one social resolution during this 6 year period. More than a half of social investors led social resolutions, and about 20% of them only co-filed social resolutions, indicating somewhat of a division of labor in the field of collaborative
The collaboration among social investors filing social resolutions demonstrates that social investors are neither isolated nor unorganized, and that they may use the power of joint filing to strengthen their effectiveness. Given that the social resolution filing cases are naturally controlled settings of social investors collaborating to influence corporate management, the research here shifts the focus from the contents of shareholder resolutions i.e., “what social resolutions are” to the contexts and dynamics of shareholder resolution filers, i.e., “who files social resolutions, and how.”

**Filer Identities, Targets and Issues in Social Resolution**

In this section, types of social resolutions will be introduced based on three dimensions from social movement literatures: identity, target companies and proposed issues. For the last three decades, the number of social resolutions has increased in popularity and attention from various investors as a way of influencing responsible corporate management. In particular, from 1993 to 2006, the number of proposed shareholder resolutions increased by approximately 53 percent, growing from around 170 resolutions filed in 1993 to over 260 in 2006.

**Filer Identities**: Figure 3-5 below presents filer identities for social resolutions from 1993 to 2006. In Figure 3-5, there are four categories for filer identities: (1) Faith-Based; (2) Pension Funds; (3) Asset Management Companies; and (4) Unions/Foundations. As shown in Figure 3-5, faith-based investors (a grey line with diamonds) filed the most shareholder resolutions. The number of their resolutions, however, has decreased for this period. Meanwhile, the number of social resolutions
filed by asset management firms (a black line with squares) has increased in the same period, to reach over 100 resolutions since 2001. In 2005 and 2007, pension funds filed more than 50 social resolutions (a black line with diamonds). In addition, in 2007, a filer identity of unions and foundations filed more than 50 shareholder resolutions. Accordingly, from 1993 to 2007, the number of shareholder resolutions filed by these four groups of filers, faith-based, asset management firms, pension funds and unions/foundations has increased, and hence the field of social resolutions has developed.

**Figure 3-5**

_Filer Identities of Social Resolutions from 1993 to 2007_

![Chart showing filer identities from 1993 to 2007](image)

Data Source: ICCR

**Proposed Issues**: Figure 3-7 below presents the issues proposed in social resolutions from 1993 to 2007. In this period, the number of social resolutions increased by approximately 53 percent, from around 170 resolutions in 1993 to over 260 in 2006. In Figure 3-7, presented are three categories of issues: people (a black line with
diamonds), environment (a grey line with diamonds), and corporate governance (a black line with squares). Among these three categories, people issues were dominant prior to 2002. Environment issues were proposed most since 2006. In 2007, the number of shareholder resolutions proposed environmental issues was almost equal to the number of shareholder resolutions proposed both people and corporate governance issues. Both corporate governance and environment issues have increased for this period.

**Figure 3-6**  
*Issues Proposed for Social Resolutions from 1993 – 2007*

![Graph showing proposed issues from 1993 to 2007](image)

*Data Source: ICCR*

**Target Companies:** Figure 3-7 and 3-8 in the next page show the distributions of number of social resolutions each target company received in 2002 and 2007. As shown in Figure 3-7, 153 companies received at least one shareholder resolutions, and on average each of these 153 companies received 3.54 shareholder resolutions. In 2002, among 153 companies, four companies received more than 20 resolutions: Exxon
Mobile (XOM, 58), General Electric (GE, 49); Chevron Corporation (CVX, 26), and Unocal Corporation (UCL, 20). In 2007, Figure 3-8, there are 160 companies each of which received at least one shareholder resolutions. On average, each company received 4.38 shareholder resolutions. Thus, average number of shareholder resolutions received by each company has slightly increased. In addition, seven companies received more than 20 shareholder resolutions: Exxon Mobil (XOM, 54), Chevron Corporation (CVX, 50), Home Depot (HD, 35), Pepsi Co (PEP, 33), Wal-Mart (WMT, 23), Cisco Systems (CSCO, 22), and Pfizer Inc (PFE, 21). Thus, the number of companies targeted more than 20 shareholder resolutions also increased. Interestingly, both Exxon Mobile and Chevron were popular targets for shareholder resolutions in both 2002 and 2007.

The goal of this chapter was to introduce the field of social resolutions based on the collaboration networks among social investors, and some tools and methods for empirical analyses. As described above, it is possible to approach and analyze the field of social resolutions based on the collaboration networks among social investors. Cases in this field provide research opportunities for scholars to build theoretical viewpoints toward social investors’ SRI movements. Yet the past scholarship is still incomplete in that scholars have not shed light on those who files shareholder resolutions. To fulfill the present gap in academic research to social investors’ SRI movements, this dissertation studies the field of social resolutions based on collaborative relationships among social investors.
Figure 3-7
Distribution of Target Companies and Number of Resolutions Received in 2007
(Number of Target Companies: 153; Number of Resolutions: 541)
Figure 3-8
Distribution of Target Companies and Number of Resolutions Received in 2007
(Number of Target Companies: 160; Number of Resolutions: 700)
CHAPTER 4. WHO INITIATES SHAREHOLDER RESOLUTIONS, AND WHY?:
THE EFFECTS OF FAITH-BASED IDENTITY, STOCK OWNERSHIP, AND
BROKERAGE POSITIONS ON MOVEMENT MOTIVATION

This chapter identifies the determinants of initiating activities or lead-filings by social investors. A specific research subject of this chapter is to inquire into the mechanisms with which some proactive investors propose collaborations with other investors in their shareholder resolutions about corporate responsibility issues. Given that social investors elaborate atypical goals envisioning a new value in the established field such as human rights, diversity, or environmental issues, this study envisions social investors’ proposals of social resolutions as inviting other investors into collaborative endeavors. In the context of active investors’ filing shareholder resolution on stakeholder issues, some investors are more capable at recognizing and exploiting opportunities for filing shareholder resolutions on issues with regard to responsible corporate management. Then, what determines the capacity of lead-filing social investors to recognize and use initiating activities?

This study proposes and tests three antecedents that active social investors need for the purpose of initiating activities with other social investors: faith-based identity, stock ownership range, and brokerage positions in the collaboration networks among social investors. This chapter consists of three sections. In the first section, theoretical concepts on social investors’ initiation of social resolutions filings are proposed with the corresponding hypotheses. The second section introduces the research method for empirical analysis in order to test the proposed theoretical mechanisms. Because the variables come from different temporal periods, this study utilizes the multi-level mixed
effects regression model. The third section presents the results of the empirical data analysis, and discusses the research findings. Concluding remarks follow.

THEORY AND HYPOTHESES

Filing Shareholder Resolutions as Initiating Social Change

Some social investors actively study and publicize possible stakeholder concerns for long periods of time: this is the “early warning system” for investors. For example, even though Wal-Mart announced its new policy for sustainable supply chain management in October 2008, some pioneering activist shareholders had been demanding that it do so for 14 years (Zimmerman and Fong, 2008). In another example, some religious investors have been filing shareholder resolutions to regulate sub-prime mortgages as early as 1993. However, this warning system was ignored by the public and the media until the financial crisis (ICCR, 2008).

As these examples show, with the pursuit of responsible corporate management and their economic benefits, some social investors have identified the critical stakeholder issues that need to be improved, and have tried to influence companies by filing shareholder resolutions in collaboration with other active shareholders. Because it is assumed that investors care only about their own financial returns (Berle & Means, 1932), shareholder resolutions on social, ecological, labor, and other stakeholder practices, so-called social resolutions, demonstrate that some investors request changes in companies’ management practices that go beyond the purely financial, and attempt to transform existing norms or established institutions (Bruyn, 1987).

Because of their active involvement in pursuing change in the investment field,
socially active investors can be framed as agents of *social entrepreneurship*: “a process of social value creation in which resources are combined in new ways to meet social needs, stimulate social change” (Mair and Marti, 2006: 36). A term proposed by Waddock and Post (1991: 394) to describe social entrepreneurs as “private sector citizens who play critical roles in bringing about catalytic changes in the perception of certain social issues” accurately represents the social investors’ dual goals of economic benefits and stakeholder issues.

Some organizational scholars have examined similar phenomena in which actors focused on influencing or transforming the existing value of institutional arrangements (Davis et al., 2006). Institutional entrepreneurship is defined as “the activities of organized actors who envision new institutions as a means of advancing interests they value highly yet that are suppressed by extant logics” (DiMaggio, 1988: 14). In particular, these scholars emphasized the atypical or deviant activities of actors as change agents (DiMaggio, 1988; Garud et al., 2002) such as a firm’s sponsorship of new technological standards (Garud et al., 2002), digital imaging in photography industry (Munir, 2005), the rise of low-power FM radio in radio industry (Greve et al., 2006), or the adoption of recycling programs in universities (Lounsbury, 2001).

Despite the diverse cases that they have studied, these scholars investigated two important factors: envisioning and organizing (Garud et al., 2002). It has been argued that what makes the activities of active change agents in movements more interesting is that they organize themselves and create coalitions for achieving their goals (Rao, 2009). For example, active social investors envisioning responsible corporate management
values organize themselves to achieve their new vision. In this case, researchers who are interested in the process of social change shift their research foci to the relationships among change agents or movement participants (Battilana, 2006; Greenwood & Suddaby, 2006).

Most of the scholarship on activities for institutional change, however, pays attention to macro variables such as when and which institutional arrangements are changed, to the exclusion of the more micro process of activities in terms of the ways in which actors as change agents find and use opportunities for change (Battalina, 2006; Leca and Naccache, 2006). Furthermore, the strategic process initiated by leading activists has received little academic attention to date, although scholars have found that institutional change processes are possible only if multiple actors cooperate, not with a single actor driving all change process (Dorado, 2005; Lounsbury and Crumely, 2007). For example, although several management scholars have examined the process by which socially responsible investment evolved into a mainstream investing method (Bruyn, 1987; Graves et al., 2001; Rehbein et al., 2004; Logsdon et al., 2007; Ryan and Schneider, 2002; Waddock, 2008), the initiating activities of some investors who seek, recognize and use opportunities for change are not well understood.

As mentioned in Chapter 2, in order to understand the mechanisms by which change agents initiate movement activities, researchers need to understand the process by which actors initiate those activities or movements on the basis of their own values, desires, and strategies. Moreover, researchers need to delve into the interaction dynamics among actors, especially those between leading actors and potential followers. As some
scholars emphasized with the term agency, which is defined as “a capacity to imagine alternative possibilities and to contextualize past habits and future projects within the contingencies of the moment” (Emirbayer and Mische, 1998: 963), leading actors must be capable of developing alternative action plans against the established institutional conditions, values and arrangements (Stevenson and Greenberg, 2000; Dorado, 2005). Thus, change agents can be understood as strategic actors who create and lead other actors by proposing or initiating strategic action plans (Leca and Naccache, 2006; Levy and Scully, 2007).

To become a strategic initiator, a leading actor must have a comparative advantage in making decisions over others under identical circumstances, either because of access to better information or because of a different interpretation of the same information (Blaug, 2000; Garud and Karnøe, 2003). An important role of leading actors is to discover opportunities in existing institutional arrangements. Depending on their capacity, some actors may be more capable of capturing and developing their own movements. Accordingly, submission of shareholder resolutions in stakeholder issues is framed as initiating activities proposed by active leading investors who hope to influence responsible corporate management.

As described above, in order to effect change in companies, social investors recognize and exploit opportunities to influence and change corporate behavior, by filing shareholder resolutions on responsible corporate management. To examine the way in which proactive social investors initiate social resolutions, this study adopts the social movement perspective.
Determinants for Initiating Social Resolutions

Social movement perspectives have complemented mainstream organization theories by demonstrating the conditions under which collective actions emerge in the political or social arenas, allowing these actors to affect social and political change (Davis and Thompson, 1994; Davis et al., 2005; King, 2007). The research on social movements takes two perspectives: the resource-based view and the political process view. The former emphasizes the formal organization’s roles such as a specific identity or financial resources in mobilizing followers; the latter sheds light on the dynamics of organizing constituents for movements (Diani and McAdam, 2003; McAdam et al., 1996; Rowley and Moldoveanu, 2003). Based on the resource-based perspective, a certain identity or financial resources of social investors provides an established resource base with which they overcome initial impediments. According to the political process perspective, networks of social investors play a critical role in organizing themselves to achieve movement goals. Indeed, both of these concepts should be considered in the present study of entrepreneurial activities of social investors.

Thus, considering the resource basis and the political process, a general proposition is introduced that social investors with the capacity for mobilizing other social investors tend to become leaders in the field of social resolution filings. Specifically, this research pays attention to the following three factors: (1) a social investor’s brokerage position among social investors from the political process; (2) a social investor’s faith-based identity; and (3) stock ownership range from the resource based viewpoint.
Brokerage Position. A broker or brokerage position is defined as actors “who connect otherwise disconnected actors” (Fleming and Waguespack, 2007: 165). Brokerage occurs when an individual actor bridges among a group of actors (Burt, 1992). Thus, a broker occupies the sole intermediate position between two disconnected others; these two others, or alters in the social network analysis term, can interact only through this broker. The importance of the brokerage position has been developed from Granovetter’s (1973, 1985) “strength of weak ties” theorem that proposed that a broad range of indirect ties provides greater access to redundant information or fresh ideas from other actors with different interests and diverse perspectives. A distinct theoretical proposition of this approach is that an actor positioned between two disconnected parties can exploit and manipulate the information flow for its own benefit (for review, see Burt, 2000).

Recently, Burt (1999) has applied this logic to the case of opinion leaders whose conversations spread innovations to the people with whom they speak. Leadership in the opinion community is rooted in the influences executed through strong relationships between weakly connected actors or groups. In this sense, an opinion leader influences others because of her or his structural location between two groups, not within a single group. An opinion leader also has a role as a gatekeeper between two groups. An actor’s brokerage position complements other kinds of resources: “These opinion leaders are not leaders with superior authority or leaders in the sense of being more attractive such that they are individuals that others want to imitate. Opinion leaders defined by function (people whose conversations make innovations contagious) and structural location
remove the vertical distinction implicit in the contrast between opinion leaders and followers” (Burt, 1999: 47).

As Burt (1992, 1999) argues, the strategic superiority of brokerage is that brokers can present different strategies to different groups, because disconnected observers lack the opportunity to compare these strategies (Padgett and Ansell, 1993). Thus, a group member in a brokerage position has access to an expanded set of opportunities than is known to the wider set of groups (Fleming and Waguespack, 2007). Accordingly, an actor located in a brokerage position can be considered as a resourceful actor in the field, as she or he takes advantage of the capacity to control information or resources, and integrates and delivers diverse resource or information among other disconnected actors (Diani, 2003). Through this function, an actor in a brokerage position is expected to be supported by other actors or followers.

Applying this logic to the case of social investors, a social investor who co-files with two other social investors who do not collaborate with each other can take advantage of utilizing resources from a wide set of investors. A social investor with a brokerage position can or control resources such as information or experiences in filing social resolutions. As a resourceful investor, this social investor is likely to initiate more social resolution filings to other investors who are concerned on stakeholder issues than any other investors. Thus, a social investor’s brokerage position is positively associated with the number of social resolutions proposed by this social investor to other social investors. A corresponding hypothesis is:

**Hypothesis 1**: An active investor’s brokerage position in a collaboration
network among investors is positively associated with the investor’s likelihood of initiating shareholder resolutions.

**Faith-Based Identity.** The recent research on the organizational dynamics of corporate stakeholders has drawn its inspiration from social or collective identity theories (Rowley and Moldoveanu, 2003). The term “identity” is a set of logically connected propositions that actors use to describe themselves to others as well as themselves based on their imagining of a shared status or relations regardless of their experience (Polletta and Jasper, 2001). It has been proposed that two requirements of social identity are continuity and distinctiveness: “identity is conceived of as those things that enable social actors to satisfy their inherent needs to be the same yesterday, today, and tomorrow and to be unique actors or entities” (Whetten and Mackey, 2002: 396). In this sense, a certain identity of actors stimulates their internal and behavioral motivation, when they desire to maintain inherent values from this identity.

As an identity facilitates mobilization of actors, a potential leader can use her or his identity to organize her or his followers. Indeed, identity has been regarded not only as an outcome of mobilization process but also as a motivator of participation (Polletta and Jasper, 2001; Rowley and Moldoveanu, 2003). Even in the absence of preexisting identities, movement participation itself provides “movement” identities to participating actors (Jasper, 1997; Minkoff, 1997). Comparing different “participation” identities which actors in two cases of the French Revolutions in 1848 and 1871 developed, Gould (1995) argued that movement participants for the 1848 case used a given classified identity of working class, but that those for the 1848 case took advantage of an identity of
neighborhood in the same arrondissements of Paris. Thus mobilization or movements can be initiated by a desire of actors to express a certain identity among their similar entities.

Given that leading actors are more active participants than other actors, it is conjectured that actors with certain identities are more likely to lead other actors. Moreover, actors of a certain identity are reinforced their belongingness or inheritance through action (della Porta and Diani, 1999: 87). When leading actors initiate movement episodes such as proposing shareholder resolution filing, they encourage “continuous redefinition of its own identity” (Hirsch, 1990). Thus, a certain identity of social investors influences their tendency to become lead-filers, because this identity, a so-called “movement identity,” functions as an incentive to stimulates their internal motivation to initiate social resolutions filings.

In this sense, among social investors, faith-based identity is a candidate to provide an identity for following or co-filing social investors. Ethical investment originated from active engagements by religious organizations (Bruyn, 1987). Faith-based organizations are expected to be actively engaged in lead-filings because they have a strong religious orientation about social justice embedded in many shareholder resolutions. Thus, faith-based actors are expected to lead social resolution filings because they advocate the interests of stakeholders (Domini, 2001; Manheim, 2004). Accordingly, a social investor with a faith-based identity might initiate social resolutions on which other social investors follow as co-filers. A corresponding hypothesis is:

**Hypothesis 2**: An active investor’s faith-based identity is positively associated
with the investor’s likelihood of initiating shareholder resolutions.

**Stock Ownership Range.** Resources such as the financial assets of activist leaders have been regarded as one of the most important factors for effective organizing. Followers are believed to evaluate a potential leader’s resources during the mobilization process. Financial patronage is a good example through which followers gain access to resources (Edwards and McCarthy, 2004). In this sense, a leader’s resource endowment determines the effectiveness of its mobilizing structure. In the social movement literature, it has been found that movements with abundant resources are more successful at attaining followers than those with fewer resources (Davis and Thompson, 1994; Giugni, 1998). In addition, movements organized by leaders with strong control over internal resources tend to be more successful at achieving desired outcomes (Frey et al., 1992; Mirowsky and Ross, 1981). Comparing resources contained within an organization to those embedded in inter-organizational networks, Diani (1995) found that actors with the internal resources are usually more influential than others.

Among social investors in the field of social resolution filings, actors with considerable financial assets have been dominant players; they funded other social investors or led social movement activities (Manheim, 2004). Hess (2005: 218) empirically tested the determinants of shareholder activism and found that “larger pension funds are likely to have more resources than smaller pension systems, and thus can be devoted to being more informed and active shareholder.” Large social investors usually maintain portfolios with a variety of stocks to strengthen their influence on diverse companies and on the business world. Rather than concentrating on a few target
companies, they try to reduce risks by, for example, diversifying their portfolios. Accordingly, the range of stocks owned by a social investor is a good indicator of its financial resources, and thus helps the social investor become a leading actor.

*Hypothesis 3*: An active investor’s range of stock ownership is positively associated with the investor’s likelihood of initiating shareholder resolutions.

**RESEARCH METHOD**

To empirically test the effects of the three predictors hypothesized above, a social investor’s brokerage position in a given year, faith-identity and stock ownership range on the likelihood of initiating social resolutions, this study examines the network based field of social resolutions. Thus, the universe of research is the filing of social resolutions in which some social investors initiate resolutions to collaborate with other social investors while other activist social investors co-file or follow these lead-filers. The unit of analysis is the social investor engaging in filing social resolutions from 2002 to 2007, i.e. the social activism on shareholder resolutions over time.

**Data and Sample.** I compiled a dataset of shareholder resolutions from a database of the Interfaith Center on Corporate Responsibility or ICCR. Using this database, I coded the lead-filer(s), and the co-filers, and created the matrices for collaboration relationships among them. In addition, I also measured each social investor’s stock ownership range and length of filing activities based on the ICCR database. Identity variables were measured using each social investor’s website or the Social Investment Forum sites (www.socialinvest.org).

In the 6 year period, from 2002 to 2007, there were 276 social investors who had
been engaged in shareholder resolution filings about environment, human rights, diversity, and governance issues at least once. Therefore, the size of final sample is 1656 cases of 276 social investors for the 6 year period. Based on these data and sample, I create variables for running statistical regression models.

**Measurements**

Based on the sample described above, the dependent variable, three independent variables, and control variables are created.

**Dependent Variables**: To assess the phenomenon of initiating activities of proactive lead-filing social investors, this study uses the number of initiating collaborative social resolutions. This measurement is calculated by counting the total number of lead-filings each social investor initiated for collaborative filings. The number of solo filings is not included in this measurement. Thus, this variable is a count variable.

**Independent Variables**: Three main predicting variables, ‘brokerage’, ‘faith-based identity’, and ‘stock ownership range’ are measured as follows.

**Brokerage – Betweenness Degree Centrality**: An independent variable, ‘brokerage’ was measured by the betweenness degree centrality based on the matrices of lead-filers and co-filers relationships among active social investors. The formula below was used to assess the betweenness centrality of each social investor (Wasserman & Faust, 1994: 188-191):

\[
BDC_i = \sum_{j \neq k} \frac{g_{jk}(n_i)}{g_{jk}} (i \neq j \neq k)
\]

In the above formula, \(g_{jk}\) denotes the number of shortest paths or geodesics linking two social investors “j” and “k”, and \(g_{jk}(n_i)\) denotes the number of geodesics linking.
between “j and “k” only through “i”. Thus \( g_{jk} \) indicates total number of co-filing relationships between two social investors “j” and “k”, and \( g_{jk}(n_i) \) indicates the number of these relationships through a social investor “i” (j – i – k). Note that directions among these social investors are not considered for calculating this variable.

This variable is heavily skewed to the right, so it needs to be transformed to have normality in its distribution. I choose to transform it to a categorical variable because over a third of the cases for this variable had zero values. In general, the variables with many zero-value cases cannot be easily transformed to another continuous variable. Thus, this variable is transformed to a categorical variable with three categories: no brokerage when a social investor’s betweenness centrality is zero (coded 0); low brokerage when a social investor has a lower than average betweenness centrality value (coded 1); and high brokerage when a social investor has a higher than average betweenness centrality value (coded 2). Cases with lower than average betweenness value in a given year are categorized as ‘low betweenness’; meanwhile those with higher than average value as ‘high betweenness’.

*Faith-Based Identity*: A predictor ‘faith-basis’ indicates whether a social investor is a religion based organization, such as Catholic, Protestant, Jews, or Quakers. Some faith-based organizations are pension funds or individual foundations. However, these properties are not considered for this variable but are used for control purposes. The attribute of faith-basis is identified from the internet website of each social investor, and from basic fund profiles from the Social Investment Forum website (http://www.socialinvest.org/directory/). This variable is coded as categorical: 1 for
faith-basis and 0 for not.

Stock Ownership Range: Measuring the stock ownership range of each social investor was conducted in the following two steps. First, the number of companies whose stocks a social investor possessed in a given year was averaged for the 6-year period. This was done to ensure consistency in the stock ownership of social investors who tended to keep stocks rather than to sell them off easily (Manheim, 2004). From a conceptual standpoint, it is reasonable to expect that the stock ownership of a social investor is more likely to be stable over a 5-6 year window than to change from year to year. Second, this averaged variable was transformed to be normally distributed. After testing several transformation methods including the log transformation and the square rooted transformation which did not improve skewness of this variable’s distribution, the Box-Cox transformation method was utilized (Box and Cox, 1964). The skewness indicator for the Box-Cox transformed variable is very close to zero (i.e. 9.95 · 10^{-6}) reduced from 4.96 for the averaged variable. As a result, the Box-Cox transformed, averaged ownership range variable is used for this study.

Control Variable: The following two variables are included for control purposes in the regression model.

Experience (Tenure): In general, in most organizations or fields, it has been

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3 For Box-Cox power transformation, the ‘bcskew0’ algorithm in the STATA software is used. This ‘bcskew0’ algorithm creates new variable = (old variable^L - 1)/L, and choose L so that the skewness of new variable is zero.

4 Indicators such as Skewness and Kurtosis are used to determine the best transformation method among Box-Cox power transformation, logarithmic transformation and squared-rooted transformation. The Shapiro-Wilk’s W test also shows that Box-Cox transformed variable has the best fit to the normal distribution.
argued that seniority is associated with more experiences and more plentiful knowledge. To control for this tenure effect, the longer a social investor has engaged in the field, the more likely it is to initiate social resolutions to other active social investors, the tenure effect needs to be controlled in the model. The length of experience of each social investor is measured by subtracting the year it filed social resolutions for the first time from the year 2007. The year 2007 is used for the baseline year because the final year of data set for this study is 2007. For example, if a social investor filed social resolutions in 1997, it is given ‘10’ for this variable. When a social investor filed social resolution in 2007 for the first time, it is given ‘0’.

Social Activist Identity: Another control variable ‘social activist’ was included to control each investor’s tendency to be politically aggressive in social movements. This variable shows whether a social investor primarily pursues a specific social justice value such as human rights, human trafficking, or sweatshop issues. The property of social justice of each social investor was mostly collected from its internet website. This independent variable is also coded as categorical: 1 for a politically activist organization and 0 for all other cases.

Data Analysis Method

To determine the appropriate statistical analysis method, I considered the following three conditions. First, given the panel data structure for the 6-year period from 2002 to 2007, in which the same sets of social investors repeatedly appeared across time in the data structures, the possibility arises that the residual in the equation will not be independent across time (Greene, 2000). Thus, the estimation for panel data requires
some modification of standard ordinary least squares (OLS) regression modeling. Second, the potential bias due to unobserved fixed, random, and time-varying effects needs to be minimized. The proper regression model should provide the statistical benefits of pooling social investors’ time-stable categories and time-varying factors together without giving up the ability to allow estimates of these two levels to vary cross-sectionally. Third, because both dependent variables are count data, ordinary least squared regression methods cannot be used. Rather, a regression model fitting a skewed distribution of dependent variables is chosen (Long, 1997).

Moreover, in this study three variables have been proposed as determinants of initiating shareholder resolutions so far. Despite diverse conceptual meanings, they can be categorized in two levels: time-variant concepts or time-invariant concepts. Brokerage of a social investor varies year by year, and should be dependent upon a social investor’s social activities in each year. Thus, this variable belongs to the former category – a time-variant level. Meanwhile, the other two concepts, i.e. faith-based identity and stock ownership range hardly vary across different time dimensions. Rather these two concepts are stable across time, and social investors can be categorized with these two concepts such as a faith-based social investor or not, and having a diversified ownership or not.

To meet all these needs, I chose the multilevel hierarchical multivariate linear model (Raudenbush et al., 2004), sometimes referred to as the multilevel mixed effects regression model (Singer and Willett, 2003). Research design and data set of this study fits features of this model: there are multiple time periods of data, a clear metric for time, and outcomes changing systematically over time. With a 6-year period panel structure,
and with dependent variables equitable over time, this study’s data set satisfies all these three features (Singer and Willett, 2003). The multilevel mixed effects model for this study is formulated at two levels as follows. Level 1 is the time-varying characteristic of social investors (sampled as years within a social investor); and level 2 is the time-stable property of social investors (sampled from within categories such as faith-based identity or diversified ownership). At level-1, or in the first stage of an analysis of change, this method analyzes within-individual change over time. It describes the shape of each social investor’s individual growth trajectory. At level-2, or in the second stage of an analysis of change, this model analyzes whether and how much inter-individual differences affect the change. In other words, the goal of level-2 analysis is to detect heterogeneity in effects across social investors and determine the relationship between predictors and the shape of each social investor’s individual growth trajectory. Thus, the first level captures time-varying effects of a social investor from year-to-year; and the second level estimates effects of social investors’ characteristics across the samples.

As seen in the equations below, the level 1 model includes time as a trend variable and a time-varying independent variable, brokerage. At level 2, the model includes the parameters from model 1 as dependent variables. Model 2 incorporates an intercept, a random error term, and the nontime-varying independent variables denoted as L2IVs (level 2 independent variables). These L2IVs are variables at the social investor level that do not vary with time. There are three models at level 2: A first model predicting a

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5 Singer and Willett (2003) recommend that both time and time² variables should be included when the dependent variable has an underlying time-varying component. Following their advice, I ran models with both time and time² variables but found no significant coefficients for both variables.
parameter “a” is the baseline model predicting intercepts in the level 1 model. A second model predicting a parameter “b” is a model to calculate the time effects, so called trend coefficients. A third model predicting a parameter “c” includes both the main effects as well as the interactive effects of level-1 variables and level-2 variables. The models are summarized below:

Level 1: Across time within a social investor

\[ Number\ of\ \ initiaion = a + b\ (TIME) + c\ (Brokerage) + e \]

Level 2: Across social investors within categories

\[ a = G_{00} + G_{01}\ (L2IVs) + u_0 \quad (\text{Intercepts}) \]
\[ b = G_{10} + G_{11}\ (L2IVs) + u_1 \quad (\text{Trend Coefficients}) \]
\[ c = G_{20} + G_{21}\ (L2IVs) + u_2 \quad (\text{Brokerage Coefficients}) \]

(L2IVs: faith-basis, stock ownership range, social activist and experience)

Using a restricted maximum likelihood procedure, the ‘xtmepoisson’ algorithm in the STATA software is used (Rabe-Hesketh and Skrondal, 2008: 373-384).

**RESEARCH FINDINGS**

The main research theme of this study is to find determinants of proactive social investors who initiate social resolutions to other active investors, utilizing a dataset of shareholder resolution filing activities.

Table 1 presents descriptive statistics and pairwise correlation values among all variables used in this study. As seen in Table 1, all variables have the same number of cases, 1656, without missing cases. The dependent variable, number of initiations, has a
larger standard deviation values than its mean value, thus this study uses regression models fitting a dependent variable with a *Poisson* distribution. The dependent variable, number of initiations, is distributed from zero to 13, implying that the maximum number of social resolutions proposed or initiated by a social investor in a given year is 13. In addition, more than half of social investors in the sample are faith-based organizations, as the mean value of a variable, faith-based identity which is a categorical variable, is 0.736. In addition, as the mean value of a variable social activist indicates, about 10% of social investors in the sample are politically activist organizations.

Table 4-1 also presents the pairwise correlation values between all variables. As the first column shows, the dependent variable, number of initiations, has pairwise correlation values with any other variables less than 0.7. For example, the number of initiations has significant and positive pairwise correlation values with three other variables: 0.5833 with a variable brokerage, which is the betweenness centrality, 0.4054 with a stock ownership range, and 0.1746 with a variable, experience. Interestingly, two variables based on a social investor’s identity, faith-based identity and social activist identity, have non-significant but negative pairwise correlation values with the dependent variable, number of initiations. No pairwise correlations values are greater than 0.6 among three independent variables, brokerage, faith-based identity, and stock ownership.

To test the hypothesized relationships among variables, as described in previous section, I employed the multilevel mixed effects *Poisson* regression method. In the next section, research results and findings will be summarized.
Table 4-1
Descriptive Statistics and Pairwise Correlation Among Variables
(n=1656)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>StdDev</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Number of Initiation</td>
<td>0.329</td>
<td>1.101</td>
<td>1.000***</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Brokerage (0–2)</td>
<td>0.392</td>
<td>0.702</td>
<td>0.583***</td>
<td>1.000***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Faith-Based Identity</td>
<td>0.736</td>
<td>0.441</td>
<td>−0.035</td>
<td>0.029</td>
<td>1.000***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Ownership Range</td>
<td>0.329</td>
<td>1.130</td>
<td>0.405***</td>
<td>0.565***</td>
<td>0.069***</td>
<td>1.000***</td>
<td></td>
</tr>
<tr>
<td>5. Social Activist</td>
<td>0.091</td>
<td>0.287</td>
<td>−0.041*</td>
<td>−0.083***</td>
<td>−0.383***</td>
<td>−0.140***</td>
<td>1.000***</td>
</tr>
<tr>
<td>6. Experience</td>
<td>5.412</td>
<td>4.791</td>
<td>0.175***</td>
<td>0.324***</td>
<td>0.031</td>
<td>0.313***</td>
<td>−0.087***</td>
</tr>
</tbody>
</table>

*** p < 0.01, ** p < 0.05, * p < 0.10
**Research Results**

Three models were tested as presented in Table 4-2. The first model, a control model includes only regression coefficients of two control variables, and the random effect, with an intercept. The second model, the trend model, presents regression coefficients for interaction effects between a time variable and other variables including three independent variables and two control variables. One purpose of model 2 was to evaluate the effects from different time periods, in other words to control the time effect from each year. As the results show, only the ownership variable had a significant regression coefficient, indicating that as time passes, a social investor with a diversified stock ownership is more likely to initiate social resolutions than other social investors. Although these two models were included for control purposes, it is possible to conjecture that there is an inertia effect: if a social investor maintains a wide range of stock ownership, the likelihood of this social investor’s proactive initiating activities of filing social resolutions will increase.

Model 3 presents regression coefficients for all proposed hypotheses. Hypothesis 1 proposing a positive association between a social investor’s brokerage position and the likelihood of initiating activities of a leader was supported very well, because the regression coefficient for brokerage is positive and significant. This result implies that when a social investor’s brokerage level increased from 0 to the lower than average level (=1), or from the lower than average level (=1) to the higher than average level (=2), the number of initiating social resolutions by this social investor would increase by slightly more than two resolutions.
Hypothesis 2, proposing the positive association between a social investor’s faith-based identity and number of initiating social resolutions, was not supported well. The regression coefficient for a variable, faith-based identity, was significant but negative, indicating that if a social investor was a faith-based or religious organization, this social investor’s likelihood of initiating social resolution decreased by slightly more than one resolution. In other words, in the 6 year period from 2002 to 2007, social investors with faith-based identity were less involved in initiating activities of filing social resolutions than other social investors.

For the third hypothesis proposing a positive relationship between a social investor’s range of stock ownership and number of initiating social resolutions, the results were fully supported with a significant and positive regression coefficient. This result implies that the ownership range of a social investor was the important indicator for proactive activities of initiating social resolutions to other social investors. When a social investor kept a diversified portfolio of stock ownership, this social investor was more likely to initiate lead-filing activities of social resolutions.

In addition to three direct effects mentioned above, integrating variables at level-1 and level-2, we have interesting results across time-invariant and time-variant variables. There were two interaction effects across two levels: the interaction effect between the brokerage in a given year and faith-based identity of a social investor, and the interaction effect between the brokerage in a given year and stock ownership range during the 6 year period for a social investor. (Please see appendix D on page 148 for more detailed description for examining cross-level analysis.)
Table 4-2
Multilevel Mixed Effects Poisson Regression on Number of Initiation
(276 samples for 6 years, 2002-2007)

<table>
<thead>
<tr>
<th></th>
<th>Model 1 Control</th>
<th>Model 2 Trend</th>
<th>Model 3 Brokerage</th>
<th>Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Intercepts</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>−4.961 ***</td>
<td>−3.614 ***</td>
<td>−4.286 ***</td>
<td></td>
</tr>
<tr>
<td>Faith-based</td>
<td>−0.462</td>
<td>−1.068 ***</td>
<td></td>
<td>H2</td>
</tr>
<tr>
<td>Ownership</td>
<td>0.879 ***</td>
<td>0.821 ***</td>
<td></td>
<td>H3</td>
</tr>
<tr>
<td>Social Activist</td>
<td>−0.992</td>
<td>0.132</td>
<td>−0.014</td>
<td></td>
</tr>
<tr>
<td>Experience</td>
<td>0.247 ***</td>
<td>0.081 **</td>
<td>−0.002</td>
<td></td>
</tr>
<tr>
<td>Random Effect</td>
<td>3.296 **</td>
<td>0.972 **</td>
<td>0.698 **</td>
<td></td>
</tr>
<tr>
<td><strong>Trend Coefficients</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time (Intercept)</td>
<td>−0.210</td>
<td>−0.099</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time × Faith</td>
<td>0.057</td>
<td>0.034</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time × Ownership</td>
<td>0.070 **</td>
<td>0.028</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time × Activist</td>
<td>0.030</td>
<td>0.017</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time × Experience</td>
<td>−0.013</td>
<td>−0.002</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Random Effect</td>
<td>0.232 **</td>
<td>0.093 **</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Brokerages Coefficients</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brokerage (Intercept)</td>
<td></td>
<td></td>
<td>2.156 ***</td>
<td>H1</td>
</tr>
<tr>
<td>Brokerage × Faith</td>
<td></td>
<td></td>
<td>0.370 *</td>
<td>(H1 &amp; H2)</td>
</tr>
<tr>
<td>Brokerage × Ownership</td>
<td></td>
<td></td>
<td>−2.280 ***</td>
<td>(H1 &amp; H3)</td>
</tr>
<tr>
<td>Brokerage × Activist</td>
<td></td>
<td></td>
<td>0.132</td>
<td></td>
</tr>
<tr>
<td>Brokerage × Experience</td>
<td></td>
<td></td>
<td>−0.007</td>
<td></td>
</tr>
<tr>
<td>Random Effect</td>
<td></td>
<td></td>
<td>0.278 **</td>
<td></td>
</tr>
<tr>
<td><strong>Model Fit</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Log Likelihood</td>
<td>−1836.959</td>
<td>−803.433</td>
<td>−621.973</td>
<td></td>
</tr>
<tr>
<td>Wald Chi²</td>
<td>206.43</td>
<td>204.61</td>
<td>264.16</td>
<td></td>
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<tr>
<td>Prob &gt; Chi²</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
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</tr>
</tbody>
</table>

All coefficients are non-standardized regression coefficients.

*** p < 0.01, ** p < 0.05, * p < 0.10
First, as shown in Figure 4-1, a positive interaction effect between faith-based identity and brokerage position can be found, across time-invariant level and time-variant level variables. As presented in Figure 4-1 below, the slope when a social investor has both faith-based identity and brokerage (thick blue line) is steeper than a slope when a social investor has only brokerage positions (thin blue line). It can be interpreted that if a social investor is a faith-based organization, it is more likely to initiate social resolutions when it has a brokerage position. This result provides an interesting result, because the result of Hypothesis 1 about a relationship between faith-based identity and number of initiation shows a negative regression coefficient.

**Figure 4-1**
*Effects of Brokerage and Faith-Based Identity on Number of Initiation*

The result for the interaction effects across a time-variant brokerage and a time-invariant ownership range is opposite to the previous case. Although regression coefficients for two variables, ‘brokerage’ and ‘stock ownership range’, are positive and
significant at $p < 0.01$ level respectively, the regression coefficient for the interaction effect between these two variables is negative.

Figure 4-2 graphically presents these equations. The thin blue line presents a relationship between a variable, brokerage and the number of initiation. As the slope of the thick blue line, which presents the interaction effect between brokerage and stock ownership, is lower than the slope of a thin blue line, the figure suggests that when a social investor has both brokerage positions and diversified stock ownership, this social investor will not proactively initiate social resolutions.

**Figure 4-2**

Effects of Brokerage and Ownership Range on Number of Initiation

In substantive terms, this result implies that if a social investor has brokerage positions and when this social investor has diversified stock ownership, the likelihood of initiating social resolution will decrease. It can be conjectured that there is a trade-off relationship between the brokerage which denotes the social resources of a social investor
and the stock ownership which denotes financial resources of a social investor.

In short, all three predictors, brokerage, faith-based organization and ownership range have impacts on initiation activities of social investors. First, the variable brokerage has statistical results as hypothesized: when a social investor has brokerage position linking two disconnected social investors, this social investor will initiate social resolutions proactively. Second, if this social investor has a faith-based identity, the likelihood of initiating social resolutions will be higher than when it does not. However, if a faith-based social investor has brokerage positions, this social investor will be actively initiating social resolutions. Third, ownership range has a positive effect on the initiating activities for social resolution filing. Surprisingly, if a social investor has both a wide range of stock ownership and brokerage positions between disconnected social investors, this social investor will not be actively engaged in initiating social resolutions.

CONCLUSION

The specific research question for this study was “who initiates the collaboration networks among social investors by proposing social resolutions?” To examine the likelihood of initiating shareholder resolutions, this study assessed three factors that a potential lead-filing social investor needs to possess and can utilize: brokerage positions, faith-based identity, and stock ownership range of social investors. This study contributes to understanding as follows.

First, social investors’ faith-based identity had a negative effect on their initiation of social resolutions. One possible reason for this finding is that this study focuses on social resolutions on stakeholder issues such as human rights, diversity, environment and
corporate governance. Conventionally, religious investors have screened out “sin” stocks of companies, that is, companies active in alcohol, tobacco, gaming and weaponry industries (Domini, 2001; Wokutch, 1982). Therefore, it can be interpreted that religious investors were active in filtering out harmful products, but they were not necessarily proactive for pressing corporate managers to be concerned about stakeholder issues.

Second, the range of social investors’ stock ownership is an important consideration in the initiation of social resolutions. Based on research results of this study, there is a strong effect of stock ownership range. Social investors with diversified stock ownership were active in initiating social resolution filing when they did not have well connected social relationships with other social investors.

Third, paying attention to the social resources of social investors, brokerage positions in this case, this study provides empirical understanding of the roles that a social investor’s social resources play in initiating social resolution filings. Thus, to become a leading social investor, a social investor needs to have a brokerage position, which means collaborating with other social investors who are disconnected each other, regardless of her or his given internal resources.

Interestingly, as the negative regression coefficient for the interaction effect of stock ownership with a variable brokerage implies, it can be interpreted that social investors with plentiful financial resources were not active in building strategic or effective social relationships with other social investors for their resolution filing. Contrary to the hypothesis and common sense, diversified ownership of stocks had a trade-off relationship with brokerage, meaning that a social investor who proactively
initiates social resolutions had either a diversified stock ownership range or brokerage position. Thus, a social investor’s brokerage positions, a dimension of social resources, and the social investor’s ownership structure, a dimension of financial resources, are not interdependent but independent for this social investor to initiate social resolution filing. This concluding remark is opposite to social capital theory (Burt, 1992; Lin, 2001) which argues that, in order for an actor to achieve good performance, her or his internal resources are a preliminary condition, moderated by its brokerage position, therefore that these two variables are interdependent.
CHAPTER 5. HOW DO INVESTORS ATTRACT AND MOBILIZE FOLLOWERS?: SOCIAL MOVEMENT STRATEGIES FOR BECOMING CENTRAL ACTORS

This chapter inquires into the strategic mechanisms by which some social investors become central lead-filers among active shareholders. In other words, this study examines how lead-filing social investors emerge as popular lead-filers by attracting potential followers.

In filing shareholder resolutions to certain companies, some social investors collaborate as lead-filers and co-filers. In collaboration, investors develop and maintain leader-follower relationships. Because lead-filers must be supported by co-filers, lead-filing social investors are not usually pre-appointed; rather, they emerge. In this sense, the filing of social resolutions is a naturally controlled field to examine how and why some social investors are supported by many other co-filing social investors. However, the emergence of lead-filing social investors has received little attention in management research (cf. Manheim, 2004). Thus, the following research question has not been answered: How do some social investors become leaders followed by many other co-filing social investors?

This study identifies the mechanisms associated with becoming a popular lead-filer who is mostly supported by other social investors in the field of social resolutions. It describes the strategic mechanisms through which some social investors attract other social investors. This chapter is composed of four sections. In the first section, I will introduce the centrality: a social network term used to assess how the lead-filers effectively affect and are followed by other social investors. The second section uses
social movement perspectives to theorize determinants and develop hypotheses for becoming a central lead-filing social investor, focusing on an investor’s faith-based identity, co-filing activities, aiming at popular targets, and articulating a wide of framing issues. The third section presents the research method for empirical analysis of the hypotheses and results from data analysis. The fourth section summarizes practical and theoretical implications of the findings.

THEORY AND HYPOTHESES

Emergence of Leading Actors Followed by Others

The emergence of leading actors has been examined by some organizational scholars inquiring into leading actors in a field or an organization which lack pre-designated authority or power (Bryson & Kelley, 1978; Kent & Moss, 1994; Middleton, 2005), and by social network researchers who studied actors followed by many others without formally assigned positions (Barley, 1990; Krackhardt and Hanson, 1993). The former research stream concentrates on emergent leading actors who are not pre-appointed as leaders in a certain field or organization. The latter stream proposes a definition of informal leaders based on a relational approach using the social network approach. Interestingly, however, these research streams have rarely attempted to establish a convergent theoretical viewpoint.

Despite the lack of integration between two research streams, both groups of researchers agree that the phenomenon of becoming a leader needs to be approached in terms of the social process among leaders, followers, situational contexts, and the interaction among them (for review, see Mahar and Mahar, 2004). Recently, research has
begun to focus on the roles (De Souza & Klein, 1995; Druskat & Pescosolido, 2001; Neubert, 1999; Pescosolido, 2001; Taggar et al., 1999; Wolff, Pescosolido, & Druskat, 2002) and relationships or influence of emergent leading actors (Balkundi and Kilduff, 2005; Brass and Krackhardt, 1999). All these research results have shown that leadership is a reciprocal, dyadic process between the leader and followers (Uhl-Brien et al., 2000). Thus, the emergence of leading actors in a field or in an organization is a process through which one person’s contribution to a team must be accepted and recognized by other members of the team (Hollander, 1960).

These results have a much broader implication. To be effective, a leading actor must be accepted by other actors. The analysis here moves beyond the individual and beyond the dyadic relationships between two actors. Moreover, it considers the consequences of interactions between potential leaders and their followers. We now consider the leader’s social circle of relations and draw the importance of relationships between leading actors and potential followers, in bringing a relational perspective to the emergence of leading actors. Indeed, the social network approach focusing on the actors’ positions in the relationships with other actors will provide theoretical insight into understanding the emergent phenomena of leading actors.

**A Social Network Approach to Leading Actors.** Social network researchers have paid attention to the process through which an actor becomes a leading actor based her or his relationships with other actors who turn out as followers (Balkundi and Kilduff, 2005; Brass, 1985; Burkhardt and Brass, 1990; Krackhardt, 1990; Krackhardt and Hanson, 1993). Under the social network approach, positive evaluations by following
actors or potential followers are the critical factors in an actor’s becoming a leading actor regardless of her or his formal authority, so called informal leadership (Schneider and Goktepe, 1983; Moss and Kent, 1996).

Indeed, one of the main themes of the social network approach is the identification of leading actors who are followed by many other actors, so called central actors (Wasserman and Faust, 1994). The social network approach often equates central actors with leading actors, which is defined and assessed by one who is chosen by the most other actors in a certain kind of network relationships, such as friendship, advice, and mentoring. Earlier work in this research stream showed that individuals who are more central tend to be regarded as influential and powerful (Brass, 1992; Bass, 1990), and that central actors are likely to be chosen as leaders of the groups (Shaw, 1964). The finding that central positions in the network are associated with power has been reported both for small laboratory work groups and for organizational networks: The power of central actors increases as she or he attracts more followers and establishes more popular ties with them (Brass, 1984; Brass and Burkhardt, 1992, 1993; Krackhardt, 1990).

Network based leading actors or informal leadership is critical in groups and organizations. Much of the real work in any company gets done through this informal organization with its complex networks of relationships that cross functions and divisions (Krackhardt and Hanson, 1993). In a series of studies of the impact of new technology adoption on informal leadership, Barley (1986; 1990) found that actions and interactions among organizational members determine the selection of informal leaders. Burkhardt and Brass (1990) revealed that early adopters of new technology emerge as informal...
leaders, who move into central positions and assume power over others. Thus, the social
network approach essentially examines a leader's structural position embedded in the
leader-follower interaction structure (Balkundi and Kilduff, 2005; Barley, 1990; Brass
and Krackhardt, 1999; Krackhardt and Hanson, 1993), which is also a fundamental basis
for becoming a leading actor.

The network approach for leading actors, therefore, allows a greater focus on the
full repertoire of social relationships among actors, and provides a robust definition for
becoming leading actors who are popular and central leaders by reflecting social
relationships between them and following actors. Following the social network
approach’s emphasis on social relationships of potential leading actors with followers,
this study frames and tests the concept of a central actor as a proxy for becoming a
leading actor in the field of social resolutions.

**Central Actors in the Networks.** The network approach emphasizes the extent to
which the emergence of leading actors is embedded in leader-follower relationship
networks, and the extent to which leading actors are rooted in the lead-filing and co-filing
collaborative relationship networks. Lead-filing social investors generate connections
with their co-filers’ among important constituencies as they file social resolutions
collaboratively. In particular, some lead-filing social investors emerge as popular among
other investors in the field of social resolutions, where they are followed by many co-
filers. Thus, some lead-filers are likely to be more popular on the basis of other social investors’ co-filing activities or their sponsorship than other lead-filers.

It has been also suggested that this popularity in the network represents potential
power, because these positions imply the resourcefulness of the focal actor (Diani, 1995; 2003). Social network researchers propose that an actor’s popularity or potential influence can be easily measured by counting the number of followers (Blau and Alba, 1982; Brass, 1984; Brass and Burkhardt, 1992, 1993). These scholars make a strong argument that the centrality of actors represents their popularity and affects both their influence and the support they receive from other actors. In this sense, the number of co-filing connections, assessed by the number of co-filers as followers for a social investor’s shareholder resolutions, indicates this investor’s status as a popular and central lead-filer. The central position of a social investor thus denotes not only popularity among other co-filing social investors, but also the potential or actual power of this social investor.

Social Movement Mechanisms for Becoming a Leader

In order to become a central lead-filer, a social investor must attract other social investors. To examine the ways in which lead-filing social investors attract followers, this study adopts the social movement perspective (Davis and Thompson, 1994; Davis et al., 2005; King, 2007). The research on social movements has drawn upon formal organizations’ roles in the mobilization process, as discussed in Chapter 2, and on the dynamics of mobilization (Diani and McAdam, 2003; McAdam et al., 1996; Rowley and Moldoveanu, 2003). Based on the social movement perspective, the formal organizations of social investors provide a resource base with which they can overcome constraints from the existing institutional arrangements. Thus, a general proposition of this study is that social investors with the ability to mobilize other social investors become popular and central actors in social resolution filings. In this research I argue and propose that a
popular and central social investor in social resolution filings utilizes strategies to attract potential followers based on faith-based identity, co-filing activities with other social investors, aiming at popular target companies, and wide issue framing.

**Faith-Based Identity.** Identity theorists argue that an actor judges other actors by classifying them or their qualities (Ashforth and Humphrey, 1997; Cator and Mischel, 1977; Tajfel and Turner, 1986). Moreover, researchers of social identity propose that an actor’s identity serves as a catalyst for mobilizing other actors in the same identity category (Ashforth and Kreiner, 1999; Fireman and Gamson, 1979; Friedman and McAdam, 1992; Klandermans, 1984). Furthermore, as actors interact, they are negotiating their own identities – by creating and maintaining “group-ness” with other actors, actors take advantage of their social identity to mobilize others for movements (den Hond and Bakker, 2007). Hence, identity negotiation theory emphasizes that actors strategically manipulate their identities.

A premise of identity negotiation process is that by expressing what others can expect, an actor can strategically appeal to other actors, using her or his social identity (Polletta and Jasper, 2001; Rowley and Moldoveanu, 2003; Schultz et al., 2000; Swann, 1987). By following leading actors, participating actors furnish the group-ness with which they distinguish themselves from others (Minkoff, 1997; Tarrow, 1998). Thus, organizers often concentrate on recasting “movement” identities of followers to include participation as one of the responsibilities or benefits of group membership. For example, in studying young French activists, Scherrer (2001) finds that social movement activists choose, balance, and negotiate their identities depending upon the situation. In short, a
focal actor can mobilize potential followers with her or his expressive identities such as faith-basis.

Applying the identity negotiation approach to the roles of leading actors in the submission of social resolutions, the following mechanisms about the impact of faith-based identity can be conjectured. First, because of the faith heritage in the SRI movement, faith-based identity easily appeals to potential followers. In the early 1970s, the Church of Christ was the first investor which began to use shareholder resolutions as instruments of social change (Domini and Kinder, 1986). Since then, faith-based or religion-affiliated organizations such as Quakers and the Catholic Church organizations played important roles in the field of social resolutions and SRI movements (Domini, 2001: 28-31). With a heritage that religious investors have created and developed the field of social resolutions for last three decades, other social investors will be easily appealed to by social resolutions proposed by a social investor with a faith-based identity.

Second, religious organizations are still very active in the SRI movements. As far back as the late 1800s some churches avoided investments in certain industries such as alcohol, tobacco, gaming and weaponry (Wokutch, 1982): the Society of Friends avoided profits from the sales of armaments; Members of the Nation of Islam avoided alcohol and tobacco; and Buddhists avoided meat companies (Domini, 2001). Because these religious organizations have proclaimed the need for social justice in the business world, other social investors distinguish themselves from others as justice-seekers by co-filing or following their social resolutions on responsible corporate management issues. In other words, social investors with faith-based identity can persuade and justify themselves to as
many potential followers as possible, because of their identity signaling social justice.

As a result, faith-based social investors become popular as many other social investors support their social resolutions and become central actors in the field of social resolutions. Based on this mechanism, a hypothesis is:

**Hypothesis 1**: An investor’s faith-based identity is positively associated with the investor’s likelihood of becoming a central actor in the collaboration network with other investors.

**Co-filing with Other Social Resolutions.** One of the important roles for a lead filing social investor is to integrate other actors into a team of collaborative resolution filers. In this process, networks of leading actors not only transmit valuable resources such as experience and information but also act as the community infrastructure, because social networks facilitate the convergence of interests among participating actors (Diani and McAdam, 2003). Scholars of social movements have attempted to understand how one or more actors overcome durable patterns of resource inequality in order to pursue their goals for social change, by examining their social networks (Edwards and McCarthy, 2004; Lin, 2001; Tilly, 1978). Moreover, previous research demonstrates that a social network among actors may constrain them, and may be the outcomes of interactions among these actors. In either case, though, socially well-connected actors are able to mobilize their followers for movements (Diani, 1995; Gould, 2003). Thus, in becoming central lead-filers, actors build relationships with many other actors, and maintain ties to bind those others to the community (Perrone et al., 2003).

Although scholars interested in mobilization structures have emphasized the
importance of an actor’s relationships with others (Diani, 2003), they rarely delve into the process through which actors not only relocate the relationship with others but also create ties with new partners (cf. Kenis and Knoke, 2002). Reciprocity is defined as “the degree to which individuals report the same (or similar) intensities with each other for a content area” (Tichy et al., 1979: 509). Researchers examining relational structures assume the reciprocity of dyadic relationships, for repeated encounters between the same two individuals in a dyadic relationship allow for return by the recipient (Axelrod, 1984). For example, when an economic actor chooses her or his alliance partners, she or he evaluates them on the basis of information about their past experiences (Saxenian, 2000; Larson, 1992; Li and Rowley, 2002).

Some actors seek indirect reciprocal relationships. In principle, indirect reciprocity argues that an actor provides help if the recipient is likely to help others or if the recipient has already helped others (Boyd and Richerson, 1989). According to Alexander (1987: 93-94), indirect reciprocity, which “involves reputation and status, and results in everyone in the group continually being assessed and reassessed,” plays an essential role in human societies. With indirect reciprocity, one does not expect a direct return from the recipient later, but from someone else who observes or benefits from one’s behaviors. Thus, the cooperative relationships of one actor with another affects or is easily transferred to this actor’s partnership with the third actor. Uzzi and Gillespie (2002) for example, found that bank-firm relationships enhance a firm’s ability to manage trade credit with the third party.

According to the reciprocation principle, whether direct or indirect, cooperation is
channeled towards the actors who helped or supported other members of the community (Axelrod, 1984; Axelrod and Hamilton, 1981). Given that both direct and indirect reciprocity connect an actor’s positive behaviors to benefits accruing to this actor by either direct recipient or by a third party, collaboration among/between active investors for their shareholder resolutions filings relies on reciprocation. Applying this logic to social investors, an active investor needs to pay to advertise her or his cooperation as a sign of his or her valuable contribution to a community. The logics of both direct and indirect reciprocation can be applied to investors’ filing social resolution activities.

Reciprocation appears when a social investor Y supports or co-files with another social investor Z; then either investor Z will co-file with an investor Y later based on indirect reciprocity, or an investor X will support social investor Y once an investor X observes Y’s supportive behavior, based on indirect reciprocity.

In principle, once an investor helps another investor by co-filing, this investor earns credit in the field of resolution filings, and will be supported by those investors or others. The corresponding hypothesis is:

_Hypothesis 2: An investor’s co-filing with other investors’ resolutions is positively associated with the investor’s likelihood of becoming a central actor in the collaboration network with other investors._

**Aiming at Popular Targets.** According to the social movement perspective, actors in social movements calculate and respond to a political opportunity structure: “a set of formal and informal political conditions that encourage, discourage, or affect movement activity” (Campbell, 2005: 44). Thus, some political situations can drive
actors into movement activities when those actors recognize opportunities from political situations to pursue an institutional change process (McAdam et al., 1996; Tarrow, 1998; Tilly, 1978). Moreover, changes in external political structures are windows of opportunity because they signal both a weakness of the existing arrangements and a structural malleability or openness to change (King, 2007; Tarrow, 1998). Leading actors therefore must be vigilant to interpret the external opportunity signaling that the time for change will arrive soon.

Accordingly, depending on the existing resources and capacities, leading actors must interpret and select appropriate targets among political counterparts (Meyer and Minkoff, 2004), or target companies in the context of this research. As a leading actor identifies targets, this actor attracts and encourages potential followers to put their efforts together for movements. Sometimes, institutional entrepreneurs attempt to change the external political atmosphere in their own favor. Davis and Thompson (1994) examined the efforts of corporate shareholders as institutional entrepreneurs who tried to alter proxy voting regulations in order to transform the corporate governance system. To be an effective activist with a captivating vision, an actor must have the ability to identify and interpret appropriate targets.

In the context of this dissertation, a lead-filing social investor’s identification of appropriate targets is an indicator to encourage other social investors to join as followers. Thus, a lead-filing social investor must identify appropriate target companies that have a high likelihood of being influenced by social resolutions and which other investors regard as desirable targets. In other words, a lead-filing social investor identifies companies that
will be vulnerable targets. The vulnerability of target companies can be determined in various ways. For example, companies in an industry with a high degree of competition are vulnerable to activists, because their competitive advantage is weakened (Baron, 2001). Rehbein and her colleagues (Rehbein, Waddock and Graves, 2004; Logsdon, Rehbein and Van Buren, 2007) find that shareholder activists regard large companies as vulnerable and that each company’s brand visibility affects its visibility to shareholders.

As such, an appropriate target company to social investors’ social resolutions has high visibility to social investors. The more shareholder resolutions a company receives or is exposed to, the more visible or popular this company will be among active shareholders. Furthermore, social investors as potential followers are appealed to by shareholder resolutions aiming at those highly visible companies, which are targeted by many other social resolutions. To appeal to potential followers, a lead-filing social investor must choose highly visible companies as targets for a shareholder resolution. In this sense, the corresponding hypothesis is proposed below:

**Hypothesis 3**: The more popular target companies an investor aims at for shareholder resolutions, the more likely the investor will become a central actor in the collaboration network with other investors.

**Wide Issue Framing.** Frames are the lenses through which actors interpret their confronting conditions and particular situations, to decide how to pursue their objectives (McAdam et al., 2001; Zald, 1996). Frames have been defined as “schemata of interpretation that enable individuals to locate, perceive, identify and label occurrences within their life space and the world at large” (Snow et al., 1986: 464). A frame thus
guides actors to build their own defined expectations about what is to happen when those actors make sense of their reality based on that frame (della Porta and Diani, 1999: 69). Given that a frame is a cognitive cue for actors to interpret and construct the reality from a particular light or dimension, issue framing activity of actors is “a cognitive mechanism of social change insofar as it affects how actors perceive their interests, identities, and possibilities for change” (Campbell, 2005: 49).

By framing appropriate issues, leading activists enhance the development of collective actions with constituents in a movement (Benford and Snow, 2000; Gamson, 1992). Framing processes in social movements involve the strategic use of shared meanings and definitions to invoke claims on individuals’ identity and cultural sense of responsibility to a cause (Snow and Benford, 1998). Leading activists’ appropriate issue framing generates congruence between their activities and goals and potential followers’ interests and values, so called frame alignment (della Porta and Diani, 1999). The successful and effective mobilization of social movements is possible when “a frame alignment” occurs between movement activists and the populations they intend to mobilize (Snow et al., 1986). A capacity to interpret and propose appropriate issues that effectively appeal potential followers, thus, has an impact on leading activists’ ability to lead mobilization process. The ways in which issues are framed influence lead-filing social investors’ capacity to develop an effective strategic approach to organize other social investors as followers for social resolutions.

Markowitz (2007) proposes that some socially responsible investors can be categorized as generalists when they attempt to frame universal issues and that others are
as specialists when they frame specific issues. Generalists create a broad sense of corporate responsibility; specialists apply a narrow definition based on specific issues such as human rights or environmental concerns. The tension between generalists and specialists has been examined among wine makers (Swaminathan, 2001), brewers (Zuckerman et al., 2003), newspaper companies (Boone et al., 2004), investment banks (Shipilov, 2006), or machine manufacturers (Sorenson et al., 2006). Past scholarship has found that generalists perform better than specialists under stable conditions (Romanelli, 1989; Shipilov, 2006), and that specialists are more sensitive to environmental conditions than generalists are (Tucker et al., 1990). Moreover, according to Padgett and Ansell (1993), when social movement leaders apply general frames for their agenda, they are more likely to attract followers.

Given that framing helps potential participants to join movements and to interpret the external political situations (Gamson, 1992), the way that lead-filing social investors’ frame issues on shareholder resolutions either will appeal or will not appeal potential followers. To be a generalist, in multiple social resolutions, a lead-filing social investor typically covers many issues such as human rights, environment, corporate governance which are not necessarily relevant to each other. A specialist lead-filing social investor, on the contrary, focuses on just one issue in multiple social resolutions proposed for diverse target companies. Furthermore, according to past scholarship favoring a generalist approach (Padgett and Ansell, 1993; Romanelli, 1989; Shipilov, 2006), framing issues widely allows lead-filing actors to be supported by more followers than does framing in a specific way. In other words, potential followers are expected to
choose lead-filing actors who frame issues more widely in their shareholder resolutions than other lead-filing actors. Thus, in this research:

_Hypothesis 4: The more widely an investor frames an issue for shareholder resolutions, the more likely the investor will become a central actor in the collaboration network with other investors._

I test these four hypotheses with the empirical data and statistical methods.

**RESEARCH METHOD**

This study identifies factors that determine a social investor’s likelihood of becoming a central lead-filer among other active shareholders. The unit of analysis is the active investors engaged in filing shareholder resolutions. The universe of this research is the field of social shareholder resolutions about people, environmental and governance issues for which some activist investors are supported or followed by other investors as co-filers from 2002 to 2007. For empirical testing of the four proposed hypotheses, using the dataset compiled from the database by the Interfaith Center on Corporate Responsibility or ICCR, I will create variables for statistical analysis. For statistical analysis, this study utilizes a time-series panel data analysis fitting a dependent variable with a skewed distribution.

**Sample.** This study focuses on social investors who have filed or co-filed shareholder resolutions on four broad issues: environment, human rights, diversity, and governance from 2002 to 2007. There are 276 investors who have been engaged in filing shareholder resolutions on these issues at least once during this 6-year period. Among these investors, 109 have led collaborative social resolutions at least once, while 145
have only co-filed resolutions. The other 22 have filed social resolutions solo, not as lead-filers or co-filers. The number of social investors in these categories varies year to year. Some social investors neither lead-file nor co-file in certain years. As a result, the size of final sample is 806 cases of 276 lead- or co-filing social investors over the 6 year period.

**Measurements**

Based on the data and sample described above, the dependent variable, four independent variables, and a control variable are created.

**Dependent Variables:** To assess how some social investors become central lead-filers, this study uses the in-degree centrality of the social investors’ lead-filing/co-filing relationships, a social network measurement to evaluate the extent which other actors choose a focal actor. The rationale for using this variable is that in-degree centrality shows the collaboration patterns that are a key relational property between lead-filing social investors and co-filing ones.

It has been suggested that the popularity of leading actors in a network represents potential power, because these positions imply something about the resourcefulness of the focal actor (Diani, 1995; 2003; Wasserman and Faust, 1994: 126). Likewise, a focal actor’s number of various social ties has been proposed to be associated with this actor’s power (Brass & Burkhardt, 1992, 1993; Burkhardt and Brass, 1990). Blau and Alba (1982) found that ties linking different work groups increased the power of individual actors. Brass (1984) also found that centrality in departments was a good predictor of power. All of these previous results make a strong argument that it is this centrality of
leaders that fundamentally affects their influence as well as the support that they receive from other social investors.

The size of followers’ co-filing connections, assessed by the in-degree centrality of an actor on the social investors’ filing/co-filing network, indicates the likelihood of becoming a leading actor. The central position of an actor thus denotes not only popularity among other co-filing social investors, but also its potential or actual power. For this calculation, I create a matrix for relationships between lead-filers and co-filers for each year. These matrices are directional because arrows indicate co-filers (sender) and lead-filers (receivers). Then in-degree centrality is calculated by the formula below (Wasserman and Faust, 1994: 125-127), where $l_{ji}$ denotes co-filing of a social investor “j” for a lead-filing social investor “i”.

$$ IDC_i = \frac{\sum_{j=1}^{n} l_{ji}}{(n-1)} \quad (i \neq j, n=276) $$

$l_{ji}$ means that an investor j co-files with another investor i, an arrow from j to i.

The dependent variable, in-degree centrality, is calculated by the ratio of the number of co-filing relationships of each social investor to the total number of other social investors, which is 275. From a below example which presents a shareholder resolution filed to HASBRO concerned on global human rights issue in 2002, and which was led by both NYC Pension Funds and Episcopal Church. For this resolution, three other social investors, Maryknoll Father and Brothers, School Sisters of Notre Dame Cooperative Investment Fund, and Walden Asset Management joined as co-filers. Thus,
both NYC Pension Funds and Episcopal Church have three in-degree ties.

**An Example of Leading-Filers and Co-Filers**

Filed to HASBRO about Global Human Rights Standards in 2002

<table>
<thead>
<tr>
<th>Lead</th>
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<tbody>
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<td>Episcopal Church (Harry Van Buren)</td>
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<tr>
<td>Joined by</td>
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</tr>
<tr>
<td></td>
<td>School Sisters of Notre Dame Cooperative Investment Fund (190)</td>
</tr>
<tr>
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<td>Walden Asset Management (200)</td>
</tr>
</tbody>
</table>

Data Source: *EthVest* Database, Interfaith Center for Corporate Responsibility

**Independent Variables:** Four main predicting variables, ‘faith-based identity,’ ‘co-filing with other social resolutions,’ ‘aiming at popular targets,’ and ‘wide issue framing’ are measured as follows.

**Faith-Based Identity:** The predictor ‘faith-based identity’ indicates whether an investor is affiliated with religious groups such as Catholic, Protestant, Jews, or Quakers. The attribute of faith-basis was investigated from the internet website of each social investor, as well as from basic fund profiles from the Social Investment Forum website (http://www.socialinvest.org/directory/). Some investors were faith-based organizations by themselves, whereas others were pension funds affiliated with religious groups. Examples of the former cases are the Episcopal Church and United Methodist Church, and examples for the latter cases are the Catholic Equity Fund and Catholic Health Initiatives. This variable is coded as categorical: 1 for faith-basis and 0 for not.

**Co-filing for Others – Out-degree Centrality:** The variable “co-filing for others” was measured by out-degree centrality using the matrices of lead-filing and co-filing.
relationships among 267 investors in each year. Out-degree is the number of ties that a node directs to others: in the context of this study, out-degree means the number of co-filing an investor participates for other investors’ resolution. Out-degree centrality was calculated by the mathematical formula below (Wasserman and Faust, 1994: 125-128), where \( g_{ij} \) denotes an investor co-filing of an investor “i” for another investor “j”. For this measurement, I code lead-filers and co-filers from a database of shareholder resolution, and build matrices of collaboration relationships among social investors.

\[
ODC_i = \frac{\sum_{j=1}^{n} g_{ij}}{(n-1)} \quad (i \neq j, n=276)
\]

\( g_{ij} \) means that an investor i co-files for another investor j, an arrow from i to j.

This variable turns out to be skewed to the right, and needs to be transformed to achieve normality in its distribution. First, based on the “ladder” algorithm in STATA, this variable is transformed as square-rooted or power of 1/2. Second, after transformation, using “sktest” algorithm or skewness-kurtosis test in STATA, the distribution structure of the transformed variable was evaluated. Although the distribution of transformed variable was negatively skewed and had a thick tail, its normality compared to the ideal normal distribution increased.

Aiming at Popular Targets: Another independent variable, ‘aiming at popular targets’ is used to assess the degree each investor identifies companies that are popular targets of shareholder resolution filing. In other words, this variable measures the proportion of popular targets in the target-pool of each investor’s shareholder resolution
in each year. To assess this variable, for the 1481 shareholder resolutions filed from 2002 to 2007, the following three steps are used.

For the first step, I checked the frequency distribution, i.e. the distribution of how many social resolutions each company receives in a given year. As predicted, the frequency distribution was slightly skewed to the right, implying that some target companies receive much more social resolutions than others every year. Second, I determined the popularity level or how many resolutions each company needed to receive to be considered a popular target in a given year. I chose the top 5% or 95 percentile as a criterion for ‘popular targets’. In other words, once a company received number of shareholder resolutions equal to or more than the top 5% out of the total number of resolutions proposed in a given year, this company was regarded as one of ‘the popular targets’ in that year. Third, to calculate the degree of aiming at popular targets by each investor, I utilized the ratio of the number of resolutions aiming at popular targets to the total number of resolutions proposed by each investor in a given year. This can be presented in the following mathematical formula.

\[
APT_{i,t} = \frac{\sum_{n=1}^{c} T_{in,t}}{T_{all,t}} \quad (c = \text{number of popular targets in each year}; \ t = \text{year})
\]

\[T_{in,t} = \text{number of resolutions filed by an investor } i \text{ to target company } n \text{ in year } t\]

\[T_{all,t} = \text{total number of resolutions proposed by an investor } i \text{ in year } t\]

Due to its heavy skewness to the right, this variable was transformed by the Box-
Cox transformation method, using the “bcskew0” algorithm in STATA. After transformation, skewness becomes very close to zero (-0.00004). Based on Shapiro and Wilk’s W test, the transformed variable had a good fit with the normal distribution.

Wide Issue Framing: To assess whether an investor chose social resolutions issues widely, this study classified the issues shareholder resolutions issues. According to classification by the Interfaith Center of Corporate Responsibility, there are five categories of resolutions issues: ‘environment,’ ‘people,’ ‘corporate governance,’ ‘people and environment,’ and ‘people and governance’ issues. Unlike environmental issues, ‘people and environment’ issues deal with problems having direct impacts on human beings as well as environment. As an example of the ‘people and environment’ issue, some investors proclaim the protection of the native lands or sustainable development. In addition, ‘people and governance’ issues are categorized as issues about inclusiveness of various race and gender, i.e., diversity issues in the board of directors.

Using these five categories, I take advantage of the diversity indicator, the Blau heterogeneity index (Blau, 1977; Allison, 1978; Reagan et al, 2004), a widely used index to evaluate how various items or factors an entity covers in its activities. Because this heterogeneity index presents the degree of variety in each investor’s issue choice, I utilize the following definition, in which $P_s$ means the proportion a certain issue category ‘s’ is proposed to the total number of resolutions proposed by a investor ‘i’.

---

6 For Box-Cox transformation, the ‘bcskew0’ algorithm in the STATA software is used. This algorithm creates new variable=(old variable$^L$ - 1)/L, in which L makes the skewness of new variable as “0”.

7 Indicators such as Skewness and Kurtosis are used to determine the best transformation method among Box-Cox power transformation, logarithmic transformation and squared-rooted transformation. The Shapiro-Wilk’s W test also shows that Box-Cox transformed variable has the best fit to the normal distribution.
\[ WIF_s = 1 - \sum_{s=1}^{S} (P_s)^2, \quad (s = \text{issue category}; S=5) \]

This variable is not continuously distributed from 0 to 1; rather its distribution is clustered into three groups: “0” (perfect specialization), “1” (wide framing over 5 issue categories), and “in-between 0 and 1”. Thus, this variable is transformed into a categorical variable with the following three categories: “1” for choosing only one issue, “2” for choosing between 2 or 3 issues, and “3” for choosing more than 4 issues, among 5 issues.

**Control Variables**: In addition to independent variables, the following six variables are added into the research model for control purposes: in-degree centrality and out-degree centrality in the previous year, stock ownership range, experience in filing resolutions, activist identity, and asset-management identity.

**In-degree Centrality and Out-degree Centrality (t-1)**: To filter the impact from each investor’s tendency to become a leading actor in a previous year, in-degree centrality in the previous year is controlled. Measuring in-degree centrality is the same as the dependent variable, the ratio of the number of co-filing relationships to each social investor to the total number of other social investors which is 275, but in a previous year (t-1). In addition, out-degree centrality in the previous year is also controlled, by measuring the number of co-filings an investor did for other investors’ resolution in a previous year (t-1). Both in-degree centrality and out-degree centrality in the previous year are square root transformed due to skewed distributions.

**Stock Ownership Range**: In general, it has been argued that there is a size effect:
bigger actors have higher visibility that appeals to potential followers more than small actors. To screen for the size effect, the stock ownership range of each investor is controlled. The number of companies whose stocks an investor possesses in a given year is counted. Because its distribution is slightly skewed to the right, this variable needs to be transformed. Thus, the logarithmic transformation is used.

*Experience (Tenure)*: To control for the tenure effect, which suggests that the longer an investor has engaged in the field, the more likely it will be followed by other investors, how long a social investor had filed social resolutions needs to be controlled in the model. The length of years of filing social resolution experience of each investor is measured by subtracting the year it filed social resolutions for the first time from the year 2007. The year 2007 is used for the baseline year, because the final year of data set for this study is 2007. For example, if an investor has appeared from 1993, it is given ‘14’ for this variable. When a social investor filed a social resolution in 2007 for the first time, it is given ‘0.’

*Activist Identity*: Another control variable is whether an investor primarily pursues social justice such as human rights, diversity, and environmental justice, to control the signaling effect from social activists to potential followers. The property of social justice of each investor is mostly collected from its internet website, by checking whether each investor proclaims to pursue social justice values or not. This control variable is coded as categorical: 1 for activist organization and 0 for all other cases.

*Asset-Management Identity*: Because the sample is composed of investors who pursue financial gains from their investment in stocks, the economic-orientation of each
investor could have an impact on their ability to attract potential followers. When an investor is a mutual fund company or a pension fund company, other investors easily regard this investor as close to mainstream investors who primarily calculate economic returns from their investment activities. Therefore, an investor is coded 1 if this investor is a mutual fund or a pension fund, otherwise it is coded 0.

**Data Analysis Method.**

This study uses the Poisson time-series regression model. To select the proper statistical regression method, the following two conditions are considered. First, given the panel data structure for the 6-year period, in which the same sets of social investors repeatedly appeared across time in the data structures, the possibility arises that the residuals in the equation will not be independent across time (Greene, 2000). Thus, the estimation for panel data requires some modification of standard ordinary least squares (OLS) regression modeling. Second, because the dependent variable is count data, ordinary least squared (OLS) regression methods cannot be used. Rather, regression model fitting a skewed distribution of dependent variables is chosen (Long, 1997).

The research design and data set of this study fit features of the Poisson time-series regression model: there are multiple waves of data, a sensible metric for time, and outcomes changing systematically over time. Using a restricted maximum likelihood procedure, the ‘xtpoisson’ algorithm in the STATA software is used (Rabe-Hesketh and Skrondal, 2008: 373-383).

Below is the general form of the panel data model (Wooldridge 2002):

\[ DV_{xt} = a + \beta_{xt} + v_s + \epsilon_{xt} \]
In the above formula, the subscript “x” indicates each investor, and the subscript “t” indicates time. The residual in this model includes two terms, $\nu_x$ and $\epsilon_{xt}$. The term, $\epsilon_{xt}$, is the standard residual for OLS models, which by assumption, has a mean of 0 and a constant variance. The term $\nu_x$ is time invariant, but is assumed to vary across units, investors in this case, and represents differences that we might expect across investors.

Because there are repeated observations for each investor throughout 6 year period, the possibility exists that $\nu_x$ is not independent within a common investor across different time. This would occur, for instance, if some investors tend to lead more frequently than others over time due to their unique skills of leadership. In theory, either a fixed- or random-effects model can be used to correct for this (Greene, 2000). The fixed-effects model assumes that $\nu_x$ is fixed and constant, but may differ for each investor. The random-effects model assumes that $\nu_x$ is a time-invariant random disturbance term and assumed to be randomly distributed across the cross section of investors. To assist in the choice between these treatments, the Durbin-Wu-Hausman test or the Hausman test (Hausman, 1978) is employed to compare two alternative effects models and to decide which model is more efficient. Based on the Hausman test, the random-effects model is chosen as the proper model.

**RESEARCH FINDINGS**

The main research theme of this study is to determine what mechanisms result in social investors becoming central actors among activist investors. To make this determination, this study analyzes activist investors’ activities of lead-filing and co-filing shareholder resolutions from 2002 to 2007.
Research Results

Table 5-1 presents descriptive statistics of all variables used in data analysis, and pairwise correlation values among them. The original sample size is 1656, because this study includes 276 investors for 6 year time period. However, because some investors do not file resolutions every year, some variables have missing cases and thus the sample size is 806. The dependent variable, in-degree centrality is distributed from zero to 0.355 (= 98/276), meaning that social investors in the sample have between 0 and 98 co-filers in a given year. In addition, this variable has an average value of 0.012 (3.196/276), implying that social investors have slightly more than 3 followers on average. The dependent variable has a larger standard deviation value than the mean value, thus this variable fits the dependent variable for the Poisson regression model.

More than half of social investors in the sample are faith-based organizations, as the mean value of a categorical variable, faith-basis is 0.736. Another independent variable, out-degree centrality, measuring each social investor’s co-filing for other social resolutions, ranges from 0 to 0.3 (= \sqrt{25/276} ), indicating that an investor co-files for 25 different investors at the most in a given year.

Table 5-1 also presents pairwise correlation values between all variables. As the first column shows, the dependent variable, in-degree centrality has small pairwise correlation values with any independent variables: pairwise correlation values of -0.06 with faith-based identity, of 0.13 with out-degree centrality, - 0.05 with a variable, aiming at popular targets, and 0.19 with a variable, choosing general issues.
### Table 5-1
Descriptive Statistics and Pairwise Correlation

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean (Std.Dev.)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dependent Variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. In-Degree Centrality</td>
<td>0.012 (0.035)</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Independent Variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Faith-based Identity a</td>
<td>0.736 (0.441)</td>
<td>-0.058*</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Out-Degree Centrality</td>
<td>1.552 (0.889)</td>
<td>0.129***</td>
<td>0.101***</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Popular Target</td>
<td>-0.609 (0.439)</td>
<td>-0.054</td>
<td>0.194***</td>
<td>-0.074**</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>5. Wide Issue Framing</td>
<td>1.878 (0.882)</td>
<td>0.186***</td>
<td>-0.050</td>
<td>0.603***</td>
<td>0.052</td>
<td>1.000</td>
</tr>
<tr>
<td><strong>Control Variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Ownership Range</td>
<td>1.340 (1.016)</td>
<td>0.303***</td>
<td>-0.013</td>
<td>-0.609***</td>
<td>0.656***</td>
<td>0.571***</td>
</tr>
<tr>
<td>7. In-Degree Centrality (t-1)</td>
<td>0.651 (1.369)</td>
<td>0.710***</td>
<td>-0.080**</td>
<td>-0.609***</td>
<td>0.197***</td>
<td>0.250***</td>
</tr>
<tr>
<td>8. Out-Degree Centrality (t-1)</td>
<td>1.201 (1.186)</td>
<td>0.189***</td>
<td>0.084**</td>
<td>-0.609***</td>
<td>0.504***</td>
<td>0.423***</td>
</tr>
<tr>
<td>9. Experience</td>
<td>2.826 (0.992)</td>
<td>0.126***</td>
<td>-0.027</td>
<td>-0.609***</td>
<td>0.173***</td>
<td>0.251***</td>
</tr>
<tr>
<td>10. Asset Management Firms a</td>
<td>0.163 (0.370)</td>
<td>-0.029</td>
<td>-0.536***</td>
<td>-0.609***</td>
<td>-0.057</td>
<td>-0.031</td>
</tr>
<tr>
<td>11. Activist Identity a</td>
<td>0.091 (0.287)</td>
<td>-0.055***</td>
<td>-0.382***</td>
<td>-0.609***</td>
<td>-0.160***</td>
<td>-0.072**</td>
</tr>
</tbody>
</table>

*** p < 0.01, ** p < 0.05, * p < 0.10

* Sample sizes of these variables are all 1656. Other variables have the sample size of 806.
Table 5-1
Descriptive Statistics and Pairwise Correlation
(continued)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean (Std.Dev.)</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
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<tr>
<td><strong>Dependent Variables</strong></td>
<td></td>
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<td></td>
<td></td>
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<td><strong>Independent Variables</strong></td>
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<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Popular Target</td>
<td>-0.609 (0.439)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Wide Issue Framing</td>
<td>1.878 (0.882)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Control Variables</strong></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Ownership Range</td>
<td>1.340 (1.016)</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. In-Degree Centrality (t-1)</td>
<td>0.651 (1.369)</td>
<td>0.366***</td>
<td>1.00</td>
<td>0.500***</td>
<td>0.304***</td>
<td>1.000</td>
</tr>
<tr>
<td>8. Out-Degree Centrality (t-1)</td>
<td>1.201 (1.186)</td>
<td>0.255***</td>
<td>0.239***</td>
<td>0.332***</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>9. Experience</td>
<td>2.826 (0.992)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Asset Management Firms</td>
<td>0.163 (0.370)</td>
<td>0.020</td>
<td>0.001***</td>
<td>-0.070**</td>
<td>-0.129***</td>
<td>1.000</td>
</tr>
<tr>
<td>11. Activist Identity</td>
<td>0.091 (0.287)</td>
<td>-0.105***</td>
<td>-0.054***</td>
<td>0.084**</td>
<td>-0.027</td>
<td>-0.003</td>
</tr>
</tbody>
</table>

*** p < 0.01, ** p < 0.05, * p < 0.10

* Sample sizes of these variables are all 1656. Other variables have the sample size of 806.
To test hypothesized relationships among variables, as described in previous section, I employ the Poisson panel data regression model. This section summarizes research findings from the empirical data analysis. A total of four models are tested as presented in Table 5-2.

In the first column of Table 5-2, results from control model (model 1) are presented. In this model with just control variables, two variables ‘in-degree centrality in the previous year’ and ‘stock ownership range’ had significant regression coefficients. This result indicates that the more central a lead-filing social investor was in a previous year, and the more diversified stock ownership a lead-filing social investor has, the more likely the social investor becomes central in the collaboration network in the current year.

Model 2 presents all effects from the independent variables. Hypothesis 1, proposing a positive association between social investor’s faith-based identity and the likelihood of becoming a central actor, is not supported, as the regression coefficient is not significant.

Hypothesis 2 proposes that an investor’s co-filing with other social resolutions or out-degree centrality is positively related to this investor’s likelihood of becoming a central actor or in-degree centrality. The regression coefficient of the correspondent independent variable, out-degree centrality is significant but negative. This result can be interpreted as one more other investor an investor co-filed for, this investor will lost 0.273 units of potential followers for own resolution. Thus, this hypothesis was not supported either, but this result provides an interesting insight to be discussed: the more co-filings with others an investor does, the less likely this investor will become a leader.
Table 5-2
Poisson Time-Series Random Effects Regression on In-Degree Centrality
(Observation number = 806, 2002-2007)

<table>
<thead>
<tr>
<th>Control Variables</th>
<th>Model 1 Control Model</th>
<th>Model 2 Direct Effects</th>
<th>Model 3 Curvilinear</th>
<th>Model 4 Final Model</th>
<th>Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-Degree Centrality, t-1</td>
<td>0.143 ***</td>
<td>0.144 ***</td>
<td>0.137 ***</td>
<td>0.138 ***</td>
<td>H1</td>
</tr>
<tr>
<td>Out-Degree Centrality, t-1</td>
<td>0.030</td>
<td>0.006</td>
<td>0.008</td>
<td>0.009</td>
<td></td>
</tr>
<tr>
<td>Experience</td>
<td>0.177</td>
<td>– 0.037</td>
<td>– 0.070</td>
<td>– 0.064</td>
<td></td>
</tr>
<tr>
<td>Stock Ownership Range</td>
<td>0.651 ***</td>
<td>0.645 ***</td>
<td>0.567 ***</td>
<td>0.575 ***</td>
<td></td>
</tr>
<tr>
<td>Asset Mgmt Firm</td>
<td>– 0.409</td>
<td>– 0.577</td>
<td>– 0.506</td>
<td>– 0.505</td>
<td></td>
</tr>
<tr>
<td>Activist Identity</td>
<td>– 0.336</td>
<td>0.032</td>
<td>0.138</td>
<td>0.159</td>
<td></td>
</tr>
<tr>
<td>Independent Variable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faith-Based Identity</td>
<td>– 0.109</td>
<td>– 0.119</td>
<td>0.023</td>
<td>0.024</td>
<td>H1</td>
</tr>
<tr>
<td>Out-Degree Centrality</td>
<td>– 0.273 ***</td>
<td>– 0.234 **</td>
<td>– 0.273 ***</td>
<td>– 0.273 ***</td>
<td>H2</td>
</tr>
<tr>
<td>Popular Targets</td>
<td>0.314</td>
<td>0.095</td>
<td>0.318 ***</td>
<td></td>
<td>H3</td>
</tr>
<tr>
<td>Wide Issue Framing</td>
<td>0.166 ***</td>
<td>1.410 ***</td>
<td>1.455 ***</td>
<td></td>
<td>H4</td>
</tr>
<tr>
<td>Out-Degree Centrality ²</td>
<td>– 0.010</td>
<td>—</td>
<td>—</td>
<td>post hoc</td>
<td></td>
</tr>
<tr>
<td>Popular Targets ²</td>
<td>– 0.442</td>
<td>—</td>
<td>—</td>
<td>post hoc</td>
<td></td>
</tr>
<tr>
<td>Wide Issue Framing ²</td>
<td>0.203 ***</td>
<td>0.456 ***</td>
<td></td>
<td></td>
<td>post hoc</td>
</tr>
</tbody>
</table>

Random Effect Variables
- Alpha: 5.343, 4.650, 4.679, 4.667
- Ln (alpha): 1.676, 1.537, 1.543, 1.541

Model Fit
- Wald Chi²: 202.37, 325.77, 351.61, 352.43
- Prob > Chi²: 0.000, 0.000, 0.000, 0.000

*** p < 0.01, ** p < 0.05, * p < 0.10

All coefficients are non-standardized regression coefficients.
Hypothesis 3 predicted a positive relationship between an investor’s aiming at popular target and this investor’s likelihood of becoming a central actor. This hypothesis is not supported, because the variable, ‘aiming at popular targets’ did not have a significant regression coefficient although it has a positive sign as predicted.

Hypothesis 4 focuses on the positive effect from an investor’s ‘wide issue framing’ and this investor’s becoming a central actor is well supported. This variable has a positive and significant regression coefficient, implying that when investors widely choose their shareholder resolution issues, they will attract and have more followers as co-filers of those resolutions.

In addition, I ran post hoc tests with squared terms of three independent variables: out-degree centrality, aiming at popular targets, and wide issue framing. In the third column of Table 4, a curvilinear model with both direct and curvilinear effects of these three independent variables is presented. Among the three curvilinear terms, the squared term for ‘wide issue framing’ had a significant and positive regression coefficient, indicating that when an investor framed issues in a specialized way or in a wide way chose various resolution issues, this investor’s likelihood of becoming a central lead-filer was higher than when this investor mixed issues in a moderate way.

Model 4, titled as the final model, includes only the significant curvilinear variables found in model 3. In model 4, all four independent variables with a squared term for ‘choosing general issues’ are included. As the results in this model show, all four variables except faith-based identity had significant regression coefficients. Interestingly, the variable ‘aiming at popular targets’ had a significant and positive
regression coefficient in this final model. This result indicates that when a social investor aim at companies that are popularly targeted by other social investors, this social investor becomes central among investors.

In addition, both direct and squared terms of ‘wide issue framing’ have significant regression coefficients, implying that a relationship between ‘wide issue framing’ and ‘in-degree centrality’ is a U-shaped curve which slightly increases in its shape. Figure 5-1 simplifies the curvilinear relationship between ‘wide issue framing’ and ‘in-degree centrality’, and indicates that the curvilinear effect is not strong enough to present clear u-shaped curve. Thus, it can be concluded that framing issues in a wide way is better for becoming leading actors than framing in moderate ways or in specialized ways.

**Figure 5-1**

*Curvilinear Effects of Wide Issue Framing on In-Degree Centrality*

![Curvilinear Effects of Wide Issue Framing on In-Degree Centrality](image)

In summary, three independent variables, co-filing for other social resolutions, aiming at popular targets, and wide issue framing have some impacts on an investor’s likelihood of becoming central actor. When an investor participates in other investors’
resolutions as co-filers, this investor will be less likely to become a central lead-filer.
However, when an investor aims at popular targets and chooses wide issue framing, this investor will be more likely to become a central lead-filer. Moreover, when an investor focuses on an issue or choosing as widely as possible in shareholder resolutions instead of selects issues moderately, this investor will get slightly more followers as co-filers.

CONCLUSION

The specific research question for this study was introduced as, “how do some investors emerge as leading actors or as central lead-filers in the field of shareholder resolution on responsible corporate management issues?” To examine the likelihood of becoming leaders of active investors, this study proposed a research model with four predictors: an investor’s faith-based identity, co-filing activity with others, aiming at popular targets, and wide issue framing.

First, the faith-based identity of an investor did not influence the probability of this investor’s becoming a lead-filer. Although shareholder activism originated with religious groups, the faith-basis of investors does not guarantee their leadership status any more. A possible reason is the active participation of secular but socially progressive investors who are not affiliated with religion in shareholder resolution filings in recent years, especially since 2002, and who have taken the lead. Theoretically, this result indicates that a given identity of an actor does not result in becoming leading actors.

Another interesting finding is the negative relationship between an investor’s co-filing with others and this investor’s becoming a leading actor, which goes against the reciprocity proposition. In other words, some social investors usually play roles as lead-
filers, while others mostly function as co-filers, a clear division of labor among investors in the field of resolution filings. Although cooperation is channeled towards the valuable actors who help or support any members in the same community (Axelrod, 1984), the way reciprocation functions vary depending upon the degree to which tie formation is new or incumbent. The impact of reciprocation is more substantial for new relationship formation then for repeated relational structures, because “the degree of reciprocity in an organizational field should become less important for the formation of repeated interorganizational ties” (Kenis and Knoke, 2002: 281). In other words, as the field grows and as actors interact with one another repeatedly for several periods, reciprocal relationships between two actors will be switched with one-way contributions of each actor in the field. As the field mature, a division of labor for each actor will become clear.

In addition, to become a central lead-filer, investors should consider what targets and issues are appropriate for their social resolutions. Rather than targeting small and unknown companies, investors aim at popularly known companies, which are also visible to other investors. This finding implies that investors consider popular companies as vulnerable targets for their shareholder resolutions. Thus, if a social investor aims at those popular target companies in social resolutions, more investors will support as co-filers this social investor’s social resolutions.

Moreover, an investor’s wide framing of issues appeals to potential followers. A generalist who chooses various issues in resolutions is likely to be followed by other investors. Therefore, to be a leader in resolution filing, an investor should frame resolution issues with a variety of issues and a wide framing.
CHAPTER 6. CONCLUSION

The main purpose of this dissertation research is to understand the collaboration networks of social investors who file shareholder resolutions to bring environmental or stakeholder concerns to the attention of corporate managers. Specific research foci were on the strategic mechanisms of active lead-filing social investors (1) who initiate social resolutions; and (2) who attract and mobilize other social investors. Based on the social movement perspectives and a social network approach, my theoretical viewpoints shed light on the collaborative interactions among social investors, and specifically on the social mechanisms integrating active shareholders with the field of social resolutions.

My research strategy in this dissertation was to propose and write a theoretical study and two empirical studies. Chapter 2 proposes a theoretical framework with three elements of social mechanisms in which actors create, develop, and maintain their new field based on their relationship networks. Chapter 3 introduced the research context, the field of social resolution filing. Chapter 4 addressed who initiates social resolution filings, by examining determinants of social investors’ proactive initiating activities. Chapter 5 explained how some social investors attract and mobilize their followers, by examining lead-filing social investors’ strategies to appeal potential co-filing investors.

In this chapter, I summarize the key contributions as well as major findings, and propose future work based on the limitations of this dissertation.

This concluding chapter has three parts. First, I summarize the proposed conceptual logic from a theoretical study, and the specific research questions, the hypotheses and research findings from the two studies. Second, with this summary, I
discuss the implications and contributions of each study and of the dissertation as a whole. Third, this chapter concludes with a discussion of limitations and future research directions.

**SUMMARY OF RESEARCH FINDINGS**

In Chapter 2, I proposed a conceptual and theoretical framework for inquiring into social investors’ collaboration strategies to develop the field of filing shareholder resolutions. The key argument is researchers pay attention to focal actors, multiple actors, and the relationships among them to understand the social mechanisms by which actors engage in change efforts either in the field or in the existing institutional arrangements. With the term, network-based field in which actors as field members interact with each other, I proposed that researchers understand the actors’ strategies to create, develop and maintain their own fields to influence the status quo institutional arrangements. By being actively and collaboratively engaged in filing shareholder resolutions, social investors have built the field of social resolutions, a sub-field of the socially responsible investment or SRI movements. In order to determine social investors’ strategies to initiate and mobilize their filing activities, I proposed four dimensions from the social movement perspectives: identity, social relationships, target identification, and issue framing. The following two studies tested my propositions with empirical data and analyses.

In Table 6-1 below, I summarize the hypotheses and results from two empirical studies in Chapter 4 and 5. I will discuss the implications and contributions of research findings from each chapter.

| Table 6-1
Summary of Hypotheses and Results | 129 |
<table>
<thead>
<tr>
<th>H#</th>
<th>Hypothesis</th>
<th>Findings</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ch. 4 (RQ) Who initiates social resolutions, and why?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H1</td>
<td>An active investor’s brokerage position in a collaboration network among investors is positively associated with the investor’s likelihood of initiating social resolutions.</td>
<td>Supported</td>
<td></td>
</tr>
<tr>
<td>H2</td>
<td>An active investor’s faith-based identity is positively associated with the investor’s likelihood of initiating social resolutions.</td>
<td>Not supported</td>
<td>Negative association</td>
</tr>
<tr>
<td>H3</td>
<td>An active investor’s range of stock ownership is positively associated with the investor’s likelihood of initiating social resolutions.</td>
<td>Supported</td>
<td></td>
</tr>
<tr>
<td>Ch. 5 (RQ) How and why do some social investors attract and mobilize followers?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H1</td>
<td>An investor’s faith-based identity is positively associated with the investor’s likelihood of becoming a central actor in the collaboration network with other investors.</td>
<td>Not supported</td>
<td>Not significant</td>
</tr>
<tr>
<td>H2</td>
<td>An investor’s co-filing with other investors’ resolutions is positively associated with the investor’s likelihood of becoming a central actor in the collaboration network with other investors.</td>
<td>Not supported</td>
<td>Negative association</td>
</tr>
<tr>
<td>H3</td>
<td>The more popular target companies an investor aims at for shareholder resolutions, the more likely the investor will become a central actor in the collaboration network with other investors.</td>
<td>Supported</td>
<td></td>
</tr>
<tr>
<td>H4</td>
<td>The more widely an investor frames issues for shareholder resolutions, the more likely the investor will become a central actor in the collaboration network with other investors.</td>
<td>Supported</td>
<td>Curvilinear association</td>
</tr>
</tbody>
</table>

In Chapter 4, I studied who initiates collaboration networks among social investors by proposing social resolutions. Although religious investors have been very active in SRI movements, they are not proactive in the field of filing social resolutions. While filing social resolutions, faith-identity or religious affiliation cannot stimulate social investors’ internal motivation. When religious investors have brokerage positions, however, their initiating activity of filing social resolutions turns out to be very proactive.
Indeed, some active investors with brokerage positions play an important role in integrating disconnected other social investors in the field of social resolutions. This finding corroborates what some social network researchers proposed and argued that actors benefit from resources or information to achieve their own goals when they are located at positions in-between two disconnected others or groups (Granovetter, 1973; Burt, 1992). Another interesting finding is that social investors’ range of stock ownership does not go along with their brokerage positions, indicating that social investors who proactively initiate social resolutions have either wide stock ownership range or brokerage positions. This finding modifies Burt’s (1992) social capital theory which argues that, in order for an actor to achieve good performance, her or his internal resources are preliminary condition, moderated by its brokerage position, therefore that these two variables are interdependent. In other words, to be proactive in the field of social resolution filings, a social investor need to have brokerage positions, a dimension of social resource, or a wide range of stock ownership, a dimension of financial resource, but not both at the same time. According to this result, researchers need to differentiate actors’ social resource and financial resources which might not be independent with each other.

In Chapter 5, I studied why some investors emerge as central lead-filing actors in the field of shareholder resolution on responsible corporate management issues. Interestingly, the faith-based identity of social investors has not attracted potential followers well. It is more surprising that the reciprocation hypothesis, “give and take of co-filing support,” was not supported; results showed the opposite. This result implies a
division of labor in the field of social resolutions: some social investors usually lead-file but others only co-file. As Kenis and Knoke (2002) has noted, the reason for this result is because the field of social resolution filings is no longer in its infancy, but has been matured so that reciprocal supports have ceased to be critical. In addition, popular social investors who are central in the field aim at target companies that are well known among other social investors, and frame issues in wide ways in their social resolutions. Although the results from empirical testing did not fully support the proposed hypotheses, three social movement dimensions I proposed yielded meaningful insights. To successfully attract and mobilize other investors, lead-filing social investors focus on their own lead-filing, to identify target companies that are well known among other active investors, and to choose moderately multiple issues.

THEORETICAL CONTRIBUTIONS

The theoretical framework and empirical studies conducted for this dissertation research contribute insight for multiple bodies of literature: organization studies, social network research, and corporate responsibility literature.

Shareholders or Investors in Organization Studies

It has been assumed that shareholders own business corporations. However, organizational scholars have rarely investigated these owners of companies. Some exceptions are researchers who approached the impacts of different ownership structures from the corporate governance perspective (see for example, special issues of Academy of Management Journal, 2003 and Academy of Management Review, 2003). However, researchers tend to regard shareholders as passive and self-interested actors who are
isolated from each other. Recently, more business practitioners consider this presumption as anachronistic and biased (Financial Times, March 16, 2009). In this dissertation, I assert the necessity and importance of studies on the activities of shareholders and investors. This dissertation demonstrates that some active investors have developed and managed their own network-based field, and led the socially responsible investment or SRI movement. These activist shareholders have adopted several strategies to attain their goals. In this sense, organizational scholars need to inquire about what shareholders desire and do rather than blindly accept the presumption of passive and self-interested shareholders.

**Collaboration Networks as Strategic Platforms**

From the strategic point of view, this dissertation suggests that collaboration networks can function as strategic platforms for social change agents. There is a tendency in management research to think that large organizations usually play important roles. Small firms or venture organizations must build alliances with these large firms to survive and to perform well. Researchers know little about the strategies of small actors who are out of the mainstream or change agents who are not big enough to drive the one-hero movements. This dissertation proposes and tests that small actors can develop their own field by building collaboration networks among similar actors, depending on four conceptual dimensions of the social movement literatures: identity, social relations, targets identification and issue framing. Strategically, as they interact with each other, small and weak actors can build their own field to influence institutional arrangement. As this dissertation study has presented, diverse social investors create their own
collaboration networks, so-called sub-fields in the investment field, to collectively influence corporate management. In this sense, the network-based movements can be a good platform for smaller actors to develop their own fields. Furthermore, assessing collaboration networks underscores the way the infrastructure of a field emerges.

**Social Investors and Corporate Responsibility**

As mentioned above, this dissertation examines social investors’ active engagement in stakeholder issues. These activities are counter-evidence to the conventional concepts on the relationships among shareholders, managers, and stakeholders. Since Milton Friedman’s (1970) argument that the maximization of shareholder value is the only responsibility of corporate managers, it has been thought that corporate managers ignore stakeholder welfare if they pursue shareholder value. The cases this dissertation investigates, however, raises the issue of what at least some investors really want. Some investors desire both stakeholder welfare and their own financial benefits, implying that stakeholder issues are becoming more complex.

In addition, for some social investors, shareholder values and stakeholder issues are not disconnected, as they actively engaged in filing social resolutions. These cases provide a theoretical clue to the stakeholder paradox debate – corporate managers face a difficult situation torn between their fiduciary duties for shareholders and moral responsibilities for stakeholders including the natural environment (Freeman, Wicks and Parmar, 2004; Goodpaster, 1991, 1994; Sundaram and Inkpen, 2004). Once some shareholders demonstrate their desire for better environmental, social and governance performance, they urge corporate managers to learn how to integrate what Jensen (2001)
called the multiple objective functions not only for shareholder values but also for stakeholder welfare, thereby to avoid what Freeman (1994) has called the separation thesis, in this case, that moral responsibilities to stakeholders and the financial duty to shareholders can be separated.

**FUTURE RESEARCH DIRECTIONS**

Several unanswered questions remain, which provide direction for further studies, because as with all research, there are limitations. Below, I note two future research directions that will compensate for the shortcomings of this dissertation.

First, the most urgent future research topic is to examine the effects of collaboration networks on the responses from corporate managers and other audiences. In other words, how good are shareholder resolutions at effecting change in their target companies? Some scholars have mainly examined corporate responses to shareholder resolutions (David et al., 2007; Logsdon et al., 2007); however, most of this past scholarship has paid attention to target companies, instead of social investors, or the engagement between them. The impacts of collaborative networks among social investors on corporate responses to their shareholder resolutions are therefore ripe subjects for future research. Three possible predictors of positive responses from target companies are (1) identities of lead-filers, (2) lead-filer(s)’s positions in the collaboration networks among social investors, and (3) relational structures among lead-filer(s) and co-filers for a social resolution. In addition, this study could be extended to determine how and when mass media positively report social resolutions based on lead-filers, co-filers, target companies and issue proposed in social resolutions.
Second, this dissertation research analyzed data sets from only a 6 year period, from 2002 to 2007. One of the unavoidable reasons is the lack of a good database of lead-filer and co-filer relationships before 2002. Although several datasets have been compiled and collected by several pioneering researchers (Rehbein et al., 2004; Proffitt and Spicer, 2006), their datasets neither differentiate lead-filers from co-filers, nor keep whole network relationships. However, by using other databases such as EDGAR managed by SEC, I might collect information on collaboration network relationships prior to 2002. With those datasets, I will able to obtain more complete pictures of the development and evolution of the field of social resolutions.
APPENDIX A
VARIABLE TRANSFORMATION METHODS

Statistical methods are based on various assumptions that uphold the methods (Allison, 1999). One of them is normality, which is commonly assumed, and statistical models often require checking the normality of variables (Agresti and Finlay, 1997: 86). Otherwise, interpretations and inferences based on the models are not reliable, if not valid. There are two reasons to check and judge the normality in distribution of each variable, and to transform each variable. First, the normality assumption is critical when the regression model tests about 100 cases in the sample (Allison, 1999). Although the total sample size varies from 806 to 1656 depending on the model, the sample size must be judged in each year because this study uses time-series cross-sectional regression model. In each year, sample size varies from 105 to 161. Second, some variables have the heavily skewed distribution shape. The heavily skewed shape of variable distribution effects the regression results as unreliable.

There are two ways of checking normality. Graphical methods visualize differences between empirical data distribution and theoretical distribution like a normal distribution. Numerical methods conduct statistical tests on the null hypothesis that the variable is normally distributed.

Graphical Visualization Methods

Commonly used are several visualization methods such as stem-and-leaf-plot, histogram, the probability-probability plot (P-P plot) pot and the quantile-quantile plot (Q-Q plot). The first two methods are good for summarizing data. A stem-and-leaf-plot is useful to summarize data when N is small; meanwhile the histogram is appropriate for large N sample. Histogram methods including a stem-and-leaf-plot do a good job of conveying general distribution information (Fox, 1991).

The P-P plot compares the empirical cumulative distribution function of a variable with a specific theoretical cumulative distribution function (e.g. the standard normal distribution function). The Q-Q plot compares ordered values of a variable with quantiles of a specific theoretical distribution (i.e. the normal distribution). If two
distributions match, the points on the plot form a linear pattern that passes through the origin and has a unit slope. A strength of these plots is that they retain high resolutions in the tails of the distribution. However, both P-P and Q-Q plots do not convey a good overall sense of the shape of the distribution (Fox, 1991).

Although visually appealing, these graphical methods do not provide objective criteria to determine the normality of variables. Interpretations are matter of judgments.

**Numerical Methods (Statistical Tests):**

Skewnes and Kurtosis are commonly used descriptive statistics. They show how the distribution of a variable deviates from symmetry and how thick the tails of the distribution are:

\[
Skewness = \frac{E[(x - \mu)^3]}{[Var(x)]^{3/2}}
\]

\[
Kurtosis = \frac{E[(x - \mu)^4]}{[Var(x)]^2}
\]

In the mathematical formulas above, \(x\) represents each case in the variable, \(\mu\) means the average value of the variable, \(Var(x)\) implies variation of the variable, and \(E|z|\) indicates the expected value of a certain value of \(z\).

If a variable is normally distributed, its Skewness and Kurtosis are zero and three, respectively. If Skewness is greater than zero, the distribution is skewed to the right, having more observations on the left. If Kurtosis is less than three, the distribution has thicker tails compared to the normal distribution. However, Skewness and Kurtosis do not provide a conclusive way of interpretations.

The below Table A-1 summarizes graphical and numerical methods for testing normality. Note that graphical methods’ visualization makes easy to read, while numerical methods provide objective criteria for evaluating normality. Thus, it is recommended to utilize both graphical and numerical methods to make judgments simultaneously.
### Table A-1
**Graphical and Numerical Methods to Judge the Normal Distribution**

<table>
<thead>
<tr>
<th></th>
<th>Graphical Methods</th>
<th>Numerical Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Descriptive Methods</td>
<td>Stem-and-leaf, histogram, P-P plot, Q-Q plot</td>
<td>Skewness, Kurtosis</td>
</tr>
<tr>
<td>Advanced Methods</td>
<td>P-P plot, Q-Q plot</td>
<td>Shapiro-Wilk test, Shapiro-Francia test</td>
</tr>
<tr>
<td>Pros and Cons</td>
<td>Easy to read (intuitive)</td>
<td>Providing objective criteria</td>
</tr>
<tr>
<td></td>
<td>Not conclusive (subjective evaluation)</td>
<td></td>
</tr>
</tbody>
</table>

**Evaluating Normality and Transformation Methods**

Utilizing graphical and numerical methods, the processes of evaluating the normality of each variable’s distribution and of choosing appropriate transformation method of each variable in this dissertation study are as follows (Fox, 1991: 46-48).

First, I applied the approaches of descending or ascending the ladder of powers. If the skewness value for a variable’s distribution is negative, this variable is transformed by descending the ladder of power, i.e. log-transformation. If the skewness value is positive, the variable is transformed by ascending the ladder of power, i.e. squared-root or squared transformation.

Second, when the normality of a variable’s distribution is still not improved, i.e. the skewness value is not removed, after the ladder of power approach, the variable is transformed with Box-Cox transformation, using the “bcskew0” algorithm in STATA program (Box and Cox, 1964).

Third, if the distribution of a variable is not continuous, this variable is transformed into categorical variable depending upon the distribution shape of this variable.

Below are some examples for variables used in this dissertation study. I will introduce the numerical methods of skewness and kurtosis tests and a graphical method.
Example 1. Square-root Transformation

The variable “co-filing for others” was measured by out-degree centrality using the matrices of lead-filing and co-filing relationships among 267 investors in each year. Out-degree is measured by the ratio of the number of ties that a node directs to others to the total number of others, thus has the property of count data. (Please see chapter 5 for the way to measure this variable.)

This variable turns out to be skewed to the right, and needs to be transformed to achieve normality in its distribution. Figure A-1 below presents the distribution shapes of this variable in each year. Because the model which includes variables uses a time-series cross-sectional regression analysis, the normality of variable distribution must be checked in each year. As seen in Figure A-1, this variable is heavily skewed to the right, and has many cases of zero value.

To find an appropriate transformation method, I use the “ladder” algorithm in STATA. Based on the “ladder” results, I chose the square root transformation, because this variable does not have negative case and is based on the count data.

After transformation, I checked the improvement of normality using both
graphical and numerical methods. First, Table A-2 below presents the results of the Skewness-Kurtosis test (D’Agostino, 1990), using the “sktest” algorithm in STATA. As shown in the last column in Table A-2, all significance levels are bigger than 0.001, indicating that the distributions of all six years are significantly different to non-normal at this level.

### Table A-2

<table>
<thead>
<tr>
<th>Year</th>
<th>Size</th>
<th>Pr (Skewness)</th>
<th>Pr (Kurtosis)</th>
<th>Adjusted $\chi^2$</th>
<th>Prob &gt; $\chi^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>131</td>
<td>0.008</td>
<td>0.043</td>
<td>9.75</td>
<td>0.008</td>
</tr>
<tr>
<td>2003</td>
<td>105</td>
<td>0.649</td>
<td>0.000</td>
<td>15.38</td>
<td>0.001</td>
</tr>
<tr>
<td>2004</td>
<td>126</td>
<td>0.052</td>
<td>0.053</td>
<td>6.98</td>
<td>0.031</td>
</tr>
<tr>
<td>2005</td>
<td>148</td>
<td>0.422</td>
<td>0.196</td>
<td>2.36</td>
<td>0.308</td>
</tr>
<tr>
<td>2006</td>
<td>135</td>
<td>0.966</td>
<td>0.794</td>
<td>0.07</td>
<td>0.966</td>
</tr>
<tr>
<td>2007</td>
<td>161</td>
<td>0.209</td>
<td>0.274</td>
<td>2.82</td>
<td>0.244</td>
</tr>
</tbody>
</table>

Figure A-2 below is a histogram for the transformed variable. As Figure A-2 shows, the distribution is no more heavily skewed to the right, after pulling in the left tail.

### Figure A-2

Distribution of Co-Filing for Others after Transformation

---

**Example 2. Box-Cox Transformation Method**

A variable “stock ownership range” was measured as the average of the number
of companies whose stock as social investor possessed during the 6 year period, from 2002 to 2007. Figure A-3 presents the distribution shape of this variable, heavily skewed to the right. In addition, the Skewness values is 4.964, and the Kurtosis indicator is 40.215. Because the Skewness values is much bigger than zero, the distribution shape is not symmetric. Because the Skewness value is positive, this distribution is skewed right meaning that the right tail is long relative to the left tail.

Figure A-2
Distribution of Co-Filing for Others after Transformation

![Distribution of Co-Filing for Others after Transformation](image)

After testing several transformation methods including the logarithmic transformation and the square root transformation which did not improve skewness of this variable’s distribution, the Box-Cox transformation method was utilized (Box and Cox, 1964). For Box-Cox power transformation, the ‘bcskew0’ algorithm in the STATA software is used. This “bcskew0” algorithm creates a transformed variable and chooses “L” in the formula below is zero so that the skewness of the new variable below is zero:

\[ \text{new variable} = \frac{(\text{old variable}^L - 1)}{L} \]

According to the “bcskew0” algorithm, the appropriate “L” value was -0.148, and the skewness indicator for the Box-Cox transformed variable became very close to zero (i.e. \(9.95 \times 10^{-6}\)), from 4.96 of skewness indicator for the original variable. In Table A-3 below, the values of skewness and kurtosis for variables transformed by three different
methods are compared. As presented in Table A-3, the skewness value for Box-Cox transformed case is the closest to zero, indicating that distribution of this variables has symmetric shape. For kurtosis value, both Box-Cox transformed and logarithmic transformed variables have values close to three. I tested the Shapiro-Wilk’s W test (Shapiro and Wilk, 1965), using “swilk” algorithm in STATA, and found that Box-Cox transformed variable has the best fit to the normal distribution.

Table A-2
Skewness-Kurtosis Values for “Stock Ownership Range” with 3 Transformations
(observation = 276)

<table>
<thead>
<tr>
<th>Transformation</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Box-Cox transformed</td>
<td>$9.95 \cdot 10^{-6}$</td>
<td>2.204</td>
</tr>
<tr>
<td>Logarithm transformed</td>
<td>0.328</td>
<td>2.354</td>
</tr>
<tr>
<td>Square root transformed</td>
<td>1.776</td>
<td>7.740</td>
</tr>
</tbody>
</table>

Figure A-3 below presents the distribution of Box-Cox transformed variable. Compared to Figure A-2, this distribution is much more close to the standard bell-shaped normal distribution. Thus, both numerical and graphical methods showed that the Box-Cox transformation method brought about the best result to get normality.

Figure A-3
Distribution of “Stock Ownership Range” after Box-Cox Transformation
Example 3. Categorical Variable

To create a variable “wide issue framing”, with the five categories of issues such ‘environment,’ ‘people,’ ‘corporate governance,’ ‘people and environment,’ and ‘people and governance,’ I take advantage of the diversity indicator or the Blau heterogeneity index (Blau, 1977; Allison, 1978; Reagan et al, 2004), a widely used index to evaluate how various items or factors an entity covers in its activities. (Please see chapter 5 of this dissertation for more detail.)

Figure A-4 below shows the distribution shape of this variable. As Figure A-4 presents, this variable is not continuously distributed from the minimum value which is 0 to the maximum value which is 1. Rather, its distribution is clustered into three groups: “0” (perfect specialization), “1” (wide framing over 5 issue categories), and “in-between 0 and 1”.

Figure A-3
Distribution of “Wide Issue Framing”

Thus, this variable is transformed into a categorical variable with the following three categories: “1” for choosing all five issues in various social resolutions; “2” for choosing 2, 3, or 4 issues in multiple social resolutions; and “3” for choosing only one issue in social resolutions. Table A-3 presents the distribution of three categories in a new categorical variable.
Table A-3. Distribution of A Categorical Variables “Wide Issue Framing”

<table>
<thead>
<tr>
<th>Year</th>
<th>1 (choose only 1 issue)</th>
<th>2 (choose 2, 3 or 4 issues)</th>
<th>3 (choose all 5 issues)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>53.44</td>
<td>22.90</td>
<td>23.66</td>
</tr>
<tr>
<td>2003</td>
<td>51.43</td>
<td>17.14</td>
<td>31.43</td>
</tr>
<tr>
<td>2004</td>
<td>50.00</td>
<td>21.43</td>
<td>28.57</td>
</tr>
<tr>
<td>2005</td>
<td>41.89</td>
<td>27.70</td>
<td>30.41</td>
</tr>
<tr>
<td>2006</td>
<td>40.00</td>
<td>18.52</td>
<td>41.48</td>
</tr>
<tr>
<td>2007</td>
<td>40.37</td>
<td>16.77</td>
<td>42.86</td>
</tr>
<tr>
<td>Average</td>
<td>46.19</td>
<td>20.74</td>
<td>33.07</td>
</tr>
</tbody>
</table>

As seen in Table A-3, for the 6-year period, about a half of all social investors choose only one issue in their multiple social resolutions. Social investors widely framing their social resolution issues are about a third of sample from 2002 to 2007.
### APPENDIX B
**DESCRIPTION OF VARIABLES USED IN CHAPTER 4**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dependent Variables</strong></td>
<td></td>
</tr>
<tr>
<td>Number of initiation</td>
<td>In-degree centrality on the lead-/co-filers networks</td>
</tr>
<tr>
<td><strong>Independent Variables</strong></td>
<td></td>
</tr>
<tr>
<td>Brokerage (categorical; 0~2)</td>
<td>Whether a faith-based organization or not</td>
</tr>
<tr>
<td>Faith-Based Identity (categorical)</td>
<td>Whether a faith-based organization or not</td>
</tr>
<tr>
<td>Stock Ownership Range</td>
<td>Box-Cox transformed the number of companies owned</td>
</tr>
<tr>
<td><strong>Control Variables</strong></td>
<td></td>
</tr>
<tr>
<td>Experience (tenure)</td>
<td>Square rooted year length for filing social resolution since 1993</td>
</tr>
<tr>
<td>Asset Management Organization (categorical)</td>
<td>Whether a fund (mutual or pension) or not</td>
</tr>
<tr>
<td>Activist Identity (categorical)</td>
<td>Whether an activist organization or not</td>
</tr>
</tbody>
</table>
## APPENDIX C
### DESCRIPTION OF VARIABLES USED IN CHAPTER 5

<table>
<thead>
<tr>
<th>Variables</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dependent Variables</strong></td>
<td></td>
</tr>
<tr>
<td>In-Degree Centrality</td>
<td>In-degree centrality on the lead-/co- filers networks</td>
</tr>
<tr>
<td><strong>Independent Variables</strong></td>
<td></td>
</tr>
<tr>
<td>Faith-based Identity (categorical)</td>
<td>Whether a faith-based organization or not</td>
</tr>
<tr>
<td>Co-filing With Other Social Resolutions (Out-Degree Centrality)</td>
<td>Square rooted out-degree centrality on the lead-/co- filers network</td>
</tr>
<tr>
<td>Aiming at Popular Targets</td>
<td>Box-Cox transformed the degree of aiming popular targets</td>
</tr>
<tr>
<td>Wide Issue Framing</td>
<td>Category of wide issue framing (1 &lt; 0.5; 2 &gt; 0.5; 3 = 1)</td>
</tr>
<tr>
<td><strong>Control Variables</strong></td>
<td></td>
</tr>
<tr>
<td>Ownership Range (log)</td>
<td>Log of the range of stock ownership</td>
</tr>
<tr>
<td>In-Degree Centrality (t-1)</td>
<td>Square rooted in-degree centrality in t-1</td>
</tr>
<tr>
<td>Out-Degree Centrality (t-1)</td>
<td>Square rooted out-degree centrality in t-1</td>
</tr>
<tr>
<td>Experience (tenure)</td>
<td>Square rooted year length for filing social resolution since 1993</td>
</tr>
<tr>
<td>Asset Management Organization (categorical)</td>
<td>Whether a fund (mutual or pension) or not</td>
</tr>
<tr>
<td>Activist Identity (categorical)</td>
<td>Whether an activist organization or not</td>
</tr>
</tbody>
</table>
APPENDIX D
THE MULTI-LEVEL MIXED EFFECTS POISSON REGRESSION MODEL
USED IN CHAPTER 4

With a 6-year period panel structure, and with dependent variables equitable over
time, an appropriate approach for the study in chapter 4 was the multilevel mixed effects
regression model (Singer and Willett, 2003) or the multilevel hierarchical multivariate
linear model (Raudenbush et al., 2004). The model was formed at two levels: time-
variant level and time-constant level.

First, level 1 is time-varying characteristic of entities, in the context of this study
this characteristics is sampled as years within a social investor. Thus, at level-1, or in the
first stage of an analysis of change, this method analyzes within-individual change over
time. For example, at this level, the model determines how co-filing patterns of a social
investor have impacts on this social investor’s initiating activities.

Second, level 2 is time-stable property of social investors (sampled from within
certain categories). At level-2, or in the second stage of an analysis of change, this model
analyzes inter-individual differences in change. For example, at level-2, the model
determines how different identities or resources of a social investor effect this investor’s
initiating activities.

The model used in chapter 4 is described as follows. As seen in equations below,
level 1 model includes time as a trend variable and a time-varying independent variable,
brokerage. At level 2, a model includes the parameters from model 1 as dependent
variables. Model 2 incorporates an intercept, a random error term, and the noontime-
varying independent variables denoted as L2IVs, which are variables at the social
investor level that do not vary with time. The models are summarized below:

Level 1: Across time within a social investor

\[ \text{Number of initiation} = a + b \text{(TIME)} + c \text{(Brokerage)} + e \]  \hspace{1cm} (1)

Level 2: Across social investors within categories

\[ a = G_{00} + G_{01} \text{(L2IVs)} + u_0 \] \hspace{1cm} (Intercepts) \hspace{1cm} (2)
\[ b = G_{10} + G_{11} \text{(L2IVs)} + u_1 \] \hspace{1cm} (Trend Coefficients) \hspace{1cm} (3)
\[ c = G_{20} + G_{21} \text{(L2IVs)} + u_2 \] \hspace{1cm} (Brokerage Coefficients) \hspace{1cm} (4)
To test this model, I used the “xtmepoisson” algorithm in STATA, because the dependent variable, the number of initiation, is a count data and its distribution is close to the *Poisson* distribution. Below is the result for the level-2 model (Note that only significant regression coefficients are introduced):

\[
\begin{align*}
    a &= 0.821 \cdot \text{(ownership range)} + 0.698 \\
    b &= 0.093 \\
    c &= 2.156 + 0.370 \cdot \text{(faith-based)} – 2.280 \cdot \text{(ownership range)} + 0.278
\end{align*}
\]  

(2')  

(3')  

(4')  

When we put these results, (2'), (3') and (4') into the formula (1) above, with the dependent variable, number of initiation, and three variables, brokerage, faith-based identity, and stock ownership range, These effects are rearranged in a mathematical formula below. For convenience, I omit all other relationships in this formula.

\[
\text{number of initiation} = 0.698 + 0.821 \cdot \text{(ownership range)} + 0.093 \cdot \text{(TIME)} +
\]
\[
[ 2.434 + 0.370 \cdot \text{(faith-based)} – 2.280 \cdot \text{(ownership range)}] \cdot \text{(brokerage)}
\]

Meanwhile a level-1 variable, brokerage had a positive slope, and its interaction with faith-based identity had a positive slope with the dependent variable, number of initiations, its interaction with stock ownership range has a negative slope with number of initiations. Description and interpretation of the results are found in chapter 4.
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