THE ROLES OF PUBLIC RELATIONS AND SOCIAL CAPTIAL FOR COMMUNAL RELATIONSHIP BUILDING: ENHANCING COLLABORATIVE VALUES AND OUTCOMES

By

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A DISSERTATION PRESENTED TO THE GRADUATE SCHOOL
OF THE UNIVERSITY OF FLORIDA IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

UNIVERSITY OF FLORIDA

2009

To my beloved family

ACKNOWLEDGMENTS

I owe my sincere gratitude to so many people who supported and led my life. I am truly blessed to be where I am today. To begin with my professors in the Department of Public Relations at the University of Florida, I thank my advisors, Dr. Mary Ann Ferguson and Dr. Youjin Choi. I admire Dr. Ferguson's academic integrity, professionalism, and passion for public relations. I could not have completed my dissertation without your insightful guidance and patience. You educated and guided me to be a promising communication scholar and teacher. I will not also forget your genuine caring when I was in turbulent moments. To Dr. Choi, I thank you for your endeavor and kindness to inspire me throughout all of my years in Gainesville.

I am grateful to my committee members. To Dr. Spiro Kiousis, for your generous gift of time and support. I will remember your contribution to our department and wish you the best of luck in your scholarship, teaching, service, and life. To Dr. Mark Brennan, for guiding me to expand the knowledge of community development. You are truly the very man who knows what a sense of community is. To Dr. Lee, for your sincere commitment to my dissertation. I hope that you will enjoy your new life in Gainesville.

I would also like to express my thanks to the Public Relations Advisory Council for their financial support for my dissertation.

My heartfelt thanks go to my Korean friends in our department. My officemates, Sooyeon, Jooyun, and Jiyoung, will be always in my memory. I also thank you, Moonhee, for your constant support and prayers. Special thanks also to Sangwon and Seonmi for warmly sharing all of your lives with me. My companions, Sangwon and Seonmi, always stood by me whenever I was happy and unhappy.

A very special note of gratitude belongs to my spiritual mentors, Frs. Kisung Andrea Lee, *S.D.B.*, Kang-Yup Benedict Jung, *S.J.*, Changhyun Moses Han, *S.S.P.*, Jaewook John Lee, *S.J.*,

Keunsang Simon Yi, *S.J.*, and Kisung Michael Yoon. My life was full of blessings with your helps and my spiritual journey in America over the last six years was made with your prayers. I could not have discerned my life without you. I am also thankful to my Ruah Prayer Group members in Gainesville for their blessings and prayers. I was always motivated, encouraged, and delightful to get together with you every week.

I acknowledge the most important people in my life: my father, my mother, my three elder sisters, my two brother-in-laws, one niece and two nephews. I must tell you all that I am tremendously indebted to your love and support. My blessings go with you and my prayers always go with you.

I dedicate my dissertation to my Lord. I know that “affliction produces endurance, and endurance, proven character, and proven character, hope” (Romans 5:3-4).

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December 2009

Chair: Mary Ann Ferguson
Major: Mass Communication

This dissertation aimed to explore how organizational social capital enhances the collaborative values and outcomes of public relations for organizations and their publics. J. Grunig (2000) asserted that public relations needs to set up its central values for the profession, such as collaboration, whereby communal relationships between organizations and their key publics are strengthened. In the dissertation, organizational social capital's indicators (i.e., communication, networks, trust in employees, and inclusion) were suggested to explain how they can have positive impacts on communal relationships. In addition to communal relationships, the dissertation sought to find the sequential relationship of how organizational social capital's indicators lead to employees' intent to participate in community relations programs, which is considered a collaborative outcome of public relations. By virtue of a hierarchy-of-effects model, the dissertation tested the links among communal relationships, employees' attitudes toward their organization, and the intent. Finally, the dissertation also attempted to examine which indicators of organizational social capital will have more significant impacts on communal relationships, attitudes, and intent to voluntarily participate in community relations programs.

This dissertation used a stratified random sampling method and a statewide mail survey to collect the responses of employees residing in Florida who work for an organization (*N*=212). Results of structural equation modeling analysis showed that communication adequacy and communication accuracy play a critical role in enhancing communal relationships. Moreover, the links among communal relationships, employees' attitudes toward their organization, and the behavioral intent were empirically evidenced. These results imply that the indicators of social capital can contribute to both organizational and community development by generating collaborative values and outcomes.

CHAPTER 1
INTRODUCTION

In Davos, Switzerland, on January 24, 2008, Microsoft chairman and co-founder, Bill Gates gave a speech at the annual meeting of World Economic Forum. Gates said, “The world is getting better, but it is not getting better fast enough, and it is not getting better for everyone.” At the meeting, by coining “Creative Capitalism” Gates suggested that today's corporations should reach beyond their profit lines to contribute to society by lending a helping hand to people in need. This implies that today’s organizations, including for-profit organizations, should nurture valuable relationships with a community and may further build a democratic society by cooperation and partnership with their community members, as well as organizational members.

Notably, social capital theory, conceptualized by several scholars (e.g, Bourdieu, 1983; Coleman, 1988, 1990; Fukuyama, 1995; Putnam, 1993, 1995, 2000), suggests that the developments of organizations and communities can be affected by the resources of social capital. For example, Putnam (2000) found that social capital can significantly affect community members’ diverse civic engagement and lead to less crime and pugnacity, better education performance and health, and higher economic and civic equality. Given these crucial aspects of social capital, one also should identify how social capital can facilitate collaborative values and outcomes for both organizations and communities.

Based on the elements of consensus on which many social capital scholars reach, this study sees the social capital of organizations as an asset and capability that allows organizational members to achieve their goals with their significant referents through norms of reciprocity and trust, as well as networks. Organizational social capital can create a series of positive outcomes, which include collaboration, alliance, networking, or partnership with other entities. Through these kinds of outcomes, organizations obtain a positive reputation from their publics.

This study pays attention to the "communal relationships," which is considered one of the focal outcomes of relationship quality between an organization and its publics. This concept is consistent with social capital, which aims to pursue norms of reciprocity and trust. Putnam (2000) asserted that a society characterized by "generalized reciprocity" is more valuable and efficient. Given that public relations can create collaborative values, such as communal relationships between an organization and its publics (J. Grunig, 2000), we need to identify what factors can enhance the values.

For an organizational interest, communal relationships can play a role in enhancing their effectiveness and value beyond business outcomes and financial return. By supporting their key publics, including community members and employees, through a range of initiatives and programs, organizations can maximize positive outcomes such as reputation, trust, loyalty, satisfaction, commitment, positive attitudes, and more (Burke, 1999; Fombrun, 1996; Hall, 2006; Ledingham & Bruning, 1998, 2001; Rhee, 2004; Wilson, 2000). These outcomes will be more likely to result in key publics' certain behaviors toward the organization. That is, the publics' positive perceptions of their relationship with the organization have significant impacts on their attitude toward the organization, which leads to their particular behavior (Ki, 2006).

To make today's organizations more effective, close relationships with their communities are also imperative. By nurturing the communal relationships between employees of an organization and their local community, they all may contribute to their society, as well as reaching organizational objectives and facilitating organizational change. Furthermore, they would be able to experience reciprocity of norm and trust through the communal relationships, which indicates a central aspect consistent with social capital.

Purpose and Importance of the Study

The purpose of this study is to explore whether the communal relationships between organizations and their publics, developed by Hon & J. Grunig (1999), are facilitated by social capital. At the organizational level, social capital of an organization will be likely to create, maintain, and enhance the positive communal relationships between an organization and its key public, such as its employees. This suggests that the organizational social capital helps to contribute to the development of the organization. In addition to the development and interests of an organization, this study also examines the sequential relationships of how organizational social capital generates employees' intent to voluntarily collaborate with other employees through community relations practices. In the organizational perspective, the study suggests five social capital resources, which include communication adequacy, communication accuracy, networks within an organization, trust in other employees, and inclusion.

Moreover, this study aims to test a hierarchy-of-effects model that demonstrates the relationships among social capital indicators, communal relationships, attitudes, and behavioral intent. Past research (Ki, 2006; Ki & Hon, 2007) examined how a public's perception of its relationships with an organization is linked with attitudinal and behavioral outcomes. By examining the relationships, the study adds the important theoretical dimension of the underlying mechanism regarding employees' collective participation in community relations programs. From a theory-building perspective, insightful implications are offered by identifying what social capital indicators can affect the communal relationships between an organization and its employees and by exploring a hierarchy-of-effects model.

This study is particularly important to employee relations and community relations as specialized public relations practices. That is, public relations can realize collaborative values, including alliance, partnership, and solidarity with their local community, as well as

organizational interests. Public relations practices, such as community relations and corporate social responsibility programs, are assumed to create social capital between an organization and its local community. These public relations practices can serve as a bridge between an organization and its publics. Social capital between these two groups may be better facilitated by "excellent" organizational structures, such as communication, networks, trust, and inclusion, which also make employees' work life better.

CHAPTER 2
REVIEW OF LITERATURE

In this chapter, the central aspects of social capital and public relations are explored. The chapter presents a review of literature on social capital's importance in organizations and public relations, as well as definitions, types, resources, and measurements of social capital. The review of literature also looks at public relations' primary definitions and critical values, and it attempts to explain how public relations can be conceptually linked to social capital. Finally, a hierarchy-of-effects is also reviewed.

Social Capital Theory

Defining Social Capital

Capital consists of several primary types, including natural capital, physical capital, and human capital, which largely affect the wealth of local communities, societies, and nations. However, today, these three types are only considered partial predictors of economic growth, and social capital should serve as an additional predictor because economic actors interact with one another for their development (Grootaert, 1998).

The term "social capital" first appeared in rural sociology in 1916. Hanifan (1916) noted the importance of community involvement for successful schools by suggesting the necessity of social ties among community members. Since then, renewed interest in the concept by several sociological and political theorists (Bourdieu, 1983; Coleman, 1988, 1990; Putnam, 1993, 1995, 2000; Putnam & Feldstein, 2003) has contributed to the idea's popularity. Research on social capital has dramatically grown in both theoretical and applied social science literature since the 1990s (Grootaert, C., & van Bastelaer, 2002).

In particular, seminal scholars on social capital have made attempts to rigorously conceptualize its definition. First, from the structural and functional perspective, Coleman (1988)

defined social capital as “a variety of different entities, with two elements in common: they all consist of some aspect of social structure, and they facilitate certain actions of actors – whether personal or corporate actors – within the structure” (p. S98). This perspective sees social capital in a social structure by including vertical and horizontal relations among such entities as firms, beyond individuals (Grootaert, 1998; Grootaert, C. & van Bastelaer, 2002). Unlike other forms of capital, social capital emerges from “relations” among actors, and it also functions as a resource that helps to facilitate certain actions for mutually beneficial ends (Coleman, 1988). That is, social capital is not created from a vacuum: it is “*“located” not in the actors themselves, but in their relations with other actors*” (Lesser, 2000, p. 8, emphasis in the original). The relations embedded in social capital make transactions between people possible.

Focusing on trust, reciprocity, and social ties at the micro level, Putnam’s often-cited definition (2000) states: “connections among individuals – social networks and the norms of reciprocity and trustworthiness that arise from them” (p. 19). His definition of social capital addresses that social capital enables community members to facilitate collaborative action and cooperation for mutual benefit and shared goals. Social capital is also the resources of social norms and relations embedded in communities to bring the prosperity of civic virtue. Strong social capital accelerates economic property accumulation and sustainable development in a community through relationships and norms that shape the quality and quantity of social interactions (Goddard, 2005). For example, past research (Grootaert & van Bastelaer, 2002) found empirical evidence that social capital can contribute directly to economic development in rural and urban areas, and on a country-wide basis. In addition, Putnam found that social capital leads to community members’ civic engagement, such as political, religious, and philanthropic

participation. Moreover, he found that it is likely to result in a lower crime and pugnacity, better education performance and health, and higher economic and civic equality.

The organizational perspective

From the organizational or corporate perspective, social capital is defined as "the ability that organizations have of creating, maintaining, and using relationships to achieve desirable organizational goals" (Kennan & Hazleton, 2006, p. 322). This definition was adopted and developed from Portes's concept of social capital (1998) as actors' ability to produce benefits through social networks or structures. Kennan and Hazleton suggested that at the heart of social capital is the notion that relationships and relational concerns serve as focal mechanisms whereby certain organizational behaviors and outcomes emerge. For example, organizational resources, such as knowledge and information, are created particularly by the presence of structural, cognitive, and relational dimensions of social capital (Nahapiet & Ghoshal, 1998).

Nahapiet and Ghosal (1998) explained three facets of social capital, which are structural, cognitive, and relational. The first facet consists of three elements: network ties, network configuration, and appropriable organization. Network ties indicate access to resources. For instance, network ties provide a communication channel by which information is shared. The well-organized configuration of network, which is based on the density, connectivity, and hierarchy, helps to exchange information and knowledge in a more flexible and easy way. Appropriable organizations function as places that transfer and provide sources of valuable resources. Moreover, the second facet of social capital – cognitive – indicates that social capital can be influenced by individuals' cognition, especially shared language and codes and shared narratives. Social capital's relations among actors are built by language. Shared narratives (e.g. myths, stories, and metaphors) can also help create information and knowledge and enable the transfer of new interpretation of events (Nahapiet & Ghosal, 1998). Finally, the relational facet

consists of trust, norms, obligations, and identification. That is, the relationships among organizational members are easily facilitated by a high level of trust and a strong degree of consensus and norms in an organizational system. Obligations of individuals, organizations, and society also help achieve their shared goals. When people also try to identify themselves with another group of people, they will be more likely to cooperate with one another.

Social capital also offers benefits to organizations in several forms. Organizational social capital enables entrepreneurial behavior within corporations, which indicates "an organizational process for transforming individual ideas into collective action through the management of uncertainties" (Chung & Gibbons, 1997, p. 13). The organizational context and structure, in which information exchange, obligations and trust, and norms and sanctions are manifest, make it possible for organizational members to more readily interact with one another. Another advantage of organizational social capital includes firm survival (Pennings, Lee, & van Witteloostujin, 1998). Pennings and associates noted that corporations' social relationships and connectedness with other economic actors, such as their clients, also determine the competence of corporations for survival and dissolution. Finally, organizational social capital also facilitates the creation of new intellectual capital, which refers to "the knowledge and knowing capability of a social collectivity, such as an organization, intellectual community, or professional practice" (Nahapiet & Ghosal, 1998, p. 245). That is, social capital helps to increase an organizational capability for action based in knowledge and knowing.

Dissertation's definition of social capital

By virtue of the elements of consensus on which many social capital scholars reach, as reviewed here, this study sees organizational social capital as assets and capabilities that allow organizational members to achieve their goals with their significant referents (i.e., publics or stakeholders) through norms of reciprocity and trust, as well as communication and networks.

Organizational social capital can create relationship outcomes, which include collaboration, alliance, or partnership with other members, and vice versa.

From the organizational perspective, the strength of social capital theory lies in its ability to explain how organizational or group members often rely on one another to cooperate on joint problems with fellow members. Social capital also explains how organizations or groups can accumulate solidarity and ties for common interests of their members. That is, social capital increases the organizational or group members' capabilities to collaborate for common purposes (Fukuyama, 1995). In a trustworthy organization with intense social ties, its members can smoothly take a collective action to achieve their shared goal. When the members are actively involved in their organization where they are trusting and trustworthy, they will be more likely motivated to collaborate. Once they are isolated and distrust others, however, their reciprocity and solidarity will be inhibited. Affluent social networks also provide many formal or informal channels, through which they can communicate more information.

Two Types of Social Capital: Bonding vs. Bridging

As physical capital (e.g., tools) and human capital (e.g., education and technical skills) take their different forms, social capital is also shaped in diverse forms, including "a coffee klatch, a civic organization, a bowling league, a labor union, or the Ku Klux Klan" (Putnam & Feldstein, 2003). Among many forms of social capital, Putnam (2000) attempted to categorize its two major types: bonding social capital (exclusive) and bridging social capital (inclusive).

Bonding social capital

To explain bonding social capital, Putnam (2000) employed a metaphor, saying that bonding social capital is a kind of sociological "super glue." Bonding social capital tends to be inward-looking and reinforce in-group identities and homogeneous groups (e.g., the same religion, race, and deeply held values). Within a group or organization, bonding social capital is

formed for reciprocity and mobilizing solidarity. When the group or an organizational member needs to resolve a problem with fellow members, bonding social capital serves as the "super glue" that helps to facilitate problem-solving collaboration among the group or organizational members. Examples include ethnic fraternal organizations, church-based women's reading groups, and the like.

Bonding social capital sometimes involves mutually exclusive negative aspects, such as hostilities in Belfast in Northern Ireland, Bosnia, and Mafia (Putnam & Feldstein, 2003). Reinforcing similar identities, sharing, and goals within a social network, bonding social capital can result in the social distance and difference between the members and non-members of a social network. This impedes social integration and diversity, while increasing social conflicts and communal separation. For example, Belfast, the capital city of Northern Ireland, has historically experienced sectarian conflicts between Catholics and Protestants. By constructing their own social service infrastructures, the two religious groups formed their internal solidarity, intra-community trust, and dense multifunctional ties within their own communities (Bacon, 2001). At the same time, a lack of reconciliation, tolerance, and acceptance of difference existed between the two communities (Douglas, 1999).

Bridging social capital

Accordingly, given such negative aspects of bonding social capital as thin trust and weak ties with other groups or communities, public dialogues are needed to be made through the norms of trust, reciprocity, and solidarity with external group members to maintain a pluralistic society. That is, constructing bridges with "outsiders" is necessary for better and diverse community – bridging social capital, so to speak.

Whereas bonding social capital focuses on given narrow social ties and identities, bridging social capital is "better for linkage to external assets and for information diffusion"

(Putnam, 2000, p. 22). It provides a sociological "WD-40,"[1] whereby community members can generate broader identity and reciprocity. Socially heterogeneous groups can be linked by this bridging social capital. For example, joining various associational memberships facilitates the availability of information and community action among different group members (Fleming, Thorson, & Peng, 2005). However, increasing bridging social capital is not as easy as bonding social capital because connecting social networks that bridging the diverse splits needs more time and effort (Nelson, Kaboolian, & Carver, 2003; Putnam & Feldstein, 2003).

Bridging social capital may be facilitated by certain kinds of social network structures or organizational network structures. Organizational members often need to purposefully establish relations with others to provide or obtain benefits. When mutual benefits for an organization and its publics are needed, both will be likely to continue horizontal relations, in which information and knowledge emerge and reciprocity is made. However, when obstacles, gaps, or holes exist between the organization and its publics, these two groups will be less likely to be connected. This suggests that the organization needs a critical actor, such as public relations practitioners, to bridge the gap between the organization and its publics. In particular, organizational public relations for community development (e.g., corporate community relations) can result in alliance and partnership with local communities (Burke, 1999). Good examples include building employee and community relationships through volunteerism.

Thus, this study places emphasis on the importance of public relations roles for bridging social capital because public relations practices can serve as a sociological "WD-40" between the two groups. Bridging social capital between them may be better facilitated by "excellent"

[1] Putnam (2000) used two metaphors – "super glue and WD-40" – to explain bonding and bridging social capital. WD-40 is a type of lubricant.

organizational structures, such as good communication programs and public relations practices for community.

Resources of Social Capital

Scholars of social capital have theoretically categorized social capital into two main concepts: trust and social networks (Yun, 2007). Grootaert and van Bastelaer (2002) also argued that social capital consists of two dimensions of cognitive social capital and structural social capital:

> Structural social capital facilitates information sharing, collective action and decisionmaking through *established roles, social networks and other social structures supplemented by rules, procedures, and precedents*. As such, it is a relatively objective and externally observable construct. Cognitive social capital refers to *shared norms, values, trust, attitudes, and beliefs* (p. 6, emphasis in the original).

Trust in the concept of social capital refers to positive perceptions of other members, groups, organizations, or society at large. It enables the members of groups, organizations, and society to work and live together in harmonious ways. Social networks refer to the connectedness and relationships with other group or community members. In particular, at the organizational level, a social network is "a group of individual agents that share informal norms or values beyond those necessary for ordinary market transactions" (Fukuyama, 1997, p. 4). Putnam (2000) explained that trust performs as the grease of the wheels to build up healthy communities and to foster interdependency on others, while social networks serve as conduits for the flow of information that helps generate given levels of attainments. A reasonable level of trust is essential to creating and enhancing positive relationships, communities, cooperation, and mutual commitment, while networks are the main manifestation of connection for cooperation between group members (Cohen & Prusak, 2001). Specifically, trust consists of several types:

trust in others, trust in institutions and organizations, and trust in society. Social networks also include both formal membership in fixed organizations and informal networks.

Importantly, it should be noted that these two resources can be, but are not necessarily, complementary (Groortaert & van Bastelaer, 2002). In other words, collaboration between group members can be based on such a personal cognitive bond as trust and positive belief that may not be reflected in a formal structure such as organizational membership. Similarly, social networks alone do not necessarily lead to high level of trust and positive belief.

Measuring Social Capital: Its Indicators and Empirical Evidence

Social capital is seen as an intangible asset that can be accumulated and that generates benefits (Groortaert & van Bastelaer, 2002). Given that social capital can produce such substantial benefits as economic property and sustainable development in communities and nations (Goddard, 2005; Grootaert & van Bastelaer, 2002), it is critical to empirically measure social capital. Yet, measuring social capital directly is difficult because it takes no single form or dimension (Putnam, 2001), but rather multiple, proxy indicators are necessary (Grootaert & van Bastelaer, 2002).

At the community or societal level, Putnam (2001) pointed out that the indicators of social capital include “formal membership,” “participation in many different forms of informal networks,” and “trust in society.” Formal membership in organizations helps to enhance social networks and connectedness, by which reciprocity among their members will be more easily developed. Through the official membership in formal organizations, such as community-based, church-based, or work-based and voluntary associations, their members can exchange information, build communal relationships, and interact with each other for their common goals. In addition to formal membership in fixed organizations, informal networks also can increase the norm of reciprocity and the likelihood of relations-building among community members. For

instance, employees of a for-profit organization can maintain connectedness and cohesion by participating in a variety of activities together outside their workplace. Finally, Putnam (2000) also emphasized the importance of trust in society because it allows societal members' cooperation to proceed.

To assess social capital and its impact on community development, in 1996 the World Bank launched the Social Capital Initiative, which aimed to measure the indicators of social capital (Grootaert & van Bastelaer, 2002). Notably, Grootaert, Narayan, Jones, and Woolcock (2004) proposed six dimensions of social capital: 1) groups and networks, 2) trust and solidarity, 3) collective action and cooperation, 4) information and communication, 5) social cohesion and inclusion, and 6) empowerment and political action. Grootaert and colleagues (2004) noted that the first indicator (groups and networks) is in the structural dimension of social capital and the second one (trust and solidarity) is in the cognitive dimension. Moreover, the third one (collective action and cooperation) and the fourth one (information and communication) serve as the important ways in which social capital operates. Finally, the fifth and sixth ones (social cohesion and inclusion; and empowerment and political action) reflect the application or outcomes of social capital.

Notably, past research (Brehm & Rhan, 1997; Jin & Kim; 2008; McLeod, Scheufele, & Moy, 1999; Putnam, 2000; Shah, Kwak, & Holbert, 2001) empirically showed that some of social capital's indicators can serve as antecedents to community members' diverse civic participation. Brehm and Rhan (1997) have found that interpersonal trust, civic engagement, and confidence in the government are positively related to one another. That is, social capital can be strengthened by connecting interpersonal trust and civic engagement, which further lead to citizens' confidence in the government. Jin and Kim (2008) have indicated that interpersonal

trust and social networks and ties positively result in individuals' intent to collaborate with fellow citizens for a public health issue. Interestingly, other work (McLeod, Scheufele, & Moy, 1999; Shah, Kwak, & Holbert, 2001) has showed the importance of mass media as a means of communication for civic participation. For example, individuals' newspaper readership and Internet uses for discussion can stimulate their political participation. In addition to mass media, at the organizational level, communication (e.g., communication apprehension, adequacy of communication, and accuracy of communication) was evidenced as a critical factor to affecting social capital (Fussell, Harrison-Rexrode, Kennan, & Hazleton, 2006; Rhee, 2007; Smidts, Pruyn, & van Riel, 2001; Watson & Papamarcos, 2002).

Operational Definitions of Social Capital Indicators

From the organizational view, this study attempts to suggest and define the following indicators of social capital:

Communication

Communication is a determinant concept in social capital theory and is a necessary condition for the formation of social capital (Hazleton & Kennan, 2000; Kennan & Hazleton, 2006; Watson & Papamaros, 2002). Communication within an organization can be established by its members such as employees. It is composed of a number of dimensions. Two particular aspects of communication in organizations include its adequacy and accuracy, which are pertinent to social capital. More specifically, communication adequacy refers to the availability of and access to useful information about an organization and its employees. With frequent access to useful and important information, organizational members are able to accumulate knowledge, share ideas, and strengthen the network within their organizations. Furthermore, being informed about organizational current issues, problems, and information is a critical factor that ensures members to shape the positive perception of their organization. Smidts and

colleagues (2001) showed that more adequate communication employees are likely to increase stronger identification with their organization.

Communication accuracy refers to the degree of reliability, credibility, and preciseness of communicated information about an organization and its employees. Unreliable and inaccurate information that is communicated within an organization may increase employees' distrust in and negative perception of their organization. Moreover, it would lead to a lack of confidence in certain organizational efforts to support their employees and local community. Watson and Papamarcos (2002) showed that reliable communication enhances the level of commitment to organizations among employees.

Networks

Networks within an organization refer to organizational members' formal or informal connectedness to other internal members. These include the degree of density and diversity of formal or informal group memberships, as well as the frequency of interacting with other members to share information. In addition, the quantity and quality of organizational networks can help to support information-sharing and facilitate collective decision making. The effectiveness of their network activities will be more likely to increase social capital within their organizations.

Trust

From the organizational view, this study pays attention to group members' trust in other internal members, rather than trust in their organization. This trust refers to members' positive beliefs in and perceived confidence in the words and actions of others. Trust among those members is crucial particularly when the members need to work together, participate in the decision-making process for their shared goal, and make transactions among them. Furthermore,

accumulating distrust in other members would result in the negative perception of their organization.

Inclusion

At the organizational level, inclusion refers to the extent of togetherness, closeness, and unity among the internal members of an organization. That is, organizational inclusion reflects members' experiences or perceptions, making them feel the sense of community. In particular, division, differences, exclusion, or conflicts within an organization prevent employees from perceiving their sense of togetherness. For example, if employees are excluded from access to information about, service by, and resources of their organizations, they will be unlikely to perceive such a sense of community within the organizations.

Cooperation

Cooperation is the focal benefit and outcome of social capital in groups, organizations, communities, or societies. In particular, cooperation within an organization refers to its members' voluntarily collective behavior to achieve their shared goal. It is imposed not by external forces but by their shared needs.

Importance of Social Capital in Organizations and Public Relations

Although a substantial body of literature based on social capital has been developed primarily in sociology over the past decades, its applications to other fields, including communications, are relatively new. A number of scholars have investigated how social capital can contribute to the development of communities and nations. However, in recent years, some attempts to look at social capital in corporations and other formal organizations have begun to be made (Cohen & Prusak, 2001; Hazleton & Kennan, 2000; Fussell et al., 2006; Hiss, 2006; Kennan & Hazlenton, 2006; Leenders & Gabbay, 1999; Nahapiet & Ghoshal, 1998). In

particular, Cohen and Prusak claimed that social capital plays a critical role for the development of organizations by providing the following benefits:

1. Better knowledge sharing, due to established trust relationships, common frames of reference, and shared goals.
2. Lower transaction costs, due to a high level of trust and a cooperative spirit (both within the organization and between the organization and its customers and partners).
3. Low turnover rates, reducing severance costs and hiring and training expenses, avoiding discontinuities associated with frequent personnel changes, and maintaining valuable organizational knowledge.
4. Greater coherence of action due to organizational stability and shared understanding (p. 10).

Several scholars in organizational social capital and public relations (Hazleton & Kennan, 2000; Fussell et al., 2006; Kennan & Hazleton, 2006) have attempted to explicate the dimensions of social capital that can nurture the internal public relationships of an organization: structural, relational, and communicative dimensions. From the organizational perspective, network connections, which harden the structure of organizations, help to generate relational outcomes among organizational members, particularly when they trust one another and communicate information effectively. Fussell et al. (2006) found that several indicators of social capital dimensions (e.g., trust, access, timing, and network ties) were significantly related to transaction costs (e.g., exchange, problem solving, conflict management, and behavior regulation) and organizational outcomes (quality, change orientation, equity, and fairness). This research noted that these findings suggest that organizational public relations practitioners are those who are able to cultivate, maintain, and increase social capital in organizations.

In addition to improving their internal public relationships, organizations also build relationships with external publics, such as their local community members. Given that public relations also plays a critical role as an agent constructing a bridge between its organization and

its publics, those practitioners also will be able to create social capital outside the organizations. Because organizational employees often need to communicate, cooperate, collaborate, and create connections with their communities, their capabilities of extending their internal social capital to communities are also critical to benefiting both organizations and their communities. That is, organizations' social capital is not limited to only themselves in contemporary society (i.e., bonding social capital). Furthermore, social capital within organizations also is connected with the community (i.e., bridging social capital) through the resources of social capital, including norms of reciprocity and trust, social connectedness and communication. Organizations and their employees, as community members, will be more likely to collaborate with their communities through strong social capital "within" and "between" organizations and communities.

This study asserts that public relations can contribute to bridging social capital for community-building, as well as to bonding social capital for organizations, because public relations, as a boundary spanner, can aim to nurture mutually beneficial relationships between an organization and its various publics (Cutlip, Center, & Broom, 2000; Grunig & Hunt, 1984). The next section explores the definitions and values of public relations and how they are conceptually linked to the fundamentals of social capital.

Definitions of Public Relations and Its Core Values

Defining Public Relations

Definitions play a role in helping to understand how social process shapes reality around us (Gordon, 1997). Accordingly, formulating a definition of public relations also helps to describe and grasp how public relations operates in organizational settings and what it does in practice (Cutlip et al., 2000). In public relations scholarship and practice, a number of attempts to define public relations have been made since the early twentieth century (Cutlip et al., 2000; J. Grunig & Hunter, 1984; Hutton, 1999; Kruckeberg & Starck, 1988) and 472 definitions of public

relations were identified through books, journals, magazines, as well as public relations leaders by Harlow (1976). According to Kruckeberg and Starck, the key words among many definitions of public relations include “planned,” “persuasive,” “communication,” and “significant publics.” In particular, the common threads of contemporary public relations definitions emphasize the management function of an organization and two-way communication between the organization and its publics, as shown in definitions by J. Grunig and Hunter (1984) and Cutlip et al. (2000).

J. Grunig and Hunter (1984) gave a simple definition by saying public relations is “management of communication between an organization and its publics” (p. 6). Similarly but more specifically, Cutlip et al. (2000) argued that “public relations is the management function that identifies, establishes, and maintains mutually beneficial relationships between an organization and the various publics on whom its success or failure depends” (p. 4). With these definitions, one pays attention to “management function” of public relations, which focuses on mutual relationship-building between an organization and its key publics. In other words, through a management function, public relations “helps to define organizational objectives and philosophy and facilitate organizational change. Public relations practitioners communicate with all relevant internal and external publics in the effort to create consistency between organizational goals and societal expectations” (Baskin, Aronoff, & Lattimore, 1997, p. 5).

The definition of Baskin and colleagues may reflect that public relations is expected to focus on relational communication to serve an organization, its relevant publics, and ultimately society at large. That is, public relations is a social philosophy of management that creates mutual understanding and good will and pursues public interest on the basis of two-way communication (J. Grunig, 1992; Moore & Kalupa, 1985). This assumption is critical to distinguishing public relations values from those of marketing. Focusing on exchange

relationships with customers, marketing is regarded as the “management function that identifies human needs and wants, offers products and services to satisfy those demands, and causes transactions that deliver products and services in exchange for something of value to the provider” (Cutlip et al, 2000, p. 7). Thus, marketing strives to achieve an organization’s economic objectives, which may be quite different from public relations values that are likely to nurture mutually beneficial relationships between an organization and its internal and external environment.

In a similar perspective, the Public Relations Society of America (PRSA), the world's largest organization for public relations professionals, also makes an official statement that public relations serves pluralistic society by enhancing mutual understanding among a range of institutions, including profit companies, government agencies, and not-for-profit organizations. PRSA says that mutual understanding is developed by diverse organizational public relations activities, communication actions, and policies, such as social and citizenship performances.

Core Values in Public Relations

The review of definitions of public relations in this study suggests that public relations contributes to creating consistency between organizational goals and societal expectations through management function. To entail this consistency, the goals of an organization need to envision its essential values and philosophy that is harmonious with society, before having priority of increasing economic benefits. J. Grunig (2000) argued that public relations should implement its core values and principles for the profession. Yet, public relations is often seen as an applied technical area by non-public relations scholars (Botan & Taylor, 2004).

Communication tool focus

Traditionally, the main foci of public relations research and practice have been on communication tools to achieve organizational goals, such as corporate interest (Botan &

Hazleton, 2006; Botan & Taylor, 2004, 2006). In public relations practice, professionals made efforts to develop journalistic techniques and production skills in media relations. In public relations research, scholars stressed the functional perspective of public relations, under which public relations is considered a strategic communication tool for business (Botan & Taylor, 2004, 2006):

> Focusing on communication techniques, a functionalist perspective sees publics and communication tools to achieve some corporate interest. Journalistic techniques are particularly valued because the relationship between practitioners and the media is seen as most important (Botan & Taylor, 2006, p. 7).

In this viewpoint, public relations can function as a form of strategic communication, in which persuasion occupies a pivotal role, to advocate organizations and achieve their goals (Pfau & Wan, 2006).

Collaborative value

Questioning the traditional roles of public relations concentrating on mainly serving client interests, J. Grunig (2000) asserted that public relations needs to set up its core values for the profession, such as making a contribution to the development of a democratic society and community. For example, public relations is expected to play a socially responsible role for the well-being of employees and community (Molleda & Ferguson, 2004). This perspective argues that in addition to making profits, corporations, to be good citizens in society, should emphasize the creation of their business values, which are related to their social responsibility programs and policies. Moreover, scholars from this view maintain that organizational public relations needs to more broadly address social concerns beyond focusing primarily on increasing economic profits, such as consumer relations (Ferguson, Popescu, & Collins, 2006). Public relations programs and activities aiming to sincerely serve society and community can embody values and ideals for their client organizations, publics, and society.

Notably, J. Grunig (2000) contended that collaboration is the central core value of the public relations profession, and asserted that public relations should ultimately embrace a philosophy of collaboration and collectivism. By cooperating with local governments, nonprofits, activist groups, and community members, organizational public relations can take an essential role as a social bridge connecting with community members. As community members, for-profit organizations also should bear responsibility and duties when they face a social, cultural, environmental, or political problem. It is assumed that through collective action and cooperation with other community members, such problems can be more likely to be resolved.

Collaboration and collectivism is an "idealistic social role" of public relations, as conceptualized by White (J. Grunig & White, 1992). It presupposes:

> public relations serves the public interest, develops mutual understanding between organizations and their publics, contributes to informed debate about issues in society, and facilitates a dialogue between organizations and their publics (p. 53).

The idealistic social role views public relations as a mechanism, whereby organizations and their publics communicate with one another in a pluralistic system (J. Grunig, 1992). Given that a pluralistic society with various views is governed by trust, reciprocity, solidarity, and social ties among its members (Putnam, 1993, 1995, 2000), these presuppositions of public relations may become a foundation for creating, facilitating, and realizing the values of collaboration and collectivism through activities such as community relations programs. Social ties and norms of reciprocity and trust can facilitate collaborative behaviors for mutual benefit, such as community involvement (see Putnam, 1999, 2003).

Critical Indicator of Collaboration: Communal Relationships

To assess the degree of collaboration as the central value of the public relations profession, J. Grunig (2000) suggested communal relationships, which is one of the six

relationship indicators developed by Hon and J. Grunig (1999): control mutuality, trust, satisfaction, commitment, exchange relationship, and communal relationship. In fact, these relationship indicators were adopted from psychology literature on interpersonal relationships (Broom, Casey, & Ritchey, 1997, 2000; Ki, 2006) and, in particular, exchange relationship and communal relationship are based on the concepts by psychologists (see Clark and Mills, 1993). Hon and J. Grunig explain communal relationship as follows:

> In a communal relationship, both parties provide benefits to the other because they are concerned for the welfare of the other - even when they get nothing in return. For most public relations activities, developing communal relationships with key constituencies is much more important to achieve than would be developing exchange relationships (p. 3).

This assumption is considered particularly critical to adding value of public relations to publics, client organizations, and communities in that organizations should be socially responsible for their publics and communities by conferring mutual benefits.

Public relations values may be different from those of marketing, which is based on exchange relationships. According to Hon and J. Grunig (1999):

> In an exchange relationship, one party gives benefits to the other only because the other has provided benefits in the past or is expected to do so in the future. In an exchange relationship, a party is willing to give benefits to the other because it expects to receive benefits of comparable value to the other. In essence, a party that receives benefits incurs an obligation or debt to return the favor. Exchange is the essence of marketing relationships between organizations and customers and is the central concept of marketing theory. However, an exchange relationship often is not enough. Publics expect organizations to do things for the community for which organizations get little or nothing in return (pp. 20-21).

They maintain that exchange relationships never lead to the same levels of trust, control mutuality, satisfaction, and commitment as communal relationships do. The former is not always concerned for the other parties' social welfare, but the latter is. In other words, in exchange

relationships, one party assumes that benefits are not necessarily offered with the expectation of receiving a benefit in return from the other parties. However, greater communal relationships likely will be to shape more positive attitudes toward an organization among its key publics. Consequently, the greater communal relationships of public relations may serve local communities better by connecting with one another. Communal relationships also will decrease the likelihood of unsupportive behaviors towards organizations, such as unfavorable litigation, regulation, strikes, boycotts, and the like (J. Grunig, 2000; Hon & J. Grunig, 1999).

Interestingly, the concepts of communal relationships and exchange relationships are similar to Putnam's (2000) "generalized" reciprocity and "specific" reciprocity. He compares specific reciprocity: "I'll do this for you if you do that for me" (p. 20), with generalized reciprocity: "I'll do this for you without expecting anything specific back from you, in the confident expectation, that someone else will do something for me down the road" (p. 21). He also indicates that a norm of generalized reciprocity is more valuable than specific reciprocity and a society with stronger generalized reciprocity is more efficient. As Fukuyama (1995) maintained that more trustworthy nations can be more economically developed than less trustworthy ones, this may suggest that generalized reciprocity helps to better lubricate the life of organizations and community. Therefore, public relations researchers and practitioners should be able to identify and develop critical resources that lead to communal relationships, which is line with "generalized" reciprocity, between organizations and their publics.

Other Indicators of Collaboration: Control Mutuality, Trust, Satisfaction, and Commitment

In addition to the importance of communal relationships, this study also pays attention to these four relationship indicators of public relations, "control mutuality," "trust," "satisfaction," and "commitment," which play a role for an organization–public relationship assessment, called

OPRA[2]. The four relationship indicators also may strengthen the degree of collaborative values in society, local community, and organizations. J. Grunig (2000) noted that control mutuality and trust also appear to be important in a collaborative relationship; however, he did not elaborate this assertion.

Control mutuality encompasses "[t]he degree to which parties agree on who has the rightful power to influence one another. Although some imbalance is natural, stable relationships require that organizations and publics each have some control over the other" (Hon & J. Grunig, 1999, p. 3). Emphasis is placed on a positive organization-public relationship, which will not be controlled purely by one party or the other, but rather each party will be allowed to exercise rightful power in the relationship (Seltzer, 2007). In a collaborative relationship, control mutuality may suggest that a norm of reciprocity enhances a quality of relationship, such as interdependence and relational stability. Unilateral use of power in the relationships between two parties will impede the parties' collaboration.

In the organization-public relationship, trust refers to "[o]ne party's level of confidence in and willingness to open oneself to the other party" (Hon & J. Grunig, 1999, p. 3). In other words, trust toward an organization means its key publics' level of confidence in and willingness to open them to the organization. Trust cannot be controlled or manipulated, and is the given commodity that needs to be sustained (Burke, 1999). It is the crucial value in the process of collaboration with other community members. This study has reviewed that considerable research on social capital has revealed that trust in individuals is a significant antecedent to leading to collaborative behaviors. Likewise, without placing trust in a certain organization, its

[2] "OPRA is a concise multiple-item scale with good reliability and validity that an organization can use to better understand its publics' perceptions toward their relationship quality and thus improve public relations practice" (Huang, 2001, p. 82).

key publics will be unwilling to cooperate with the organization. Past research in relationship marketing literature (Morgan & Hunt, 1994) also has empirically revealed that trust can positively affect cooperation.

Satisfaction is described as "[t]he extent to which each party feels favorably toward the other because positive expectations about the relationship are reinforced. A satisfying relationship is one in which the benefits outweigh the costs" (Hon & J. Grunig, 1999, p. 3). Unlike control mutuality and trust based on cognitive dimensions, satisfaction consists of affection and emotion (J. Grunig & Huang, 2000). Given that satisfying relationships are also key to maintaining the relationships between both parties (Stafford & Canary, 1991), satisfaction may serve as an affective and emotional factor to lead to the collaborative behaviors for their common interests and goals. That is, when publics feel that the benefits of the relationship with an organization exceed the expectations that both of them have, the organization and its key publics will be more likely to collaborate with each other.

Commitment also may heighten the collaborative value of public relations. This construct is conceptualized as the "extent to which each party believes and feels that the relationship is worth spending energy to maintain and promote" (Hon & J. Grunig, 1999, p. 3). In public relations perspective, commitment can be seen as the organizational committed behaviors for the welfare of the community. Given that the dimensions of commitment are "continuance" and "affective" (Meyer & Allen, 1984), the organizational committed behaviors can be performed by continuance (i.e. organizational policy) or their affective orientation (i.e., philanthropic activities without conditions). Thus, through this relational communication, the committing party and the committed party will be likely to collaborate with each other for their common goals in the future.

Thus far, this study has reviewed the definitions and values of public relations. By arguing that public relations should create consistency between organizational goals and societal expectation, public relations can facilitate collaborative values in a community. Furthermore, this study has contended that the collaborative value can be strengthened by the five relationship indicators of public relations: communal relationships, control mutuality, trust, satisfaction, and commitment. Notably, this study does not claim that public relations can "always best" serve society, community, and organizations. But rather public relations practices, especially community relations activities, contribute to the development of society, community, and organizations by creating, maintaining, and increasing social capital for local communities as well as organizations. By first defining "community," the next section discusses how community relations as one area of public relations can contribute to creating the collaborative value.

Community-building and Public Relations

In general, the term "community" is defined mainly in the social science and communication literature (J. Grunig & Hunt, 1984):

> As a locality – people grouped by geographic location.
> As a nongeographic community of interest – people with a common interest, such as the scientific community or the business community (p. 266).

The first perspective describes community as a physical place where individuals live. However, a community cannot simply be fixed and is constantly changing. That is, the second perspective sees that community is a social field, where its local members maintain mutuality and foster social or symbolic ties to achieve a local, shared goal together (Wilkinson, 1999). It encompasses important constituencies that nurture relationships with local organizations. Its critical elements include "shared territory, common life, collective actions, mutual identity, and social interaction."

In a given territory, whether physical or virtual, community members (e.g., businesses, not-for-profits, government agencies, educational and religious institutions, and local residents) often interact with one another for common goals and interests, and sometimes need to take collective actions to solve a certain community problem (Putnam, 1993, 1998 2000; Putnam & Feldstein, 2003; Wilkinson, 1998, 1999). For example, when an environmental issue emerges from a local community, the residents and government agencies, such as environmental protection agency and committee, try to resolve the problem together by creating forums for public dialogue (Heath, Bradshaw, & Lee, 2002).

Notably, in public relations, community is also one of the key publics with which organizations manage relationships (Ledingham & Bruning, 2001). Its constituencies include customers, stakeholders, suppliers, employees, and local governmental officials. For relationship-building with these constituencies, community relations is described as an "institution's planned, active, and continuing participation with and within a community to maintain and enhance its environment to the benefit of both the institution and the community" (Peak, 1998, p. 117). That is, community relations pursues both organizations' interest and public interest.

With regard to organizations' interest, community relations plays a role in managing organizations' reputation and image, such as trust and loyalty (Burke, 1999; Ledingham & Bruning, 1998, 2001). That is, organizations' effective community relations programs for their employees, the environment of the local area, and charitable giving can maximize organizational interests. For example, *Fortune* magazine's annual survey listing of the ten highest-ranked companies indicates that the profit companies have very good community reputations (Fombrun, 1996). Corporate volunteerism also enhances positive image among local community residents

(Wilson, 2000). Corporate philanthropic activities for community support positively affect such relationship indicators of public relations as control mutuality, trust, satisfaction, and commitment between the organization and its local community residents (Hall, 2006). Moreover, when organizational employees make positive interactions with their community members through community outreach programs, community members tend to shape positive attitudes toward the organization (Rhee, 2004).

In addition to corporate interest, community relations practices play another role in contributing to public interest, common good, and social welfare of a community. As part of the community, organizations meet their responsibilities by supporting their local community through public relations practices. Regardless of organizational types – nonprofit, for-profit, governmental, educational, or religious – organizations often form partnerships with their local communities for their common goals. Their community involvement may facilitate norms of reciprocity and trust and social connectedness. Ihlen (2005) contends that social capital is in line with public relations because both in the best situations lead to interactions, reciprocity, and relational norms among members in groups, organizations, community, or society. Importantly, this study asserts that this partnership, or collaboration, also becomes the core value of community relations as the specialized area of public relations.

Exploring the Core Value of Community Relations

This study pays attention to the assertion that public relations best serves society, organizations, and their publics through "community-building," in line with the notion suggested by a series of articles (Kruckeberg, 2000; Kruckeberg & Starck, 1988; Kruckeberg, Starck, & Vujnovic, 2006, Starck & Kruckeberg, 2001). Starck and Kruckeberg (2001) note:

> Community building can be proactively encouraged and nurtured by corporations with the guidance and primary leadership of these organizations' public relations practitioners. These practitioners must consider, in their community-building efforts, their

> environmental constituencies, that is, all entities potentially affected by the corporations…… Corporations must recognize that the greatest stakeholder – the ultimate environmental constituency – is society itself, to which such corporations are ultimately and irrefutably answerable (p. 59).

This view appears to assume that communicating with their environmental constituents means nurturing relationships, and is essential to promoting a sense of community. In other words, communication is a focal element for facilitating a sense of community. Through diverse communication channels and messages, organizational public relations should be able to empower members in community and society if it leads them to being involved in communication process and enables them to participate in dialogue with organizations. Once empowered community members could then cooperate with one another, and then perceive a stronger level of reciprocity, solidarity, trust, or shared beliefs, which might form a sense of community among those members.

Kruckeberg and Starck (1988) maintained that public relations as a community-builder could ultimately contribute to community by restoring and maintaining a sense of community beyond organizational goals. Kruckeberg and Starck (1988, pp.112-117) and Kruckeberg, Starck, and Vujnovic (2006) identified eight ways in which public relations practitioners can form a sense of community in organizations and among publics:

1. Practitioners can help community members and the organizations they represent become conscious of common interests that are the basis for both their contentions and their solutions.
2. Practitioners can help individuals in the community to overcome alienation in its several forms.
3. Practitioners can help their organizations assume the role that Dewey reserved for the public schools, that is, in helping to create a sense of community.
4. Public relations practitioners should encourage leisuretime activities of citizens to enhance their sense of community.
5. Practitioners who are concerned with persuasion and advocacy should encourage consummate communication, that is, self-fulfilling communication.

6. Practitioners can help individuals find security and protection through association with others.
7. Practitioners can address interest in community welfare, social order, and progress.
8. Practitioners can help foster personal friendships.

Hierarchy of Effects: Communal Relationship, Attitude, and Behavioral Intent

As reviewed earlier, communal relationships facilitate organizational effectiveness by encouraging supportive behaviors or encountering less opposition from publics. This is one of the most important outcomes and effectiveness of public relations that public relations researchers and professionals consider. Public relations researchers (e.g., Hon & J. Grunig, 1999; Ki, 2006; Ki & Hon, 2007; Ledingham & Bruning, 1998) contend that the relationship between an organization and its publics is the measurable outcome that represents public relations effectiveness. In particular, past studies (Ki, 2006; Ki & Hon, 2007) conceptualized how OPR contributes to publics' supportive behavior toward an organization. By adopting a hierarchy-of-effects model, Ki (2006) tested the linkages among OPR indicators, attitude, and behavioral intentions to show the effectiveness of public relations.

The hierarchy-of-effects model describes the stages that individuals go through during their experience of shaping attitudes and facilitating behavior. This model consists of three steps – cognition, affect, and behavior. That is, a particular behavior (e.g., purchase behavior) can occur through these stages from cognition (i.e., perception) to behavior mediated by affect. Cognitive dimensions include attention, awareness, comprehension, and learning (Ray, 1973). These cognitive elements, which are consistent with perception, result in an affective outcome. For example, attitude, feeling, interest, and evaluation fall under the affective category. These components can lead to behavioral intent and overt behavior change. In fact, an attitudinal variable, which refers to an individual's affective or evaluative response toward performing a

particular behavior, tends to be one of the best predictors of behavioral intent (Fishbein & Ajzen, 1975).

Ki (2006) argued that a hierarchy-of-effects model can be applied to explain the sequential relationships among the OPR indicators, attitude toward an organization, and behavior. Specifically, the long-term effect of public relations as the part of communication can be investigated from the model perspective. That is, key publics' perceptions of an organization, such as trust, openness, involvement, investment, and commitment, generate such an affective outcome as attitude toward an organization (Ledingham & Bruning, 1998). Moreover, consumers' perceptions of their personal and professional relationships with an organization also have a significant influence on such an evaluative variable as satisfaction (Bruning & Ledingham, 2000). Furthermore, such affective and evaluative variables can produce publics' behavioral outcomes (Bruning, 2002). Importantly, Ki (2006) empirically examined the significant the sequential relationships.

This study argues that communal relationships can be a perceptual component like other OPR indicators. When Broom and his associates (1997, 2000) conceptualized OPR and explicated a concept of "relationships," they also paid attention to the cognitive activity of relationships in interpersonal communication literature. Broom et al. (1997) concluded that "[t]he formation of relationships occurs when parties have perceptions and expectations of each other, when one or both parties need resources from the other, when one or both parties perceive mutual threats from an uncertain environment, and when there is either a legal or voluntary necessity to associate" (p. 95). In this perspective, as one of the six relationship outcomes conceptualized by Hon and J. Grunig (1999), communal relationships also become a perceptual

and cognitive indicator. When perceiving that their organization supports their work life, for example, employees will be likely to nurture communal relationships.

By virtue of the hierarchy-of-effect perspective (Ki, 2006; Ki & Hon, 2007), this study articulates the sequential relationship among communal relationships between organizations and their employees, attitudes toward their organizations, and intent to participate in community relations programs. Because communal relationships can be also one of cognitive elements, the higher level of communal relationships will increase employees' positive attitudes toward their organization. If they shape the positive attitudes, then their supportive behavior toward their organization and community will be more likely to occur.

Understanding the sequential relationship is particularly important to the role of public relations and social capital for community development. Public relations researchers and professionals need to investigate how such a relationship quality outcome as communal relationships contributes to the collaborative value and consequence of public relations. If employees' participation in their community relations programs with other employees can be increased by an attitudinal variable and communal relationships, public relations practitioners should be able to develop a range of ways to support their employee programs.

Positive communal relationships point out that an organization pursues the norm of "generalized" reciprocity for its employees. Rather than taking advantages of its employees, an organization showing good communal relationships gets to be concerned with its employees' welfare. Once employees shape this positive attitude toward their organization, then they also will be able to take a particular collaborative action, such as participation in their local community through public relations activities. In particular, if they work with other employees through community relations programs for their community development, bridging social capital

will be formed and maintained. That is, extending organizational social capital to its employees' local community, an organization can create bridging social capital with its community.

Research Questions and Hypotheses

Thus far, this study has discussed several agendas, including organizational social capital indicators, the collaborative values of public relations, community relations, and hierarchy of effects. Social capital serves as a crucial antecedent to developing organizations through its resources. For instance, Fussell et al. (2006) found that organizational social capital's resources can generate its measurable outcomes (e.g., quality, change orientation, equity, and fairness), which can have positive effects on the development of organizations. Organizational social capital also facilitates corporate entrepreneurial behavior (Chung & Gibbons, 1997), firm survival (Pennings et al., 1998), and intellectual capital such as organizational capability for action based in knowledge and knowing (Nahapiet & Ghosal, 1998, p. 245).

This study argues that the four indicators of organizational social capital (i.e., communication, networks, trust, and inclusion) may have positive impacts on communal relationships. If those indicators can be found to enhance the communal relationships, which are considered the focal, collaborative outcome of relationship quality that emerges between an organization and its employees, the organization's bonding social capital will be heightened. This suggestion can be particularly important in public relations. As J. Grunig (2000) urged, the role of public relations as management function should be able to show the measurable outcomes to determine the effects of public relations. Given that the communal relationships can become one of the outcomes resulting from public relations programs, researchers and practitioners of public relations need to identify what factors strengthen the communal relationships between an organization and its employees.

As the first factor and antecedent, the communication of organizational social capital may serve to enhance the communal relationships. Communication is a critical concept in social capital theory and is a necessary condition for the formation of social capital (Hazleton & Kennan, 2000; Kennan & Hazleton, 2006). Communication within an organization can be formed by its members, such as employees. This study has suggested that two particular aspects of communication in organizations include communication adequacy and communication accuracy. The former was operationally defined as the availability of and access to useful information about an organization and its employees. The latter was defined as the extent of the preciseness of communicated information about an organization and its employees. Employees, as an organization's key public, may not perceive that their organization is concerned for the welfare of their organizational life (i.e., communal relationships), unless they see the good adequacy and accuracy of information about their organizational current issues and problems that they receive. That is, communicated information regarding their organizational life, which is adequate, accurate, reliable, and credible, may serve as a critical antecedent to building perceived communal relationships between an organization and its employees. Because little research has been done to examine whether these two types of communication can empirically become each indicator of social capital, this study proposes the following research question:

> **RQ1**: Does the communication adequacy of organizational social capital empirically differ from the communication accuracy of that in this study?

If the adequacy of and the accuracy of communication as organizational social capital indicators can empirically become each separate variable, each of them may increase communal relationships between an organization and their employees. Communication may play a primary role in strengthening communal relationships in organizational settings. Smidts et al. (2001) found that receiving sufficient and useful information on organizational issues (e.g., goals and

objectives, new developments, activities and achievements) assures employees of their salient identity as organizational members. Moreover, Rhee (2007) revealed that the adequacy of communication enhances trust and norm within an organization. These results seem to indicate that being consistently well-informed about their organization affects their likelihood of shaping positive perceptions of other employees and their organization. Moreover, employees may feel that their organization is concerned for their welfare by communicating with them.

Communication accuracy is another critical indicator of organizational social capital. Watson and Papamarcos (2002) argued that communicating accurate, reliable, and credible information is more likely to sustain communicative actions. Being continuously informed about inaccurate and unreliable information about their organization and other employees would discourage their desire to become a member in their organization. Furthermore, such information may lead employees to perceive that their organization is not interested in employees' work life and decreases organizational unity. Therefore, the following hypotheses (Figure 2-1) are posed:

> **H1**: Communication adequacy will positively lead to communal relationships between an organization and its employees.
>
> **H2**: Communication accuracy will positively lead to communal relationships between an organization and its employees.

This study also has reviewed that networks and trust can facilitate cooperation for mutual benefits. Putnam (2000) found that social networks and trust result in civic engagement. In the similar perspective, at the organizational level, networks and trust in other employees also will generate collaborative values, such as communal relationships. In other words, affluent networks and high levels of trust in others may allow employees to perceive that their organization creates and maintains the norm of "generalized" reciprocity as communal values. Organizational formal or informal connectedness enables its employees to interact with one another. Organizational

memberships can offer a communal place, in which employees may perceive how their organization supports their life. Levels of trust in other employees also will have a positive effect on the communal relationships. As this study noted several times, trust can become a sociological "WD-40" whereby organizational employees can produce the norm of reciprocity for their organizational development.

Inclusion, which refers to the sense of togetherness and unity, also may strengthen the perceived communal relationships between an organization and its employees, because exclusion, division, differences, and conflicts are obstacles to such a collaborative value. The strong extent of inclusion within an organization also may positively affect communal relationships. Without a sense of community within an organization, its employees will be unlikely to believe that their organization can give communal benefits to them.

Thus, the following hypotheses are posited:

H3: Networks within organizations will positively lead to communal relationships between an organization and its employees.

H4: Trust in other employees will positively lead to communal relationships between an organization and its employees.

H5: Inclusion will positively lead to communal relationships between an organization and its employees.

One of the most focal benefits and outcomes of organizational social capital includes employees' collaboration. This collaboration becomes increasingly important in today's business process to achieve employees' goals (Cross, Martin, & Weiss, 2006). Collaboration is imposed not by external forces but by their shared needs. Given that organizational employees are also one part of community members and citizens in today's society, their collaborative participation in the community probably brings the prosperity of both their organization and community. For organizational interests, on the one hand, their community involvement through community

relations programs strengthens their employees' identity and solidarity and results in good reputation. For community interests, on the other hand, their voluntary involvement in the community through the programs facilitates the norms of reciprocity within it. This study contends that without communal relationships between an organization and its employees, it would be difficult to augment employees' intent to voluntarily participate in community relations programs with other employees.

This behavioral intent will be likely to occur through a series of stages called the hierarchy-of-effect model that Ki (2006) and Ki and Hon (2007) adopted. By conducting structural equation modeling analysis, Ki (2006) showed that relationship quality outcomes, including communal relationships, lead to an attitudinal construct, which subsequently increases a behavioral intent toward an organization. This result appears to parallel past research (Bruning & Ledingham, 2000; Ledingham & Bruning, 1998) that found the significant relationships between several OPR dimensions and attitudinal variables. In the same perspective of the hierarchy-of-effects, this study suggests that strong communal relationships between an organization and its employees will be more likely to shape employees' positive attitudes toward their organization. In turn, these positive attitudes will increase their intent to voluntarily participate in community relations programs with other employees. Without positive attitudes toward their organization, they would be reluctant to participate in volunteer work with other employees.

In addition, Ki (2006) examined a different sequential order of the hierarchy-of-effects, which goes through perception – behavior – attitude. This step can emerge in a low involvement condition (Krugman 1965). That is, a public with low-involvement with an organization is likely to initially take a particular action and then shape their attitudes toward the organization to

justify their behavior. However, this study asserts that employees of an organization already formed adequate attitudes, which means that employees are not in a low involvement condition.

Thus, the following hypotheses are postulated:

H6: Communal relationships between an organization and its employees will heighten employee's positive attitudes toward their organization.

H7: Employees' heightened attitudes toward their organization will increase their intent to voluntarily participate in community relations programs with other employees.

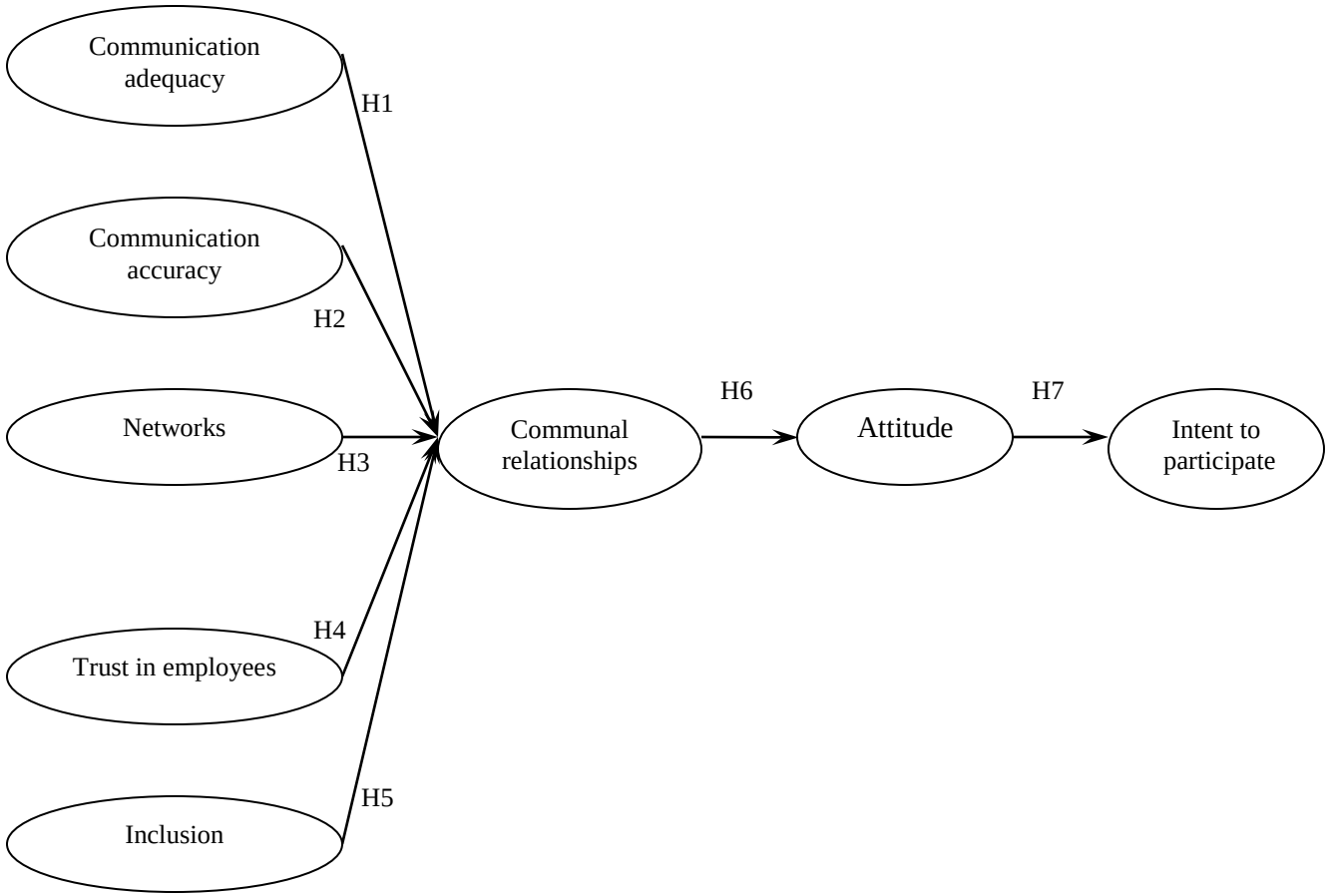
Finally, this study also tests which indicator of organizational social capital empirically represents the strongest explanatory power to explain both communal relationships and employees' intent to voluntarily participate in community relations programs. This attempt provides theoretical and practical implications. By specifying what factor contributes more to collaborative values and outcomes, public relations researchers and practitioners can implement strategic plans to enhance organizational social capital, which will be likely to develop their organization. Furthermore, bridging social capital also will be likely facilitated. Thus, the following research questions are suggested:

RQ 2a: Of the indicators of organizational social capital, which one will contribute the most explanatory power for the communal relationships between an organization and its employees?

RQ 2b: Of the indicators of organizational social capital, which one will contribute the most explanatory power for attitude toward an organization?

RQ 2c: Of the indicators of organizational social capital, which one will contribute the most explanatory power for the intent to voluntarily participate in community relations programs with other employees?

Figure 2-1. The proposed model



CHAPTER 3
METHODS

This chapter explains population and samples, measures, pretest and survey administration, and statistical methods used to examine the research questions and hypotheses outlined in the previous chapter.

Population and Samples

The population of this study is composed of full-time or part-time employees residing in Florida who currently work for an organization. Previous studies (Basil, 1996; Basil, Brown, & Bocarnea, 2002) showed that multivariate relationships among variables tend to be consistent regardless of a random sample of adults or a sample of college students. The study assumes that using a statewide sample for the study would also produce consistent results as those from a nationwide sample.

A proportionate stratified random sample of 2,321 employees residing in Florida was purchased from a marketing research firm in Gainesville, Florida. According to Wimmer and Dominick (2006), stratified sampling is used to ensure adequate representation of a subsample (i.e., strata or segment), such as religion or income level. The stratified samples were randomly drawn from a total number of 249,127 employees of 41 occupations (See Table 3-1). Every nth record was systematically selected from the list of each subsample. The selected samples excluded retired individuals and people who work from home or were self-employed.

This study aimed to collect at least 200 valid respondents. Consistent with Anderson and Gerbing (1988), Holbert and Stephenson (2002) also argued that a minimum of 150 respondents is a conservative and fair standard to perform structural equation modeling analyses in communication fields. However, Hoyle and Kenny (1999) recommended a more stringent criterion of 200 samples. Moreover, for multivariate studies, a minimum of 200 sample

respondents is a fair guideline (Comrey & Lee, 1992). This study employed the more rigorous standard.

Table 3-1. List of occupations in Florida

Occupations	Number	Occupations	Number
accountants	1,999	middle management	13,724
architects	437	military	5,373
attorneys	1,310	nurses	14,194
beauty	5,013	occupational therapist	563
chiropractors	103	opticians	203
civil servant	691	pharmacist	821
clergy	1,038	pro driver	155
clerical	20,671	pro / technical	54,565
computer	2,017	psychologists	156
counselors	226	real estate	1,212
dentist	1,100	retail sales	2,212
doctors	3,400	sales/marketing	37,385
electricians	663	services/creative	31
engineers	1,606	skilled trade/machine/laborer	24,905
executive	1,123	social worker	279
farming	359	speech pathologist	194
financial services	1,042	surveyors	201
health services	850	teacher	10,052
insurance	42	upper management	38,763
interior designers	180	veterinarian	192
landscape architects	77		
Grand Total	249,127		

Note: This is a list of occupations that a local marketing research firm maintains in its database.

Questionnaire Construction and Measurements

In this study, a statewide mail survey was used to examine employees' perceptions of organizational social capital, communal relationships, and community involvement. The cost of mail surveys is reasonable, making large samples feasible (Wimmer & Dominick, 2006). A long list of questions is also easier to deal with mail surveys than telephone surveys (Babbie, 2001).

A survey questionnaire was constructed with a cover letter, a title page, and a 17" x 11" size, two-sided survey sheet. A cover letter described the researcher's introduction and contact information, the purpose of the survey, and an approval by the University of Florida Institutional

Review Board. Two versions of the cover letter are provided in Appendix A and B. A title page included the title of the survey and directions. The questionnaire was four pages long and included general instructions about questionnaire completion. The study selected a seven-point Likert scale rather than a five-point scale because a greater number of choices result in higher accuracy and better information (Spector, 1992).

Five sets of measures were used in this study: (1) social capital indicators (i.e., communication adequacy, communication accuracy, networks, trust, and inclusion), (2) communal relationships, (3) attitude toward an organization, (4) community relations program participation volunteer intended behavior, and (5) demographic and employee information questions. Following are descriptions of the measures.

Communication Adequacy

This study adopted and developed the scales of Smidts and colleagues (1998) to measure communication adequacy. To gauge employee communication, Smidts et al. categorized communication adequacy as three dimensions: 1) adequacy of information on organizational issues, 2) adequacy of information that employees received regarding their personal role, and 3) communication climate. The study pays attention to the adequacy of information on current issues or problems in organizations. By frequently and continuously receiving useful information surrounding their organizations via diverse communication channels, they may more effectively work and positively perceive their organization. Communication adequacy was assessed by asking employees to rate three statements on seven-point Liker scales (1=very strongly disagree, 7=very strongly agree). A sample item was “Generally speaking, about the goals of my organization, I receive useful information. Copies of the statements are presented in Table 3-2.

Communication Accuracy

Communication accuracy was defined as the extent of the reliability, credibility, and accuracy of communicated information on an organization and its employees. This study adopted and developed the scales of O'Reilly & Roberts (1977). Communication accuracy was measured with five statements by asking respondents to assess their overall quality of communication accuracy in their organizations and with their employees. All five statements were gauged by a seven-point Likert scale ranging from very strongly disagree (1) to very strongly agree (7). All five statements were reversely coded. See Table 3-2.

Networks

To assess networks within an organization, three measures were adapted from a scale proposed by Grootaert et al. (2004) and Jones and Woolcock (2007). Respondents were asked to evaluate their networks qualitatively and quantitatively with a seven-point Likert scale and two open-ended questions. See Table 3-2 for the original item and questions.

Trust in Other Employees

The items of Cook and Wall (1980) were adapted and modified to measure trust in other employees. Six items were developed and tested by a seven-point Likert scale. These measures reflect the degree of trust and confidence in other employees with whom respondents work. See Table 3-2.

Inclusion

To evaluate inclusion, this study also modified the scales suggested by Grootaert et al. (2004) and Jones and Woolcock (2007) to reflect employees' sense of togetherness and closeness in their organizations. Inclusion also was measured with three statements on a seven-point Likert scale. One item was reversely worded. See Table 3-2.

Communal Relationships

Five items representing the communal relationships between an organization and its employees were developed by using Hon and J. Grunig's (1999) relationship indices. They were tested using a seven-point Likert scale. Two negative indicators were used. See 3-2.

Attitudes toward an Organization

This study adopted and modified an attitudinal scale used by Ki (2006). She proposed a scale to measure publics' overall attitude toward an organization. Reflecting that employees are an important public of an organization, this study developed five statements that were measured on a seven-point Likert scale. Out of five, two items were reversely stated. See Table 3-2 for the original items.

Intent to Participate

Scholars have often used behavioral intentions rather than measures of individuals' actual behavior, given that intents are the most immediate antecedent of behavioral change (Ajzen, 1991; Fishbein & Ajzen, 1975). On the basis of previous studies (Bortree, 2007; Ki, 2006; Zeithaml, Berry, & Parasuraman, 1996), three items to measure intent to participate were evaluated on a seven-point Likert scale. Before respondents were asked to rate these items, they were first provided with a filtering question to find whether the respondents were aware of their community relations programs in their organizations. The filtering question was: "Does your organization have any community relations programs, such as employee volunteer programs, corporate social responsibility activities, PR campaigns for community development, and the like?" If the respondents said yes, they were asked to indicate their intent to participate in the programs in the future on a seven-point Likert scale. However, if they said no or don't know, they were asked to assume that such a program exists in their organizations and evaluate their intent to participate in the programs on a seven-point Likert scale.

Demographics and Employee Information Items.

Respondents were asked to provide their gender, age, level of education, ethnicity, and personal annual income, as well as the number of years employed and the number of employees working for their organizations. Using two multiple choice questions, this study also asked respondents to indicate 1) whether they currently work for a for-profit organization or non-profit organization or are self-employed and 2) whether they are a full-time or part-time employee. Additionally, respondents were asked whether they participated in any community relations programs offered by their organizations in the past year.

Table 3-2. Measures

Communication Adequacy	
CAD-1	Generally speaking, about the goals of my organization, I receive useful information.
CAD-2	Generally speaking, about the current issues or problems in my organization, I receive useful information.
CAD-3	Generally speaking, about how clients (e.g., customers) evaluate the services of my organization, I receive useful information.
Communication Accuracy	
CAC-1	Generally speaking, the information about my organization I receive is often inaccurate. [R]
CAC-2	Generally speaking, I can think of a number of times when I received inaccurate information from others in my organization. [R]
CAC-3	Generally speaking, it is often necessary for me to go back and check the accuracy of information I have received in my organization. [R]
CAC-4	Generally speaking, I sometimes feel that others don't understand the information they have received. [R]
CAC-5	Generally speaking, the accuracy of information passed among other employees in my organization needs to be improved. [R]
Networks	
N-1	I often meet or interact with people that I work with to share information.
N-2	How many people are you close to at work? These are people you feel at ease with, can talk to about private matters, or call on for help.
N-3	How many groups do you belong to within your organization? These could be formally organized groups or just groups people who get together regularly to do an activity or talk about things.

Table 3-2. Continued

Trust in other employees	
T-1	Generally speaking, if I got into difficulties at work, I know that employees I work with would try and help me out.
T-2	Generally speaking, I can trust the people I work with to lend me a hand if I needed it.
T-3	Generally speaking, most of employees that I work with can be relied upon to do as they say they will do.
T-4	Generally speaking, I have full confidence in the skills of employees that I work with.
T-5	Generally speaking, most of employees that I work with would get on with their work even if supervisors were not around.
T-6	Generally speaking, I can rely on other employees not to make my job more difficult by careless work
Inclusion	
I-1	Generally speaking, I feel togetherness or closeness in my organization.
I-2	Generally speaking, in the last three months, I have often gotten together with my organizational members for social activities, such as playing games, sports, or other recreational activities
I-3	Generally speaking, I believe that differences in characteristics between employees working in my organization cause problems to me. (Differences in wealth, income, social status, ethnic or linguistic background, gender, age, religion, lifestyles, and the like.) [R]
Communal relationships	
CR-1	I feel that my organization especially enjoys giving aid.
CR-2	I feel that my organization is very concerned about the welfare of people like me.
CR-3	I feel that my organization succeeds by stepping on other people. [R]
CR-4	I feel that my organization helps people like me without expecting anything in return.
CR-5	I feel that my organization takes advantage of people who are vulnerable. [R]
Attitude toward an organization	
A-1	I feel that my organization is pleasant to its employees.
A-2	I feel that my organization is favorable to its employees.
A-3	I feel that my organization is useful to its employees.
A-4	I feel that my organization is negative to its employees. [R]
A-5	I feel that my organization dislikes its employees. [R]
Intent to participate	
INT1-1	If my organization created a community relations program, I would voluntarily participate in any community relations programs with other employees.

Table 3-2. Continued

INT1-2	If my organization created a community relations program, I would make a strong effort to voluntarily participate in any community relations programs with other employees.
INT1-3	If my organization created a community relations program, I would recommend to other employees that they participate in any community relations programs.
Intent to participate	
INT2-1	In the future, I will voluntarily participate in any community relations programs with other employees.
INT2-2	In the future, I will make a strong effort to voluntarily participate in any community relations programs with other employees.
INT2-3	In the future, I will recommend to other employees that they participate in any community relations programs.

Note: [R] indicates reverse code.

Pretest

Before mailing the surveys, an initial version of the questionnaire was pretested with a convenience sample of 10 graduate students enrolled in a research methods course and four staff members working for a local marketing research firm to ascertain the quality of the questions. This mixed sample of graduate students and marketing research staff was used to detect any possible format and wording problems and to make sure that survey respondents would clearly understand the instructions and questions. In addition, the students and the staff were asked to provide feedback about completion difficulty and to offer suggestions to improve the quality of the questionnaire. Based on this feedback, minor wording, instructional, and layout changes were made to the questionnaire.

Survey Administration

A large-scale statewide mail survey was administered to test the proposed model and the research questions. To ensure adequate external validity, it is necessary to reach a return rate that is as high as possible. This study used several techniques to increase the return rate and examined their effects. Two versions of final questionnaires were designed. The first version

included one question on the last page that asked respondents to select one charity for the researcher to donate one dollar in exchange for their participation. This technique based on appeal to virtue was utilized to encourage more individuals to participate in the survey. The second version of the questionnaire was the same as the first version, except it did not include the virtue appeal question.

The first version of the questionnaire was administered in two mailings - on May 27, 2009 (1,000 employees) and May 28, 2009 (1,049 employees). The questionnaire, along with a cover letter, a title page, and a postage-paid envelope, was sent to respondents' home addresses. The letter assured respondents of voluntary participation and anonymity and asked them to return the questionnaire within ten days. Using a follow-up postcard, the second mailing was sent ten days after the initial mailing. This reminder provided each respondent with access to a Web survey containing the same questionnaire.

The second version of the questionnaire without the charity question was mailed to 272 employees' home addresses on June 23, 2009. Like the first version, the survey packet contained the same cover letter, questionnaire, and postage-paid envelope. However, no follow-up reminders were sent.

Validity and Reliability Tests

In empirical research, validity and reliability should be considered to establish the quality of measurement. As one category of validity, internal validity refers to the degree to which a measurement adequately reflects the real meaning of the variable of interest. That is, validity aims to measure what it is supposed to be measured. Among the several types of validity including face validity, predictive validity, concurrent validity, and construct validity (Wimmer & Dominick, 2006), the study focuses on construct validity.

Construct validity relates “a measuring instrument to some overall theoretic framework to ensure that the measurement is logically related to other concepts in the framework” (Wimmer & Dominick, 2006, p. 62). To show the relationships between the property being measured and the other concepts, empirical researchers usually employ confirmatory factor analysis. Therefore, confirmatory factor analysis was used in this study to judge construct validity of the hypothetical constructs.

Reliability is “the property of a measure that consistently gives the same answer at different times” (Wimmer & Dominick, 2006, p. 450). Reliability plays a crucial role for empirical research, given that unreliable measures cannot be used to determine the relationships between variables. Of the several types of reliability, this study focused on internal reliability, which is also known as internal consistency. Usually, Cronbach’s alpha is used to show the degree of correlations among measured items. This study used it.

Statistical Analyses

To test the suggested two research questions and seven hypotheses, three statistical analyses were used – confirmatory factor analysis (CFA), structural equation modeling (SEM), and hierarchical multiple linear regression.

To address the first research question pertaining to the empirical difference between communication adequacy and communication accuracy, CFA was performed with maximum likelihood estimation. Researchers in SEM frequently use maximum likelihood procedure to estimate model parameters because it is the standard, unbiased, and consistent method (Bollen, 1989). Instead of exploratory factor analysis (EFA) that aims to identify a new factor among indicators, CFA was conducted to verify whether the two factors (i.e., adequacy and accuracy) identified by extant literature fit the dataset of this study.

The study performed a SEM procedure using LISREL 8.8 (Jöreskog & Sörbom, 2006) for several reasons. First, this statistical method can accommodate measurement error directly into the estimation of dependent relationships (Hair, Anderson, Tatham, & Black, 1998). It allows to estimate a series of multiple regression equations simultaneously by considering the dependent relationships among several independent variables and dependent variables. SEM also has the ability to incorporate latent variables[1] into the analysis. However, multiple regressions have some limitations. Multiple regression analysis explains only the partial contribution of a particular independent variable and overlooks the measurement errors of the multiple items of a certain variable (Hair et al., 1998).

As criteria for a good model fit for both CFA and structural modeling, this study used multiple fit indices. Even though χ^2 goodness-of-fit statistics were evaluated, other fit indices were deemed more appropriate because χ^2 goodness-of-fit statistics are very sensitive to sample size (Kline, 1998) and thus it has severe limitations[2]. As a supplement to the χ^2 statistics, the following fit measures were used: χ^2/df (ratio of χ^2 to the degree of freedom), CFI (Comparative Fit Index), NFI (Normed Fit Index), TLI (Tucker-Lewis Index), RMSEA (Root Mean Square Error of Approximation), and RMR (Root Mean Square Residual). For χ^2/df ratio, the desired threshold is 3.0 or less (Bollen, 1989); for CFI, NFI, and TLI, the traditional desired threshold is above .90 (Byrne, 1998) but a cutoff point value close to .95 or more has been recently recommended (Hu & Bentler, 1999); for RMSEA, Byrne (1998), Jöreskog and Sörbom (2003), and Kline (2005) recommended that it should be less than or equal to .080 and Browne and Cudeck (1993) recommended an RMSEA value close to .06 or less. But Raykov and

[1] A latent variable refers to a hypothesized and unobserved concept that can only be predicted by observable or measurable variables.

[2] Even though χ^2 statistics have their limitations, they should be reported along with its *df* and *p*-value, (Holbert & Stephenson, 2002; Hooper, Coughlan, & Mullen, 2008).

Marcoulides (2000) suggested a more stringent criterion of .05 or less; for RMR, a value as high as 0.08 are deemed acceptable (Hu and Bentler, 1999) but Byrne (1998) suggested a more conservative value less than .05. In conclusion, this study selected the most conservative fit measures: (CFI, NFI, and TLI $\geq$ .95, RMSEA $\leq$ .05, and RMR $\leq$ .05)

Following the two-step approach advocated by Anderson and Gerbing (1988), the study estimated a measurement model (i.e., CFA) before examining structural model relationships.

Finally, to examine the second research question, hierarchical multiple regression analyses were performed, controlling for demographic measures and employee information, by focusing on the relative explanatory powers of the suggested categories of organizational social capital indicators. Hierarchical multiple linear regression is used to identify the relationship between a set of suggested independent variables and the dependent variable, after controlling for the effects of a different set of independent variables on the dependent variable. When conducting this regression, the independent variables are entered in a sequence of blocks. In this study, the first block contained demographic information (i.e., sex, age, education, and personal income) and the second block includes employee information, such as 1) the type of organization that employees work for, 2) the type of employee – full-time vs. part-time, 3) how long employees worked for their organization, and 4) a total number of employees working for their organization[3]. Eliminating these third variables' effects, the unique variance of social capital on the three dependent variables (communal relationships, attitudes, and intent) can be examined. Additionally, significant independent variables were compared with one another to identify relative strengths based on standardized beta (β) values.

[3] Sex, type of organization, and type of employee are dummy variables.

The first regression model:

Communal relationships = α + DEMO + EMPLOYEE INFO+ β_1CAD + β_2CAC + β_3NET + β_4TRUST + β_5IN

Where (DEMO=demographics, EMPLOYEE INFO =employee information, CAD=communication adequacy, CAC=communication accuracy, NET=networks, TRUST= trust in other employees, IN=inclusion)

The second regression model:

Attitudes toward an organization = α + DEMO + EMPLOYEE INFO + β_1CAD + β_2CAC + β_3NET + β_4TRUST + β_5IN

Where (DEMO=demographics, EMPLOYEE INFO =employee information, CAD=communication adequacy, CAC=communication accuracy, NET=networks, TRUST= trust in other employees, IN=inclusion)

The third regression model:

Intent to participate = α + DEMO + EMPLOYEE INFO + β_1CAD + β_2CAC + β_3NET + β_4TRUST + β_5IN

Where (DEMO=demographics, EMPLOYEE INFO =employee information, CAD=communication adequacy, CAC=communication accuracy, NET=networks, TRUST= trust in other employees, IN=inclusion)

CHAPTER 4
ANALYSES AND RESULTS

In this chapter, results of hypothesis testing are reported as well as a description of collected data and answers to this study's research questions. Descriptive statistics, correlation, structural equation modeling, and hierarchical multiple regression analyses are performed and explained.

Description of Collected Data

The 2,312 mailings of the two versions yielded a total of 391 questionnaires. Among the 397 collected questionnaires, 153 surveys could not be delivered and were returned, 8 surveys were refused and returned by the respondents, and 24 surveys were returned by retired and/or unemployed respondents. Thus, 212 (N=212) sample respondents were considered for analyses. The return rates are described as follows.

Return Rate

Of the first-version 2,049 mailings, 139 were undeliverable; 22 were retired and/or unemployed; and 8 declined to participate. A total of 186 valid questionnaires, including 8 online cases, were collected from this first version. Of the 272 second-version mailings, 14 were undeliverable and 2 were retired. This version returned 26 usable questionnaires.

Table 4-1 summarizes computed adjusted return rates. The first adjusted rate was computed by excluding the 139 undeliverable returns and 22 retired and unemployed respondents from the 2,049 mailings. The second one was calculated by excluding the 14 undeliverable returns and 2 retired respondents from the 272 mailings. Retired and unemployed respondents were excluded because they are not part of the population under this study. In conclusion, the final adjusted return rate was 9.88%.

Table 4-1. Return rate calculation

Version	Formula	Application	Adjusted Return Rates
1st version (n=2,049)	Usable / (total – undeliverable – retired & unemployed)	186 / (2,049-139-22)	9.85%
2nd version (n=272)	Usable / (total – undeliverable – retired & unemployed)	26 / (272-14-2)	10.16%
Final (n=2,321)	Usable / (total – undeliverable – retired & unemployed)	212 / (2,321-153-24)	9.89%

Wimmer and Dominick (2006) recommend that any possible biases in response patterns should be examined. In other words, researchers should compare collected responses with the population under study. By doing so, they can determine whether their samples' responses have led to any biases in the results. In the next section, the study tested whether the group means between the first and the second version were different regarding some selected questionnaire items, such as demographics.

Profile of Survey Respondents and Population

A series of independent-samples *t*-tests were run to examine any differences between two versions, as well as any differences of constructs between for-profit and not-for profit organizations. Results show no significant mean differences regarding communication adequacy, communication accuracy, networks, trust, attitudes, communal relationships, and intent to participate, as well as age and the number of work days at the $p < .05$ level. Therefore, the data can be merged into one dataset according to the two versions and the organization types.

Between the survey respondents and the population of the study, their demographic information was compared. A 2008 data profile on employment status of civilian non-institutional population in Florida by sex, ethnicity, and detailed age, was obtained from the

United States Bureau of Labor Statistics (available at http://www.bls.gov/gps)[4]. Table 4-2 shows that the respondents and the population were different on sex, age, and ethnicity. The composition of sex was explicitly different between them. Among the 210 respondents, 31.9% were males and 68.1% were females (the population: 52.9% vs. 47.1%), indicating that the samples were skewed toward female individuals. The respondents were also older than the population. About 40% of the respondents ranged from 55 to 64 years of age (*M*=54.0, *SD*=10.4), compared to only 15.4% among the population. More white respondents (90.7%) also participated in the survey than in the population (69.7%). Only 1.1% of the 210 respondents were Asian.

With regard to education, the majorities of the respondents attended some college (31.1%) and hold a bachelor's degree (25.0%). About 30% of the 212 respondents either attended some graduates school (6.6%), hold master's degrees (15.6%), or earn doctoral degrees (7.5%). Thus, the samples were skewed toward well-educated individuals.

Most of the annual personal income categories of the respondents fell into 55,000 to 74,999 dollars (21.1%), 35,000 to 54,999 dollars (26.3%), and 15,000 to 34,000 dollars (23.9%). Additionally, 1.9 % of the respondents reported 135,000 to 154,999 dollars, another 1.9% reported 155,000 to 174,999 dollars, and 2.9% reported 175,000 dollars or more.

[4] The data profile on employment status from the United States Bureau of Labor Statistics does not provide educational information and personal income about the population. Therefore, comparison of demographic information in these categories could not be provided.

Table 4-2. Sample profile comparison

	Respondent		Population [a]	
	Frequency	%	Frequency	%
Sex				
Male	67	31.9	4,575,000	52.9
Female	143	68.1	4,080,000	47.1
Total	210	100	8,654,000	100
Age				
24 and younger	1	.5	977,000	11.3
25-34	8	3.9	1,764,000	20.4
35-44	24	11.8	2,035,000	23.5
45-54	66	32.4	2,118,000	24.5
55-64	82	40.2	1,334,000	15.4
65 and older	23	11.2	427,000	4.9
Total	204	100	8,655,000	100
Ethnicity				
Black/African American	9	4.4	1,238,000	12.2
Caucasian/White	186	90.7	7,066,000	69.7
Hispanic/Latino	10	4.9	1,831,000	18.1
Total	205	100	10,135,000	100

Note: [a]. Source: Preliminary 2008 data on employment status by state and demographic group

Information on Respondents' Organizations

In addition to comparing the characteristics of the sample with the population, this study also analyzed information regarding organizations that the survey respondents work for. Of the collected data, 119 individuals (56.1%) reported a for-profit organization as their primary employer and 89 (42.0%) individuals reported a non-profit or not-for-profit organization. Four respondents (1.9%) did not indicate the type of organization that they currently work for. Moreover, the majority of the respondents work for their primary organizations as full-time employees (82.1%) and 36 respondents (17.0%) reported part-time employees. Two respondents (.9%) did not report the type of employee.

The number of years for which the respondents worked in their organizations ranged from .17 to 43.0, with the mean score of 12.19 (*SD*=9.60) and the median score of 10. The total number of employees working for their organizations ranged from 1 to 1,000,000, with the median score of 100. With respect to community relations programs, 111 employees (52.4%) indicated that their organizations have such a program and 73 employees (34.4%) did not. Twenty six respondents (12.3%) reported that they do not know whether community relations programs exist.

Descriptive Statistics

Before testing the research questions and hypotheses, this study performed descriptive statistics, including mean and standard deviation scores and reliability check, for the major constructs.

Of the 212 respondents, a total of 34 did not answer at least one of the items that support the eight constructs. Because a listwise deletion method for missing data could affect the validity, the missing data for the constructs except for the networks were replaced with mean values.

As Table 4-3 reports, the mean values for the seven constructs ranged from 4.27 to 5.20 on a seven-point scale: 4.89 for communication adequacy, 4.27 for communication accuracy, 5.20 for trust in other employees, 4.32 for inclusion, 4.88 for communal relationships, 5.19 for attitude toward an organization, and 4.77 for intent to participate. That is, these constructs are above the midpoint of the scale. The mean and standard deviation scores for the networks construct were not calculated, but this construct was created by averaging the three items after standardizing them. For the first item of the networks measured on a seven-point Likert scale, its unstandardized mean value was 4.37. The second item asked for the number of people that respondents are close to at work. The second item's unstandardized mean, median, minimum,

and maximum scores were 6.83, 4.00, 0, and 100. The same scores for the third item, which asked for the number of groups that respondents belong to, were 1.52, 1.00, 0, and 35.

Table 4-3 depicts the mean and standard deviation scores for each item of the seven constructs. All items of five constructs, such as communication adequacy, trust, communal relationships, attitudes, and intent, are above the midpoint of the scale. However, the fourth (*M*=3.76) and the fifth (*M*=3.75) item of the communication accuracy and the second item (*M*=3.15) of inclusion are below the midpoint of the scale.

Table 4-3. Mean and standard deviation scores for measures

Variables	*M*	*SD*
Communication Adequacy (*M*=4.89, *SD*=1.22, α= .83)		
CAD-1. Generally speaking, about the goals of my organization, I receive useful information.	5.23	1.30
CAD-2. Generally speaking, about the current issues or problems in my organization, I receive useful information.	4.67	1.44
CAD-3. Generally speaking, about how clients (e.g., customers) evaluate the services of my organization, I receive useful information.	4.77	1.50
Communication Accuracy (*M*=4.27, *SD*=1.13, α= .79)		
CAC-1. Generally speaking, the information about my organization I receive is often inaccurate. [R]	5.01	1.53
CAC-2. Generally speaking, I can think of a number of times when I received inaccurate information from others in my organization. [R]	4.39	1.60
CAC-3. Generally speaking, it is often necessary for me to go back and check the accuracy of information I have received in my organization. [R]	4.44	1.62
CAC-4. Generally speaking, I sometimes feel that others don't understand the information they have received. [R]	3.76	1.32
CAC-5. Generally speaking, the accuracy of information passed among other employees in my organization needs to be improved. [R]	3.75	1.58
Networks (n=208, α= .43)		
N-1. I often meet or interact with people that I work with to share information.	4.37	1.71
N-2. How many people are you close to at work? These are people you feel at ease with, can talk to about private matters, or call on for help.	6.83	11.49
N-3. How many groups do you belong to within your organization? These could be formally organized groups or just groups people who get together regularly to do an activity or talk about things.	1.52	3.17

Table 4-3. Continued

Inclusion (*M*=4.32, *SD*=1.32, α= .66)		
I-1. Generally speaking, I feel togetherness or closeness in my organization.	4.68	1.71
I-2. Generally speaking, in the last three months, I have often gotten together with my organizational members for social activities, such as playing games, sports, or other recreational activities.	3.15	1.80
I-3. Generally speaking, I believe that differences in characteristics between employees working in my organization cause problems to me. (Differences in wealth, income, social status, ethnic or linguistic background, gender, age, religion, lifestyles, and the like.) [R]	5.15	1.62
Communal Relationships (*M*=4.88, *SD*=1.31, α= .86)		
CR-1. I feel that my organization especially enjoys giving aid.	5.11	1.49
CR-2. I feel that my organization is very concerned about the welfare of people like me.	4.65	1.70
CR-3. I feel that my organization succeeds by stepping on other people. [R]	5.25	1.66
CR-4. I feel that my organization helps people like me without expecting anything in return.	4.06	1.62
CR-5. I feel that my organization takes advantage of people who are vulnerable. [R]	5.30	1.68
Attitudes (*M*=5.19, *SD*=1.25, α= .91)		
A-1. I feel that my organization is pleasant to its employees.	5.13	1.47
A-2. I feel that my organization is favorable to its employees.	4.95	1.47
A-3. I feel that my organization is useful to its employees.	5.00	1.27
A-4. I feel that my organization is negative to its employees. [R]	5.18	1.63
A-5. I feel that my organization dislikes its employees. [R]	5.66	1.46
Intent to Participate (*M*=4.77, *SD*=1.27, α= .94)		
INT1-1 / INT2-1	4.74	1.35
INT1-2 / INT2-2	4.79	1.38
INT1-3 / INT2-3	4.77	1.32

Note: n = the sample size after listwise deletion for missing variables, [R] indicates reverse-coding.

Reliability of Measurement Items

Table 4-3 also presents the reliability of the seven constructs. All Cronbach's alpha values were more than .80, except for communication accuracy (.79), networks (.43), and

inclusion (.66). In particular, the values of communication adequacy (.91), attitudes toward an organization (.91), and intent to participate (.94) were excellent.

To further evaluate the internal consistency of the networks items, Pearson product-moment correlation coefficients – γ – among the three items of the networks were computed. Two bivariate correlation tests were run. Table 4-4 reports that the first item of the networks was not significantly related to the second item (γ =.10, p > .14) but was positively related to the third item (γ =.16, p < .05). In addition, the second item was also not significantly associated with the third item (γ =.13, p > .13).

However, after two outliers[5] were detected and deleted from the second item, all the correlations among the three items became positively significant. As shown in Table 4-4, the correlation between the first and second item was positively significant (γ =.24, p < .01), while the second item was positively correlated with the third one (γ =.19, p < .01).

Table 4-4. Correlations among the items of the networks

	1	2	3
1. often meet or interact	-		
2. number of close people	.10 (.24**)	-	
3. number of groups	.16* (.16*)	.13 (.19**)	-

Note: * p < .05 (two-tailed), ** p < .01 (two-tailed), Values in parentheses are Pearson product-moment correlation coefficients after removing outliers.

Evidence for Research Questions and Hypotheses

The First Research Question

The first research question addressed whether communication adequacy of organizational social capital could empirically differ from communication accuracy. Using LISREL 8.8, confirmatory factor analysis (CFA) with maximum likelihood estimation was conducted to

[5] For the second item, two respondents reported that the number of people that they are close to at work was 100.

verify whether the two factors identified by extant literature fit the dataset of the study. Because exploratory factor analysis (EFA) seeks to find new factors among indicators, CFA is more appropriate than EFA in the study.

The latent variables include communication adequacy and communication accuracy. Their observed variables contained three and five items, respectively. Before performing CFA, bivariate correlation analysis was run to examine relationships among eight observed variables of the two latent variables. Results (Table 4-5) report that all the relationships were significant at the *p*-value .001 level and its coefficients ranged from .22 to .72.

Table 4-5. Correlation matrix for adequacy and accuracy

	1	2	3	4	5	6	7	8
1. CAD-1	---							
2. CAD-2	.72[a]	---						
3. CAD-3	.52[a]	.61[a]	---					
4. CAC-1	.43[a]	.41[a]	.36[a]	---				
5. CAC-2	.37[a]	.40[a]	.34[a]	.44[a]	---			
6. CAC-3	.47[a]	.42[a]	.22[a]	.34[a]	.52[a]	---		
7. CAC-4	.30[a]	.30[a]	.35[a]	.31[a]	.32[a]	.40[a]	---	
8. CAC-5	.43[a]	.44[a]	.48[a]	.46[a]	.48[a]	.56[a]	.38[a]	---

Note: a: $p < .001$ (two-tailed)

Table 4-6 presents the results of the measurement model for the two latent variables. For communication adequacy, all of the initial measurement items were significantly loaded on the designated factor at the *p*-value .001 level and had adequate loadings ranging from .70 to .94. The latent variable of communication accuracy also significantly related to all of the measurement items at the *p*-value .001 level, but the loading scores of most of the items were lower than communication adequacy items. In particular, the fourth (CAC-4) and the fifth item (CAC-5) had the smallest factor loading values (β=.48, β=.45).

As reported in Table 4-7, the CFA failed to achieve an acceptable level with all criteria for a good model fit being met (χ^2=296.66, *p*=.00[6], *df*=19; χ^2/df =15.61; CFI=.76; NFI=.75; TLI=.65; RMSEA=.26; RMR=.10). Accordingly, the initial measurement model should be modified and evaluated again. To improve the initial measurement model, several techniques were employed, including inspection of factor loading, squared multiple correlations (R^2) for each observed variable, standardized residuals, and modification index (MI) scores. Results found that several absolute scores of R^2 were quite low and standardized residuals and MI's coefficients were excessively large. Low R^2 scores included .42 (CAC-2), .46(CAC-3), .23(CAC-4), and .20(CAC-5). A large score of standardized residuals was 13.10 (between CAC-2 and CAC-3). Large scores of MI were 171.65 (between CAC-2 and CAC-3) and 118.66 (between CAC-1 and CAD-6). These results indicate that some items could lead to cross-correlation with other factors and indicators. Therefore, additional CFA was necessary to respecify the initial measurement model. After dropping CAC-3, the fit indices suggested that the model fit was an excellent one, as presented in Table 4-7: χ^2=15.03, *p*=.31, *df*=13; χ^2/df =1.16; CFI=1.00; NFI=.98; TLI=1.00; RMSEA=.027; RMR=.031. Overall, this CFA appears to hold the measurement model better even though the four items load ranging from .50 to .73. Further analyses were made to detect better model fit indices by dropping different item(s), but any other results were not better than the modified model. The Cronbach's alpha value of the four items was .73.

Thus, the communication adequacy evaluated with three items was proved to be empirically different from the communication accuracy with four items. These two latent variables will be used and contained for the research model of the study.

[6] LISREL 8.8 program shows only two decimals for *p*-values.

Table 4-6. Measurement model for adequacy and accuracy

Latent variables	Factor loadings (β)	Standard errors
Communication Adequacy (α= .83)		
CAD-1. Generally speaking, about the goals of my organization, I receive useful information.	.70	.06***
CAD-2. Generally speaking, about the current issues or problems in my organization, I receive useful information.	.77	.06***
CAD-3. Generally speaking, about how clients (e.g., customers) evaluate the services of my organization, I receive useful information.	.94	.05***
Communication Accuracy (α= .73)[b]		
CAC-1. Generally speaking, the information about my organization I receive is often inaccurate. [R]	.94	.05***
CAC-2. Generally speaking, I can think of a number of times when I received inaccurate information from others in my organization. [R]	.65	.06***
CAC-3. Generally speaking, it is often necessary for me to go back and check the accuracy of information I have received in my organization. [R]	.67 [a]	.06***
CAC-4. Generally speaking, I sometimes feel that others don't understand the information they have received. [R]	.48	.07***
CAC-5. Generally speaking, the accuracy of information passed among other employees in my organization needs to be improved. [R]	.45	.07***

Note: *** $p < .001$ (two-tailed), a: Dropped item for final model, b: Cronbach's alpha value after dropping CAC-3

Table 4-7. Model fit indices for adequacy and accuracy measurement model

Fit Indices	Criteria	Initial Fit Statistics (Proposed Model)	Final Fit Statistics
χ^2	≥ .005	296.66 (p <.01, df=19)	15.03 (p=.31, df=13)
χ^2/df	≤ 3	15.61	1.16
CFI	≥ .95	.76	1.00
NFI	≥ .95	.75	.98
TLI	≥ .95	.65	1.00
RMSEA	≤ .05	.26	.027
RMR	≤ .05	.10	.031

Hypothesis Testing

As illustrated in Figure 2-1 earlier, the hypotheses predicted that organizational social capital indicators – communication adequacy H1), communication accuracy H2), networks H3), trust in employees H4), and inclusion H5) will positively lead to communal relationships between organizations and their employees. In turn, the communal relationships will positively

lead to attitudes toward their organizations H6), which will increase their intent to participate in community relations programs with other employees H7). To test the hypotheses, this study followed the two-step approach advocated by Anderson and Gerbing (1988), which consists of estimating a measurement model and examining structural model relationships.

Confirmatory factor analysis for measurement model

Using LISREL 8.8 program, CFA with maximum likelihood estimation for the measurement model that contains all factors was conducted to verify the factor structure of the study. Except for networks, all factors were latent variables with observed variables. Networks consisted of only one single index, which was averaged with three standardized items of networks. Therefore, its factor loading score is automatically set to one.

As summarized in Table 4-8, all 30 observed variables were significantly loaded onto the model at the *p*-value .001 level. The loading values ranged from .47 to 1.00. Results of the model fit criteria (Table 4-9) indicate that several fit indices (χ^2/df =2.29, CFI=.96, and TLI=.96) were met but three indices (NFI=.94, RMSEA=.082, and RMR=.053) did not reach the recommended level. Accordingly, several scores, including R^2, standard residuals, and MI for all the observed variables, were inspected to determine whether this initial measurement can be improved.

The fifth item of communal relationships (CR-4) had very large MI scores with CR-5 (68.75), with A-2 (11.41), and with A-5 (66.69). This problem can be solved by two techniques. The first one is to correlate the errors terms of the observed variables. For example, the error of CR-4 needs to be correlated with errors of A-2, A-5, and/or CR-5. However, allowing them to be correlated should be supported by conceptual and theoretical reasoning. The second technique is to drop the observed variable – CR-4 – that causes large MI scores. The study chose the latter because we had no theoretical bases for having the error of CR-4 correlated with errors of A-2 and A-5.

Moreover, additional large MI scores were detected from the measurement model, including T-1–T-2 (52.87), T-2–T-6 (16.52), A-3–A-5 (50.01), A-4–A-5 (5.52), and I-1–I-2 (7.97). It is acceptable to understand that trust items are conceptually related to each other, attitude items are also related, and inclusion items are also pertinent to each other. Thus, these error terms were allowed to be correlated[7]. The modified measurement model fit indices achieved the recommended level of acceptance (Table 4-9): (χ^2=579.50, *p*=.00, *df*=345; χ^2/df =1.68; CFI=.99; NFI=.96; TLI=.98; RMSEA=.050; RMR=.048). In short, the modified model with adding error variances provides a more adequate factor structure.

Yet, one could argue that the results of the initial fit measures also demonstrate acceptable fit, if less stringent criteria (e.g., CFI/NFI/TLI ≥ .90, RMSEA ≤ .08, RMR ≤ .09) are used. A selection should be made to evaluate which model is better among the two competing models. For this reason, a model comparison test was done to compare the initial model with the modified one. A model comparison test is to determine whether χ^2 difference between CFA models is statistically significant using the degree of freedom.

Table 4-9 provides the result of a model comparison test. The χ^2 difference value (864.88-579.50=285.38) was absolutely larger than the critical χ^2 value (=47.40) with *df* of 33. This means that the modified model significantly improved goodness of fit. Thus, this respecified model that dropped only one observed item (CR-4) and included four added error variances should be selected as a better model. The Cronbach's alpha value of the modified communal relationships construct was .859, which is almost the same as the initial value of .861.

[7] This was done one time at a time, not simultaneously, until the best fit is found.

Table 4-8. Initial measurement model

Latent variables	Factor loadings (β)	Standard errors
Communication Adequacy		
CAD-1. Generally speaking, about the goals of my organization, I receive useful information.	.81	.06***
CAD-2. Generally speaking, about the current issues or problems in my organization, I receive useful information.	.87	.06***
CAD-3. Generally speaking, about how clients (e.g., customers) evaluate the services of my organization, I receive useful information.	.69	.06***
Communication Accuracy		
CAC-1. Generally speaking, the information about my organization I receive is often inaccurate. [R]	.64	.07***
CAC-2. Generally speaking, I can think of a number of times when I received inaccurate information from others in my organization. [R]	.67	.07***
CAC-4. Generally speaking, I sometimes feel that others don't understand the information they have received. [R]	.47	.07***
CAC-5. Generally speaking, the accuracy of information passed among other employees in my organization needs to be improved. [R]	.74	.06***
Networks	1.00	.05***
Trust		
T-1. Generally speaking, if I got into difficulties at work, I know that employees I work with would try and help me out.	.75	.06***
T-2. Generally speaking, I can trust the people I work with to lend me a hand if I needed it.	.81	.06***
T-3. Generally speaking, most of employees that I work with can be relied upon to do as they say they will do	.78	.06***
T-4. Generally speaking, I have full confidence in the skills of employees that I work with.	.69	.06***
T-5. Generally speaking, most of employees that I work with would get on with their work even if supervisors were not around.	.55	.07***
T-6. Generally speaking, I can rely on other employees not to make my job more difficult by careless work.	.67	.06***
Inclusion		
I-1. Generally speaking, I feel togetherness or closeness in my organization.	.85	.06***
I-2. Generally speaking, in the last three months, I have often gotten together with my organizational members for social activities, such as playing games, sports, or other recreational activities	.55	.07***
I-3. Generally speaking, I believe that differences in characteristics between employees working in my organization cause problems to me. (Differences in wealth, income, social status, ethnic or linguistic background, gender, age, religion, lifestyles, and the like.) [R]	.54	.07***
Communal Relationships (α= .86)[b]		
CR-1. I feel that my organization especially enjoys giving aid.	.89	.05***

Table 4-8. Continued

CR-2. I feel that my organization is very concerned about the welfare of people like me.	.92	.05***
CR-3. I feel that my organization succeeds by stepping on other people. [R]	.81	.06***
CR-4. I feel that my organization helps people like me without expecting anything in return.	.76 [a]	.06***
CR-5. I feel that my organization takes advantage of people who are vulnerable. [R]	.69	.06***
Attitude		
A-1. I feel that my organization is pleasant to its employees.	.63	.06***
A-2. I feel that my organization is favorable to its employees.	.92	.05***
A-3. I feel that my organization is useful to its employees.	.74	.06***
A-4. I feel that my organization is negative to its employees. [R]	.62	.06***
A-5. I feel that my organization dislikes its employees. [R]	.77	.06***
Intent		
INT1-1 / INT1-1	.93	.05***
INT1-2 / INT2-2	.95	.05***
INT1-3 / INT2-3	.85	.06***

Note: *** $p < .001$ (two-tailed), a: Dropped item for final model, b: Cronbach's alpha value after dropping CR-4, [R] indicates reverse-coding.

Table 4-9. Model fit indices and model comparison test result

	χ^2	χ^2/df	CFI	NFI	TLI	RMSEA	RMR
Initial Fit Statistics	864.88 ($p < .01$, df=378)	2.29	.96	.94	.96	.082	.053
Final Fit Statistics	579.50 ($p < .01$, df=345)	1.68	.99	.96	.98	.050	.046
Model Comparison Test	χ^2_2 (df_2=378)- χ^2_1 (df_1=345)= 864.88-579.50=**285.38**, (df_2 - df_1 =**33**)						
	285.38 > 47.40*						

Note: * χ^2 .05 (df_1=33) = 47.40 (critical value)

Path analysis: Testing the hypothesized model

Because all the constructs have been verified by the CFA, a path analysis test can be used. As a statistical method of SEM, a path analysis examines a hypothesized model. Through the

LISREL 8.8 program, the study used the maximum likelihood estimation and the same model fit criteria as those for the CFA.

Table 4-10 reports that the proposed model fits the data well based on the goodness-of-fit indices: (χ^2=599.11, p<.01, df=356; χ^2/df =1.68; CFI=.98; NFI=.96; TLI=.98; RMSEA=.051; RMR=.054), although RMSEA and RMR values are slightly greater than .05.

Table 4-10. Model fit indices for SEM model

Fit Indices	Criteria	Fit Statistics (Proposed Model)
χ^2	≥ .005	599.11 (p<.01, df=356)
χ^2/df	≤ 3	1.68
CFI	≥ .95	.98
NFI	≥ .95	.96
TLI	≥ .95	.98
RMSEA	≤ .05	.051
RMR	≤ .05	.054

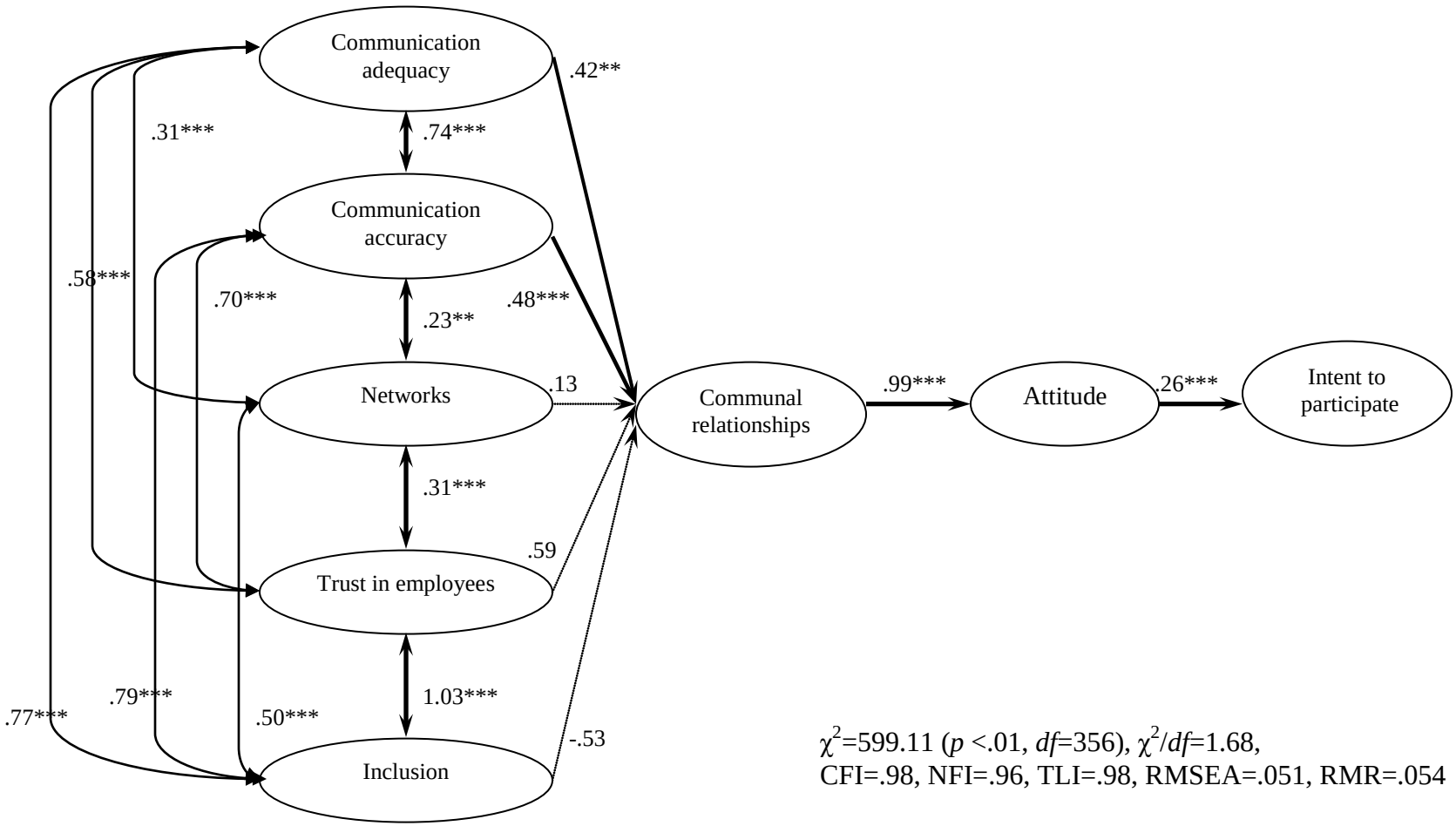
Figure 4-1 summarizes the results of the relationships among the constructs which included communication adequacy, communication accuracy, networks, trust, inclusion, communal relationships, attitudes, and intent to participate. Networks were considered an observed variable while other constructs were considered latent variables.

Results showed that four paths were significant in the expected directions. That is, communication adequacy (H1: standardized coefficient = .42, standard error = .16, p <.01) and communication accuracy (H2: standardized coefficient = .48, standard error = .14, p <.001) significantly increase communal relationship. However, unexpectedly, networks (H3: standardized coefficient = .13, standard error = .10, p >.10), trust (H4: standardized coefficient = .59, standard error = .40, p >.07), and inclusion (H5: standardized coefficient = -.53, standard error = .49, p >.14) did not significantly lead to communal relationships. Communal relationships (H6: standardized coefficient = .99, standard error = .09, p < .001) significantly

enhanced employees' attitudes toward their organization. In turn, attitudes (H7: standardized coefficient = .26, standard error = .07, $p < .001$) also significantly heighten the level of intent to participate in community relations programs with other employees.

Therefore, H1, H2, H6, and H7 were supported. These results indicate that the higher levels of communication adequacy and accuracy tend to increase communal relationships between an organization and its employees. The heightened communal relationships will be more likely to shape positive attitudes toward an organization. Ultimately, the likelihood to participate in the community relations programs together will be increased.

Figure 4-1. Results of the proposed model



Note: Values are standardized coefficients. ** $p < .01$, *** $p < .001$

Further analysis: Decomposition of effects

SEM involves three types of effects: direct, indirect, and total. The most commonly analyzed type is direct effects (e.g., a direct path from communication accuracy to communal relationships). Indirect effects occur when the relationship between one variable and another is mediated by the third. For example, an indirect effect is estimated between communication accuracy and attitudes because communal relationships can play a mediating role. Total effects are the sum of one variable's direct and indirect effects on another.

Holbert and Stephenson (2002) noted that very few communication researchers decompose the effects that are obtained from SEM analyses, even though various forms of communication can generate considerable indirect effects. For this reason, they recommended communication researchers analyzing indirect effects as well. Because this study mainly examines the hierarchy-of-effects between social capital and participatory behavior, it is imperative to evaluate specific indirect effects as well as analyzing direct effects.

Results of the indirect effects on attitudes and intent are summarized in Table 4-11. There were five specified indirect paths to "attitudes" and five indirect paths to "intent to participate." Four significant indirect effects were found on attitudes and intent: 1) a path from adequacy to attitudes (indirect effect coefficient: .42, p <.01), 2) a path from accuracy to attitudes (indirect effect coefficient: .48, p <.001), 3) a path from adequacy to intent (indirect effect coefficient: .11, p <.05), and 4) a path from accuracy to intent (indirect effect coefficient: .13, p <.01). That is, among the five different paths from exogenous variables[1] to attitudes, only two paths were significant. In particular, the path (.48) from accuracy to attitudes was stronger than the path between adequacy and attitudes (.42). This result indicates that compared to adequacy, networks,

[1] Exogenous construct or variable is one that "acts only as a predictor or cause for other constructs or variables in the model." Hair, et al. (1998), p. 580.

trust, and inclusion, communication accuracy is likely to play a crucial role in affecting attitudes when communal relationships are mediated. Similarly, a path (.11) from adequacy to intent was significant while another path from accuracy to intent (.13) was also significant. This result means that communication adequacy and accuracy tend to more substantively have an indirect influence on intent than networks, trust, and inclusion.

Table 4-11. Indirect effects on endogenous variables[2].

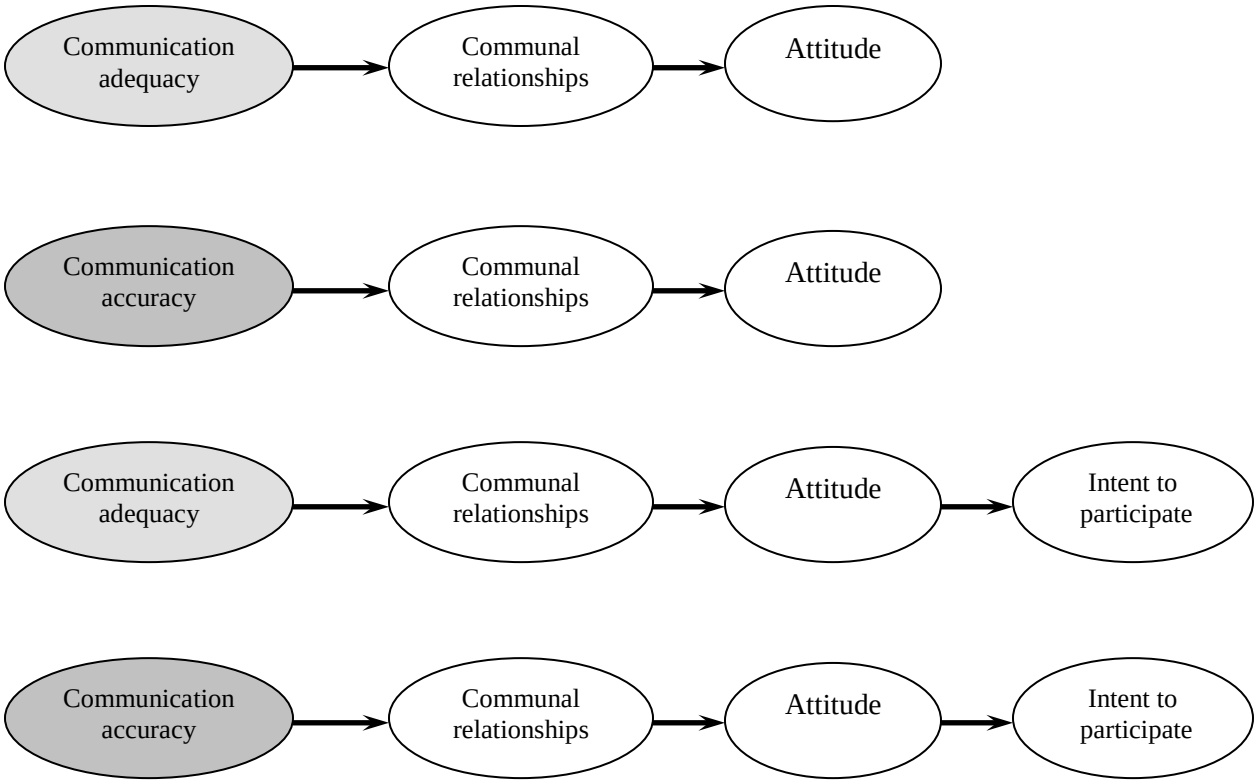
Endogenous variables	Paths		Indirect effect coefficients	Standard errors
Attitudes	adequacy	→ communal relationships → attitudes	.42**	.16
	accuracy	→ communal relationships → attitudes	.48***	.15
	networks	→ communal relationships → attitudes	.13	.10
	trust	→ communal relationships → attitudes	.59	.40
	inclusion	→ communal relationships → attitudes	-.53	.49
Intent	adequacy	→ communal relationships → attitudes → intent	.11*	.05
	accuracy	→ communal relationships → attitudes → intent	.13**	.05
	networks	→ communal relationships → attitudes → intent	.03	.03
	trust	→ communal relationships → attitudes → intent	.15	.11
	inclusion	→ communal relationships → attitudes → intent	-.14	.13

Note: * p <.05, ** p <.01, ** p <.001

In sum, the four significant indirect effects are illustrated in Figure 4-2.

[2] Endogenous construct or variable is "the dependent or outcome variable in at least one causal relationship." Hair et al. (1998), p. 580.

Figure 4-2. Specified indirect paths



Additional analysis: Correlations among exogenous variables

This study also attempted to identify whether significant correlations exist among exogenous variables – adequacy, accuracy, networks, trust, and inclusion. All the correlations turned out to be significant at least at the *p*-value of .01: (adequacy and accuracy: coefficient = .74, $p < .001$), (accuracy and networks: coefficient = .23, $p < .01$), (networks and trust: coefficient = .31, $p < .001$), (trust and inclusion: coefficient = 1.03, $p < .001$), (adequacy and networks: coefficient = .31, $p < .001$), (adequacy and trust: coefficient = .58, $p < .001$), (adequacy and inclusion: coefficient = .77, $p < .001$), (accuracy and trust: coefficient = .70, $p < .001$), (accuracy and inclusion: coefficient = .79, $p < .001$), and (networks and inclusion: coefficient = .50, $p < .001$).

Ad hoc analyses

Even though this study found no significant differences of constructs between for-profit (n=119) and not-for-profit (n=89) organizations through a series of independent t-tests, it also performed two separate SEM analyses for the two types of organization. After using the same LISREL programming commands, results of path analyses showed no difference between a for-profit and a not-for-profit organization.

Additionally, given that there was one survey question to find whether the respondents were aware of their community relations programs in their organizations (binominal: yes (n=111) or no/don't know (n=99)), this study also ran two separate SEM analyses. Results showed no difference between the two.

The Second Research Question

The second research question addressed which organizational social capital indicators would contribute the most explanatory power for the communal relationships (RQ2a), attitudes toward organizations (RQ2b), and intent to participate (RQ2c). To examine these research questions, three hierarchical multiple linear regression analyses were performed.

Correlation analysis

Before conducting the regression analyses, a bivariate correlation test was run with all the variables for the second research question. Table 4-12 summarizes that several demographic and employee information is significantly related. Being female (coded as 1) is negatively correlated with personal income (γ= -.25, p < 001) but positively correlated with the type of organization

Table 4-12. Correlation matrix among major variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Sex	----														
2. Age	.06	----													
3. Education	.00	.13	----												
4. Income	-.25 ***	.09	.39 ***												
5. Org type	.18 **	.15 *	.27 ***	.05	----										
6. Employee type	.11	.24 **	.11	-.17 *	.05	----									
7. Number of days employed	-.11	.27 ***	.05	.22 **	.11	-.15 *	----								
8. Number of Employees	-.08	.01	.00	-.04	-.10	-.05	.03	----							
9. Adequacy	-.08	.05	.03	.16 *	-.05	.05	.12	.04	----						
10. Accuracy	.08	.08	.10	.07	.00	.07	-.02	.06	.60 ***	----					
11. Networks	-.08	.12	.11	.11	.13	.03	.14	.09	.27 ***	.20 **	----				
12. Trust	.05	.07	.05	.11	.03	.05	.03	-.07	.47 ***	.53 ***	.31 ***	----			
13. Inclusion	-.09	.05	.10	.16 *	.07	.12	.08	.01	.55 ***	.51 ***	.45 ***	.73 ***	----		
14. CR	-.07	.08	.12	.16 *	.11	.06	-.01	.06	.63 ***	.65 ***	.24 ***	.57 ***	.60 ***	----	
15. Attitude	-.07	.05	.11	.13	.02	.09	-.01	.05	.64 ***	.69 ***	.25 ***	.55 ***	.59 ***	.88 ***	----
16. Intent	.00	-.02	.12	.05	-.02	-.03	-.07	.03	.19 **	.15 *	.19 **	.29 ***	.25 ***	.23 **	.22 **

Note: Values are Pearson correlation product-moment coefficients. Sex was coded as 0 (male) and 1 (female); Organization type as 0 (for-profit) and 1 (nonprofit); Employee type as 0 (full=time) and 1 (part-time). * $p < .05$, ** $p < .01$, *** $p < .001$.

(γ= .18, p < 01). This result indicates that male employees tend to earn more money and work for for-profit organizations than females. Age is positively related to the type of organization (γ= .15, p < 05) and employee type (γ= .24, p < 01), while education is also positively related to personal income (γ= .39, p < 001) and the type of organization (γ= .39, p < 001). This means that older employees tend to work full-time for for-profit organizations. The more educated employees are, the more likely they will receive more salary and work for for-profit organizations. In addition, personal income is also positively associated with the number of days employed (γ= .27, p < 001), communication adequacy (γ= .16, p < 05), inclusion (γ= .16, p < 05) and communal relationships (γ= .16, p < 05). This finding indicates that those employees who earn more income might more strongly perceive communication adequacy, inclusion, and communal relationships.

Furthermore, all eight variables (adequacy, accuracy, networks, trust, inclusion, communal relationships, attitudes, and intent) are positively correlated with one another at least at the significance level of .05. In particular, the relationship between communal relationships[1] and attitudes was highly related (γ= .88, p < 001). Although these two constructs were highly correlated, the final measurement model of the SEM analysis obtained good fits.

Hierarchical multiple linear regression analysis

Several underlying assumptions for multiple linear regression were first checked, including multicollinearity, normality, and linearity. Regarding multicollinearity, all scores of variance inflation factors (VIF) for every independent variable in the three regression models were not in excess of 10, which is a critical value for detecting multicollinearity (Neter, Wasserman, & Kutner, 1985). To check the normality of the variables, skewness and kurtosis scores were checked. Except for networks, all the scores for the independent variables were

[1] Remind that this construct of communal relationships contained four items after dropping the fourth item.

within +2 to -2 range[2]. Skewness and kurtosis scores for networks were 1.8 and 4.6. Finally, the linearity was evaluated using a partial regression plot, which illustrates the relationships between every single independent variable and each dependent variable. Their linearity was verified. Thus, all the underlying assumptions were not violated except for the normality of networks.

To determine the unique variance of social capital in each dependent variable (communal relationships, attitudes, and intent), demographics (block 1: sex, age, level of education, and personal income) and employee information (block 2: organization type, employee type, number of days employed, and number of employees) entered each regression model. By controlling for these variables, the unique effects of social capital on the three dependent variables can be detected. All the social capital indicators and dependent variables were the same as those for the SEM analysis.

As presented in Table 4-13, the first regression model accounted for 60.2% of the total variance in communal relationships, indicated by its total R^2. Only one demographic indicator (personal income: $\beta = .19$, $p < .05$) significantly affected communal relationships, but the other demographics did not. This means that employee groups who earn more income tend to perceive stronger communal relationships. The first block, containing four demographic indicators, significantly contributed 6.9% explanatory power [$F(4, 177) = 3.29$, $p < .05$]. However, no variables in the second block had significant impacts on communal relationships and the second block did not significantly increase R^2 [$F(4, 173) = 1.29$, $p > .28$]. The third block significantly contributed the explanatory power by 50.6% R^2 change [$F(5, 168) = 42.64$, $p < .001$]. In

[2] There are several criteria of skewness and kurtosis for evaluating normality: +1 to -1 range or +2 to -2 range. When a normality issue is critical, a more stringent criterion can be used. In this study, except for personal income (1.39 and 1.94) and networks (1.8 and 4.6), all the scores for the independent variables were within +1 to -1 range.

particular, three variables were significant: adequacy ($\beta = .24$, $p < .01$), accuracy ($\beta = .31$, $p < .001$), and inclusion ($\beta = .23$, $p < .01$).

These results show that higher levels of communication adequacy, communication accuracy, and inclusion result in stronger communal relationships between an organization and its employees. The most influential indicator of social capital on communal relationships was accuracy ($\beta = .31$) followed by adequacy ($\beta = .24$) and inclusion ($\beta = .23$), when controlling for demographics and employee information. Interestingly, the results are somewhat different from those of SEM analyses, which reported that only adequacy and accuracy significantly affected communal relationships. This difference occurs because multiple regression analyses do not adequately deal with multivariate relationships among independent variables. Furthermore, multiple regression does not consider measurement errors. In addition, the SEM analyses of the study did not contain any demographic and employee information variables, which could significantly affect communal relationships. For example, personal income may a precursor of communal relationships.

The second hierarchical multiple linear regression (Table 4-13) was run to examine the unique variance of social capital in attitudes. The order of variables entered from the first block to the third was congruent with the previous model. The second model accounted for 62.4% of the total variance in attitudes. It showed similar results of the first regression model. The first block significantly affected attitudes, as indicated by 6.1% R^2 [$F(4, 177) = 2.86$, $p < .05$]. Only income variable had a significant impact on the dependent variable ($\beta = .17$, $p < .05$). The second block failed to increase the R^2 change, but the third block showed a significant R^2 change from 9% to 62.7% [$F(5, 168) = 48.23$, $p < .001$]. Consistent with the results of the first model, adequacy, accuracy, and inclusion were found to significantly affect attitudes. The strongest

variable was accuracy ($\beta = .38$, $p < .001$), followed by adequacy ($\beta = .22$, $p < .01$) and inclusion ($\beta = .22$, $p < .01$). These results depicts that controlling for the third variables, higher levels of accuracy, adequacy, and inclusion are likely to shape more positive attitudes toward employee's organizations.

Finally, the third regression analysis was conducted. The same variables were included and their order was congruent with the first and the second model. Table 4-13 shows that this model explained 14.7% of the total variance in intent to participate. Any variables in the first and the second block did not significantly affect the dependent variable. However, only trust was found to be a significant independent variable ($\beta = .25$, $p < .05$), while only the third block successfully increase the R^2 from .03 to .15 [$F(5, 168) = 4.50$, $p < .01$]. Thus, even after controlling for demographic and employee information indicators, trust in other employees tends to play a role in increasing the likelihood of participation in community programs.

Table 4-13. Hierarchical regressions on communal relationships, attitudes, and intent

		Communal Relationships		Attitudes		Intent	
	Predictors	β (*SE*)	R^2	β (*SE*)	R^2	β (*SE*)	R^2
Block 1	Sex	-.07 (.23)		-.06 (.21)		.01 (.22)	
	Age	.05 (.01)		.02 (.01)		-.07 (.01)	
	Education	.08 (.07)		.09 (.07)		.16 (.07)	
	Income	.19 (.06)*		.17 (.06)*		.01 (.06)	
			.07*		.06*		.03
Block 2	Organization type	.12 (.22)		.05 (.20)		-.03 (.21)	
	Employee type	.07 (.30)		.12 (.27)		-.05 (.29)	
	Number of days employed	-.09 (.00)		-.08 (.00)		-.06 (.00)	
	Number of employees	.08 (.00)		.07 (.00)		.02 (.00)	
			.10		.09		.03
Block 3	Adequacy	.24 (.08)**		.22 (.07)**		.08 (.10)	
	Accuracy	.31 (.08)***		.38 (.07)***		-.06 (.11)	
	Networks	-.07 (.12)		-.04 (.01)		.12 (.16)	
	Trust	.14 (.10)		.11 (.09)		.25 (.13)*	
	Inclusion	.23 (.09)**		.22 (.08)**		.03 (.13)	
			.60***		.62***		.15**

Notes. Values are standardized regression coefficients with standard error in parentheses. Sex was coded as 0 (male) and 1 (female); Organization type as 0 (for-profit) and 1 (nonprofit); Employee type as 0 (full=time) and 1 (part-time). *$p < .05$, ** $p < .01$, *** $p < .001$.

CHAPTER 5
DISCUSSION

This study sought to create a theory-building perspective and suggest practical implications to public relations professionals for organizations and their local community. Emphasis was placed on the role of public relations and social capital for the development of said organizations and their community. By examining the critical antecedents of communal relationships between an organization and its employees—communication, networks, trust, and inclusion—the study added the important theoretical dimension of the underlying mechanism regarding employees' collective participation in community relations programs. Moreover, the study tested the linkage among social capital indicators, communal relationships, attitudes toward organizations, and employees' behavioral intent to voluntarily participate in community relations programs with other employees.

The results of SEM analysis found that communication adequacy empirically differs from communication accuracy. Of the five social capital indicators, communication adequacy and communication accuracy have significant impacts on communal relationships, which subsequently strengthens employees' attitudes toward their organizations. More specifically, the results of the indirect effects on attitudes and intent also indicate the importance of communication adequacy and communication accuracy. In addition, these attitudes positively affect the intent of employees to participate in community relations programs.

Finally, three hierarchical multiple regression analyses reported that, after controlling for demographic and employee information, social capital indicators significantly affected the communal relationships, attitudes, and behavioral intent, respectively, of employees. In particular, communication adequacy, communication accuracy, and inclusion were positively

related to the attitudes, as well as the communal relationships. Trust in other employees was positively related to the behavioral intent.

Communication Adequacy and Communication Accuracy

This study addressed whether communication adequacy would empirically differ from communication accuracy. Based on extant literature regarding social capital and organization communication (Grootaert & van Bastelaer, 2002; Grootaert et al., 2004, Fussell et al., 2006; Rhee, 2007; Smidts et al., 2001; Watson & Papamarcos, 2002), the study suggested that communication should serve as one of the proxy indicators of social capital in organizations. In fact, communication is an extensive construct and is made up of numerous types. Because social capital is not created from a vacuum but from interactions among individuals, groups, organizations, and societies, communication is a vital factor that enables social capital to emerge and must be maintained. In particular, paying attention to its adequacy and accuracy, the study asserted that these two types of communication can become necessary resources of social capital.

Smidts and colleagues (2001) find that communication adequacy indirectly leads to employees' identification with their organization mediated by the communication climate. Moreover, Watson and Papamarcos (2002) show that communicating accurate, reliable, and credible information about the employees' organization is more likely to augment commitment to their organization. Accordingly, a high quality of communicated information within an organization could become an indicator to measure organizational social capital because without communication, employees cannot develop or maintain relationships with others. By performing a CFA test, this study showed that the conceptual difference between communication adequacy and accuracy was empirically evidenced.

Social Capital Indicators and Communal Relationships

Little research has been conducted to examine how social capital resources facilitate communal relationships within an organization. Although social capital can be in line conceptually with public relations (Ihlen, 2005, 2007), a body of empirical research that documents the connection between public relations and social capital is still embryonic. Additionally, less attention has been devoted to the link between social capital and communal relationships. This study argued that public relations practice can contribute to creating consistency between organizational goals and societal expectations through the management function. By creating mutual understanding and pursuing public interest based on two-way communication (J. Grunig, 1992; Moore & Kalupa, 1985), public relations is able to contribute to a society, as well as increase financial benefits for its client organization.

This value and principle for the public relations profession resonates with one of the core concepts of social capital—reciprocity. Putnam (2000) articulated two types of reciprocity: "specific" vs. "generalized." Generalized reciprocity is an exchange without expecting anything from another party. If this notion is applied to an organizational setting, it is indeed considered a communal relationship, which states that "both parties provide benefits to the other because they are concerned for the welfare of the other - even when they get nothing in return" (Hon & J. Grunig, p. 3). Putnam also pointed out that a norm of generalized reciprocity is more valuable than specific reciprocity. A society with stronger generalized reciprocity, including a high level of trust, is more efficient and developed. Likewise, an organization with strong communal relationships will be able to show better organizational effectiveness by preventing unsupportive behaviors among publics (J. Grunig, 2000).

Notably, public relations researchers and practitioners should be able to identify what factors enhance communal relationships. This study posited that five indicators of social capital

would positively affect communal relationships between organizations and their employees. SEM results demonstrated that only two indicators—communication adequacy and communication accuracy—tend to have significant impacts on communal relationships; networks within organizations, trust in other employees, and inclusion do not. These findings mean that the role of communication is more influential than other social capital indicators on the communal relationships that affect employees' attitudes toward their organization.

Communal relationships between an organization and its employees imply that these two groups perceive that they provide benefits to each other without getting anything in return. High levels of communication adequacy and communication accuracy will possibly occupy a pivotal role in building employees' perceived communal relationships with their organization. Without the presence of useful and important information regarding organizational issues, employees feel uncomfortable and ignored. The accumulation of inaccurate and unreliable information communicated within an organization also could prevent its employees from perceiving that the organization is concerned about their work lives. However, by establishing two-way symmetrical communication regarding adequacy and accuracy between the two groups, an organization is more likely to nurture strong communal relationships with its employees.

Unexpectedly, employees' networks within an organization fail to significantly affect communal relationships even though the networks are positively correlated with them at the *p*-value .01 level or more. This study noted that a group with dense social ties is more likely to collaborate with one another for mutual benefits. Through their affluent networks, organizational members can share more knowledge, information, and understanding and achieve their goals more effectively. Dense networks within an organization are the manifestation of connections for collaboration between group members (Cohen & Prusak, 2001). The study considered that the

extent of density and diversity of formal and informal group memberships and the frequency of interacting with other members could offer a communal place where their organization supports their work lives.

Yet, the insignificant effect of these networks on communal relationships may be caused by several factors. The density and diversity of networks within an organization, as well as the frequent interaction with organizational members, may not always provide a positive atmosphere. Through networks, employees may also share negative information about their work lives, which may result in weaker communal relationships with their organization. In other words, the networks would serve as a place of connection to share both positive and negative information and experiences about their organization.

A measurement problem regarding the reliability score of networks may also be another factor resulting in insignificant effects. When the normality of networks was checked, the second and third items of networks violated the assumption of normality[3]. In particular, the third item indicated that among the 210 respondents, 46.7% reported that they have no groups that they formally or informally belong to within their organization. Given these very weak networks within organizations, it would be challenging to precisely assess whether networks significantly increase communal relationships or not. On an additional note, this finding echoes the title of a book, "Bowling Alone: The Collapse and Revival of American Community," that Putnam (2000) authored. He found that workers' willingness to be involved in inside or outside organizational memberships has decreased over the last decades. For this reason, the weak networks within employees' organizations may not be a surprising finding.

[3] To satisfy the assumption of normality, this study attempted to transform the two items by using a square root transformation function. Results showed that the Cronbach's alpha value of the networks construct decreased and even the third item was not successfully transformed.

Additionally, in the proposed model, the networks construct was created by averaging its three standardized items and contained as an observed variable rather than a latent variable. This indicates that the measurement error of the networks construct was not accommodated. Accordingly, this may be a factor resulting in its insignificant effect.

This study also predicted that placing trust in other employees would increase communal relationships between an organization and their employees. SEM results illustrated that trust did not have a significant influence on these relationships. Trust consists of several categories, such as trust in individuals, groups, organizations, or societies at large. Unlike networks, trust is an intangible form of social capital, meaning a norm of reciprocity. The absence of trust in other employees within an organization inhibits a strong level of solidarity or shared belief among employees. Mounting evidence suggests that trust can be a driving force that enables individuals to collaborate with one another to resolve a joint problem. Despite this important notion, the study found its impact on communal relationships insignificant.

This result may be explained by conceptual or methodological reasons. A high level of trust in other employees may not always directly predict their perceived communal relationships, but rather the third variables may exist. Even though employees perceive their fellow employees positively, this may not necessarily predict the positive perception of their organization as well. Moreover, the effect of trust in other employees on communal relationships could be diminished by a series of interrelated relationships among other variables in the proposed model.

The final indicator of social capital, inclusion, was also suggested as a precursor of communal relationships. However, results showed mixed evidence. SEM analysis found its impact insignificant on communal relationships between an organization and its employees, whereas hierarchical multiple regression analysis indicated its effect is significant. This mixed

finding is due to the different characteristics of the two statistical techniques. The strength of SEM statistical technique lies in its ability to accommodate measurement error, unlike classical methods of general linear modeling. In fact, the proposed model of this study contained attitudes and behavioral intent as well in order to simultaneously estimate a series of interrelated relationships. Accordingly, SEM analysis is considered more appropriate than multiple regression analyses.

However, the importance of multiple linear regression, including hierarchical multiple regression, should not be overlooked. One could argue that this statistical technique has some limitations in taking into account measurement error in the model and estimating interdependent relationships among all the variables. Despite this shortcoming, it can reveal the unique variance of independent variables in such a dependent variable as communal relationships after controlling for demographic and employee information items. Therefore, given the significant effect of inclusion examined by hierarchical multiple regression, inclusion may still play a role in affecting communal relationships.

Interestingly, this study also found significant correlations among all the exogenous variables – communication adequacy and accuracy, networks, trust, and inclusion. This implies that these five social capital indicators may cooperate advantageously for communal relationships. If so, one needs to continuously pay attention to all the indicators.

In conclusion, based on the results of its proposed model of organizational social capital, this study suggests that social capital theory should be modified by including a communication dimension as a central feature. As previous research (Fussell et al., 2006; Hazleton & Kennan, 2000; Kennan & Hazleton, 2006, Rhee, 2007; Smidts, Pruyn, & van Riel, 2001; Watson & Papamarcos, 2002) indicated several times, the study also found that communication is

evidenced as a critical factor in social capital. Given that social capital's focal value is reflected by "relations," communication plays an essential role in forming the relations between entities. As a matter of fact, communication can be the most fundamental factor that strengthens or weakens the norms of reciprocity and networks in communities. In particular, communication resources facilitate various relations and action, such as information sharing, community participation, and decisionmaking. Thus, for theoretical development to occur, social capital studies need to pay more attention to a communication approach.

Communal Relationships, Attitudes, and Behavioral Intent

By virtue of a hierarchy-of-effects perspective that Ki (2006) and Ki and Hon (2007) adopted, this study proposed a research model regarding a sequential relationship among communal relationships, attitudes, and behavioral intent and the model quantitatively represented a good fit with data. Ki and Hon (2007) showed that such relationship quality outcomes as trust, commitment, communal relationship, and exchange relationship failed to influence students' attitude toward their university. As they discussed, their insignificant result may occur due to several reasons, including a nonrandom sampling method and the characteristics of student samples different from general publics. Additionally, for their survey instrumentation, a shortened version was used.

And yet this study supports Ki's research (2006), which examined the links among relationship quality outcomes, attitude, and behavioral intention between a large state agricultural organization and its members. Her research offered empirical evidence for the links, even though the relationship quality outcomes that she measured did not contain communal relationships and exchange relationships. Although a number of studies to date have explored the relationship between an organization and its publics using the scales of Hon & J. Grunig (1999), most of the studies seem to be limited to single or several organizational settings. In addition,

few public relations researchers have investigated employee relations (Rhee, 2004). However, by paying attention to employee publics and community relations and collecting random samples from diverse organizations, this study laid a foundation for the value of public relations and delved into an underlying mechanism regarding employees' collaborative behavior.

Notably, the theoretical underlying mechanism ultimately suggests that public relations practice contributes to creating consistency between organizational goals and societal expectations through the management function. That is, for organizational interests and goals, on the one hand, communal relationships play a role as a handy toolbox that public relations professionals can utilize to show the effectiveness of public relations to their client organizations and publics. On the other hand, for societal and community expectations, communal relationships become a norm of "generalized" reciprocity that all community members should pursue. Moreover, assessing publics' attitudes toward client organizations is helpful for public relations professionals to measure the impacts of public relations practice. As a matter of fact, employees' voluntary participation in their community relations programs with others can reflect the consistency between organizational goals and societal expectations through the management function. Through employees' participation, organizations can also expect supportive behavior from their community, while the community can benefit from these organizations (e.g., alliance and partnership).

With regard to the links among the three constructs, indirect effects should also be discussed. SEM analysis demonstrated that a specific path flowing from communication accuracy to behavioral intent (communication accuracy → communal relationships → attitudes → intent) was most salient, compared to communication adequacy, networks, trust, and inclusion. This result indicates that communicating accurate and reliable information tends to become the

most essential starting point to encourage employees to participate in community relations programs with others. This echoes previous research that showed the significant impact of communication accuracy on the levels of commitment to organizations (Watson & Papamarcos, 2002).

The second research question addressed which organizational social capital indicators would contribute the most explanatory power for the communal relationships (RQ2a), attitudes toward organizations (RQ2b), and intent to participate (RQ2c). As three hierarchical multiple linear regression analyses reported, several indicators had different impacts on each dependent variable. On communal relationships, communication accuracy ($\beta = .31$) had the most significant influence, followed by communication adequacy ($\beta = .24$) and then inclusion ($\beta = .23$). On attitudes, communication accuracy ($\beta = .38$) also had the most significant impact, followed by communication adequacy ($\beta = .22$) and inclusion ($\beta = .22$). However, special attention should be added to trust in other employees, because only this variable significantly affected the behavioral intent ($\beta = .25$). In fact, SEM analysis proved the importance of the two types of communication, but the multiple regression analyses suggest that inclusion and trust may still be influential on the dependent variables.

In this study, inclusion was defined as the extent of togetherness, closeness, and unity among employees. Given that it is similar to a sense of community that employees feel within their organization, inclusion may directly or indirectly increase employees' perception of communal relationships and attitudes toward their organization. Moreover, without high levels of trust in other employees, participation in community relations programs with them is also less likely to occur.

Interestingly, hierarchical multiple regression also demonstrated that personal income is significantly related to communal relationships and attitudes. This indicates that the more salary employees earn, the more positively they tend to perceive their organization. This may reflect that employees who receive a sufficient income feel more secure and satisfied with their work lives than those who do not. The former group would perceive that their organization adequately supports their welfare through monetary compensation, and, consequently, they will be more likely to shape the positive perceptions of the organization.

This study found a high correlation between the communal relationships and attitudes constructs ($\gamma = .88$, $p < 001$). This finding may question their construct validity. However, two issues should be noted. First, although most variables in social sciences are sometimes highly correlated (e.g., behavioral intent and actual behavior), they are considered distinct variables due to its conceptual difference and operationalization. Accordingly, the difference between communal relationships and attitude can be clear: the former reflects the perception that one person has about the welfare of the other party, while the latter indicates an individual's affective response of an object. Next, to evaluate the construct validity, the correlation analysis, which cannot accommodate measurement errors, is not used, but a CFA test can show empirical evidence. In fact, the measurement model of the study showed that the communal relationships and the attitudes are distinct constructs.

Implications for Public Relations Research and Practice

Communication Adequacy and Communication Accuracy

Two types of communication—adequacy and accuracy—also offer several implications to public relations researchers and practitioners. Rhee (2007) noted that although public relations scholars have attempted to substantially explore organization-public relationships (i.e., relationship management perspective), they have not conducted much research regarding

communication's impacts on organizational effectiveness. That is, more empirical research about organization-public relationships that articulates how communication can contribute to organizational effectiveness (e.g., commitment to organizations) is needed to supplement the relationship management perspective. For this reason, communication adequacy and communication accuracy should be further investigated to identify certain theoretical links with measurable outcomes for public relations.

For public relations practice, measuring the adequate and accurate information communicated within an organization is necessary to evaluate organizational culture and climate. Public relations practitioners for internal communication within their organization can regularly monitor whether their employees continue to receive useful and accurate information about their work lives. This may provide benefits for the development of organizations by making organizations more transparent and coherent. Being continuously well-informed about employees' organization allows them to positively perceive other employees as well as their organization. Moreover, receiving reliable and credible information facilitates more effective relationships among employees. By monitoring communication issues within their organization, internal public relations practitioners for employee communication can identify issues and conditions that cause inadequate and inaccurate communication. This may help the practitioners take proactive actions before facing internal problems.

These efforts made by public relations practitioners also can strengthen bonding social capital within their organization. As Putnam (2000) noted, bonding social capital ensures that group members reinforce their similar identity, facilitate sharing, and achieve their goals. Given that communication adequacy plays a positive role in shaping employees' identification with their organization (Smidts et al., 2001), public relations efforts to enhance effective

communication within an organization will be more likely to build up bonding social capital. Their efforts will also enhance employees' commitment to an organization (Watson & Papamarcos, 2002), which ultimately helps them work more effectively. Accordingly, public relations practitioners need to keep evaluating the quality of communicated information in terms of its adequacy and accuracy.

Social Capital, Communal Relationships, Attitudes, and Participation

Putnam (2000) coined a norm of "generalized" reciprocity as the focal notion of social capital that makes our community more efficient and valuable. Importantly, from a theoretical perceptive, social capital theory has an affluent heuristic value for social sciences in that its core concept focuses on "relations." Paying attention to its heuristic value, scholars in business, political science, public health, and sociology have formulated and applied the theory to their own fields. In recent years, organization and business communications scholars also have conceptualized it by focusing on its structural, cognitive, and relational dimensions (e.g., Nahapiet & Ghoshal, 1998). By extending social capital to organizational settings, this study offers insightful implications to communication sciences, particularly public relations research and practice, because relational concerns are at the heart of social capital.

This study reviewed two types of social capital: bonding and bridging. For organizational interests, bonding social capital helps to enhance the effectiveness of internal public relations. As a specialized practice of public relations, employee relations often aims to engender supportive behavior among employees. Strong bonding social capital can offer several useful benefits to employee relations. In a well-structured organization with high levels of trust and reciprocity, its employees share more knowledge, information, and understanding, while more readily pursuing their organizational goals. Additionally, low turnover rates, stronger identification, and commitment can be expected. Bonding social capital's critical consequences include cooperation

and empowerment, whereby employees are more willing to work together and are connected to one another. Furthermore, employees will perhaps perceive stronger collective efficacy within their organization. In this study, the significant resources of bonding social capital included communication adequacy and communication accuracy, as well as inclusion.

Norms of reciprocity, trust, and networks enable organizational members to achieve their goals and create collaborations, alliances, or partnerships. These outcomes can be produced through an internal public relations practice. For example, public relations professionals can implement diverse strategies, such as education, sports, and cultural programs for employees and their family. By being involved in such programs, they would be able to learn those norms. Furthermore, a range of public relations strategies to enhance effective communication and inclusion will also cultivate and maintain a driving force and capability within an organization.

Because bonding social capital is usually concerned about internal identities, sharing, and goals, it can result in the social distance and difference between the members and non-members of a group network. If a for-profit organization is only interested in its financial outcomes and neglects its social responsibility, it will possibly impede social integration and diversity while increasing social conflicts and communal separation. This is why bridging social capital is imperative for both an organization and its key publics.

J. Grunig (2000) proposed that the central value for the public relations profession must include collaboration, which can be found in the concept of communal relationships. In fact, this concept reflects the nature of bridging social capital. Through bridges with other external entities, organizations are able to make public dialogues, norms of reciprocity, and communal relationships. This study contended that public relations professionals can become such actors, bridging an organization and its external constituents. In particular, to realize collaborative

values, including alliance, partnership, and solidarity with their local community, for-profit organizations can implement corporate community relations programs.

When it comes to the communal relationships of for-profit organizations, special attention should be added to corporate citizenship or corporate social responsibility. Today's corporations frequently have more influence on their community than government to resolve a range of social problems. Despite their increasing power, corporations are expected to contribute to their community and fulfill their obligations as "citizens." That is, they should fulfill their responsibility to be a good citizen. To do so, they need to embody the collaborative values and outcomes reflected in bridging social capital, such as generalized reciprocity, through public relations practice.

By examining the sequential relationship among social capital, communal relationships, attitudes, and behavioral intent, this study implies that public relations can also contribute to corporate citizenship. Employees' voluntary participation in community relations programs to develop their local community may promote a picture of a good corporate citizen to the community. As a boundary-spanning role, corporate community relations practice can have a marked impact on corporate citizenship activities. For example, past research (Ferguson et al., 2006) found that corporations with various public relations functions and more public relations practitioners tend to demonstrate better corporate social responsibility activities beyond traditional profit-centered programs.

Accordingly, public relations professionals of organizations, particularly for-profits, need to keep in mind two implications. First, their efforts to strengthen their bonding social capital can be related to enhancing the internal effectiveness of organizations (e.g., strong communal relationships between employees and their organization and positive attitudes toward the

organization). Monitoring the communal relationships can be a tool that the professionals utilize to show the effectiveness of public relations. For example, after internal communication activities, programs, or campaigns are implemented, the professionals evaluate their organization's standing through a survey or a focus group. Thus, they should continue to evaluate how effectively their social capital works within their organization. Next, as long as bonding social capital is maintained, their connection with such an external constituent as a local community will bring about bridging social capital through employees' active community involvement. From the proactive perspective, measuring communal relationships between an organization and its local community is critical. By continuing to monitor the communal relationships, an organization can take a proactive action when a negative indicator is detected. In addition, measuring the communal relationships can be an index that reflects good corporate citizenship for the organization and its publics. Therefore, public relations professionals can strive to develop and perform diverse public relations functions to augment both bonding and bridging social capital.

Moreover, this study further refines the theoretical model that Ki (2006) and Ki and Hon (2007) suggested so as to examine the link among relationship quality outcomes, attitudes, and behavioral intent. Ki's research (2006) had a few limitations: it used random samples collected from only a single organization and did not measure communal relationships. However, by randomly collecting samples from diverse organizations and focusing on employees and community issues, the present study contributes to public relations theory development. It offers the understanding of how the communal relationships between employees and their organization determine their behavioral intent to voluntarily participate in community relations programs, being mediated by an attitudinal construct. By shedding light on this theoretical link, it can

benefit both employees and community relations research. Furthermore, it extends the knowledge of collaborative values and measurable outcomes of public relations on the basis of social capital theory.

Finally, in addition to the implications for public relations, this study also suggests implications for other communication fields. Researchers in mass media have already explored how social capital as a driving force for community participation is generated by media process and use, such as television, newspaper, and the Internet. In particular, the links between patterns of certain media use and the production of social capital is critical to grasping antecedents to community participation. A number of empirical studies showed that an individual's media use influences community involvement, including political participation.

Moreover, this study's results may be applied to other communication issues. Previous research (Jin & Kim, 2008) showed that trust and networks affect individuals' intent to collaborate with other community members to solve a social and public health issue. Through the strong trust and affluent networks, they can pursue their common interest and goal. In addition to trust and networks, examining communication variables may help us understand the process of community-building. The adequate and accurate information communicated within a community may be useful to evaluate its culture and environment. By continuously receiving such information, community members will be more likely to enhance their community identification.

Limitations and Suggestions for Future Research

Despite its vital theoretical and practical implications, this study has several limitations. First, it assessed only two types of communication, even though many dimensions of communication exist, including communication climate (Jones & James, 1979), communication apprehension (Fussell et al., 2006), communication appropriateness (Burgoon & Walther, 1990),

communication openness (O'Reilly & Roberts, 1977), and more. Further review of literature on this field is needed to explore how other communication variables affect social capital.

Another potential limitation of this study is a sampling issue. The study randomly recruited employees residing in Florida who work for an organization. Using a statewide mail survey might be weaker than a nationwide one in terms of its external validity. Additionally, its cross-sectional analyses may preclude insight into the sequential direction of social capital, communal relationships, attitudes, and behavioral intent. To overcome this limitation, a nationwide survey using a panel or longitudinal data can be utilized. However, the samples collected statewide also could be generalized to a more diverse population. For example, past research (Basil, 1996; Basil et al., 2002) revealed that testing multivariate relationships of variables can generate consistent results across different sample datasets, such as a random sample of adults vs. a sample of college students. Because the study aimed to test an underlying process of interrelated relationships among variables rather than focusing on estimating univariate values, it considered that using a statewide sample for the study would produce results consistent with those from a nationwide sample.

Moreover, low return rates and response/non-response bias can cause a problem when generalizing the findings to the overall population. The samples of this study were skewed toward female, white, older, and more educated individuals than the population under the study. This problem can make different response patterns between survey participants and non-participants. This study also found a few variables' reliability to be relatively low. The Cronbach's alpha scores of networks and inclusion was .43 and .66, which are less than .70. These may have occurred due to the insufficient number of items used for the two constructs, each of which has only three items. Thus, more reliable survey items should be more

sophisticatedly designed. Future researchers may attempt to replicate this study by using other datasets, more reliable scales, and by increasing return rates.

This study did not compare its proposed model with other competing models. Researchers in SEM should not be certain that they found the "best model" despite obtaining a recommended level of fit for both measurement and structural models (Hair et al., 1998). There may be equal or even better alternative models. Based on theoretical reasoning rather than empirical evidence, competing models should be compared by a model comparison test. In spite of obtaining good fits between the dataset and model, this study cannot overlook any spurious variables that can affect the model. Therefore, by searching for other relevant precursors of the communal relationships between employees and their organization, the proposed model can be revised and replicated. For example, future studies may wish to test additional social capital indicators or control the third variables' effect on the proposed model.

Moreover, researchers may identify and assess other collaborative outcomes that reflect the values of public relations other than communal relationships. That is, they may quantitatively or qualitatively compare the perceptions of those who participated in community relations programs with those who did not. By doing so, additional collaborative outcomes could be identified and used to increase the effectiveness and impacts of public relations practice.

Finally, this study did not measure an actual behavior variable. Although behavioral intents are the most immediate antecedent of behavioral change (Fishbein & Ajzen, 1975), measuring actual behavior is useful in addressing the link between intent and behavior.

Conclusion

At the outset of the first chapter, this study cited "Creative Capitalism," coined by Bill Gates, Microsoft chairman and co-founder. His notion calls for for-profit organizations' efforts

to combine “self-interest and caring for others.” This brings to mind the views of J. Grunig (2000), collaborative values of public relations, and Putnam (2000), the norms of social capital.

Although numerous studies in public relations have focused on the organization-public relationship perspective, they have paid less attention to the central value of public relations, including communal relationships, which J. Grunig maintained. Moreover, little research has been done to explore the antecedents and consequences of communal relationships and even less has been done to empirically document the connection between public relations and social capital. By extending social capital to public relations scholarship, this study attempted to explore the role of public relations and social capital for the development of organizations and community. In an underlying process, the study also tried to find empirical evidence to demonstrate how bonding social capital of organizations is expanded to bridging social capital through public relations practice.

This study acknowledges that not all organizations may always pursue communal relationships and public relations professionals may not best serve their community and society beyond their organizational interests. Yet, when public relations serves as a community builder, the functions of public relations are most likely to generate collaborative outcomes and norms of generalized reciprocity inside and outside an organization.

APPENDIX A
COVER LETTER: THE FIRST VERSION

May XX, 2009

Dear

I am a researcher at the University of Florida (UF), who is currently conducting a study to learn about employees' work lives and community involvement to build healthier communities through collaboration. This study is designed to improve work environments and develop better local communities with employees' help.

You were truly randomly selected to participate in the study because you are an employee working for an organization. Since only a limited number of questionnaires have been distributed in Florida, your opinions are **extremely important and valuable** to the success of the study. Your participation is purely voluntary. There are no *direct* benefits, risks, or compensation to you for participating in the study. However, **I will donate one dollar to one of the charities of your choosing if you participate in this survey.**

Attached is a questionnaire along with a self-addressed, postage-paid envelope. Please complete and return the questionnaire **within ten days** to my address at UF. This survey will only take about 10-15 minutes of your time.

Be assured that your answers will be used for **academic research purposes only** and your identity will be **completely anonymous**. No one will be able to track your answers back to you in any way. This study is also not affiliated with any private company.

You may contact the principal investigator, B. Gabriel Jin, with any questions or comments at (352) 846-1154 or at bjin@jou.ufl.edu.

THANK YOU IN ADVANCE FOR YOUR TIME!

Sincerely,

B. Gabriel Jin

B. Gabriel Jin
UF Alumni Fellow
College of Journalism and Communications
University of Florida

Research at the UF is overseen by the Institutional Review Board 02 - **UFIRB #2009-U-514**. Questions regarding your rights as a participant should be addressed to: (352) 392-0433 or irb2@ufl.edu.

APPENDIX B
COVER LETTER: THE SECOND VERSION

June XX, 2009

Dear

I am a researcher at the University of Florida (UF), who is currently conducting a study to learn about employees' work lives and community involvement to build healthier communities through collaboration. This study is designed to improve work environments and develop better local communities with employees' help.

You were truly randomly selected to participate in the study because you are an employee working for an organization. Since only a limited number of questionnaires have been distributed in Florida, your opinions are **extremely important and valuable** to the success of the study. Your participation is purely voluntary. There are no *direct* benefits, risks, or compensation to you for participating in the study. If you are currently unemployed, you might want to discard this survey or forward it to anyone that you know is employed.

Attached is a questionnaire along with a self-addressed, postage-paid envelope. Please complete and return the questionnaire **within ten days** to my address. This survey will only take about 10-15 minutes of your time.

Be assured that your answers will be used for **academic research purposes only** and your identity will be **completely anonymous**. No one will be able to track your answers back to you in any way. This study is also not affiliated with any private company.

You may contact the principal investigator, B. Gabriel Jin, with any questions or comments at (352) 846-1154 or at bjin@jou.ufl.edu.

THANK YOU IN ADVANCE FOR YOUR TIME!

Sincerely,

B. Gabriel Jin
UF Alumni Fellow
College of Journalism and Communications
University of Florida

Research at the UF is overseen by the Institutional Review Board 02 - **UFIRB #2009-U-514**. Questions regarding your rights as a participant should be addressed to: (352) 392-0433 or irb2@ufl.edu.

APPENDIX C
FOLLOW-UP POSTCARD

Employees' Work Lives and Community Involvement

You recently received a letter encouraging your completion of a survey to improve work environments and develop better local communities. If you have already completed the survey, thank you so much.

If not, I hope you will take a few moments to complete it and use the self-addressed, postage-paid envelope to return it to my address.

If you prefer to fill out the survey on the Internet, please type the following URL into your Web browser: **http://tinyurl.com/ufsurvey**. No email for IP addresses will be collected or connected to your responses.

If you have any questions, please contact me at (352) 846-1154 or bjin@jou.ufl.edu. Thank you in advance for your participation!

B. Gabriel Jin
College of Journalism and Communications
University of Florida, Gainesville

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BIOGRAPHICAL SKETCH

In the Fall of 2005, Bumsub "Gabriel" Jin, a graduate of Kansas State University, joined the UF mass communication program as a doctoral student specializing in public relations. Gabriel's research focuses on the role of public relations for community-building, communication campaigns, and media effects on health. He has presented more than twenty refereed conference papers at international, national, and regional conferences. During his graduate studies, Gabriel has received three conference paper awards and published four refereed journal articles.

In South Korea, Gabriel worked for a social welfare and religious organization to support group home children's life and their community. He also served as an editor of weekly bulletins for military and religious organizations. In addition, he edited a newsletter for the British Council, Teaching Centre, Seoul. Gabriel also has taught public relations and mass communication courses at University of Florida and Kansas State University. He joined the Department of Communication Studies as an assistant professor of public relations at the State University of New York – Oswego in the Fall of 2009.