TRUST AND ORGANIZATIONAL INFORMATION FLOW*

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This paper examines the role of trust in transferring information within an organization. Two forms of trust (initial trust and gradually formed trust) are suggested as consequential to information flows. Research on trust and social networks is considered with respect to the role of trust in increasing information transfer through structural holes in the presence of the potential for opportunistic behavior. Propositions are offered suggesting that trust increases the accuracy and quantity of information available to receivers; this occurs in proportion to the level of trust between the information provider, the information receiver and the actor who bridges a structural hole.

Trust is a construct that has been difficult to operationalize. Various disciplines as diverse as sociology (e.g., Gambetta, 1988), psychology (e.g., Rotter, 1971), law (e.g., Williamson, 1975), and economics (e.g., Williamson, 1993) have attempted to define the concept of trust. As expected, there is a lack of definitional consistency both within and across disciplines.

Rather than attempt to operationalize trust, we will use a problem-centered approach (Bigley & Pearce, 1998). This follows other researchers in the organizational trust arena who argue that understanding is gained "more effectively by attending to researchers' common problems, rather than by attempting to force …a common definition or theory" (Bigley & Pearce, 1998, p. 410). A problem-centered approach allows one to extract a definition from the literature based on the specific problem at hand. Clearly, this is not an attempt to integrate the trust literature from various disciplines, nor an attempt to find common ground among or within them. Rather, the problem-centered approach focuses attention on those particular areas that have direct application to the problem and that may offer potential solutions.

The focus or problem addressed here is the ability of an organization to disseminate information to different groups throughout the organization. Overcoming this problem of information flow is critical to organizational efficiency. One concern in assuring information flow throughout the organization is the amount of trust between organizational groups and those who bridge the structural holes (Burt, 1992) between those groups. Using the definition below, we will suggest how the problem of information flow in organizations, particularly through a structural hole, will be affected by the level and type of trust between the actors.

Trust is defined here as a "willingness to rely on another party and to take action in circumstances where such action makes one vulnerable to the other party" (Doney, Cannon,

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& Mullen, 1998, p. 604). This definition is congruent with others in the literature (Williams 2001; Mayer, Davis, & Schoorman, 1995). A rational, cognitive assumption is implicit in this definition; thus, from this approach, rationality determines whether one should or should not trust another. The literature views trust in two separate contexts; one involving rapidly developed, initial trust, also referred to in the literature as 'swift' trust (Meyerson, Weick, & Kramer, 1996) and the other involving trust that is more gradually developed. Each of these contexts is shown to involve different mechanisms to achieve different results.

Using the Doney et al. (1998) definition of trust, this paper focuses on trust's cognitive components. However, to avoid an oversimplification, it should be recognized that the cognitive aspects of trust do not capture the entire essence of trust. Trust has both affective and cognitive components that have been extensively studied (e.g., Smith, Haynes, Lazarus, & Pope, 1996). Indeed, cognitive trust serves as an antecedent to affect-based trust (McAllister, 1995). Affective trust involves the emotional processes of care and concern for others; cognitive trust involves one's beliefs regarding the dependability and reliability of others (McAllister, 1995). In an attempt to isolate the mechanisms pertinent to the topic, this paper focuses on trust's cognitive components (Kramer, 1999; McAllister, 1995).

Support for propositions will be given that relate trust's cognitive aspects to information transfer within firms. Most would argue that information is critical to organizations (e.g., Teece, 1998) and that the knowledge economy has positioned information as a crucial link to a firm's success (e.g., Floyd & Wooldridge, 2000). Not only is the information itself important, but also the transfer of critical information to the right organizational division or business unit that can make the difference between success and failure of organizational activities. Appleyard (1996) has recognized information transfer between and among business units, divisions, and work teams is a key ingredient for successful development of new organizational competencies and capabilities. When information transfer is hindered, product development time can be delayed, initiatives can be thwarted, competencies and capabilities can fail to develop, and, ultimately, competitive advantage can suffer (Floyd & Wooldridge, 2000). A number of things can hinder the movement of information within a firm (e.g., Szulanski, 1996); this paper directs attention to one of these—the disconnection among groups within a social network that results in diminished transfer and communication of necessary information.

It is important to note that the level of trust between all parties involved will affect the accuracy and amount of information exchanged through the social network. The individual that has the information must trust both the individual who bridges the structural hole between the groups as well as the end receiver of the information to disclose accurate and sufficient quantity of information. This argument holds true for each of those involved in the information exchange. Trust between all parties, even if they are not fully connected, will affect information flow in the organization. It is clear that if an individual who creates a bridge between two social groups does not trust one of the groups or one of the groups does not trust the other or the individual that bridges the hole, information flow is hampered.

The level of analysis on which we focus is the individual organization. Although social networks can span organizational boundaries and include other firms (e.g., Bouty, 2000), professional associations (Carroll & Teo, 1996), voluntary organizations (McPherson & Smith-Lovin, 1982), and communities (Laumann & Pappi, 1976), by directing attention at the

level of a single organization, one can more clearly see the relationships between trust, structural holes, and information transfer. In using the term social networks in this paper, we refer to links between actors within an organization (Brass, Butterfield, & Skaggs, 1998), even though that organization may have multiple physical locations. In this paper we first present literature and theory relevant to structural holes and trust. Next, we develop propositions suggesting the relationship among structural holes, trust, and information transfer, and discuss contingencies applicable to the propositions. And finally, we examine managerial implications and future research directions.

THEORETICAL BACKGROUND

Structural Holes

Social networks are the links between and among actors within the firm (e.g., Brass, 1995). Information is shared, among other means, through social mechanisms (e.g., Burkhardt & Brass, 1990). Individuals and groups of actors who possess information at times have both the option and the ability to share or refrain from sharing information with others (Ibarra, 1993).

Information can be used as a source of power. As a scarce resource, the accumulation of critical information can be withheld to increase that person's power in the organization (Fama & Jenson, 1993). "Rational people may be unlikely to surrender the power they gain from being an important knowledge source" (Leonard & Sensiper, 1998). Dysfunctions in the organizational hierarchy may also contribute to inefficient information transfer and communication patterns. For example, status differences, the desire for approval from those higher in the hierarchy than oneself, and the tendency to refrain from communicating negative information upward to one's supervisor can result in diminished communication flows (Blau & Scott, 1962). Even in more horizontal organizational structures, lateral communications can be distorted. For example, groups of professionals within a firm may have different conceptualizations of a specific problem depending on their backgrounds and areas of expertise. Communication of critical information between those with diverse technical backgrounds, for example, may become distorted as a result (Hall, 1987, chap. 7). Others have suggested that trust lubricates social relationships (Kramer, 1999); this paper expands this idea to include information transfer through those who bridge structural holes. In this context, trust plays a critical role in the transfer of information from one individual or group to another via structural hole bridges.

Structural holes are gaps between individuals or groups of individuals within a social network that cause a disconnection between groups (Brass, 1995; Burt, 1992). Information transfer between disconnected groups must be accomplished through other channels when structural holes exist (Burkhardt & Brass, 1990). In other words, structural holes between individuals or groups within a network act as roadblocks to information sharing within a firm. The roadblock is removed when an actor fills the hole creating a link between individuals or groups (Burkhardt & Brass, 1990). Hence, structural hole bridges exist when actors within the organization connect otherwise disconnected individuals or groups. By filling this gap and creating a bridge between otherwise disconnected others, those who fill structural holes serve as a potential means of information transfer between individuals or groups. The actor who fills

the structural hole has potential access to information from both of the previously disconnected individuals or groups and becomes a viable route for information flow between the newly connected individuals or groups. "Managers with networks rich in structural holes operate somewhere between the force of corporate authority and the dexterity of markets, building bridges between disconnected parts of the firm where it is valuable to do so" (Burt, 1997, p. 342).

The Role of Trust

Trust, as used in this paper, involves rational, cognitive processes. "Knowledge and information are not likely to be exchanged freely when one party cannot be sure" about how another party will use the information (Jones & George, 1998, p. 541). Similar definitions are in the literature (Williams, 2001; Mayer et al., 1995). The necessary cognition involves the belief and expectation that one in whom I trust will not take advantage of that trust. Given the opportunity to use information I give to another, he or she will not use that information to take advantage of me. I therefore put myself in a vulnerable position to that person with the expectation that he or she will not behave opportunistically if the opportunity to do so arises. As suggested by agency theory, if there is any rationality at all to this type of behavior on the part of the actor, then the actor must acknowledge that he or she has reasons, either implicit or explicit, for placing himself or herself in a position of vulnerability (Eisenhardt, 1989). He or she must believe that the one in whom he or she trusts will refrain from taking advantage of him or her. "The elements confronting the potential trustor are nothing more or less than the considerations a rational actor applies in deciding whether to place a bet" (Coleman, 1990, p. 99).

What will prevent an actor in whom trust is placed from behaving opportunistically? There are several possible explanations. First, social norms govern trusting behavior. Varying degrees of social pressure on the trusted actor provide some assurance that the actor will not betray trust (Kramer, Brewer, & Hanna, 1996). Second, the actor's reputation is at stake when others might become aware of trust violations (Burt & Knez, 1996). Third, the entrusted actor's identification with the group to which both the actor and the trustor belong may inhibit trust violations (Brewer & Kramer, 1986). Fourth, prior social exchange between both parties and the anticipation of future exchange—the "shadow of the future" (Axelrod, 1984)—can provide motivation to refrain from trust betrayal (Brown, 1985). Table 1 outlines these reasons for trusting.

TABLE 1
Motives for Trust when Opportunism is a Threat

- Social norms
- Prior social exchange
- Identification with the group
- Possibility of future social exchange
- Risk to reputation of the trusted actor

Clearly, some of these reasons for trusting need time to develop. Continued social exchange is based on a history of previous exchange (Blau, 1964) and reputations are formed over relatively long periods. However, it is not necessary in every case to have a prior exchange relationship or the passage of time for one to trust another.

Initial Trust

Initial trust can based on social group membership and or categorization of the individual with whom the trust is being developed (Williams, 2001). Initial trust is dependent on cooperation between and among individuals within the firm. In low trust situations, individuals weighing the risks of opportunism may be hesitant to share crucial information with others (Jones & George, 1998). This impedes the transfer of information to individuals and groups who require such information to create new competencies and capabilities, implement strategic initiatives, and act quickly to sustain any competitive advantage that the information may provide for the firm (Floyd & Wooldridge, 2000). Initial trust allows actors to cooperate with one another without spending critical time building relationships (McKnight, Cummings, & Chervany, 1998).

Trust that is formed initially is not dependent on a historical relationship with another (McKnight et al., 1998). Without interpersonal history, why would one trust another? This seems *prima facie* to contradict rationality. Without personal knowledge of the trustworthiness of an individual, it seems irrational to place trust in another. However, we experience rapidly formed, initial trust everyday. We do not require a historical personal relationship with a bank teller before handing him or her $1,000 in cash. We do expect, however, that we will receive a record of the transaction. One may argue, then, that we do not implicitly trust the teller, but rather we trust that which the transaction ticket represents—an obligation on the part of the bank to honor the good faith expressed when the teller was given $1,000. The regulations governing banks, the reputation of the bank in the community, the bank's ongoing interest in continuing operations, and previous successful transactions with the bank are sufficient reasons for placing trust in the teller. Therefore, trust is not in the teller *per se*, but in the contextual environment in which the teller operates. This initial trust is referred to as institutional trust by Zucker (1977).

So it is with initial trust. In organizations, initial trust is formed rapidly, not because of the inherent trustworthiness of the individual in whom we place our trust, but because of (1) the necessity for an actor to maintain his or her reputation (Burt & Knez, 1996); (2) sanctions that exist to discourage opportunistic behavior (Shapiro, Sheppard, & Cheraskin, 1992); (3) the role served by the actor in whom one places trust (Kramer et al., 1996), and (4) the choice one makes initially to either trust or not trust based simply on the assumption that similar others can be trusted (Jones & George, 1998; McKnight et al., 1998). Thus, the contextual environment, or institutional trust (McKnight et al., 1998), determines whether one is willing to extend trust to another. Each of these will be considered in turn.

First, actors in whom we place trust usually have a need to maintain their reputation within the organization (Burt & Knez, 1996). A self-controlling mechanism prohibiting actors from misusing trust is the chance that both actors will encounter one another in future exchanges (Axelrod, 1984). If, for example, an actor betrays trust in an initial or relatively early information

exchange, he or she realizes that there is little potential for gaining further information from that source in the future. He or she therefore sees opportunism as a one-time situation unless the opportunism can be covered up such that the opportunistic behavior is unlikely to be discovered.

Clearly, there are qualifications to this argument as mentioned in the beginning paragraphs of this paper. One such qualification is when there are large asymmetries in actor power and dependence. With large power-dependence asymmetries, the more powerful (less dependent) actor may not be motivated to regard future exchanges with a less dependent actor as valuable, and thus future exchanges would not provide an incentive to refrain from opportunistic behavior (Emerson, 1962).

Even in situations where there is minimal chance that actors will work together in the future or when there are not large power differentials, other mechanisms exist that prevent opportunism. For example, most organizational exchanges are completed in public. Third-party gossip acts as a social control mechanism to broadcast trust violations to others with whom the transgressing actor may wish to work in the future. The chance that third-party gossip will diminish the actor's reputation and thus, his or her potential for future social exchange with actors other than the one who was betrayed will often be enough to prevent trust violations in otherwise isolated social exchanges (Burt & Knez, 1996). Thus, the potential for public knowledge (within the organization) operates as a social control mechanism allowing initial trust to form quickly.

Second, there are often sanctions against actors who behave opportunistically. The threat of reprimands from supervisors or formal justice actions taken against those who behave opportunistically can be enough to motivate an actor to behave in a trustworthy fashion (Brockner & Siegel, 1996). An actor who considers trusting another, by being aware of this threat, feels safe in initially trusting another.

Third, the role served by the actor in whom one places trust allows initial trust to develop without personal knowledge of the individual actor, or what Kramer et al. (1996) call presumptive trust. We trust physicians because of their credentials, engineers because of their knowledge, and bank tellers because of the role they fulfill in conducting financial transactions. We place trust in others when we recognize the roles they serve. Hence, our trust does not lie in the inherent qualities of the actor, but in the role the actor represents in the organization. Actors are more likely to develop initial trust in an information-sharing context when they trust the role played by the one with whom information is provided (Kramer et al., 1996).

Fourth, there is evidence that an actor may simply suspend "belief that the other is not trustworthy and behaves as if the other has similar values and can be trusted" (Jones & George, 1998, p. 535). Given the option of trusting or not trusting, trusting is the easier decision. In addition, an organizational culture that promotes trust between members enhances development of trust (Trevino, McCabe, & Butterfield, 1998). Table 2 provides a summary of motives for initial trust formation.

TABLE 2
Motives for Initial Trust when There is no Prior Relationship

- Social norms
- Threat of formal sanctions
- The assumption that similar others are trustworthy
- Threat of reputation damage from third-party gossip
- Trust is placed in the actor's role rather than the actor

Initial trust is fragile. It is a function of conditions—reputations, sanctions, roles, norms, and assumptions—extrinsic to the actor in whom trust is placed. Actors trust those conditions— the contextual situation—until personal knowledge of the one in whom trust is placed is developed. Once personal knowledge is gained, initial trust becomes conditional based on the interpretation of the trusted actor's inherent trustworthiness. Initial trust is fragile in the sense that small trust violations by the actor which occur early in the relationship result in a predisposition to view the actor as less trustworthy in the future (Robinson, 1997). It is also important to recognize that some relationships may never move past initial trust. Because it is dependent on contextual factors, some relationships will remain tentative and never pass on to gradually formed trust. Initial trust will be contrasted with trust that develops more gradually in the following section.

Gradual Trust

In contrast to trust that forms initially, trust that develops gradually is more resilient. Gradually developed trust is based in affect for individuals developed over repeated interactions (Williams, 2001; Blau 1964). It is not time that causes the change from initial to gradually developed trust, but the characteristics of the relationship between the individuals. With rapidly formed trust, small violations of trust such as failure to keep small, rather unimportant promises, erodes the potential for trust in the future. Initial trust is fragile. Small infractions are seen as characteristic of the actor's unworthiness of trust. On the other hand, with trust that has been gradually developed, small infractions are viewed relative to the historical framework in which trust has developed (Jones & George, 1998). After experiencing many fulfilled promises, appropriate discretion of shared confidential information, and restraint from opportunistic actions, a small lapse in trust in the broader context of generally trustworthy behavior does not have such pronounced effects on a relationship that has grown over time. "Trust decline is a gradual process that reflects the stage of trust development" (Lewicki & Bunker, 1996, p. 125). Individuals are more willing to overlook small trust violations when the actor in whom trust is placed has demonstrated himself or herself to be generally trustworthy. Trust that has developed gradually is thus more resilient than initial trust.

Trust that forms gradually invokes different cognitive processes than swift or initial trust (Meyerson et al., 1996). Rather than placing emphasis on the safeguards of reputation, sanctions, formal roles, norms, and assumptions of trustworthiness, gradual trust is based on knowledge and past interaction. Through personal experience with the individual in whom trust is placed, reliance is based less on reputations, sanctions, roles, norms, and

assumptions and more on personal knowledge of the trustworthiness of the actor. Through multiple interactions beginning with small exchanges, one gradually comes to trust another rather than having trust based solely on the contextual setting. Through larger successful exchanges, one comes to believe that the other will not take advantage of the trustor's vulnerability (Whitener, Brodt, Korsgaard, & Werner, 1998). One is therefore more willing, by sharing more sensitive information, to place oneself in situations where another's opportunism, if acted upon, would be more damaging.

Propositions

Organizational knowledge finds its origin partly in information; to create new knowledge, it is essential that information is transferred throughout the firm (Zack, 1999). Indeed, Cohen and Levinthal's (1990) concept of absorptive capacity suggests that a platform of previous information and knowledge is essential to the recognition of new, useful information and the development of new knowledge. When actors are informally connected using structural hole bridges, information transfer follows a continuum from original provider, to structural hole bridge, to final recipient. The following propositions suggest that both initial trust and gradually formed trust increase the efficiency of the information transfer continuum. Figure 1 illustrates this relationship.
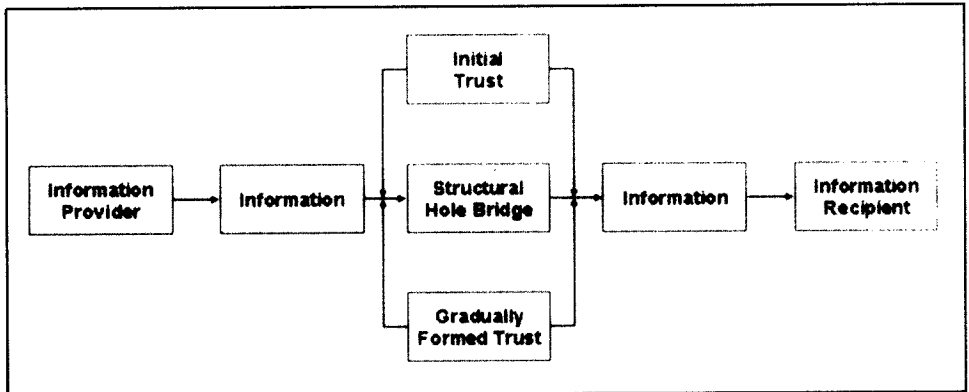

Figure 1. The trust-information transfer relationship.

Trust, as a social lubricant (Kramer, 1999), plays a key role in shaping information pathways, particularly when structural holes exist in a firm's social network. The relationship among trust, structural holes, and information transfer are considered from three perspectives—from the provider of information, from the individual who serves as the bridge, and from the receiver of information. From the provider's perspective, the individual must trust the actor who fills the structural hole. If a provider believes that information given to an actor will not be used opportunistically, the provider will be more willing to share information. Initial trust will provide a basis for sharing limited information (Meyerson et al., 1996). As fragile, initial trust gradually develops into more resilient trust, information providers will be more willing to divulge more accurate and more quantity of information (Rempel, Holmes, & Zanna, 1985).

From the perspective of the final recipient of information, those who accept information from a structural hole bridge should ideally be able to rely on the accuracy and quantity of

information. However, since the accuracy of information is dependent on the level of trust on the provider's side of the exchange particularly with initial trust situations accuracy and quantity are dependent on the willingness of the provider to trust the actor who bridges the structural hole. Thus, the accuracy and quantity of information available to the final recipient is dependent on the level of trust in the actor filling the structural hole, as well as the provider of the information. The provider must have confidence that the structural hole bridge will not act opportunistically, for example, by retaining information in an attempt to increase his or her own power (Fama & Jenson, 1993; Leonard & Sensiper, 1998).

From the receiver's perspective, trust in the actor who bridges the structural hole is not directly equivalent to trust in the original provider. Rather, trust on the part of the final recipient is present in the actor who bridges the structural hole and not in the actor who provided the information to the structural hole actor. The receiver, then, obtains information second-hand. The foundations for trusting from the receiver's perspective are similar to those of the original provider with one significant difference. When receivers of information rely on the accuracy and quantity of the information, they implicitly believe that the actor who bridged the structural hole had access to enough quantity of and accurate information. They assume that the actor filling the structural hole (1) received accurate and enough information from the original source, and (2) is not acting opportunistically by withholding information. This assumption on the part of the receiver can lead to erroneous application of the information if the information is not accurate or complete. If, in fact, the information is not accurate or complete, but the receiver acts on the information as if it were, errors in application of the information may naturally result.

Therefore, transfer of information is dependent on three sides of trust—trust in the structural hole bridge by the provider of information, and trust in the structural hole bridge by the receiver of information as well as trust from the bridge toward both parties. This demonstrates the critical role filled by the actor who assumes the position of bridging two otherwise disconnected individuals or groups.

A problem arises, however, when a structural hole bridge uses information for his or her own benefit rather than to further the aims of the organization. Information, as a potentially scarce organizational resource, can be used by the structural hole bridge to increase his or her own power. When others are dependent on this actor for transfer of critical information, the actor can use his or her position to create artificial scarcity by withholding needed information (Pfeffer, 1972). By creating scarcity, the actor makes others dependent (the inverse of power) and thereby increases his or her own power (Fama & Jensen, 1993).

When information providers believe that those with whom they share information will use the information in this manner, the providers will be hesitant to divulge all available information. On the other hand, if trust is high, the belief that others will behave opportunistically is low. Therefore, high levels of trust should increase the accuracy and quantity of information provided to others who have the potential to violate that trust.

Initial trust between actors is a key ingredient of information transfer if the structural hole bridge could use the information opportunistically. In newly formed work relationships, the rapid development of trust allows individuals to share critical, sensitive information despite

the threat of opportunism when certain conditions are present. As discussed more fully in a previous section, initial trust levels are formed based on the threat of reputation loss (Burt & Knez, 1996), social sanctions (Shapiro et al., 1992), formal roles (Kramer et al., 1996), assumptions of trustworthiness (Jones & George, 1998; McKnight et al., 1998), and the contextual environment in which actors participate in social exchange (Blau, 1964). The accuracy and quantity of information shared with another is increased in high initial trust situations. When information providers place high initial trust in actors who bridge structural holes, information transfer is facilitated, at least to the point of the structural hole bridge.

Trust that is gradually formed is more resilient to decay from minor trust violations (Jones & George, 1998). As gradual trust replaces initial trust, minor trust violations are viewed in the context of previous trustworthy behavior and are thus more easily dismissed as uncharacteristic of the actor with a low probability of occurrence in the future (Lewicki & Bunker, 1996). Gradually formed trust is thus more resilient than initial trust and is based on the trustworthiness of the individual actor rather than the contextual situation in which the actor functions. As trust develops over time, individuals are willing to provide accurate and enough quantity of information because the threat of opportunism is perceived to be low. Therefore, information transfer is increased when gradually developed trust is high.

> *P1: When there is little previous interaction between the provider, the bridge, and the recipient, initial trust increases the accuracy and quantity of information exchanged between groups in an organization.*

> *P2: When gradually formed trust exists between the provider, the bridge, and the recipient, the accuracy and quantity of information exchange increases and becomes more resilient.*

CONTINGENCIES

This paper suggests conditions under which trust contributes to information transfer within a firm when structural holes exist in social networks. Trust has been viewed as an organizational resource that provides competitive advantage (Barney & Hansen, 1994), but we suggest some contingencies under which this may not be the case.

Uzzi (1997) suggests that some bridges may create unions between previously unconnected social groups within an organization. If an actor, serving as a bridge between two groups, creates a union between the groups. The accuracy and quantity of information will drastically increase as there will be many more contacts and exchanges between the two groups. The above propositions are based on the assumption that a union does not take place between the groups and both groups and the actor serving as the bridge are reliant of information transfer through the bridge for information flow.

Organizational structure may be a prime determinant of the value of trust as a resource. For example, trust may be more valuable to horizontally structured rather than vertically structured, more hierarchical, organizations. When tasks are spread across the organization horizontally, trust may prove to be a necessary feature for integration of activities, particularly in firms with social networks characterized by structural holes. To illustrate, biotechnology firms

allocate a relatively large portion of resources toward research and development (Rubin, 2001). Because research and development activities generally involve a number of highly specialized activities, each dependent on the other, high levels of trust may facilitate information flows among the involved actors. When there are structural holes bridged by trusted actors, information transfer has a conduit between otherwise disconnected research and development scientists and engineers. Interdependent workflows increase the value of trust as a resource.

On the other hand, vertically structured firms have more layers of organizational structure than horizontally structured firms. Workflows typically are not as interdependent, but rather can stand alone as discreet, independent activities. A manufacturing firm, for instance, may use assembly lines to manufacture its products. Although "downstream" workflows are dependent on "upstream" production, trust is not a crucial ingredient. Workers may lack trust in others in the assembly process, but this will not inhibit the production of the product as it moves along the assembly line. Activities are coordinated via formal mechanisms; trust among actors is not necessary for the successful operation of these mechanisms. Rather, the formal mechanisms—the rules and procedures governing work processes—supplant the need for trust.

Further, horizontally structured firms often utilize loose coupling of activities. Trust should enhance the success of loosely coupled systems by increasing cooperation, collaboration, and information sharing among actors, especially when those actors are disconnected. In this case, actors who fill the void by bridging structural holes are vital to information transfer between otherwise disconnected actors. High levels of trust in the structural hole bridge should serve to "connect" these disconnected individuals through their trust in the common linkCthe actor who bridges the structural hole. Vertically structured organizations are not as dependent on loose coupling of activities. Rather, they utilize closely interlocking processes. In this case, tightly coupled processes may preclude the need for trust.

Similarly, the continuum from mechanistic to organic organizational structures (Burns & Stalker, 1961) may provide contingencies upon which trust may or may not be a valuable resource. The highly formal and centralized mechanistic firm, as with the vertically structured firm, should not need the same level of trust as that needed by an organic structural arrangement. The formal rules and centralized hierarchy of the mechanistic structure supersedes the need for high levels of trust. The closer organizations come to the organic end of the spectrum, the higher the need for trust to facilitate decentralized and less formalized information transfer through informal social networks.

MANAGERIAL IMPLICATIONS AND FUTURE RESEARCH DIRECTIONS

The position of one who bridges a structural hole between otherwise disconnected groups is central to information transfer. Effective transfer is dependent on the "actor in the middle." Thus, the level of trust placed in this actor by both the provider and ultimate receiver of information is instrumental in moving the information along the continuum from the original source to the ultimate user. Any breakdown in the continuum—from information provider, to structural hole bridge, to receiver—will negatively impact the information transfer process from provider to receiver.

"Communication—the exchange of information and the transmission of meaning—is the very essence of a social system or an organization" (Katz & Kahn, 1978, p. 428). Initial trust and gradually formed trust serve as moderators of information transfer along this continuum, by moderating the accuracy and quantity of information transfer. When trust is high, information transfer is facilitated. Conversely, when trust is low, a decrease in information transfer is likely.

The development of both initial and gradual trust, in some circumstances and organizational structures, can affect the transfer of information within firms. Given the importance of trust in certain contexts, researchers should further explore the organizational environments and cultural elements that enhance trust formation. It is likely that some organizational environments and cultures more than others should enhance the development of trusting behaviors.

A potentially more important concern is the other side of this argument, namely, finding the cultural and environmental factors that reduce opportunistic behavior. Reducing the tendency for actors to act opportunistically should consequently raise trust levels as a secondary benefit.

Similarly, an interesting area for research is the formation of trust among different business units and divisions within a firm rather than considering individuals as the focal dyad. If differences in trust levels from one unit or division to another exist, what role does the overall corporate culture have in determining the genesis and development of this trust?

Low levels of organizational trust can be too easily overlooked as a cause of decreased information transfer within firms, particularly in those firms that rely in informal social networks for communication. By increasing trust where it is beneficial to do so, information transfer within firms can be enhanced.

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