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Justice served: Mitigating damaged trust stemming from supply chain disruptions

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ABSTRACT

This research examines the mitigation of damaged trust stemming from supplier-induced disruptions. We used the critical incident technique on 302 buying firms in China to capture two (one successful, one unsuccessful) supplier-induced disruptions (yielding a total of 604 incidents) to test our theorizing grounded in justice theory. We find evidence that different aspects of trust damage (ability, benevolence, and integrity) can be mitigated through the supplier's selective use of appropriate justice approaches (procedural, interactional, or distributive justice), which, in turn, foster relationship continuity intentions. Within this realm, we make a number of contributions. First, we find that procedural justice is the most effective mechanism (followed by distributive justice and interactional justice) to recoup the damage to buyers' trust in the suppliers' ability, benevolence, and integrity. Second, we find that mitigating damaged ability is the most powerful precursor (followed by recuperating damaged integrity) for locking in future business. Conversely, the mitigation of damaged benevolence is not found to affect future business intentions. Third, our post hoc results suggest that disruptions and consequent mitigation efforts pose relational threats as well as opportunities—yet the "double-edged" nature is affected by the "base" level of trust (i.e., the trust level prior to the disruption). Broadly, our study suggests that suppliers can overcome the negative relational repercussions of disruptions (that they caused) by employing well-developed, but nuanced, mitigation efforts and, in doing so, repair, solidify or even enhance the relationships.

1. Introduction

Although the importance of building and maintaining trust (the willingness of a party to be vulnerable to the actions of another party (Mayer et al., 1995)) has grown dramatically in the supply chain management research, mitigating damaged trust stemming from supplier-induced disruptions (e.g., product flow delay/stoppage due to supplier's lack of capacity, quality problems, etc.) has received little attention. The November 2012 fire in a Bangladesh clothing factory, for example, interrupted manufacturing for and deliveries to its many U.S.-based customers including Wal-Mart Stores Inc., Sears Holdings Corp. and The Walt Disney Co., among others (Alam, 2012). Likewise, a General Motors truck plant in Louisiana was temporarily closed down for its Japanese suppliers' unable to provide vital parts after the 2011 Japanese earthquake and tsunami (Lohr, 2011). This is surprising for at least two reasons. First, supply chain disruptions have become omnipresent (Accenture, 2006; Forum, 2008) and have been found to have severe negative repercussions (Craighead et al., 2007; Hendricks and Singhal, 2003, 2005). For example, a survey conducted by MFG.com in 2012 found that 42% of the U.S. companies considered managing supply chain disruptions as part of their 'normal' supply chain activities (MFG.com, 2013). Second, trust is a primary component of supply chain management (Ireland and Webb, 2007; Ketchen and Hult, 2007). The distress and uncertainty brought on by supplier-induced disruptions could be profoundly unsettling for

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buyers who have invested their effort, reputation, and confidence in the buyer–supplier relationships (Craighead et al., 2007; Hendricks and Singhal, 2003, 2005). As a result, buyers may manifest their loss of trust in terms of reduced willingness to display trust-informed behaviors (Dirks and Ferrin, 2001) or even withdrawal from the relationships (Hibbard et al., 2001).

This research is the first to examine whether and how damaged trust stemming from supply chain disruptions can be recouped and, in doing so, makes several contributions.[3] We couch our investigation in the context of supplier-induced disruptions, a topic pertinent to managing supply chain disruptions (Hendricks and Singhal, 2005; Park et al., 2013). By bridging research on trust, service recovery and organizational justice, we propose that the damage to buyers' trust caused by supplier-induced disruptions can be lessened through suppliers' selective use of appropriate justice approaches (procedural, interactional, or distributive justice). Note that, extant research on alleviating damaged trust as 'a critical management competency' (Gillespie and Dietz, 2009, p. 127) has primarily been theoretical and only offers scarce evidence on how trust damage can be managed after the occurrence of negative incidents (Dirks et al., 2009). Further, mitigating this damaged trust may be more difficult and requires different strategies than trust building (Kim et al., 2006). Our research also departs from service recovery (Krishna et al., 2011; Miller et al., 2000) as the relationships between individual customers and their service providers are inherently different from those between buyers and suppliers due to the fact that firms depend on a limited number of continuous business relationships (Hakansson and Snehota, 2002). Furthermore, we propose that alleviating trust damage will help build continuity intentions (buyers' willingness to extend the relationship in the future with an indeterminate end point (Wang et al., 2010)). In brief, this research offers new insights that successful disruption resolutions may be a means of creating value (Hult et al., 2007; Ketchen and Hult, 2011) and enabling a better managed supply chain that has been found to be a competitive differentiator (Swink et al., 2010).

In the next section, we theoretically ground our a priori conjectures relative to the reduction of trust erosion stemming from supplier-induced disruptions. Specifically, we use justice theory (Colquitt and Rodell, 2011; Greenberg, 1990) as the primary theoretical underpinning to examine the various contingencies of the "justice resolution—mitigation of trust damage" situation. The data collection method and procedure based on critical incident technique or CIT (Flanagan, 1954) are described. Empirical tests of the hypotheses using hierarchical linear modeling are presented. Finally we discuss the results, limitations, and implications for management and future research.

2. Theoretical foundation and hypotheses

2.1. Supply chain disruptions, trust damage, and justice theory

Mayer et al. (1995) indicate that trust reflects a belief (from a buyer in our context) about another party's (supplier's) ability, benevolence, and integrity.[4] Following Mayer et al. (1995), we define *ability* as the skills, capabilities, and characteristics that allow a supplier to have influence in buyer–supplier relationships, *benevolence* as the extent to which a supplier is believed to exhibit kindness, aside from an egocentric profit motive, and *integrity* as the buyer's perception that the supplier adheres to a set of ethical principles that the buyer finds acceptable. Therefore, unmet expectations (due to supplier-induced disruptions) could alter the belief in the supplier's ability, benevolence, and integrity and thus be the source of trust damage (Kramer, 1999).

According to Dirks et al. (2009), trust damage occurs when a transgression causes trust—a positive state—to deteriorate, and alleviating trust damage centers on the improvement of the trusting beliefs that have been lowered by the trust violation incidents (i.e., supply chain disruptions in this study). While providing an exhaustive list of trust strategies is beyond the scope of this study, we focus on the organizational justice approaches that suppliers may apply when dealing with trust erosion stemming from supply chain disruptions (Greenberg, 1990). This is because when supplier-induced disruptions occur, buyers often lack direct, explicit information about suppliers' trustworthiness. When uncertainty is salient, buyers would fall back on perceptions of suppliers' fairness to decide whether to trust suppliers or not (Colquitt and Rodell, 2011; Van den Bos, 2001). Once buyers have established a judgment, perceived fairness will guide the interpretation of subsequent events, which, in turn, restore trust (Lind and Van den Bos, 2002; Van den Bos et al., 1997). Hence, we propose that the organizational justice plays a critical role in dealing with damaged trust after supply chain disruptions.

2.2. Mitigating trust damage with justice approaches

In supply chains, buyers face a "fundamental social dilemma" wherein cooperating with suppliers can lead to better outcomes but also can increase the risk of exploitation. In an effort to cope with this dilemma, perceived fairness is used as a means to determine whether or not to cooperate (Colquitt and Rodell, 2011). According to organizational justice theory, the use of fairness procedures, the experience of fair interactional process, and the delivery of fair outcomes has a variety of positive effects in organizations (Lind and Van den Bos, 2002) as well as in societies (Nozick, 1974; Rawls, 1999, 2001). Furthermore, Colquitt and Rodell (2011) affirm that justice perceptions can be antecedents to trust because information on justice is encountered earlier (and is more interpretable) than information on trust.

2.2.1. Procedural justice and trust damage

Procedural justice refers to perceived fairness of the procedures employed by the suppliers to resolve supply chain disruptions, while the procedures are normally assessed along the rules such as consistency, bias-suppression, accuracy, correctability, representativeness, and ethicality (Leventhal, 1980). For example, a supplier launches a near real-time, appropriate resolution procedure after a supply-chain disruption to minimize the disturbance to its buyer's procurement cycle, and reduce the possibility of future conflicts. In general, procedural justice promotes a flourishing and fruitful environment for continuation of the relationship through enhanced coordination, learning, and routinization (Luo, 2008).

Procedural justice speaks to how suppliers allocate resources and thus is related to buyers' cognitive, affective, and behavioral reactions toward suppliers (Cohen-Charash and Spector, 2001). It requires suppliers to adhere to the consistency rule, stating that allocation procedures should be consistent across persons and over time; and the accuracy rule, referring to the goodness of the information used in the allocation process (Leventhal, 1980). In doing so, suppliers help to create a sense of professionalism and regard, leading to buyers' positive impression about suppliers' ability. Moreover, procedural justice allows buyers to learn about suppliers' concerns through following the bias-suppression rule, stating that personal self-interests of decision-makers should be prevented from operating during the allocation process (Leventhal, 1980). Procedural justice also adheres to the correctability rule,

[3] We use the terms supplier-induced disruptions and supply chain disruptions interchangeably in this research.

[4] We adapt the theory to our context—buyer and supplier—as opposed the trustor and trustee that is often used in the trust literature.