

This is a repository copy of *Trust and distrust in buyer*–supplier relationships: an exploratory experimental study.

White Rose Research Online URL for this paper: <u>https://eprints.whiterose.ac.uk/201885/</u>

Version: Accepted Version

Article:

Chen, J. orcid.org/0000-0001-6625-2516 and Lewis, M. orcid.org/0000-0002-7620-1891 (2024) Trust and distrust in buyer–supplier relationships: an exploratory experimental study. International Journal of Operations & Production Management, 44 (2). pp. 515-537. ISSN 0144-3577

https://doi.org/10.1108/ijopm-12-2022-0773

© 2023, Emerald Publishing Limited. This author accepted manuscript is provided for your own personal use only. It may not be used for resale, reprinting, systematic distribution, emailing, or for any other commercial purpose without the permission of the publisher.

Reuse

Items deposited in White Rose Research Online are protected by copyright, with all rights reserved unless indicated otherwise. They may be downloaded and/or printed for private study, or other acts as permitted by national copyright laws. The publisher or other rights holders may allow further reproduction and re-use of the full text version. This is indicated by the licence information on the White Rose Research Online record for the item.

Takedown

If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing eprints@whiterose.ac.uk including the URL of the record and the reason for the withdrawal request.



eprints@whiterose.ac.uk https://eprints.whiterose.ac.uk/

Trust and distrust in buyer-supplier relationships:

An exploratory experimental study

Jie Chen*

Leeds University Business School

University of Leeds

Leeds, LS2 9JT, the UK

E-mail: j.chen2@leeds.ac.uk

Michael Lewis

School of Management

University of Bath

Bath, BA2 7AY, the UK

E-mail: m.a.lewis@bath.ac.uk

*Corresponding author

Trust and distrust in buyer-supplier relationships:

An exploratory experimental study

Abstract

Purpose – Although trust and distrust as distinct phenomena are of increasing interest to OSCM scholars, they have been inconsistently conceptualized and there is a lack of evidence regarding the distinctiveness of their respective antecedents. In this study therefore, we focus on one of the most widely accepted dimensions of trust, benevolence, to help more fully analyse (supplier) trust and distrust (in a buyer) and explore the effects of relational norms and structural power as specific antecedents.

Design/methodology/approach – The study employed a scenario-based role-playing experimental method. The proposed hypotheses were tested using structural equation modeling.

Findings – The results, that while relational norms increase supplier trust, power asymmetry can simultaneously generate supplier distrust, support the coexistence of supplier trust and distrust in a buyer-supplier relationship.

Originality/value – This study is one of the first to explore the antecedents of supplier trust and distrust in a buyer. It demonstrates that supplier trust and distrust can coexist when the relationship is characterized by relational norms and asymmetrical power. This opens important questions for future trust-distrust research.

Keywords

Trust, Distrust, Power, Dependence, Relational norms, Antecedents, Buyer-supplier relationships

1. Introduction

Trust as a critical factor in buyer-supplier relationships has been the subject of extensive research (e.g., Shevchenko *et al.*, 2020; Faruquee *et al.*, 2021; Xu *et al.*, 2022). Recently, operations and supply chain management (OSCM) researchers have joined a long-standing debate (Lewicki *et al.*, 1998; Schoorman *et al.*, 2007; Saunders *et al.*, 2014) exploring the concept of *distrust* (Mirkovski *et al.*, 2019; Schiffling *et al.*, 2020; Han *et al.*, 2021) – not as one end of a single trust construct (Rotter, 1971) but – arguing it to be a distinct, coexistent concept (Connelly *et al.*, 2012; Lumineau, 2017; Kostis *et al.*, 2021). This is far from just a scholarly concern. Japanese automotive companies and their suppliers for example, well-known for trusting relationships, also seem to simultaneously distrust via the active use of various 'hostage arrangements' (e.g., equity holding) as safeguards against opportunism (Ahmadjian and Oxley, 2006). This trust/distrust debate has significant OSCM implications. If buyers/suppliers can be simultaneously trusted *and* distrusted, then efforts to develop trust may not eliminate distrust. Equally, efforts at reducing distrust may not create trust and its subsequent impacts (increased knowledge transfer, cooperation, etc.).

To date however, there are important limitations in the literature including, critically, inconsistent conceptualization (Guo *et al.*, 2017). Trust, positive expectations regarding another' conduct, is widely recognized as being based on varied dimensions with three in particular to the fore (Mayer *et al.*, 1995; Lewicki *et al.*, 1998): *ability*, whether the trustee has the knowledge, skills and competence to fulfil requested tasks; *benevolence*, whether the trustee cares for the trustor's interests and has good intentions toward the trustor; and *integrity*, whether the trustee adheres to an acceptable set of principles. In contrast, although distrust is defined in reciprocal terms of trust as 'negative expectations' (Lewicki *et al.*, 1998, p. 439), its dimensions are less clear and rarely examined (Guo *et al.*, 2017). Do the dimensions of trust

and distrust 'mirror' each other (e.g., Deutsch, 1958; McKnight and Chervany, 2001; Dimoka, 2010) or are they different (e.g., Sitkin and Roth, 1993; Cho, 2006; Raza-Ullah, 2021)? Furthermore, for trust and distrust to coexist requires them to have separate and distinct antecedents (Lewicki *et al.*, 1998), an area where there has been limited research (Mal *et al.*, 2018; Mirkovski *et al.*, 2019).

Given this context, in order to analyse the extent of the trust/distrust coexistence and explore their antecedents, our work sets out a deliberately narrowed model of supplier trust and distrust, focusing on benevolence. It has been acknowledged that competence-based trust and distrust can coexist because competence is domain-specific (Mayer et al., 1995) so that a buyer can be trusted to perform one task while simultaneously distrusted to undertake another (Lewicki et al., 1998). However, it is less clear whether trust and distrust can coexist beyond the competence domain (Schoorman et al., 2007). Compared to integrity which is based on societal principles (e.g., honesty), perceptions of benevolence are more likely to be context dependent (Moore et al., 2019). For example, a buyer may tell a supplier that they are satisfied with the progress of a joint project (with the intent to benefit the relationship in the long-run), even if they have concerns. This perhaps violates the principle of honesty but indicates benevolence. Indeed, studies find that prosocial lies harm integrity-based trust but surprisingly, increase benevolence-based trust (Levine and Schweitzer, 2015). As such, we argue that perceptions of (buyer-supplier) benevolence are more likely to manifest trust-distrust duality and therefore focus on benevolence in this study. We define supplier trust as a supplier's belief that a buyer cares for the supplier's interests and welfare (Kumar et al., 1995). Our definition of supplier distrust builds on key characteristics identified in the literature, as a supplier's suspicions (Deutsch, 1958) and vigilance (Lewicki et al., 1998) over a buyer's intention to harm (Grovier, 1994; Kramer, 1999).

Similarly, we do not attempt a comprehensive model of antecedents but rather investigate one behavioural (relational norms) and one structural (power) mechanism (Kaufmann et al., 2022). Relational norms refer to shared expectations about behaviours of exchange partners (Cao and Lumineau, 2015) that are directed toward the wellbeing of the relationship (Heide and John, 1992). Norms are based on *recurrent* behaviours (e.g., information sharing) in a relationship; expectations are therefore developed on what behaviour 'should be' in similar situations (Opp, 1982, p. 141). As such and by promoting mutuality of interest (Heide and John, 1992), relational norms are a dominant, non-contractual, behavioural governance mechanism in buyer-supplier exchanges, especially as safeguard against opportunism (Macneil, 1980; Tangpong et al., 2010; Paulssen et al., 2016). A central structural mechanism in buyer-supplier relationships is power (Kaufmann et al., 2022). Power refers to the ability of one party to influence or control another's actions (Hunt and Nevin, 1974). Structural power resides in the dependence structure of an exchange relationship (Emerson, 1962). Numerous studies have indicated relational norms and structural power are critical to understanding trust in buyersupplier relationships (e.g., Kumar et al., 1995; Zhang et al., 2003; Kim and Fortado, 2021; Xu et al., 2022), but we have no equivalent insights regarding distrust. Taken together, we ask this research question: What are the effects of relational norms and structural power on supplier trust and distrust?

This study contributes to the literature of buyer-supplier relationships in two important ways. First, by demonstrating their distinct antecedents, the study supports the coexistence of supplier trust and distrust in a buyer-supplier dyad. Second, focusing on benevolence, the study sheds light on the distinct nature of benevolence trust and distrust: the antecedents of trust are primarily *relational*, whereas distrust is determined by *exchange structures*. As such, our study highlights that efforts to build trust, especially if centred on relationship-building, etc., may not eliminate distrust in supply settings where there is asymmetrical buyer-supplier power. This study makes an initial attempt to explore antecedents of benevolence trust and distrust, adding breadth to the conversions on trust-distrust relationships and encouraging further research. We conclude the paper with suggestions for future work.

2. Literature review

Trust – typically conceptualized as positive expectations regarding another's ability (competence, knowledge, skills), benevolence (intentions, motives), and integrity (adheres to a set of principles) (Mayer *et al.*, 1995) – has long been identified as a key constituent of effective exchange relationships (Barney and Hansen, 1994; Zaheer and Venkatraman, 1995). In OSCM studies, trust has been shown to lead to higher supply chain performance, such as logistics efficiency (Ha *et al.*, 2011), innovation (Kulangara *et al.*, 2016), supply chain integration (Forslund and Jonsson, 2009), and supply chain resilience (Fan *et al.*, 2020; Faruquee *et al.*, 2021). At the same time, some studies have warned about potential negative consequences of 'too much trust' (Villena *et al.*, 2019), including the risk of over-reliance on a fragile mechanism (Gargiulo and Ertug, 2006), and the conditions for over-embeddedness (Dyer *et al.*, 2018).

Compared to the considerable volume of studies on trust, distrust has been the subject of much less research. Distrust is commonly defined in reciprocal terms of trust as negative expectations (Lewicki *et al.*, 1998; Dimoka, 2010; Lumineau, 2017; Raza-Ullah and Kostis, 2020), but its specificity or dimensionality is rarely examined (Guo *et al.*, 2017). Is it a pervasive suspicion that is likely to 'generalize to other ... interactions or exchanges' (Zucker, 1986, p. 102)? Or does it, like trust, comprise different facets? Arguably, the central basis of distrust is suspicion (Deutsch, 1958), which reflects concerns over the genuineness of another's behaviour or the

other party's intention to harm (Grovier, 1994; Kramer, 1999). Distrust is commonly associated with negative outcomes, such as information distortion (Kramer, 1994), stigmatization (Sitkin and Roth, 1993), contracting complexity (Connelly *et al.*, 2012), and conflict escalation (Bijlsma-Frankema *et al.*, 2015). Mirroring the 'dark side' of trust stream of work, emerging studies also suggest positive effects of distrust in interfirm relationships (Schiffling *et al.*, 2020; Han *et al.*, 2021; Kostis *et al.*, 2021; Raza-Ullah, 2021).

Although distrust is viewed as the opposite of trust (Lewicki et al., 1998), the precise link between trust-distrust relation is the subject of an ongoing debate (Bigley and Pearce, 1998; Schoorman et al., 2007; Saunders et al., 2014). In part this is definitional. If trust and distrust are just two opposite ends of a single continuum (one-construct view) (Rotter, 1971), where 'high trust' means 'low distrust' and vice versa, then further definitional work is unnecessary. If however, trust and distrust are two related but distinct concepts (two-construct view) (Lewicki *et al.*, 1998), which suggests that trust spans a continuum ranging from low to high trust, and distrust also spans a continuum ranging from low to high distrust (Guo et al., 2017), then both phenomena – and the relation between them – should be the subject of much more research (Macduffie, 2010; Lumineau, 2017; Raza-Ullah and Kostis, 2020). We based our interest in the two-construct view on a number of sources. Numerous psychological studies for example, show that positive- and negative-valent attitudes - such as love and hate, like and dislike, and other opposing sentiments - can coexist (Watson and Tellegen, 1985; Priester and Petty, 1996). In organizational settings, relationships are multifaceted and multiplex, and should therefore be compartmentalized and segmented (Lewicki et al., 1998). It is also argued that trust and distrust are affectively distinct (Robinson et al., 1991). For example, trust is characterized by faith, confidence, and assurance, whereas distrust is characterized by fear, watchfulness, and vigilance (Lewicki et al., 1998).

However, accepting this two-construct view raises additional questions. A critical one is whether trust and distrust can simultaneously occur and coexist (Schoorman et al., 2007). Empirical studies offer conflicting evidence. For example, Saunders et al. (2014) find that trust and distrust rarely occur simultaneously and in most cases, trust precludes the occurrence of distrust. In contrast, Adler (2007) finds support for simultaneous trust and distrust. Despite evidence that trust and distrust point to asymmetric outcomes, for example, on contractual governance (Connelly et al., 2012), coopetition (Schiffling et al., 2020), and interfirm collaboration (Han et al., 2021), understanding of their relationship is hampered by inconsistent conceptualization (Guo et al., 2017). Some literature argues trust and distrust have the same dimensions, which 'mirror' each other (McKnight and Chervany, 2001). For example, Deutsch (1958) posits that trust and distrust rest on the dimension of benevolence. Dimoka (2010) suggests that trust and distrust rest on the dimensions of benevolence and credibility (on competence, honesty, and reliability). Conversely, others argue that distrust and trust have asymmetrical (potentially conflicting) dimensions. For example, Sitkin and Roth (1993) propose that trust is associated with competence and distrust with value incongruence, whereas Cho (2006) finds distrust is associated with incompetence and trust is primarily associated with benevolence. Inconsistent conceptualization undermines building coherent and cumulative insights on the nature of trust-distrust relationship.

The coexistence of trust and distrust also relies on separate and distinct antecedents (Lewicki *et al.*, 1998). This is again related to the underlying conceptualization. If trust and distrust rest on different dimensions; for example, trust is based on competence and distrust is based on lack of benevolence (Seckler *et al.*, 2015), they would inevitably have distinct antecedents. The critical question is whether trust and distrust have distinct antecedents when they rest on the same dimension(s). Yet to date, this is rarely examined with only a few exceptions and the

results are mixed. For example, considering trust and distrust as 'mirror' concepts on the dimensions of competence, benevolence and integrity, Mirkovski *et al.* (2019)'s case study finds that social bond increases trust and decreases distrust, supporting the one-construct view. Similarly, Mal *et al.* (2018)'s case study finds same factors (e.g., product characteristics) inform both brand trust and distrust, implying that they are polar opposites. In contrast, Komiak and Benbasat (2008)'s study on e-commerce finds the trust and distrust-building processes are different, which lends support to the two-construct view. More empirical studies are needed to explore whether trust and distrust that rest on the same dimension(s) have separate and distinct antecedents.

3. Hypotheses development

Prior research has indicated relational norms and structural power are critical to understanding supplier trust (e.g, Zhang *et al.*, 2003; Kim and Fortado, 2021), but we lack insights on how they would affect supplier distrust. However, developing asymmetric hypotheses on trust and distrust presents a conceptual challenge, in part because casual dynamic of distrust is yet to be defined (Bijlsma-Frankema *et al.*, 2015). To our best knowledge, no asymmetric antecedents of trust and distrust in interfirm relationships have been proposed or empirically tested to date. Given limited knowledge and that 'specific directionality' of asymmetry is 'difficult to predict' (Cho, 2006, p. 27), we adopt an exploratory approach and develop hypotheses using the mirrored assumption of supplier distrust as 'negative' trust (Lewicki *et al.*, 2006, p. 1000).

3.1. Behavioural antecedent: Relational norms

Relational norms are an important behavioural mechanism in the emergence of supplier trust. Norms are expected behaviour shared by exchange partners as guidelines for standards of conduct (Lipset, 1975; Cao and Lumineau, 2015). In developing buyer-supplier relationships, adopting norms is a critical step to set the ground for future exchange (Dwyer *et al.*, 1987). Relational norms were first used to differentiate discrete transactions from relational exchange (Macneil, 1980); the former is one-off, or short-term orientated, whereas the latter prolongs and requires efforts from both parties to manage the relationship as a unity. Firms can demonstrate relational norms in a wide range of behaviours, particularly flexibility, solidarity and information exchange (Heide and John, 1992; Griffith and Myers, 2005; Tangpong *et al.*, 2010).

In buyer–supplier relationships, researchers have offered compelling arguments that relational norms can increase supplier trust (Doney and Cannon, 1997; Zhang *et al.*, 2003; Xu *et al.*, 2022). For example, a buyer being flexible and willing to make adjustments – perhaps putting contracts aside and making changes – can create a stock of goodwill (Aulakh *et al.*, 1996). A buyer proactively providing information that might affect the supplier's operations demonstrates a supportive attitude and care for the interests of the supplier (Heide and John, 1992). A buyer engaging the supplier in problem-solving and decision-making expresses sentiments of joint responsibility and a commitment to the mutual goals in the relationship (Cannon *et al.*, 2000). As such, relational norms reflect that partners are working cooperatively together to achieve mutual goals (Griffith and Myers, 2005). Consequently, a supplier will have more confidence in the benevolent intents of the buyer (Doney and Cannon, 1997) and therefore, trust the buyer.

Conversely, relational norms could reduce supplier distrust. Distrust arises when a supplier is suspicious about a buyer's intentions and motives (Mellinger, 1956; Deutsch, 1958). A distrusting supplier would expect that the buyer is 'out to harm' (Bijlsma-Frankema *et al.*, 2015). Relational norms essentially prescribe stewardship behaviour (Heide and John, 1992),

which can relieve the suspicion. For example, if a supplier needs information from a buyer to improve its own production planning, the buyer can choose not to share (as it is not an obligation); however, if the buyer shares the information, this demonstrates the buyer's intention to help the supplier, rather than to harm. Similarly, if due to disruptions the supplier cannot deliver an order, the buyer could hold the original terms and the supplier will have to pay the penalty. However, if the buyer is willing to make adjustment, such behaviour would suggest the buyer has no intention to take the advantage of the supplier (even if the situation allows). In the automobile industry, as Toyota is one of the largest automobile company in the world, their suppliers could be likely to fear for exploitation; however, Toyota has long maintained assistance for helping their suppliers to solve various problems, which is viewed by their suppliers as a signal that Toyota does not have the opportunistic intent (Dyer and Chu, 2011). In brief, a buyer behaves as prescribed in relational norms sending the message that they have no intention to harm, which can reduce the supplier's suspicion. Based on the above discussion, we hypothesize:

H1. Relational norms are a) positively related to a supplier's trust in a buyer, and b) negatively related to a supplier's distrust in a buyer.

3.2. Structural antecedent: structural power

Power plays a central role in supply chain management (Ireland and Webb, 2007). It affects opportunism (Huo *et al.*, 2019), sustainable supply management (Dabhilkar *et al.*, 2016), outsourcing contracts (Morgan *et al.*, 2018), perception of justice (Karaosman *et al.*, 2023), collaborative performance (Roy *et al.*, 2023), to name a few. Based on power-dependence theory (Emerson, 1962), the power of Firm A over Firm B is equal to the dependence of B upon A. In buyer-supplier relationships, buyer/supplier dependence is typically indicated by

the difficulty of replacement and the cost of switching to an alternative supplier/buyer (Joshi and Arnold, 1997). Power based on dependence is a form of *structural* power, which is different from the *use* of power as a behavioural choice on whether to use or not use the power (Molm, 1990; Chen *et al.*, 2016; Huo *et al.*, 2019). In this study, we examine power as a structural concept.

To date, OSCM research has largely examined the effects of power/dependence asymmetry (e.g., Fan *et al.*, 2020; Kim and Fortado, 2021; Pu *et al.*, 2023). To more fully explore the effects of the varying levels of buyer dependence and supplier dependence, we use Cox (2001)'s typology of power relationships: independent, buyer dominance, supplier dominance, and interdependent. The power relationship is at the heart of many concepts in supply management (e.g., Kraljic, 1983) and is critical to understanding of buyer-supplier relational and performance outcomes (Cox, 2001). Yet, studies based on the four exclusive types of power relationships are sparse.

An independent relationship exists when a buyer and a supplier equally depend on each other at a low level. This type of relationship requires minimum trust as neither party is highly dependent on the other and consequently, there are few vulnerabilities for the other to exploit (Barney and Hansen, 1994). We therefore use this type of relationship as the baseline group in our analysis and differing effects of structural power will be compared to this group to indicate how supplier trust and distrust are affected.

Buyer dominance exists when a supplier is more dependent on a buyer than the buyer is dependent on the supplier. In this relationship, since the buyer is less dependent on the supplier, even if the buyer exploits the supplier and the supplier retaliates, the loss of the supplier is greater than that of the buyer (Kumar *et al.*, 1995). Dependence asymmetry enables the more powerful party to enforce exploitation and negative consequences on the weaker party (Gulati and Sytch, 2007; Handley *et al.*, 2019; Fan *et al.*, 2020). In a buyer-dominated relationship, since the supplier is power-disadvantaged and cannot prevent the buyer from opportunism, the buyer may be attempted to exploit the supplier. Consequently, the supplier in this relationship is less/more likely to trust/distrust the buyer than a supplier in an independent relationship. Hence, we hypothesize:

H2. In a buyer-dominated relationship, a) a supplier's trust in a buyer is lower than that in an independent relationship, and b) a supplier's distrust in a buyer is higher than that in an independent relationship.

Supplier dominance exists when a supplier is less dependent on a buyer than the buyer is dependent on the supplier. In this relationship, since the buyer is more dependent on the supplier, if the buyer exploits the supplier and the supplier retaliates, the loss of the buyer is greater than that of the supplier (Kumar *et al.*, 1995). Therefore, the buyer would not dare to behave in such a manner; the power advantage that supplier holds will restrain the buyer from behaving opportunistically (Handley *et al.*, 2019). As such, the supplier is more/less likely to trust/distrust the buyer than a supplier in an independent relationship. Hence, we hypothesize:

H3. In a supplier-dominated relationship, a) a supplier's trust in a buyer is higher than that in an independent relationship, and b) a supplier's distrust in a buyer is lower than that in an independent relationship.

An interdependent relationship exists when a buyer and a supplier are both highly dependent on each other. Since both parties have a high stake in this relationship (Gao *et al.*, 2005; Gulati and Sytch, 2007), they could be motivated to build trust to facilitate collaboration (Kwon and Suh, 2004). Moreover, mutual dependence also enables each party having equal power to damage the other (Kumar *et al.*, 1995), which further constrains exploitation. As such, a supplier in an interdependent relationship is more/less likely to trust/ distrust the buyer than a supplier in an independent relationship. Hence, we hypothesize:

H4. In an interdependent relationship, a) a supplier's trust in a buyer is higher than that in an independent relationship, and b) a supplier's distrust in the buyer is lower than that in an independent relationship.

3.3. Interaction between relational norms and structural power

Although relational norms and structural power are two separate influencing mechanisms, studies in buyer–supplier relationships suggest that they could interact and jointly determine the outcomes (e.g., Joshi and Arnold, 1997; Kim and Choi, 2018). A key assumption for the interaction effect is that the presence of structural power does not equate to the use of power (Molm, 1990). That is, even if a powerful buyer can be attempted to exploit a supplier, the buyer can choose not to use it. Japanese automobile companies are an example; the powerful companies provided support (e.g., total quality management, lean manufacturing) to their suppliers, which increased trust in the relationship (Sako, 1992). Indeed, dependence only provides a basis for firm interactions, but they are not 'imprisoned' by it (Kumar *et al.*, 1995, p. 353); dyads with identical power structure may behave very differently due to other factors (e.g., strategies, values, or objectives).

We therefore expect that the effects of structural power on trust/distrust will be moderated by relational norms. Although structural power could affect the underlying inclinations of a supplier to trust/distrust the buyer, this attitude can be affected by how the buyer actually behaves in the interactions. Relational norms indicate collaborative efforts in interactions and infuse a sense of unity into the relationship (Heide and John, 1992); therefore, they may harmonize the predisposed supplier trust/distrust. For example, in a buyer-dominated relationship, although the supplier is less/more likely to trust/distrust this buyer, if this buyer demonstrates supporting and collaborative behaviours, this may assuage the supplier's concern on buyer opportunism (Joshi and Arnold, 1997; Tangpong *et al.*, 2010). On the other hand, in a supplier-dominated/interdependent relationship, in which the supplier is more/less likely to trust/distrust the buyer, if the buyer is also collaborative and supportive, this could create a synergic effect to further elicit/alleviate supplier trust/distrust. We therefore hypothesize:

H5. When the relational norms are higher, a) the negative effect of a buyer-dominated relationship on supplier trust is weaker, and b) the positive effect of a buyer-dominated relationship on supplier distrust is weaker.

H6. When the relational norms are higher, a) the positive effect of a supplier-dominated relationship on supplier trust is stronger, and b) the negative effect of a supplier-dominated relationship on supplier distrust is stronger.

H7. When the relational norms are higher, a) the positive effect of an interdependent relationship on supplier trust is stronger, and b) the negative effect of an interdependent relationship on supplier distrust is stronger.

3. Method

To test the hypotheses, we applied a scenario-based role-playing experiment. In the experiment, participants were asked to assume a pre-defined role, review a descriptive scenario, and respond to a series of questions (Rungtusanatham *et al.*, 2011). The experimental method is considered as the golden standard for establishing causality (Lonati *et al.*, 2018). The scenario-based method is particularly recommended for studying intentions and attitudes because it can capture real-time decisions (Aguinis and Bradley, 2014). This method is especially effective for this study because it can help avoid social desirability concerns on distrust (Guo *et al.*, 2017).

3.1. Scenario development

The written scenarios comprise a common module that provides contextual information and is invariant across all scenarios and an experimental-cues module that includes factors of interest that are systematically manipulated across versions (Rungtusanatham *et al.*, 2011). We have two key factors in the study, namely relational norms and structural power. Since the four types of structural power are based on varying levels of supplier dependence and buyer dependence (Emerson, 1962), we used a 2 (supplier dependence: high/low) x 2 (buyer dependence: high/low) x 2 (relational norms: high/low) experimental design, resulting in eight scenarios. We adopted existent vignettes (Joshi and Arnold, 1997; Tangpong *et al.*, 2010; Chen *et al.*, 2016) as recommended (Rungtusanatham *et al.*, 2011). The scenario described a situation in which a customer account manager of a midsize manufacturer is considering their relationship with a regular buyer. Supplier/buyer dependence was manipulated based on the difficulty in finding alternative buyers/suppliers and the cost of switching (Joshi and Arnold, 1997). Relational norms were manipulated based on the three behavioural aspects that widely accepted in the literature: flexibility, information sharing, and solidarity (Heide and John, 1992; Griffith and Myers, 2005; Tangpong *et al.*, 2010).

Although we adopted tested vignettes, we nevertheless conducted an online pretest with 20 managers (60% Male; 65% between age 35-54; 95% were in middle- and top- level managerial positions in their working roles) recruited by Qualtrics to ensure the realism of the scenario, since we slightly changed the context. Our context is supplier trust/distrust in a buyer, whereas Joshi and Arnold (1997) and Tangpong *et al.*, (2010)'s context is a buyer's perception of supplier opportunism. We used two items to check the realism (Dabholkar, 1994) ('To what extent you consider the scenario to be believable? To what extent you could imagine yourself in the situation?'). The results (average rating of 4.33 on a six-point Likert scale, SD = 0.76) demonstrated the participants considered the scenario realistic. A summary of the scenarios and experimental manipulations is shown in Appendix 1.

3.2. Dependent variables

The items used to measure the dependent variables are reported in Table 1. We used four items adapted from Mayer and Davis (1999) and Kumar *et al.* (1995) to measure supplier trust. These four items focus on the benevolence dimension of interorganizational trust, which is anchored on the belief that an exchange partner cares for the interests of the other and will take them into account in decision-making (Carson *et al.*, 2003; Krishnan *et al.*, 2016).

INSERT TABLE 1 ABOUT HERE

The measurement for supplier distrust is based on its conceptualization in the literature (Carpenter, 2018). We grounded the operationalization on three considerations. First, we took care not to measure distrust using reversed items or reverse scales of trust because this cannot

capture trust and distrust being separate concepts (Schoorman *et al.*, 2007). Second, we attempted to capture the notion of suspicion, a central cognitive component of distrust (Deutsch, 1958). Third, we attempted to highlight the affective side of distrust as 'vigilance' and 'watchfulness' (Lewicki *et al.*, 1998). Taken together, three items were used to measure supplier distrust.

Following extant studies (e.g., Kim and Choi, 2018), participants responded to these items using a six-point Likert scale (1= 'Strongly Disagree' to 6 = 'Strongly Agree'). Since six-point scale can eliminate neutral responses, it may improve face validity of measures (Saris and Gallhofer, 2007). Psychometric studies also report no systematic differences between data using a six-point scale and those using more a conventional five- or seven-point scale (Dixon *et al.*, 1984; Wyatt and Meyers, 1987).

3.3. Participants

We recruited 258 participants in the experiment via Qualtrics online panel. Using panel service is used in studying buyer-supplier relationships (e.g., Verghese *et al.*, 2020; Eckerd *et al.*, 2021; Wang *et al.*, 2022) and studies have found such samples can generate high quality data as using 'traditional' samples (Porter *et al.*, 2019). We asked Qualtrics to target managers, because their attitudes on trust/distrust could be more consequential to the exchange relationships since they are in decision-making roles. We also requested all participants were UK-based to avoid inconsistent English language fluency (Aguinis *et al.*, 2021). The participants were 48% male and 52% female, 26.4% were younger than 34 years, 30.6% were between age 35–44, 26% were between age 45–54, and 17.1% were older than 55 years. In particular, over 78% of them were in a middle- or top-level managerial position in their current jobs; these senior managers would bring their experience into their judgement in the scenario, which arguably can add more

realism to our experiment. We applied a between-subjects design in which managers were randomly assigned to one single treatment.

3.4. Validity and reliability

Given the concern on whether trust and distrust are distinct concepts (Schoorman *et al.*, 2007), we evaluated the reliability and validity of both constructs by first conducting exploratory factor analysis using SPSS. The Kaiser-Meyer-Olkin value was 0.73, exceeding the recommended value of 0.6 (Kaiser, 1970), and Bartlett's test of sphericity was significant at p<0.001; both measures support the factorability of the data (Carpenter, 2018). We performed principal axis factoring analysis with Promax rotation as recommended (Carpenter, 2018) and all items were loaded onto the expected factors without significant cross-loading.

Since the exploratory factor analysis supports the measurement model for trust and distrust, we further conducted confirmatory factor analysis via Mplus to assess its reliability and validity. The model fit index supports the measurement model ($\chi 2 = 26.90$, df = 12, $\chi 2/df = 2.24$, CFI = 0.98, TLI = 0.97, RMSEA = 0.07, SRMR = 0.04). The convergent validity is supported by each item loading significantly on its specified factor. We computed coefficient alphas (α), composite reliabilities (CR), and average variances extracted (AVE) for each construct (Table 2). The metrics for both trust and distrust exceeded the recommended thresholds of 0.7, 0.7, and 0.5 (Bagozzi and Yi, 1988), demonstrating a good level of reliability and convergent validity.

To assess discriminant validity, we followed the procedure (Fornell and Larcker, 1981) and found the squared root of AVE of each construct exceeded the correlation between these two constructs (Table 2); discriminant validity is supported. Furthermore, we compared the model

fits between the proposed two-construct model and an alternative model in which trust and distrust being one construct. The results demonstrated that the model fit of the one-construct model ($\chi 2 = 388.67$, df = 13, $\chi 2/df = 29.89$, CFI = 0.55, TLI = 0.27, RMSEA = 0.34, SRMR = 0.20) was significantly worse compared with the two-construct model ($\Delta \chi 2[1] = 361.77$, p < 0.001). These results further support discriminant validity.

3.5. Experimental checks

The participants were asked to indicate to what extent they agree or disagree on a six-point scale with the statements used for experimental checks. Manipulation checks usually consist of one or multiple direct questions, and parsimony is recommended (Lonati *et al.*, 2018). Therefore, each of the three factors was checked using a single item and the results show the response in the high group was significantly higher than that in the low group. Supplier dependence: 'My firm is highly dependent on this customer' (Mean_{high} = 4.64, Mean_{low} = 2.90, p < 0.001). Buyer dependence: 'This customer is highly dependent on my firm' (Mean_{high} = 4.63, Mean_{low} = 2.74, p < 0.001). Relational norms: 'My firm has an informal, close, cooperative relationship with this customer' (Tangpong *et al.*, 2010) (Mean_{high} = 4.80, Mean_{low} = 3.47, p < 0.001). We also conducted realism checks (Dabholkar, 1994). On a 1-6 scale, the average rate is 4.38, which suggests the participants judged the scenario as realistic.

4. Results

Table 2 reports the descriptive statistics and correlations of the variables that used in the analysis.

INSERT TABLE 2 ABOUT HERE

To examine the effects of structural power, four categorical variables were constructed based on the high and low levels (coded as '1' and '0', respectively) of supplier dependence (SD) and buyer dependence (BD) (Figure 1): independence (SD = 0, BD = 0), buyer dominance (SD = 1, BD = 0), supplier dominance (SD = 0, BD = 1), and interdependence (SD = 1, BD = 1). This categorical approach decomposes the power relationships into four exclusive types, which offers us more precision in the analysis (Gulati and Sytch, 2007). We used the independent relationship as the baseline group and three dummy variables were subsequently created. As a result, we have the following model:

 $Y = i_Y + b_1 D 1 + b_2 D 2 + b_3 D 3 + b_4 W + b_5 D 1 W + b_6 D 2 W + b_7 D 3 W + e_Y$

In which:

Y represents trust and distrust, respectively,

D1 represents buyer dominance,

D2 represents supplier dominance,

D3 represents interdependence,

W represents relational norms.

INSERT FIGURE 1 ABOUT HERE

We conducted structural equation modeling (SEM) using Mplus to test our hypotheses. SEM analysis allows us to test whether the proposed antecedents have differential effects on trust and distrust simultaneously, which is of critical importance to our study. We evaluated the relationships in two models. In Model 1 we included main effects and control variables. In Model 2 we added the interaction effects. We mean-centred the variables as recommended for moderation analysis (Aiken and West, 1991). Table 3 reports the results of the analysis. The model fit metrics of both models are satisfactory. The results of Model 1 show distinct effects of relational norms and power relationships on trust and distrust. Relational norms have a significant positive effect on supplier trust (B = 0.53, p < 0.001), but its effect on supplier distrust is not significant (B = -0.18, p > 0.1). Buyer dominance has no effect on supplier trust (B = -0.12, p > 0.1), but it increases supplier distrust (B = 0.38, p < 0.05). The effects of supplier dominance on supplier trust (B = 0.00, p > 0.1)and supplier distrust (B = 0.25, p > 0.1) are not significant. The effects of an interdependent relationship on supplier trust (B = 0.13, p > 0.1) and distrust (B = 0.16, p > 0.1) are also not significant. In Model 2, the main effects remain the same as in Model 1. The results show that none of the interaction effects on supplier trust is significant, but relational norms negatively moderate the relationship between supplier dominance and supplier distrust (B = -0.70, p < 0.05). Taken together, in terms of the main effects, we find support only for H1a and H2a. In terms of the interaction effects, none of the hypotheses is supported expect H6b. We present the supported hypotheses in Figure 2. As Mplus by default includes the correlation of the error terms between the dependent latent variables, we have removed this correlation and conducted the analysis again as a robustness check. The results remain similar (See online supplementary material).

INSERT TABLE 3 ABOUT HERE

INSERT FIGURE 2 ABOUT HERE

To better understand the interaction effects on distrust, we plotted the visual effects (Figure 3). To interpret these effects, our interest is not the different slopes but the gap between the lines (Hayes, 2018). As displayed in Figure 3, it appears that when relational norms are low, supplier distrust is higher in a supplier-dominated relationship compared to that in an independent relationship. However, when relational norms are high, there is a significant change in the pattern: supplier distrust is lower in a supplier-dominated relationship compared to that in an independent relationship. This change suggests that the negative effect of supplier dominance on supplier distrust becomes stronger when relational norms are higher.

INSERT FIGURE 3 ABOUT HERE

5. Discussion

In this paper, we explore whether supplier trust and distrust are two distinct concepts and can coexist. To address the limitations in the existing studies, we presented a narrowed definitional model of supplier trust and distrust, including relational norms and structural power as antecedents. The results support the two-construct view of trust and distrust.

5.1. Theoretical implications

This work is an initial attempt to examine the antecedents of supplier trust and distrust. Due to limited work in this area, we adopted an exploratory approach and tested a series of symmetrical hypotheses on the effects of relational norms and structural power on supplier trust and distrust, which were largely not supported. However in this study, these *non-supported* hypotheses may offer confirmation that it would be 'misleading to assume' that 'the positive predictors of trust would necessarily be negative predictors of distrust' (Lewicki *et al.*, 1998, p. 448). In other words, these non-supported hypotheses actually lend support to the two-construct view that the antecedents of trust and distrust are distinct.

This study sheds light on the distinct nature of supplier distrust and trust. Prior studies have suggested that power asymmetry is related to trust (e.g., Anderson and Weitz, 1989; Kumar *et al.*, 1995; Gulati and Sytch, 2007; Kim and Fortado, 2021). However, when examining its effect on trust and distrust simultaneously, our results show it is primarily related to supplier distrust. The results show that buyer dominance increases supplier distrust, implying that

supplier distrust is induced by exchange structure and in the domain of (relative) power. Unequal power enables the more powerful buyer to control the behaviour of the supplier, or even use punitive actions to enforce negative consequences against the supplier's will (Gundlach and Cadotte, 1994). The possible loss and punishments, as well as monitoring and threats, eventually generate distrust (Lewicki *et al.*, 1998). For example, Walgenbach (2001) observed that buyers intended to using ISO9000 certification to develop supplier trust, however the audit of the quality system was perceived by the suppliers as an indication of power and control, which generated distrust instead. The results of the study also show that only in the setting where the supplier was more powerful (supplier dominance) – but not in other settings (the buyer was more powerful, or they had equal power) – that relation norms acted to alleviate supplier distrust, which further reinforces distrust is in the domain of power.

The results show that supplier trust is primarily built on relational norms. This is in line with extant studies (e.g., Aulakh *et al.*, 1996; Doney and Cannon, 1997; Zhang *et al.*, 2003; Tangpong *et al.*, 2010). However, unlike prior work (e.g., Kumar *et al.*, 1995), this study observed power asymmetry having limited effect on supplier trust. It has been suggested that trust can be based on deterrence, whereby one party is believed to be trustworthy because of punishment or threats from a more powerful party (Lewicki and Bunker, 1996). Our study may suggest that trust is not deterrence-based. That is, even if a buyer is more powerful, this does not prevent the (weaker) supplier from trusting this buyer if the (stronger) buyer commits to relational norms. The findings of this study suggest that supplier trust is primarily anchored on buyer behaviour. This is in line with the relational view on trust which argues that trust is developed based on the relational and behavioural attributes demonstrated in experienced interactions (Rousseau *et al.*, 1998). In the prolonged buyer-supplier relationships, buyers/suppliers need to 'work on trust' by constantly demonstrating trust-related behaviour.

Taken together, this study suggests that supplier trust and distrust can simultaneously exist in a buyer-supplier relationship characterized by relational norms and power asymmetry. Although it is a relationship of unequal power, power does not obviate relational approaches; the powerful buyer could still make efforts to create a sense of unity, which fosters supplier trust. For example, the powerful buyer might purposely refrain from using coercion over the weaker supplier (Chen *et al.*, 2016), or even use its power to increase value for the supplier (Handley *et al.*, 2019). Prior research has hinted toward the coexistence of trust and distrust. For example, Poppo *et al.* (2016) find that surprisingly, buyers giving more repeated business was not much effective in improving suppliers' performance, concluding that trust may not reduce the risk induced by transactional attributes. In light of our study, these observations could be related to distrust (implied by exchange attributes); since trust and distrust are distinct, coexist concepts, increasing trust does not necessarily decrease distrust.

5.2. Managerial implications

This study implies that suppliers/buyers need to adjust relationship configuration with respect of an evolving judgement of trust *and* distrust. For example, a power-disadvantaged supplier may distrust a buyer in the beginning of the relationship when trust is absent. In this phase, a supplier may seek to pre-emptively adjust to potentially harmful motives of a buyer and invest significant resources to safeguard from potential exploitation. Such a relationship could easily become 'overprotected' (Raza-Ullah, 2021), invoking excessive control, and making collaboration very difficult. However, if a powerful buyer makes efforts to be supportive, supplier trust could be gradually built. As the relationship enters a phase of 'balanced' distrust and trust, trust enlarges the scope for collaboration while distrust serves as a mechanism to help firms avoid the dark side of trust (Villena *et al.*, 2019). Early phase over-protection could give way to a healthier level of prudence and caution (Lumineau, 2017; Han *et al.*, 2021). As Saunders *et al.* (2014, p. 650) summarizes, 'I do trust, but I hold a little back just to make sure.'

This work may also suggest insights regarding trust and control in buyer-supplier relationships. Traditionally, the use of control is perceived to reflect a lack of trust (Zaheer and Venkatraman, 1995), potentially even causing a vicious cycle to develop in the relationship (Ghoshal and Moran, 1996). For example, a supplier uses contractual control may be perceived by the buyer as lacking trust, and consequently, the buyer may not collaborate. From the findings of this study, we may infer that a supplier 'using' control does not necessarily mean low trust, nor does it imply that the buyer is seen as not trustworthy. Rather, they may be accepted as 'autonomic' responses (Dimoka, 2010) *imposed* by the economic realities of dependence. In other words, managers should be encouraged to recognize and rationalize that the reason for control is less related to a particular supplier/buyer than being a reaction to the overall 'external' exchange structure. These are subtle differences, but they can shift the practical (and scholarly) debate away from continually presenting trust and control as counterforces towards a richer sense of joint contributions.

5.3. Limitations and directions for future research

The results of this study should be viewed with its limitations. First, a natural limitation of the experiment method is that many practical realities have to be ignored to simplify the research design and its operationalization (Tangpong *et al.*, 2010). For example, we examined relational norms and structural power as antecedents, but other factors (e.g., governance structure, the use of power) are also possible antecedents. Future studies can explore further in this direction. Second, we focused on benevolence-based trust and distrust. Conclusions drawn from this study should be viewed with this limitation and future studies can explore other facets of trust

and distrust. Third, we did not specify the participants in the experiment having customerfacing experience in their working role. Although as most of them were senior managers, and as cross-functional team is a key element in managing buyer-supplier relationships (Enz and Lambert, 2015), it is likely these managers could have customer-facing experience, future studies can use more functional specified samples to test our findings. Fourth, although the experiment exceeds the minimum requirement of 20 observations per cell (Simmons *et al.*, 2011; Hair *et al.*, 2019, p. 391) – there were on average 32 observations per cell, it does not reach 50 per cell as recommended (Lonati *et al.*, 2018). Although we followed recommended practices to address small sample issues by running the model with (Table 3) and without control variables (Appendix 2) and the effects (significant/non-significant) remain the same (Lonati *et al.*, 2018), we encourage future studies to use larger samples to test our findings. Fifth, the study was conducted from a supplier's perspective. Therefore, the conclusions drawn from this study should be used with caution when applied to buyer firms (Vanpoucke *et al.*, 2022).

This study is only an initial step in what could be a rich research area. This is particularly so in the case of distrust; future studies should continue to identify its nature, dimensionality, antecedents, and functionality. Moreover, since there is emerging evidence that distrust could have positive effects in buyer-supplier relationships (Han *et al.*, 2021), under what circumstances warrants future research. Prior research has demonstrated the effects of trust on various performance and relationship outcomes (e.g., Kulangara *et al.*, 2016; Faruquee *et al.*, 2021); how would trust and distrust affect these outcomes differently? More studies are needed to fully understand the nuances and complications of trust and distrust in buyer-supplier relationships. Finally, this study raises the question of how to manage the coexistence of trust and distrust in buyer-supplier relationships, which we know little about. We hope the situation

of simultaneous trust and distrust could serve as an engine for new theoretical advances regarding novel collaboration models, structures, and processes in managing buyer-supplier relationships.

References

- Adler T (2007), "Swift trust and distrust in strategic partnering relationships: Key considerations of team-based designs", *Journal of Business Strategies*, Vol. 24 No.2, pp.105-121.
- Aguinis H and Bradley KJ (2014), "Best practice recommendations for designing and implementing experimental vignette methodology studies", *Organizational Research Methods*, Vol. 17 No.4, pp.351-371.
- Aguinis H, Villamor I and Ramani RS (2021), "MTurk research: Review and recommendations", *Journal of Management*, Vol. 47 No.4, pp.823-837.
- Ahmadjian C and Oxley J (2006), "Using hostages to support exchange: Dependence balancing and partial equity stakes in Japanese automotive supply relationships", *Journal of law*, *economics*, & *organization*, Vol. 22 No.1, pp.213-233.
- Aiken LS and West SG (1991), *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage Publications.
- Anderson E and Weitz B (1989), "Determinants of continuity in conventional industrial channel dyads", *Marketing Science*, Vol. 8 No.4, pp.310-323.
- Aulakh P, Kotabe M and Sahay A (1996), "Trust and performance in cross-border marketing partnerships: A behavioral approach", *Journal of International Business Studies*, Vol. 27 No.5, pp.1005-1032.
- Bagozzi RP and Yi Y (1988), "On the evaluation of structural equation models", *Journal of the Academy of Marketing Science*, Vol. 16 No.1, pp.74-94.
- Barney JB and Hansen MH (1994), "Trustworthiness as a source of competitive advantage", *Strategic Management Journal*, Vol. 15, pp.175-190.
- Bigley GA and Pearce JL (1998), "Straining for shared meaning in organization science: Problems of trust and distrust", *Academy of Management Review*, Vol. 23 No.3, pp.405.
- Bijlsma-Frankema K, Sitkin S and Weibel A (2015), "Distrust in the balance: The emergence and development of intergroup distrust in a court of law", *Organization Science*, Vol. 26 No.4, pp.1018-1039.
- Cannon J, Achrol R and Gundlach G (2000), "Contracts, norms, and plural form governance", *Journal of the Academy of Marketing Science*, Vol. 28 No.2, pp.180-194.

- Cao Z and Lumineau F (2015), "Revisiting the interplay between contractual and relational governance: A qualitative and meta-analytic investigation", *Journal of Operations Management*, Vol. 33, pp.15-42.
- Carpenter S (2018), "Ten steps in scale development and reporting: A guide for researchers", *Communication methods and measures*, Vol. 12 No.1, pp.25-44.
- Carson SJ, Madhok A, Varman R and John G (2003), "Information processing moderators of the effectiveness of trust-based governance in interfirm R&D collaboration", *Organization Science*, Vol. 14 No.1, pp.45-56.
- Chen J, Zhao X, Lewis M and Squire B (2016), "A multi-method investigation of buyer power and supplier motivation to share knowledge", *Production and Operations Management*, Vol. 25 No.3, pp.417-431.
- Cho J (2006), "The mechanism of trust and distrust formation and their relational outcomes", *Journal of Retailing*, Vol. 82 No.1, pp.25-35.
- Connelly BL, Miller T and Devers CE (2012), "Under a cloud of suspicion: Trust, distrust, and their interactive effect in interorganizational contracting", *Strategic Management Journal*, Vol. 33 No.7, pp.820-833.
- Cox A (2001), "Understanding buyer and supplier power: A framework for procurement and supply competence", *Journal of Supply Chain Management*, Vol. 37 No.1, pp.8-15.
- Dabhilkar M, Bengtsson L and Lakemond N (2016), "Sustainable supply management as a purchasing capability: A power and dependence perspective", *International Journal of Operations & Production Management*, Vol. 36 No.1, pp.2-22.
- Dabholkar PA (1994), "Incorporating choice into an attitudinal framework: Analyzing models of mental comparison processes", *Journal of Consumer Research*, Vol. 21 No.1, pp.100-118.
- Deutsch M (1958), "Trust and suspicion", *Journal of Conflict Resolution*, Vol. 2 No.4, pp.265-279.
- Dimoka A (2010), "What does the brain tell us about trust and distrust? Evidence from a functional neuroimaging study", *MIS Quarterly*, Vol. 34 No.2, pp.373.
- Dixon PN, Bobo M and Stevick RA (1984), "Response differences and preferences for allcategory-defined and end-defined Likert formats", *Educational and Psychological Measurement*, Vol. 44 No.1, pp.61-66.
- Doney PM and Cannon JP (1997), "An examination of the nature of trust in buyer-seller relationships", *Journal of Marketing*, Vol. 61 No.2, pp.35-51.
- Dwyer FR, Schurr PH and Oh S (1987), "Developing buyer-seller relationships", *Journal of Marketing*, Vol. 51 No.2, pp.11-27.
- Dyer JH and Chu W (2011), "The determinants of trust in supplier-automaker relationships in the US, Japan, and Korea", *Journal of International Business Studies*, Vol. 42 No.1, pp.10-27.

- Dyer JH, Singh H and Hesterly WS (2018), "The relational view revisited: A dynamic perspective on value creation and value capture", *Strategic Management Journal*, Vol. 39 No.12, pp.3140-3162.
- Eckerd S, Handley S and Lumineau F (2021), "Trust violations in buyer supplier relationships: Spillovers and the contingent role of governance structures", *Journal of Supply Chain Management*, Vol. DOI: 10.1111/jscm.12270.
- Emerson RM (1962), "Power-dependence relations", *American Sociological Review*, Vol. 27 No.1, pp.31-41.
- Enz MG and Lambert DM (2015), "Measuring the financial benefits of cross-functional integration influences management's behavior", *Journal of Business Logistics*, Vol. 36 No.1, pp.25-48.
- Fan Y, Stevenson M and Li F (2020), "Supplier-initiating risk management behaviour and supply-side resilience: The effects of interpersonal relationships and dependence asymmetry in buyer-supplier relationships", *International Journal of Operations & Production Management*, Vol. 40 No.7/8, pp.971-995.
- Faruquee M, Paulraj A and Irawan CA (2021), "Strategic supplier relationships and supply chain resilience: Is digital transformation that precludes trust beneficial?", *International Journal of Operations & Production Management*, Vol. 41 No.7, pp.1192-1219.
- Fornell C and Larcker DF (1981), "Evaluating structural equation models with unobservable variables and measurement error", *Journal of Marketing Research*, Vol. 18 No.1, pp.39-50.
- Forslund H and Jonsson P (2009), "Obstacles to supply chain integration of the performance management process in buyer-supplier dyads", *International Journal of Operations* & Production Management, Vol. 29 No.1, pp.77-95.
- Gao T, Joseph Sirgy M and Bird MM (2005), "Reducing buyer decision-making uncertainty in organizational purchasing: Can supplier trust, commitment, and dependence help?", *Journal of Business Research*, Vol. 58 No.4, pp.397-405.
- Gargiulo M and Ertug G (2006), "The dark side of trust", In: R. Bachmann and Zaheer A (eds) *Handbook of Trust Research*. London: Edward Elgar.
- Ghoshal S and Moran P (1996), "Bad for practice: A crtique of the transaction cost theory", *Academy of Management Review*, Vol. 21 No.1, pp.13-47.
- Griffith DA and Myers MB (2005), "The performance implications of strategic fit of relational norm governance strategies in global supply chain relationships", *Journal of International Business Studies*, Vol. 36 No.3, pp.254-269.
- Grovier T (1994), "An epistemology of trust", *International Journal of Moral Social Studies*, Vol. 8, pp.155-174.

- Gulati R and Sytch M (2007), "Dependence asymmetry and joint dependence in interorganizational relationships: Effects of embeddedness on a manufacturer's performance in procurement relationships", *Administrative Science Quarterly*, Vol. 52 No.1, pp.32-69.
- Gundlach GT and Cadotte ER (1994), "Exchange interdependence and interfirm interaction: Research in a simulated channel setting", *Journal of Marketing Research*, Vol. 31 No.4, pp.516-532.
- Guo S-L, Lumineau F and Lewicki RJ (2017), "Revisiting the foundations of organizational distrust", *Foundations and Trends in Management*, Vol. 1 No.1, pp.1-88.
- Ha B-C, Park Y-K and Cho S (2011), "Suppliers' affective trust and trust in competency in buyers: Its effect on collaboration and logistics efficiency", *International Journal of Operations & Production Management*, Vol. 31 No.1, pp.56-77.
- Hair JF, Black WC, Babin BJ and Anderson RE (2019), *Multivariate data analysis*. Australia: Cengage.
- Han W, Huang Y, Hughes M and Zhang M (2021), "The trade-off between trust and distrust in supply chain collaboration", *Industrial Marketing Management*, Vol. 98, pp.93-104.
- Handley SM, Jong J and Benton WC (2019), "How service provider dependence perceptions moderate the power–opportunism relationship with professional services", *Production and Operations Management*, Vol. 28 No.7, pp.1692-1715.
- Hayes AF (2018), *Introduction to mediation, moderation, and conditional process analysis.* New York: Guilford Press.
- Heide JB and John G (1992), "Do norms matter in marketing relationships?", *Journal of Marketing*, Vol. 56 No.2, pp.32-44.
- Hunt SD and Nevin JR (1974), "Power in a channel of distribution: Sources and consequences", *Journal of Marketing Research*, Vol. 11 No.2, pp.186-193.
- Huo B, Tian M, Tian Y and Zhang Q (2019), "The dilemma of inter-organizational relationships: Dependence, use of power and their impacts on opportunism", *International Journal of Operations & Production Management*, Vol. 39 No.1, pp.2-23.
- Ireland RD and Webb JW (2007), "A multi-theoretic perspective on trust and power in strategic supply chains", *Journal of Operations Management*, Vol. 25 No.2, pp.482-497.
- Joshi AW and Arnold SJ (1997), "The impact of buyer dependence on buyer opportunism in buyer-supplier relationships: The moderating role of relational norms", *Psychology & Marketing*, Vol. 14 No.8, pp.823-845.
- Kaiser HF (1970), "A second generation Little Jiffy", *Psychometrika*, Vol. 35 No.4, pp.401-415.
- Karaosman H, Marshall D and Villena VH (2023), "Chrysalis of crisis: Covid-19 as a catalyst for awakening power and justice in a luxury fashion supply chain", *International*

Journal of Operations & Production Management, Vol. ahead-of-print No.ahead-of-print

- Kaufmann L, Schreiner M and Reimann F (2022), "Narratives in supplier negotiations—The interplay of narrative design elements, structural power, and outcomes", *Journal of Supply Chain Management*, Vol. n/a No.n/a, pp.1-29.
- Kim D-Y and Fortado B (2021), "Outcomes of supply chain dependence asymmetry: A systematic review of the statistical evidence", *International Journal of Production Research*, Vol. 59 No.19, pp.5844-5866.
- Kim Y and Choi TY (2018), "Tie strength and value creation in the buyer-supplier context: A U-shaped relation moderated by dependence asymmetry", *Journal of Management*, Vol. 44 No.3, pp.1029-1064.
- Komiak S and Benbasat I (2008), "A two-process view of trust and distrust building in recommendation agents: A process-tracing study", *Journal of the Association for Information Systems*, Vol. 9 No.12, pp.727-747.
- Kostis A, Bengtsson M and Näsholm MH (2021), "Mechanisms and dynamics in the interplay of trust and distrust: Insights from project-based collaboration", *Organization Studies*, Vol. 67 No.3, pp.280-306.
- Kraljic P (1983), "Purchasing must become supply management", *Harvard Business Review*, Vol. 61 No.5, pp.109-117.
- Kramer R (1994), "The sinister attribution error: Paranoid cognition and collective distrust in organizations", *Motivation and Emotion*, Vol. 18 No.2, pp.199-230.
- Kramer RM (1999), "Trust and distrust in organizations: Emerging perspectives, enduring questions", *Annual Review of Psychology*, Vol. 50, pp.569-598.
- Krishnan R, Geyskens I and Steenkamp J (2016), "The effectiveness of contractual and trustbased governance in strategic alliances under behavioral and environmental uncertainty", *Strategic Management Journal*, Vol. 37 No.12, pp.2521-2542.
- Kulangara NP, Jackson SA and Prater E (2016), "Examining the impact of socialization and information sharing and the mediating effect of trust on innovation capability", *International Journal of Operations & Production Management*, Vol. 36 No.11, pp.1601-1624.
- Kumar N, Scheer LK and Jan-Benedict E (1995), "The effects of perceived interdependence on dealer attitudes", *Journal of Marketing Research*, Vol. 32 No.3, pp.348-356.
- Kwon I-WG and Suh T (2004), "Factors affecting the level of trust and commitment in supply chain relationships", *Journal of Supply Chain Management*, Vol. 40 No.2, pp.4-14.
- Levine EE and Schweitzer ME (2015), "Prosocial lies: When deception breeds trust", Organizational Behavior and Human Decision Processes, Vol. 126, pp.88-106.

- Lewicki RJ and Bunker BB (1996), "Developing and maintaining trust in work relationships", In: RM K and TR T (eds) *Trust in Organizations: Frontiers of Theory and Research*. Thousand Oaks, CA: Sage, pp.114-139.
- Lewicki RJ, McAllister DJ and Bies RJ (1998), "Trust and distrust: New relationships and realities", *Academy of Management Review*, Vol. 23 No.3, pp.438-458.
- Lewicki RJ, Tomlinson EC and Gillespie N (2006), "Models of interpersonal trust development: Theoretical approaches, empirical evidence, and future directions", *Journal of Management*, Vol. 32 No.6, pp.991-1022.
- Lipset SM (1975), "Social structure and social change", In: Blau PM (ed) *Approaches to the Study of Social Structure*. New York: The Free Press.
- Lonati S, Quiroga BF, Zehnder C and Antonakis J (2018), "On doing relevant and rigorous experiments: Review and recommendations", *Journal of Operations Management*, Vol. 64 No.1, pp.19-40.
- Lumineau F (2017), "How contracts influence trust and distrust", *Journal of Management*, Vol. 43 No.5, pp.1553-1577.
- Macduffie JP (2010), "Inter-organizational trust and the dynamics of distrust", *Journal of International Business Studies*, Vol. 42 No.1, pp.35.
- Macneil IR (1980), The new social contract. New Haven and London: Yale University Press.
- Mal CI, Davies G and Diers-Lawson A (2018), "Through the looking glass: The factors that influence consumer trust and distrust in brands", *Psychology & Marketing*, Vol. 35 No.12, pp.936-947.
- Mayer RC and Davis JH (1999), "The effect of the performance appraisal system on trust for management: A field quasi-experiment", *Journal of Applied Psychology*, Vol. 84 No.1, pp.123-136.
- Mayer RC, Davis JH and Schoorman FD (1995), "An integrative model of organizational trust", *Academy of Management Review*, Vol. 20 No.3, pp.709-734.
- McKnight DH and Chervany NL (2001), "Trust and distrust definitions: One bite at a time", In: Falcone R, Singh M and Tan Y-H (eds) *Trust in Cyber-societies*. Berlin Heidelberg: Springer-Verlag, pp.27-54.
- Mellinger GD (1956), "Interpersonal trust as a factor in communication", *Journal of Abnormal* and Social Psychology, Vol. 52 No.3, pp.304-309.
- Mirkovski K, Davison RM and Martinsons MG (2019), "The effects of trust and distrust on ICT-enabled information sharing in supply chains: Evidence from small- and mediumsized enterprises in two developing economies", *International Journal of Logistics Management*, Vol. 30 No.3, pp.892-926.
- Molm LD (1990), "Structure, action, and outcomes: The dynamics of power in social exchange", *American Sociological Review*, Vol. 55 No.3, pp.427-447.

- Moore AK, Munguia Gomez DM and Levine EE (2019), "Everyday dilemmas: New directions on the judgment and resolution of benevolence–integrity dilemmas", *Social and Personality Psychology Compass*, Vol. 13 No.7, pp.e12472.
- Morgan R, Doran D and Morgan SJ (2018), "Strong contracts: the relationship between power and action", *International Journal of Operations & Production Management*, Vol. 38 No.1, pp.272-294.
- Opp KD (1982), "The evolutionary emergence of norms", *British Journal of Social Psychology*, Vol. 21 No.2, pp.139-149.
- Paulssen M, Leischnig A, Ivens BS and Birk MM (2016), "Relational norms in customercompany relationships: Net and configurational effects", *Journal of Business Research*, Vol. 69 No.12, pp.5866-5874.
- Poppo L, Zhou KZ and Li JJ (2016), "When can you trust "trust"? Calculative trust, relational trust, and supplier performance", *Strategic Management Journal*, Vol. 37 No.4, pp.724-741.
- Porter COLH, Outlaw R, Gale JP and Cho TS (2019), "The use of online panel data in management research: A review and recommendations", *Journal of Management*, Vol. 45 No.1, pp.319-344.
- Priester JR and Petty RE (1996), "The gradual threshold model of ambivalence: Relating the positive and negative bases of attitudes to subjective ambivalence", *Journal of Personality and Social Psychology*, Vol. 71 No.3, pp.431-449.
- Pu X, Cai Z, Chong AYL and Paulraj A (2023), "Dependence structure, relational mechanisms and performance: teasing out the differences between upstream and downstream supply chain partners", *International Journal of Operations & Production Management*, Vol. 43 No.7, pp.1009-1039.
- Raza-Ullah T (2021), "When does (not) a coopetitive relationship matter to performance? An empirical investigation of the role of multidimensional trust and distrust", *Industrial Marketing Management*, Vol. 96, pp.86-99.
- Raza-Ullah T and Kostis A (2020), "Do trust and distrust in coopetition matter to performance?", *European management journal*, Vol. 38 No.3, pp.367-376.
- Robinson JP, Shaver PR and Wrightsman LS (1991), *Measures of personality and social psychological attitudes*. San Diego: Academic Press.
- Rotter JB (1971), "Generalized expectancies for interpersonal trust", *American Psychologist*, Vol. 26 No.5, pp.443-452.
- Rousseau DM, Sitkin SB, Burt RS and Camerer C (1998), "Not so difference after all: A crossdiscipline view of trust", *Academy of Management Review*, Vol. 29 No.3, pp.393-404.
- Roy V, Prakash C and Charan P (2023), "Under "my way or the highway"! The weaker partner's synergy on collaborative performance in humanitarian relief when experiencing power tactics", *International Journal of Operations & Production Management*, Vol. 43 No.7, pp.1148-1173.

- Rungtusanatham M, Wallin C and Eckerd S (2011), "The vignette in a scenario-based roleplaying experiment", *Journal of Supply Chain Management*, Vol. 47 No.3, pp.9-16.
- Sako M (1992), *Prices, quality, and trust: Inter-firm relations in Britain and Japan.* Cambridge: Cambridge University Press.
- Saris WE and Gallhofer I (2007), *Design, evaluation and analysis of questionnaires for survey research*. Hoboken, NJ: Wiley.
- Saunders MN, Dietz G and Thornhill A (2014), "Trust and distrust: Polar opposites, or independent but co-existing?", *Human Relations*, Vol. 67 No.6, pp.639-665.
- Schiffling S, Hannibal C, Fan Y and Tickle M (2020), "Coopetition in temporary contexts: Examining swift trust and swift distrust in humanitarian operations", *International Journal of Operations & Production Management*, Vol. 40 No.9, pp.1449-1473.
- Schoorman FD, Mayer RC and Davis JH (2007), "An integrative model of organizational trust: Past, present, and future", *Academy of Management Review*, Vol. 32 No.2, pp.344-354.
- Seckler M, Heinz S, Forde S, Tuch AN and Opwis K (2015), "Trust and distrust on the web: User experiences and website characteristics", *Computers in Human Behavior*, Vol. 45, pp.39-50.
- Shevchenko A, Pagell M, Lévesque M and Johnston D (2020), "Preventing supplier nonconformance: extending the agency theory perspective", *International Journal of Operations & Production Management*, Vol. 40 No.3, pp.315-340.
- Simmons JP, Nelson LD and Simonsohn U (2011), "False-positive psychology: Undisclosed flexibility in data collection and analysis allows presenting anything as significant", *Psychological Science*, Vol. 22 No.11, pp.1359-1366.
- Sitkin SB and Roth NL (1993), "Explaining the limited effectiveness of legalistic "remedies" for trust/distrust", *Organization Science*, Vol. 4 No.3, pp.367-367.
- Tangpong C, Hung K-T and Ro YK (2010), "The interaction effect of relational norms and agent cooperativeness on opportunism in buyer–supplier relationships", *Journal of Operations Management*, Vol. 28 No.5, pp.398-414.
- Vanpoucke E, Wetzels M, Rozemeijer F and Pilzak-Blonska M (2022), "The impact of asymmetric perceptions of buyer-supplier governance mechanisms on relational rents", *International Journal of Operations & Production Management*, Vol. 42 No.1, pp.91-121.
- Verghese A, Koufteros X and Peters R (2020), "Exploring the dual nature of supplier relationship commitment on buyer behaviors", *International Journal of Operations & Production Management*, Vol. 40 No.2, pp.196-220.
- Villena VH, Choi TY and Revilla E (2019), "Revisiting interorganizational trust: Is more always better or could more be worse?", *Journal of Management*, Vol. 45 No.2, pp.752-785.

- Walgenbach P (2001), "The production of distrust by means of producing trust", *Organization Studies*, Vol. 22 No.4, pp.693-714.
- Wang Q, Cheng L, Craighead CW and Li JJ (2022), "The roles of locus of causality and buyer attribution in resolution of recurrent supplier-induced disruptions", *Journal of Operations Management*, Vol. 68 No.1, pp.55-93.
- Watson D and Tellegen A (1985), "Toward a consensual structure of mood", *Psychological Bulletin*, Vol. 98 No.2, pp.219-235.
- Wyatt RC and Meyers LS (1987), "Psychometric properties of four 5-Point Likert type response scales", *Educational and Psychological Measurement*, Vol. 47 No.1, pp.27-35.
- Xu D, Dai J, Paulraj A and Chong AY-L (2022), "Leveraging digital and relational governance mechanisms in developing trusting supply chain relationships: the interplay between blockchain and norm of solidarity", *International Journal of Operations & Production Management*, Vol. 42 No.12, pp.1878-1904.
- Zaheer A and Venkatraman N (1995), "Relational governance as an interorganizational strategy: An empirical test of the role of trust in economic exchange", *Strategic Management Journal*, Vol. 16 No.5, pp.373-392.
- Zhang C, Cavusgil ST and Roath AS (2003), "Manufacturer governance of foreign distributor relationships: Do relational norms enhance competitiveness in the export market?", *Journal of International Business Studies*, Vol. 34 No.6, pp.550-566.
- Zucker LG (1986), "Production of trust: Instituitional sources of economic structure", *Research in Organizational Behavior*, Vol. 8, pp.53-53.

Construct	Items	Factor loadings	Cronbach's alpha	Composite reliability	Ave
Trust	This customer is concerned about our welfare.	0.65	0.84	0.82	0.54
	My firm's needs and interests are important to this customer.	0.86			
	We can count on this customer to consider how its decisions and actions will affect us.	0.66			
	When it comes to things which are important to us, we can depend on this customer's support.	0.75			
Distrust	This customer may use opportunities that arise to profit at our expense.	0.83	0.86	0.87	0.68
	We suspect the intentions of this customer in actions taken in this relationship.	0.82			
	If not watched carefully, this customer may take advantage of us.	0.84			

Table 1 Measurement items and validity assessment

TABLE 2 Means, standard deviations (SD), and correlations of variables

IIIDEE Tricunsy stund	ai a act	introllis (<i>22)</i> , and	correnat	10115 01	anabies		
	1	2	3	4	5	6	7	8
1. Supplier dependence	1							
2. Buyer dependence	0.05	1						
3. Relational norms	0.00	0.04	1					
4. Trust	0.01	0.13*	0.39**	0.73				
5. Distrust	0.08	0.00	-0.10	-0.11	0.82			
6. Gender	-0.03	-0.02	-0.06	-0.02	-0.10	1		
7. Age	0.08	0.09	0.04	0.00	-0.08	-0.30**	1	
8. Management level	0.00	-0.01	0.07	-0.13*	-0.05	-0.01	0.01	1
Mean	0.50	0.49	0.51	3.77	3.37	1.52	3.30	2.15
SD	0.50	0.50	0.50	0.89	0.97	0.50	1.11	0.52

p < 0.05; **p < 0.01. 2-tailed. N=258. Bold numbers on the diagonal show the square root of AVE.

	Model 1		Model 2		
	Trust	Distrust	Trust	Distrust	
	Coeff.(Std error)	Coeff.(Std error)	Coeff.(Std error)	Coeff.(Std error)	
Predictors					
Relational norms	0.53***(0.09)	-0.18 (0.12)	0.53***(0.09)	-0.18(0.12)	
Buyer dominance	-0.12(0.11)	0.38*(0.16)	-0.12(0.11)	0.38*(0.16)	
Supplier dominance	0.00(0.11)	0.25 (0.16)	0.00(0.11)	0.25(0.16)	
Interdependence	0.13(0.11)	0.16 (0.16)	0.13(0.11)	0.16 (0.16)	
Buyer dominance x Relational norms			0.06(0.21)	-0.43(0.32)	
Supplier dominance x Relational norms			-0.12(0.22)	-0.70* (0.33)	
Interdependence x Relational norms			-0.17(0.21)	-0.40(0.32)	
Control variables					
Gender	0.02(0.08)	-0.25*(0.12)	0.02 (0.08)	-0.22 (0.12)	
Age	-0.03(0.04)	-0.09(0.06)	-0.02 (0.04)	-0.08 (0.06)	
Management level	-0.17*(0.08)	-0.10(0.11)	-0.17*(0.08)	-0.09 (0.11)	
Model fit (Model 1): $\chi 2 =$ Model fit (Model 2): $\chi 2 =$	$77.13, df = 48, \chi^2/df = 1$ 83.87, df = 63, $\chi^2/df = 1$.60, CFI = 0.97, TLI = 0.96 .33, CFI = 0.98, TLI = 0.97,	, RMSEA = 0.05, SRMR = 0 RMSEA = 0.04, SRMR = 0.	.03 03	

TABLE 3Results on trust and distrust

*p<0.05; **p<0.01; ***p<0.001 (two-tailed); N=258

FIGURE 1 Power relationships



Note: Adapted from Cox (2001)

FIGURE 2 Estimated structural equation model







APPENDIX 1 Scenario and experimental manipulations

Introductory text (identical across all treatments)

You are a customer account manager for a midsize microchip manufacturer. Your firm produces different types of microchips for electronic equipment manufacturers. The descriptions below are related to one existing buyer whom you supply on a regular basis. Assume all the descriptions are accurate and trustworthy. After reading the scenario, please answer the questions regarding this business relationship.

Experimental manipulations

<u>High supplier dependence</u> As customer account manager, you find yourself in a situation wherein it is difficult for you to find a suitable replacement for this existing buyer. If you decide to stop supplying to this buyer, you could not easily replace its purchasing volume with

alternative buyers. There are very few, if any, such competitive buyers and you cannot switch to them without incurring significant costs.

<u>Low supplier dependence</u> As customer account manager, you find yourself in a situation wherein it is not difficult for you to find a suitable replacement for this existing buyer. If you decide to stop supplying to this buyer, you could easily replace its purchasing volume with alternative buyers. There are many competitive buyers for your products and you can switch to them without incurring significant costs.

<u>High buyer dependence</u> You are aware that it is difficult for this buyer to find a suitable replacement for your supply. If they decide to stop purchasing from you, they could not easily replace the volume from alternative suppliers. There are very few, if any, such competitive suppliers and they cannot switch to them without incurring significant costs.

<u>Low buyer dependence</u> You are aware that it is not difficult for this buyer to find a suitable replacement for your supply. If they decide to stop purchasing from you, they could easily replace the volume from alternative suppliers. There are many competitive suppliers and they can switch to them without incurring significant costs.

<u>High relational norms</u> In this relationship, exchange of information takes place frequently, informally, and not only according to a prespecified agreement. You keep each other informed of any event or change that might affect the other party. Flexibility is a key characteristic of this relationship. Both sides make ongoing adjustments to cope with the changing circumstances. When some unexpected situation arises, the parties would rather work out a new deal than hold each other responsible to the original terms. Problems that arise in the

course of this relationship are treated by the parties as joint rather than individual responsibilities.

<u>Low relational norms</u> In this relationship, exchange of information takes place infrequently, formally, and in accordance to the terms of a prespecified agreement. Even if you do know of an event or change that might affect the other party, you do not divulge this information to them. Strict adherence to the terms of the original agreement characterizes this relationship. Even in the face of unexpected situations, rather than modifying the contract, you adhere to the original terms. Problems that arise in the course of this relationship are treated by the parties as individual rather than joint responsibilities.

	Model 1		Model 2		
	Trust	Distrust	Trust	Distrust	
	Coeff.(Std error)	Coeff.(Std error)	Coeff.(Std error)	Coeff.(Std error)	
Predictors					
Relational norms	0.51***(0.09)	-0.18 (0.12)	0.51***(0.09)	-0.18(0.12)	
Buyer dominance	-0.13(0.11)	0.40*(0.16)	-0.13(0.11)	0.39*(0.16)	
Supplier dominance	-0.00(0.11)	0.26 (0.16)	-0.00(0.11)	0.25(0.16)	
Interdependence	0.12(0.11)	0.14 (0.16)	0.13(0.11)	0.14 (0.16)	
Buyer dominance x Relational norms			0.09(0.21)	-0.46(0.32)	
Supplier dominance x Relational norms			-0.13(0.22)	-0.78* (0.33)	
Interdependence x Relational norms			-0.20(0.21)	-0.44(0.32)	

APPENDIX 2 Results on trust and distrust without control variables

*p<0.05; **p<0.01; ***p<0.001 (two-tailed); N=258