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Bankruptcy Survival**

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Buyer–Supplier Relationship Dynamics in Buyers’ Bankruptcy Survival

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Buyer–Supplier Relationship Dynamics in Buyers’ Bankruptcy Survival

Abstract

A bankrupt buyer firm’s interactions with its suppliers during bankruptcy have critical implications for both parties and for the broader economy, yet these interactions remain poorly understood. The authors build on research on buyer–supplier relationship dynamics to demonstrate that accommodative and exploitative velocities—the rate and direction of change in the corresponding acts—serve as signals affecting bankruptcy survival. They show how signal characteristics (i.e., the variability in accommodative and exploitative acts) and signaler characteristics (i.e., whether the party undertaking the acts is the buyer or its suppliers) moderate the impact of accommodative and exploitative velocities on bankruptcy survival. Study 1 examines the bankruptcy survival outcome of 310 U.S. bankruptcies over 14 years and finds that a 1% increase in accommodative (exploitative) velocity increases (decreases) the buyer’s survival by 39% (33%). Further, variability in accommodative acts weakens their effect, and suppliers’ (vs. the buyer’s) accommodative and exploitative velocities are less deterministic of the buyer’s bankruptcy survival. Study 2 uses a scenario-based experiment to shed light on the mechanism underlying the impact of the two velocities on bankruptcy survival. The findings from both studies demonstrate the key role played by buyer–supplier interactions in a buyer’s bankruptcy survival.

Keywords: business-to-business marketing, buyer–supplier relations, relationship dynamics, signaling, bankruptcy

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3 In March 2023, 548 U.S. firms filed for bankruptcy,¹ a year-on-year increase of 79% from the
4 same month in 2022 (American Bankruptcy Institute 2023). A firm declaring bankruptcy seeks a
5 fresh start by reorganizing—typically, negotiating a debt reduction and/or delayed payment to its
6 creditors—in the shortest amount of time while continuing its business operations (Jindal 2020;
7 Sutton and Callahan 1987). A failure to emerge quickly from bankruptcy hurts not only the
8 debtor-buyer firm but also its creditor-suppliers. Suppliers² experience a loss of future revenue
9 and of any relationship-specific investments they may have made, and they bear the cost of
10 finding new buyers (Jindal 2020). In extreme cases, suppliers may be forced to follow their
11 buyer and file for bankruptcy (Pearce and Lipin 2012). Emerging buyers support nearly 28,000
12 jobs and generate \$1.75 billion annually in additional gross domestic product (Druin and
13 Allgrunn 2014). Thus, the likelihood of the buyer’s emergence from bankruptcy and its duration
14 in bankruptcy—collectively referred to as bankruptcy survival (Elayan and Meyer 2001; Jindal
15 2020)—have critical implications for the bankrupt buyer, its suppliers, and the economy at large.

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33 A buyer is keenly aware of the key role its suppliers play in ensuring its bankruptcy
34 survival. Consider the bankruptcy announcement of U.S.-based paper manufacturer Verso
35 Corporation:

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40 “Today’s announcement will have virtually no impact on Verso’s day-to-day operations. In turn,
41 *we will continue to rely on all of our suppliers...* Amounts owed as of the petition filing date will
42 be settled as part of the company’s Plan of Reorganization, and Verso is committed to
43 completing this process *as efficiently as possible...* Verso sincerely regrets any near-term
44 hardships its suppliers experience as it works through its restructuring and hopes that *its*
45 *suppliers ultimately will obtain longer-term benefits through a continued relationship with the*
46 *company.*” (Verso Corporation, January 26, 2016, italics added for emphasis)
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52 ¹ Bankruptcy here refers to a firm’s efforts to reorganize its debt and pay its creditors over time, rather than
53 liquidate. In the United States, these efforts are typically undertaken via Chapter 11 bankruptcy filings.

54 ² Hereinafter, we use the more succinct terms “buyer” and “supplier” for the debtor-buyer firm and its creditor-
55 supplier firm(s), respectively.
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5 A buyer's bankruptcy filing allows it to negotiate the prebankruptcy debt it owes its
6 suppliers. The process of negotiation involves the buyer and its suppliers filing motions in the
7 bankruptcy court (see Figure W1 in Web Appendix A). However, the success of these
8 negotiations, manifest in the buyer's bankruptcy survival, is by no means assured. It is rendered
9 even less certain by the fact that each of the two parties knows more about its own intent—
10 whether it be making or seeking concessions—than its counterpart does. A classic manifestation
11 of the well-known problem of information asymmetry (Stiglitz 2000) thus holds between the two
12 parties, with each inferring its counterpart's intent from the latter's acts.
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24 Over the course of the negotiation, the buyer and its suppliers signal their intent by
25 engaging in *accommodative acts*—behaviors that are intended to allow for or cater to the
26 counterpart's needs (Bello, Katsikeas, and Robson 2010; Cannon and Homburg 2001;
27 Noordewier, John, and Nevin 1990)—and *exploitative acts*—behaviors that are intended to deny
28 the needs of, extract concessions from, or make demands of the counterpart (Bello, Katsikeas,
29 and Robson 2010; Frazier and Summers 1986; Narayandas and Rangan 2004).³ Whereas
30 accommodative acts by one party signal to its counterpart the former's intent to cooperate,
31 exploitative acts indicate that the acting party is competitive in its intent (Bello, Katsikeas, and
32 Robson 2010; Montoya-Weiss, Massey, and Song 2001).
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44 Because individual acts by a party provide “an incomplete picture of the signaling
45 phenomenon” (DeKinder and Kohli 2008, p. 84), the counterpart could dismiss them as less
46 credible, one-off events. Indeed, prior marketing research has acknowledged that “relationships
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53 ³ The terms “accommodative” and “exploitative” acts, similar to other well-established constructs in the
54 interorganizational literature (e.g., compliance, dependence, opportunism), range on a continuum from low to high
55 levels.
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3 between firms evolve over time and are fundamentally dynamic” (Palmatier et al. 2013, p. 13).
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5 Decision makers are posited to consider the series of past acts undertaken by their counterpart,
6
7 infer trends from these multiple acts, and extrapolate these trends into the future, assuming that
8
9 the acts will continue (Johnson, Tellis, and MacInnis 2005). Building on this notion of
10
11 information being clearer in trajectories of acts rather than individual acts (Palmatier et al. 2013),
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13 we define “accommodative velocity” as the rate (i.e., magnitude) and the direction of change
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15 (i.e., whether increasing or decreasing) in a party’s accommodative acts over time (Schmitz et al.
16
17 2020). Similarly, “exploitative velocity” is the rate and direction of change in a party’s
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19 exploitative acts over time. We posit that, relative to individual acts, a party’s accommodative
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21 and exploitative velocities provide a clearer signal of its intent. Yet, their impact on the buyer’s
22
23 bankruptcy survival remains unknown. Thus, the first question we answer is: *How do the*
24
25 *accommodative and exploitative velocities of a bankrupt buyer and its suppliers impact the*
26
27 *buyer’s bankruptcy survival?*
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33 Inferring a counterpart’s intent from its behaviors is inherently ambiguous. Consequently,
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35 the impact of parties’ accommodative and exploitative velocities on the buyer’s bankruptcy
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37 survival may be subject to significant heterogeneity. Building on signaling theory, we identify
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39 signal and signaler characteristics (Connelly et al. 2011; Gomulya and Mishina 2017) that likely
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41 explain this heterogeneity. We ask: *How do signal and signaler characteristics strengthen or*
42
43 *weaken the impact of accommodative and exploitative velocities on the buyer’s bankruptcy*
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45 *survival?* Specifically, we hypothesize variability in acts (the extent to which the parties’ acts
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47 diverge from their mean acts; a signal characteristic) (Luo, Raithel, and Wiles 2013; Schmitz et
48
49 al. 2020) and signaler identity (whether the signaler is the buyer or its suppliers) to moderate the
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51 effects of accommodative and exploitative velocities on the buyer’s bankruptcy survival.
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We test our hypotheses using a two-study multimethod design. Our findings contribute to marketing theory and practice in three ways. First, we demonstrate the influence of parties' accommodative *and* exploitative velocities on the buyer's bankruptcy survival. In doing so, we contribute to the limited yet growing literature on buyer–supplier relationship dynamics. Study 1 uses a sample of 310 bankruptcies filed in the United States in three industries from 2001 to 2014. We classify as accommodative or exploitative nearly 10,000 motions filed in bankruptcy courts by bankrupt buyers and their suppliers, accounting for the significant variation in the intensity that is inherent to both types of acts.⁴ We find that a 1% increase in accommodative velocity boosts the buyer's bankruptcy survival by 39%; a similar 1% increase in exploitative velocity suppresses bankrupt buyer's survival by 33%. Study 2—a scenario-based experiment—sheds light on the mechanism underlying these two main effects. We report evidence consistent with the notion that (1) a party infers its counterpart's behavioral intent from the latter's velocity of acts and (2) expects this intent, based on the act velocity, to persist in the future. Together, the studies emphasize the critical role played by the dynamic interactions in buyer–supplier relations in predicting performance outcomes (Palmatier et al. 2013). Our emphasis on relationship trends acknowledges managerial agency in influencing outcomes, thereby extending research on

⁴ We also classify another 1,238 motions filed by buyers and their suppliers as neutral acts, controlling for these in the empirical analyses. Study 1 provides additional information on these neutral motions.

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relationship dynamics past its focus on path-dependent relationship stages (Chmielewski-Raimondo et al. 2022; Shamsollahi et al. 2021).

Our second contribution lies in examining buyer's interactions with its suppliers *during bankruptcy*. Despite the pivotal role that buyer-supplier interactions play in the bankruptcy process, the academic literature remains largely silent on this topic. Instead, this literature has focused on how a firm's state *before* it filed for bankruptcy determines its survival. Characteristics such as solvency risk (Bryan, Tiras, and Wheatley 2002), firm size (Denis and Rodgers 2007; Moulton and Thomas 1993), debt levels, and marketing expenses (Jindal 2020) have been shown to affect the buyer's bankruptcy survival (see Table 1). We add to this literature by demonstrating that the interactions between the buyers and their suppliers *during* bankruptcy can impact the buyer's survival, and thus bridge the gap between theory and practice.

[Insert Table 1 Here]

Our third contribution arises from our integration of signaling theory and the relationship dynamics literature in marketing. Academics have, for the most part, leveraged signaling theory to examine signals of quality (Bhattacharya, Morgan, and Rego 2022; Kirmani and Rao 2000; Spence 1973). Our research extends the theory by examining parties' signals of *intent* (Connelly et al. 2011). We further identify signal and signaler characteristics (variability in acts and identity, respectively) that moderate the relationship between accommodative and exploitative velocities and bankruptcy survival. We find that at high (low) levels of variability in acts, a 1% increase in accommodative velocity increases bankruptcy survival by 37% (40%). Furthermore, a 1% increase in suppliers' accommodative velocity raises bankruptcy survival by 32%; yet, a similar 1% increase in the buyer's accommodative velocity enhances bankruptcy survival by 39%. Buyers' acts also dominate suppliers' with respect to exploitative velocity, lowering

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3 bankruptcy survival by 33% relative to the 28% lower bankruptcy survival attributable to
4 suppliers' exploitative velocity. The characteristics of the signal and that of the signaler are thus
5
6 vital in moderating the effects of intent signals.
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10 The following section presents our conceptual background and hypotheses. We then
11 describe Studies 1 and 2 and discuss their results. We conclude with the implications and
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13 limitations of our research and offer directions for future research.
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17 **Conceptual Background**

18 ***The Simultaneous Incentives for Making and Seeking Concessions***

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22 A buyer's bankruptcy filing represents a significant disruption to its relationship with its
23 suppliers—a key class of creditors (Schmitz et al. 2020). Only if and when the suppliers approve
24
25 the buyer's debt reorganization plan can the buyer resume business-as-usual operations (i.e.,
26
27 without the oversight of a bankruptcy court) and repay the suppliers (Jindal 2020; see Web
28
29 Appendix A on the U.S. bankruptcy process). Mindful of its goal of resuming normal operations,
30
31 the buyer is incentivized to cooperate with its suppliers. For their part, suppliers are cognizant of
32
33 their potential loss in sales and that they are likely to recover only cents on the dollar if the buyer
34
35 were to go out of business (Yang, Birge, and Parker 2015), and they therefore make concessions.
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37 Both parties thus have the incentive to accommodate (i.e., cooperate with) each other during
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39 bankruptcy.
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45 Bankruptcy filing affords the buyer the leeway to continue operating its business, thereby
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47 adding value for its stakeholders, including suppliers. The cooperation of the buyer and its
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49 suppliers underlies the cocreated value of their relationship during *and* after bankruptcy. The
50
51 persistence of this value throughout the bankruptcy process, and the incentives for both parties to
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53 accommodate each other, make bankruptcy a non-zero-sum game.
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3 Yet, competing interests are also present. The buyer seeks to renegotiate the repayment
4 terms with its suppliers in order to reduce payments and lengthen the time between payments.
5
6 Suppliers, antithetically, seek debt recovery as early as possible (Yang, Birge, and Parker 2015).
7
8 The simultaneous existence of the incentive to make and seek concessions (i.e., pursue the
9 counterpart's and one's own interests, respectively) drives each party—the buyer and its
10 suppliers—to undertake both accommodative and exploitative acts.
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17 Our discussions with bankruptcy experts and a review of the interorganizational literature
18 yield several dimensions on which accommodative and exploitative acts may differ (see Table
19 2). Accommodative acts are intended to serve the counterpart by making concessions, reflect the
20 value-creation objective to cocreate value, demonstrate a willingness to work with the
21 counterpart, and emphasize bilateral considerations and a relational orientation. In contrast,
22 exploitative acts are intended to serve the focal party by seeking concessions, reflect value-
23 appropriation objectives and an effort to gain something, and emphasize unilateral considerations
24 and an individualistic orientation. Whereas accommodative acts are other-interest emphasizing,
25 exploitative acts emphasize self-interest even at the expense of the counterpart. Importantly,
26 neither party need undertake accommodative acts and exploitative acts to the same extent. Both
27 types of acts range in *intensity*—the extent to which they emphasize interests of the relationship
28 versus the self. Table W1 in Web Appendix B displays the accommodative and exploitative acts
29 undertaken by the buyer and its suppliers during bankruptcy along with the expert-adjudicated
30 intensity of each act.
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49 [Insert Table 2 Here]

50 51 ***The Impetus for Signaling***

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3 Because the bankruptcy process requires the buyer and its suppliers to interact with each
4 other via motions filed in the bankruptcy court, each party provides information to its counterpart
5 by undertaking acts that indicate its intentions, motives, or goals (Porter 1980)—that is, by
6 signaling its intent via its behaviors (Stiglitz 2000). The counterpart must, in turn, infer the acting
7 party's intent—cooperative or competitive—from the latter's accommodative and exploitative
8 acts, respectively, undertaken over time. Accommodative acts signal a cooperative intent by
9 making concessions to the counterpart. In contrast, exploitative acts signal a competitive stance,
10 with the signaler emphasizing its intent to seek concessions emphasizing its own interests, even
11 if such concessions may not be in the interests of its counterpart.
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24 Figure 1 presents our conceptual framework. We integrate insights on relationship
25 dynamics (Palmatier et al. 2013; Shamsollahi et al. 2021) with the literature on signaling intent
26 under information asymmetry (Connelly et al. 2011) to link both parties' behaviors to bankruptcy
27 survival (see Table 1). Studies on signaling acknowledge that individual acts have limited
28 signaling value because they occur at a singular point in time (DeKinder and Kohli 2008) and the
29 signal recipient thus has lower confidence that these acts will persist over time (Connelly et al.
30 2011). Research on evolving interfirm relationships emphasizes the greater information provided
31 by trajectories of acts (Connelly et al. 2011.; Narayandas and Rangan 2004; Shamsollahi et al.
32 2021). Both streams of research converge on the insight that, relative to individual acts that may
33 be dismissed as one-off events, parties' behavioral *trajectories* provide a clearer signal of intent.
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46 [Insert Figure 1 Here]

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49 We thus posit the velocity (i.e., the rate and change) of the buyer's and its suppliers'
50 accommodative acts to signal the cooperative intent of both parties. Similarly, the velocity of
51 their exploitative acts signals their competitive intent. The counterpart infers the focal party's
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3 high levels of accommodative (exploitative) velocity as reflective of concession-making
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5 (concession-seeking) and extrapolates the trend in the acts to persist in the future (DeKinder and
6
7 Kohli 2008). We posit this extrapolation and the superior signal value it provides as a mechanism
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9 that underlies the impact of both parties' accommodative and exploitative velocities on the
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11 buyer's bankruptcy survival.
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14 We further consider signal and signaler characteristics that are likely to increase or
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16 decrease signal noise—the part of the signal that is noninformative about the underlying intent
17
18 (Gomulya and Mishina 2017)—thereby weakening or strengthening the effects of the
19
20 accommodative and exploitative velocities on bankruptcy survival. The greater the noise in the
21
22 signal, the lower the recipient's confidence in inferring the signaler's intent. High variability in
23
24 the counterpart's prior acts lowers the focal party's confidence in its inference of the
25
26 counterpart's behavioral intent from these acts (Table 3 displays the juxtaposition of the velocity
27
28 and variability of both types of acts). We also hypothesize the signaler's identity (i.e., whether
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30 the acting party is the buyer or its suppliers, a signaler characteristic) to moderate the impact of
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32 accommodative and exploitative velocities on bankruptcy survival.
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39 [Insert Table 3 Here]
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42 Hypotheses

43 44 45 ***Main Effects of Accommodative and Exploitative Velocities on Bankruptcy Survival***

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47 *Accommodative velocity.* Accommodative velocity is the rate and direction of change in
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49 accommodative acts—behaviors that are intended to allow for or cater to the counterpart's needs
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51 (Bello, Katsikeas, and Robson 2010; Cannon and Homburg 2001; Noordewier, John, and Nevin
52
53 1990). A party's accommodative acts indicate the importance it places on its relationship with
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3 the counterpart and its motivation to continue the relationship (Anderson and Weitz 1992;
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5 Axelrod 1984). Individual accommodative acts vary in intensity (see Table B1). For example,
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7 the buyer's motion to allow a supplier's new claim (i.e., the court-defined motion is "allow
8
9 claim") is a higher-intensity accommodative act. Likewise, a supplier motioning to dismiss an
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11 adversary proceeding (i.e., court-defined motion = "dismiss adversary proceeding") is a lower-
12
13 intensity accommodative act.
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17 The focal party's accommodative velocity signals to the counterpart the former's
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19 cooperative intent (Bello, Katsikeas, and Robson 2010). High accommodative velocity enables
20
21 the counterpart to infer the focal party's desire to cooperate by considering not only the current
22
23 accommodative act but also its recent past behavior in the same vein (DeKinder and Kohli 2009).
24
25 Importantly, if the focal party's accommodative velocity is higher, the counterpart is likely to
26
27 extrapolate the positive trend inherent in the focal party's accommodative velocity, infer its
28
29 persistence in the future (Johnson, Tellis, and MacInnis 2005), and assess the relationship as
30
31 growing (Palmatier et al. 2013). In contrast, lower levels of accommodative velocity suggest that
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33 the rate of change in accommodative acts is slow, and the counterpart expects the intent to
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35 cooperate to change at a slower rate.
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40 The greater the counterpart's expectation of the focal party continuing to allow for or cater
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42 to its needs, the more likely it is to reciprocate with relationship-building accommodative acts of
43
44 its own (Heide and Miner 1992; Hoppner and Griffith 2011). With both parties perceiving their
45
46 relationship to be growing, there is an increased expectation of relationship continuity likely
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48 eliciting a virtuous cycle of cooperation. In such a climate, the buyer and its suppliers are more
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50 likely to converge on a reorganization plan that is agreeable to both parties. Thus,
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54 *H₁: Accommodative velocity increases the buyer's bankruptcy survival.*
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Exploitative velocity. Exploitative velocity is the rate and direction of change in exploitative acts—behavior intended to deny the needs of, extract concessions from, or make demands of the counterpart (Bello, Katsikeas, and Robson 2010; Narayandas and Rangan 2004). Exploitative acts reflect the focal party's focus on achieving outcomes of value to itself, even if such outcomes may hurt its counterpart. The focal party's exploitative acts thus likely damage its relationship with its counterpart. Like the accommodative acts, exploitative acts also vary in intensity. For example, a buyer's motion to disallow a supplier's claim (court-defined motion = "disallow claim") is highly exploitative act, whereas suppliers' motion of complaint (court-defined motion = "complaint") is less so (see Table B1).

High levels of exploitative velocity signal a competitive or even confrontational tone by the party engaging in the behavior. Such an inference is likely to escalate tension between the two parties, leading to distrust and conflict (Frazier, Gill, and Kale 1989; Geyskens, Steenkamp, and Kumar 1999). The ensuing conflict elicited by the expectation of similar behavior in the future may prolong the bankruptcy, as the confrontational approach will make it difficult for the buyer and its suppliers to resolve their disagreements. The counterpart may also engage in "tit-for-tat" behavior, anticipating continued exploitative acts by the focal party (Hibbard, Kumar, and Stern 2001), with both parties engaging in exploitative acts suggesting that the buyer-supplier relationship is decaying. The focus on seeking concessions is likely to make the suppliers less amenable to supporting the buyer's reorganization plan, in turn posing a challenge to the buyer's bankruptcy survival. Thus,

H₂: Exploitative velocity decreases the buyer's bankruptcy survival.

Contingency Effects of Variability in Accommodative and Exploitative Acts

The variability in the parties' acts, whether accommodative or exploitative, refers to the extent to which the acts diverge from their mean (Luo, Raithel, and Wiles 2013). Such

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3 divergence implies a lack of consensus (Cialdini 1993) and raises doubt about the signal's
4
5 credibility (Helm and Mark 2007; Herbig, Milewicz, and Golden 1994). The lack of consistency
6
7 (high variability) in acts reduces the counterpart's confidence in its ability to predict the
8
9 signaler's future intent (Gomulya and Mishina 2017). In particular, the deviation reduces the
10
11 counterpart's conviction that the trend of the focal party's acts will continue, and thus makes the
12
13 signaler's future behavior less reliable (Johnson, Tellis, and MacInnis 2005). We expand this
14
15 logic to propose how variabilities in the two types of acts work as contingency factors.
16
17

18
19 The high variability in accommodative acts reflects a lack of "a consistent thread of
20
21 meaning" (Keller 2008, p. 641) and raises doubt in the counterpart regarding the signaler's
22
23 cooperative intent. The counterpart is relatively *less* likely to extrapolate the positive trend
24
25 inherent in the focal party's accommodative velocity to infer its persistence in the future
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27 (Johnson, Tellis, and MacInnis 2005) and to assess the relationship as growing (Palmatier et al.
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29 2013). The likelihood of the counterpart reciprocating with relationship-building accommodative
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31 acts of its own is therefore reduced (Heide and Miner 1992; Hoppner and Griffith 2011), and the
32
33 signaler's accommodative velocity is less likely to elicit a virtuous cycle of cooperation. The
34
35 result is a less cooperative climate and a reduced likelihood of the suppliers agreeing to the
36
37 buyer's debt reorganization plan. In contrast, low variability in accommodative acts suggests that
38
39 the acts are consistent over time, giving greater confidence in their persistence.
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44
45 Just as for accommodative velocity, variability in exploitative acts gives the counterpart
46
47 pause for thought with respect to the signaler's competitive intent. The value of the signal
48
49 inherent in a trend of exploitative acts is diluted when no clear pattern emerges, thanks to their
50
51 variability (Gomulya and Mishina 2017). The variability in the exploitative acts instead suggests
52
53 a lack of commitment (Anderson and Weitz 1989) to exploitative behavior and erodes the
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counterpart's ability to clearly predict that the focal party will continue to act exploitatively over time. Under such uncertainty, the counterpart is less likely to reciprocate the signaler's confrontational tone (Hibbard, Kumar, and Stern 2001). A conflict spiral is therefore less likely to develop, and both parties' competitive resolve is likely weakened, relative to exploitative velocity with low levels of variability. Because the variability would give them hope that the exploitative velocity may not persist in the future, suppliers become more amenable to supporting the buyer's reorganization plan. Thus,

H_{3a}: The greater the variability in accommodative acts, the weaker the positive effect of accommodative velocity on the buyer's bankruptcy survival.

H_{3b}: The greater the variability in exploitative acts, the weaker the negative effect of exploitative velocity on the buyer's bankruptcy survival.

Contingency Effects of Signaler Identity (Supplier vs. Buyer)

“The U.S. bankruptcy code is debtor [buyer] oriented, allowing the management of the bankrupt firm to stay in control and to continue operating the firm during reorganization” (Yang, Birge, and Parker 2015, p. 2320). Specifically, U.S. bankruptcy law affords control to the buyer and confers it significant discretion in its day-to-day business operations (Pearce and Lipin 2012). Such discretion includes but is not limited to the buyer having the exclusive ability to extract value from favorable relationships and to renounce unfavorable ones (Ayer, Bernstein, and Friedland 2003). The buyer may decide which suppliers receive priority payment and which supplier relations should be (dis)continued as part of the bankruptcy process. These and other such legally conferred rights make the bankruptcy process debtor-oriented (Yang, Birge, and Parker 2015). The buyer's greater agency implies, and its acts are more likely to be attributed to, such agency (i.e., an internal attribution) rather than to the bankruptcy.

Although suppliers retain the right to agree with or oppose the buyer-proposed bankruptcy reorganization plan, they play a supporting rather than leading role, relative to the buyer. The

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3 relatively lesser discretion afforded to suppliers in the bankruptcy reorganization, in turn, results
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5 in their accommodative and exploitative acts being more likely to be attributed to the exigencies
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7 of the buyer's bankruptcy reorganization (i.e., an external attribution).
8
9

10 As Prabhu and Stewart (2001, p. 65) state, "When behavior can be explained sufficiently
11
12 by external or situational factors, the behavior is attributed to the situation, and *no inference is*
13
14 *made about the dispositions of the sender*" (emphasis added). Consistent with attribution theory
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16 and the associated discounting principle, when the suppliers' behavior is attributed to the buyer's
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18 bankruptcy filing (an external situation), their acts are discounted and the buyer is less confident
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20 that these acts will persist in the future. This external attribution likely causes the buyer to
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22 discount the suppliers' competitive intent and to infer relatively lower persistence of the latter's
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24 exploitative acts. The buyer's external attribution of suppliers' acts also elicits less clarity about
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26 the suppliers' accommodative velocity and its inferred persistence. A likely dilution of the
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28 impact of suppliers' accommodative and exploitative velocities on bankruptcy survival occurs,
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30 relative to the buyer's acts' velocities.
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41 In contrast, the buyer's exploitative (accommodative) acts are internally attributed. That is,
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43 the buyer's behavior is considered strategic in intent as it tries to manage the bankruptcy process.
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45 The buyer's acts may "contribute to the development of a reputation" consistent with their
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47 signals (Prabhu and Stewart 2001, p. 65) as the behavior is internally attributed. High levels of
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49 exploitative velocity indicate a clear competitive stance, whereas high levels of accommodative
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51 velocity indicate a more cooperative stance for the buyer, as its internally attributed behavior is
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53 likely to persist in the future. Thus,
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H_{4a}: The positive effect of accommodative velocity on the buyer's bankruptcy survival is weaker for suppliers' acts than for those of the buyer.

H_{4b}: The negative effect of exploitative velocity on the buyer's bankruptcy survival is weaker for suppliers' acts than for those of the buyer.

Empirical Context

Our empirical context comprises U.S. public firms' efforts to reorganize their debt via Chapter 11 bankruptcy, the legal status that allows them to renegotiate the debt they owe their suppliers and other unsecured creditors. This renegotiation occurs via a series of *motions*—submissions that the buyer and its suppliers file in a bankruptcy court. Such motions by the two parties (the buyer and its suppliers) comprise our measures of accommodative acts and exploitative acts.

We test our conceptual framework using two studies. Study 1 tests our hypotheses using a unique database of bankruptcy motions filed in U.S. courts. Study 2 is a scenario-based experiment that replicates H₁ and H₂ and provides evidence on the mechanism underlying the effects of accommodative and exploitative velocities on the buyer's bankruptcy survival.

Study 1

Data Collection and Unit of Analysis

We assess bankruptcy survival of buyers in three industries: manufacturing, retail and wholesale trade, and services. These industries are characterized by significant buyer–supplier relations and are thus appropriate for our research. We integrate data from three archival sources. New Generation Research's Bankruptcy Data database provided us with a list of all U.S. public firms (in manufacturing, retail and wholesale trade, and services industries) that filed for reorganization bankruptcy between 2001 and 2014. The list includes the name of the firm, the

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3 date it filed for bankruptcy, and name of the bankruptcy court where the firm filed for
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5 bankruptcy. We cross-reference these firms with Standard & Poor's Compustat – Capital IQ
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7 North America Fundamentals Annual database to obtain data on accounting variables. To these
8
9 data, we add information on motions (i.e., acts) by the buyer and its suppliers from the U.S.
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11 judiciary's Public Access to Court Electronic Records (PACER) database. This database
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13 provides the Docket Activity Reports (see Figure B1 for details), which list the individual
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15 motions filed by the buyer and its suppliers during bankruptcy. We download Docket Activity
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17 Reports for each bankruptcy in our sample. These steps yield a sample of 421 reorganization
18
19 bankruptcies filed by U.S. public firms from 2000 to 2014.
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24 Our unit of analysis comprises the buyer firm and its suppliers. We view the suppliers as a
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26 collective rather than as separate entities. This view is consistent with the bankruptcy process,
27
28 which emphasizes the suppliers as a group (Jindal 2020). Furthermore, the PACER data do not
29
30 identify the individual creditor that filed a motion. For each bankruptcy, we use the information
31
32 contained in the Docket Activity Report to distinguish the motions filed by the buyer and its
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34 suppliers from motions filed by other bankruptcy stakeholders, such as the bankruptcy court,
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36 banks, and employee unions. The U.S. bankruptcy courts classify the buyer's and suppliers'
37
38 motions into 23 types. Using the definitions of accommodative acts and exploitative acts, a
39
40 bankruptcy attorney classified each of the 23 types of motion listed in the Docket Activity
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42 Report as an accommodative, exploitative, or neutral act. The expert also rated each motion's
43
44 intensity on a scale of 1 (lowest) to 7 (highest) (Hibbard, Kumar, and Stern 2001; see
45
46 "Determining and Classifying Motions Filed During Bankruptcy" in Web Appendix B). Per this
47
48 classification, 15% of motions in our sample are accommodative, 77% are exploitative, and 8%
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54 are neutral.
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Measures

A party (i.e., either the bankrupt buyer or its suppliers) often files multiple motions to which the counterpart responds. Consider Figure 2, which illustrates the motions filed by Amcast Corporation—one of the buyers in our sample—and its suppliers. Amcast filed three motions: reject contract, complaint, and pay prepetition debt. At this point, one of Amcast’s suppliers filed an objection motion. Amcast’s prior three motions comprise a “sequence” s . A sequence, therefore, is a time-ordered set of uninterrupted motions filed by the same party. Next, we sum the weight of each exploitative motion in s to compute the intensity of exploitation in s . Sequence s has two exploitative motions: “reject contract,” with a weight of 6 (on a scale of 7), and “complaint,” with a weight of 4. Therefore, the intensity of exploitation in s is $6 + 4 = 10$. Similarly, we calculate the intensity of accommodation in the sequence s . Because s comprised a single accommodative motion of “pay prepetition debt” with a weight of 4, the intensity of accommodation in s is 4.

Following the objection motion by one of Amcast’s suppliers, Amcast filed further motions, interrupting its suppliers’ behavior. This interruption helps us group the suppliers’ prior single motion into sequence $s + 1$. Next, we compute the intensity of exploitation and the intensity of accommodation in suppliers’ sequence $s + 1$. Because objection is exploitative and has a weight of 5, the intensity of exploitation in suppliers’ sequence $s + 1$ is 5. Because $s + 1$ has zero accommodative motion, the intensity of accommodation in $s + 1$ is 0. We repeat this process until Amcast’s bankruptcy proceeding ends. Our structuring of the individual motions into sequences means that the sequences alternate between the buyer and the suppliers. For example, in Amcast’s case, sequence s is the buyer’s, $s + 1$ is the suppliers’, $s + 2$ is again the buyer’s, and so on.

[Insert Figure 2 Here]

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Our data set comprises all sequences s within bankruptcy i . However, 110 of the 421 bankruptcies had three or fewer sequences of interactions between the buyer and its suppliers, too few to calculate acts' velocities and variability. We therefore excluded these bankruptcies.

An involuntary bankruptcy—one in which the creditors request the debtor to file for bankruptcy—was also dropped. Our estimation sample thus comprises 310 bankruptcies filed between 2001 and 2014. Table W2 in Web Appendix B lists the number of bankruptcies in our sample by industry and by year.

Dependent variable: Bankruptcy survival. Our dependent variable (DV) is a categorical measure with three values: 1, 2, and 0. First, we are interested in predicting the survival of the bankrupt buyer. Therefore, consistent with prior research on bankruptcy (Elayan and Meyer 2001; Jindal 2020), the DV equals 1 if the buyer maintains its legal status after bankruptcy or is acquired by another firm (i.e., survives or emerges from bankruptcy). Second, the bankruptcy may end in the liquidation of the buyer's assets, which is an unfavorable outcome because the buyer sought reorganization and not liquidation (Chapter 11 vs. Chapter 7, respectively, in the United States). *Bankruptcy survival* equals 2 for such bankruptcy cases. Third, the bankruptcy court may dismiss a case if the buyer fails, for example, to submit to the court the required documents timely or attend the required meetings. We set *Bankruptcy survival* to 0 for such bankruptcy cases. Across the 310 bankruptcies in our final sample, 49% of the firms survived (i.e., $DV = 1$), 44% were liquidated (i.e., $DV = 2$), and 7% were dismissed (i.e., $DV = 0$).

Predictor variables. We measure a party's accommodative velocity in sequence s by the change in the intensity of its accommodation over the current sequence and its prior two sequences. Consider the example of Amcast Corporation, whose bankruptcy proceeding began with the latter (i.e., the buyer) filing the first motion. Suppose we are in sequence #9. Because sequence

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#1 belonged to Amcast, sequence #9 also belongs to it (see Figure 2). We compute the velocity of Amcast's accommodation in sequence #9 by considering Amcast's behavior in the prior two sequences and the current sequence—that is, sequences numbered 5, 7, and 9. We create a counter variable that takes the value of 1 for sequence #5, the value of 2 for sequence #7, and the value of 3 for sequence #9. Next, we regress the intensity of accommodation in these three sequences on the counter. The slope coefficient estimate serves as our measure of the focal party's accommodative velocity (Palmatier et al. 2013). The standard error of the slope coefficient is our measure of the variability in the focal party's accommodative acts (Bommaraju et al. 2019). We repeat the preceding process to compute the focal party's exploitative velocity and the variability in its exploitative acts. The signaler dummy variable equals 1 for the supplier and 0 for the buyer.

We control for three groups of variables. First, because neutral acts may dilute the attention that a party pays to its counterpart's accommodation and exploitation, we control for the parties' neutral acts in the focal bankruptcy. Second, we control for several accounting characteristics of the buyer, each of which might impact its bankruptcy survival. The amount the buyer owes the suppliers serves as a proxy for the suppliers' influence, which can determine bankruptcy outcomes (Jindal 2020). We therefore include the debt owed (accounts payable divided by total debt) as a control variable. Bankruptcy research suggests a strong association between the bankrupt firm's liquidity and its bankruptcy outcomes (Jindal and McAlister 2015). We accordingly control for the buyer's average cash over the six years preceding the year of the bankruptcy filing in millions of dollars. Lastly, following Jindal (2020), we control for the buyer's solvency (total debt divided by total assets), asset size (log-transformed), and profit (earnings before interest, taxes, depreciation and amortization divided by sales).

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We further control for two bankruptcy-specific decisions that the buyer makes. Bankruptcy research in finance and law suggests that the New York–Southern and Delaware bankruptcy courts are more effective and efficient in resolving bankruptcies (LoPucki and Doherty 2002). Consequently, we control for whether the bankruptcy was filed in New York–Southern or Delaware ($NYDE = 1$) or elsewhere ($NYDE = 0$). Further, following prior research (Flynn and Farid 1991), we also control for whether the bankrupt buyer designates its CEO (as opposed to a CFO, a restructuring officer, etc.) as the primary contact during bankruptcy ($CEOPRIMARY$). Lastly, we include fixed effects to account for unobserved heterogeneity specific to the buyer’s industry ($INDUSTRY$) and the bankruptcy-filing year ($YEAR$). Table 4 reports descriptive statistics for the variables and their pairwise correlation coefficients.

[Insert Table 4 Here]

Empirical Model

Bankruptcy survival. Our interest lies in the buyer’s likelihood and speed of emergence from bankruptcy, that is, its bankruptcy survival ($DV = 1$). However, this outcome competes with the alternate outcome of liquidation ($DV = 2$). We thus estimate a competing-risks regression (Fine and Gray 1999; Jindal 2020), which helps us model the *hazard* of bankruptcy survival, controlling for the competing outcome. Simply stated, the competing-risks regression models firm i ’s hazard of survival (our outcome of interest) at time t , provided the firm has neither survived until time t nor has experienced the competing outcome of liquidation. The bankruptcy survival subdistribution hazard function for a competing-risks model is expressed as

$$hi(t) = \lim_{\Delta t \rightarrow 0} \left(\frac{\Pr(t < T_{i,survival} \leq t + \Delta t | T_{i,survival} > t \cup T_{i,survival'} \leq t)}{\Delta t} \right)^n,$$

where t is the length of time since filing for bankruptcy, $T_{i,survival}$ is a random variable for the length of time to bankruptcy survival, and $T_{i,survival'}$ is a random variable for the length of time to

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a competing event (liquidation) for buyer i . Therefore, $h_i(t)$ is the instantaneous rate of bankruptcy survival for buyer i at time t and sequence s , given that the buyer has neither survived nor liquidated. We specify the competing-risks model as

$$h_i(t) = \lambda_0(t) \exp[\alpha_1 AV_{is} + \alpha_2 EV_{is} + \alpha_3 VAA_{is} + \alpha_4 VEA_{is} + \alpha_5 Supplier_{is} + \alpha_6 (AV_{is} * VAA_{is}) + \alpha_7 (EV_{is} * VEA_{is}) + \alpha_8 (AV_{is} * Supplier_{is}) + \alpha_9 (EV_{is} * Supplier_{is}) + \sum_{10}^{31} \alpha_i CONTROLS_i],$$

where $\lambda_0(t)$ is an unspecified baseline survival subdistribution hazard function (Fine and Gray 1999) and AV and EV are accommodative velocity and exploitative velocity, respectively. VAA (VEA) is the variability in accommodative (exploitative) acts.

Endogeneity correction. Our hazard function may have omitted variables that may impact the parties' behaviors and directly affect the buyer's bankruptcy survival. For example, the buyer may exhibit values that emphasize resilience in the face of adversity, thus prioritizing reorganization over liquidation. Such culture—unobservable to us—may influence the buyer's behaviors and directly impact its bankruptcy survival. Omitting such variables renders the accommodative velocity and exploitative velocity (i.e., AV_{is} and EV_{is}) potentially endogenous to our hazard function, biasing our estimates. We follow standard methods to control for the endogeneity of accommodative velocity and exploitative velocity. First, we include industry-fixed effects that control for the unobserved industry-specific factors that do not vary over time and can impact a firm's bankruptcy survival. Similarly, the year fixed effects control for the unobserved macroeconomic variables that may influence bankruptcy survival.

Second, we use the control function method (Petrin and Train 2010) to correct for potential endogeneity. To identify instruments that meet the relevance criterion (i.e., correlated with the velocities) and exclusion restriction (i.e., uncorrelated with the omitted variables), we rely on recent marketing research on bankruptcy (Jindal 2020) and research on the contagion effect of bankruptcy (Ferris, Jayaraman, and Makhija 1997; Jindal and Slotegraaf 2023).

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3 Bankruptcy motions are filed and made publicly available almost immediately. Thus, the
4 attorneys working with their clients (buyers and suppliers) have access to information on
5 industry norms. That is, peers' average behaviors may determine the focal party's acts. We
6 confirm this logic through two means. First, we consulted a bankruptcy counsel who advised us
7 on the Chapter 11 process. The counsel told us that "there is a precedential effect of one
8 (bankruptcy) case on another. If one ... [party] ... is in proceedings in which motions are
9 necessary, the next ... [party] ... that files might look to the earlier case in considering how it
10 might approach proceedings in the second case." Second, BankruptcyData.com provided us with
11 a data file with the names of counsel that the debtor and the committee of unsecured creditors in
12 manufacturing bankruptcies had retained. Consistent with our expectation, the counsel names
13 were repeated within the industry. The repetition supports our reasoning that counsels within an
14 industry generate institutional knowledge, which they appropriate by using prior behaviors of the
15 same type of party (i.e., buyer or suppliers) to determine the current behavior. We thus reason
16 that our instrument meets the relevance criterion. Further, we argue that peers' accommodative
17 and exploitative acts do not correlate with omitted variables such as the focal buyer's values
18 (Jindal 2020); that is, the instruments meet the exclusion restriction.

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40 Accordingly, we instrument the parties' accommodative (exploitative) velocity in
41 bankruptcy i by the average of the accommodative (exploitative) velocity of the parties in other
42 bankruptcies in the buyer's industry in the 90 days prior to the filing year of the focal bankruptcy
43 i . In addition, we use a second instrument, time to bankruptcy filing (the years elapsed between
44 the firm being publicly listed and the year of bankruptcy filing), to correct for endogeneity
45 (Antia, Mani, and Wathne 2017). Web Appendix B details the instrument validity checks, and
46 Table W3 presents the estimates from the first-stage regression.
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Results

Model-Free Evidence

We perform a median split on accommodative velocity and conduct a log-rank test, where the null hypothesis is that the survival functions are equal for low and high levels of the variable. We conduct a similar test for exploitative velocity, variability in accommodative and exploitative acts, and whether the signaler is the suppliers or the buyer. We reject the null of equal survival functions for accommodative velocity ($p < .05$), exploitative velocity ($p < .05$), variability in exploitative acts ($p < .1$), and supplier identity ($p < .05$). However, we could not reject the null of equal survival functions for the variability in accommodative acts. These findings provide preliminary support for our model.

Survival Analysis Results

Table 5 reports estimates from the competing-risks model. The positive coefficient estimates indicate that the predictor increases the hazard of bankruptcy survival, whereas a negative coefficient estimate indicates a decrease in the hazard. That is, a positive coefficient indicates an increase in the likelihood of the buyer's emergence from bankruptcy and a decrease in its bankruptcy duration. In contrast, a negative coefficient indicates a lower likelihood of emergence and higher duration.

H_1 posits that the accommodative velocity is positively associated with the buyer's bankruptcy survival. We find support for H_1 , as parties' accommodative velocity increases the buyer's bankruptcy survival ($\alpha_1 = 38.73$, $p < .01$). Averaged over the duration of a bankruptcy, a 1% increase in accommodative velocity increases the hazard of bankruptcy survival by 39%. H_2 hypothesizes that exploitative velocity decreases the buyer's bankruptcy survival. We find marginal support for this hypothesis as well ($\alpha_1 = -33.27$, $p < .1$). Over the bankruptcy duration, a 1% increase in exploitative velocity decreases the hazard of survival by 33%.

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H_{3a} predicts that the variability in accommodative acts weakens the positive effect of the accommodative velocity on the buyer's bankruptcy survival. H_{3a} is supported ($\alpha_6 = -.97, p < .01$). H_{3b} states that the variability in exploitative acts weakens the negative effect of the exploitative velocity on the buyer's bankruptcy survival. We find no support for this hypothesis ($\alpha_7 = -.24, n.s.$). H_{4a} predicts that the positive effect of accommodative velocity is weaker for suppliers' (vs. the buyer's) acts. This hypothesis is supported ($\alpha_8 = -7.22, p < .05$). We also find support for H_{4b}, which states that the negative effect of exploitative velocity is weaker for suppliers than for the buyer ($\alpha_9 = 5.16, p < .05$).

Turning to the control variables, we find that solvency ($\alpha_{13} = 1.57, p < .01$), size ($\alpha_{14} = .18, p < .05$), and CEO as the primary contact ($\alpha_{17} = 1.26, p < .05$) are positively associated with the buyer's bankruptcy survival. The buyer's cash is negatively related to its bankruptcy survival ($\alpha_{12} = -.00, p < .05$). Parties' neutral acts ($\alpha_{10} = .17, n.s.$), the amount the buyer owes its suppliers ($\alpha_{11} = -.00, n.s.$), profit ($\alpha_{15} = -.00, n.s.$), whether the case is filed in the more efficient courts of New York–Southern or Delaware ($\alpha_{16} = -.04, n.s.$), and whether the buyer is in the retail ($\alpha_{18} = -.18, n.s.$) or services ($\alpha_{19} = -.11, n.s.$) industries are not associated with the buyer's bankruptcy survival. The residuals for the accommodative velocity have a weakly significant association with bankruptcy survival ($\alpha_{32} = -31.98, p < .1$). However, the residuals of the exploitative velocity are not related to survival ($\alpha_{33} = 29.33, n.s.$), suggesting that this velocity is likely not endogenous to the specification of bankruptcy survival (Tan, Chandukala, and Reddy 2022). Web Appendix C provides details on seven robustness checks (Tables W4–W9) and two additional analyses (Tables W10 and W11) we conducted. Our results remain robust across all analyses.

[Insert Table 5 Here]

Post Hoc Analysis of the Moderators

Following Aiken and West (1991), we conduct simple slopes analysis to further assess the significant interactions between accommodative velocity and the variability in accommodative acts. At high and low levels of variability (± 2 SD), the positive slope of accommodative velocity was 37.05 and 40.37, respectively. That is, at high levels of variability, a 1% increase in accommodative velocity causes a 37% increase in bankruptcy survival. In contrast, at low level of variability, the increase is 40.37%.

Next, we compute the effect sizes by the signaler identity: suppliers versus the buyer. A 1% increase in the buyer's accommodative velocity boosts bankruptcy survival by 38.73%, whereas a similar increase in the velocity of the suppliers' accommodative acts raises bankruptcy survival by 31.5% ($38.73 - 7.22$). Next, a 1% increase in the velocity of the buyer's exploitative acts suppresses bankruptcy survival by 33.27%, whereas a similar increase in the velocity of the suppliers' accommodative acts raises bankruptcy survival by 28.1% ($-33.27 + 5.16$). The insight is that the buyer's acts are more impactful than the suppliers'.

Study 2

Objective

Study 2 aims to (1) replicate the main effects from Study 1 that parties' accommodative (exploitative) velocity helps (hinders) the buyer's bankruptcy survival and (2) test the proposed mechanism—that the counterpart anticipates the focal party to persist in its accommodative or exploitative acts in the future—underlying the main effects.

Design

We employed a one-factor, three-condition (accommodative, exploitative, and neutral velocity) between-subjects design. In designing the experiment, we consulted four marketing

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academics and two bankruptcy law experts on the scenario wording and response formats. Web Appendix D describes the scenario text common to the three conditions and the text manipulating the velocities: accommodative, exploitative, and neutral.

Procedure

We recruited from Prolific Academic 224 U.S.-located individuals with managerial experience to participate in a study about a supplier dealing with a bankrupt buyer. The average age of the participants was 40.9 years, and the average managerial experience was 19.5 years. The participants had prior experience in a broad range of industries: manufacturing ($n = 26$; 11.61%), retail and wholesale trade ($n = 38$; 16.96%), and services ($n = 81$; 36.16%). Fifty-two percent of participants were female, forty-seven percent were male, and one percent did not disclose their gender.

All participants were first asked to imagine that they were employed as managers of a firm supplying inputs to a buyer firm (named TKS Associates) for more than five years, and that the buyer firm had been unable to pay its last invoice and had filed for bankruptcy (see Web Appendix D). They were further informed that their employer and the buyer firm were required to interact with each other solely via motions filed in a bankruptcy court. The scenario also mentioned the implications of the supplier's interactions with the buyer firm for the latter's bankruptcy survival, and what the survival meant for each party.

The participants were randomly assigned to one of the three experimental conditions (accommodative velocity $n = 75$; exploitative velocity $n = 72$; neutral velocity $n = 77$). Each participant viewed TKS Associates' three recent acts and was expected to infer trends (velocity) from these multiple acts (Johnson, Tellis, and MacInnis 2005). We next asked the participant to indicate their likelihood of approving the buyer firm's bankruptcy debt restructure plan (i.e., our DV). The participant next answered a series of questions regarding their belief that their buyer

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partner would persist with accommodative and exploitative acts in the future (i.e., our mechanism variable). We randomized the order of presentation of statements about their beliefs. Lastly, we checked the manipulation, and concluded by collecting participants' demographic information (age, gender, years of managerial experience, and industry worked in).

Measures

Web Appendix D lists the items we used to measure participants' anticipation of their buyer partner firm's future accommodative and exploitative acts. We modified Bello, Katsikeas, and Robson's (2010) measures of accommodative acts to arrive at a five-item Likert-type scale reflecting the extent to which the participant anticipated the buyer to undertake accommodative acts in the future. We developed analogous items of participants' beliefs regarding their buyer partner firm undertaking exploitative acts in the future. We also controlled for respondents' age, gender, years of work experience, and industries.

Attention Check and Manipulation Checks

Of the 224 participants originally recruited, three failed our attention check items and were excluded from the study. We undertook checks of our manipulations by examining means across treatments to the statement "TKS Associates' recent motions have accommodated [or exploited] my company" for the 221 participants. The checks indicate that our manipulations were successful, with the accommodative velocity scenario significantly increasing perceptions of the accommodativeness of TKS's recent acts compared to the neutral scenario ($M_{\text{accommodative}} - M_{\text{neutral}} = 2.19; t = 13.24, p < .00$), and the exploitative velocity scenario ($M_{\text{accommodative}} - M_{\text{exploitative}} = 3.96; t = 23.06, p < .00$). In addition, the exploitative scenario significantly increased participants' perceptions of the exploitative velocity of TKS's recent acts compared

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with the neutral scenario ($M_{\text{exploitative}} - M_{\text{neutral}} = 1.36; t = 5.92, p < .00$) and the accommodative scenario ($M_{\text{exploitative}} - M_{\text{accommodative}} = 3.21; t = -16.48, p < .00$).

Results

To assess the effects of the buyer's accommodative and exploitative velocities, we first regressed the likelihood of participants approving TKS Associates' debt restructure plan (i.e., our DV) on a three-level categorical variable (accommodative and exploitative conditions, with the neutral condition specified as the baseline). Table 6 displays the regression results with and without the inclusion of covariates. Consistent with H₁ and H₂, accommodative velocity significantly increases the supplier's likelihood of approving the buyer's debt restructure plan, whereas exploitative velocity significantly decreases this likelihood.

We further argued that suppliers' perceptions of the buyer partner's future accommodative intent mediate the effect of accommodative acts on their likelihood of approving the buyer's debt restructure plan. To test this argument, we used PROCESS Model 4 (Hayes 2018) and found that perceived future accommodative intent partially mediates the path between the buyer's accommodative acts and suppliers' likelihood of approving the plan. The total effect of accommodative velocity on the supplier's approval ($c = 1.89, p < .00$) comprises an indirect effect through perceived future accommodative intent ($a = 1.36, p < .00; b = .54, p < .00; a \times b = .73, CI = [.43, 1.06]$) as well as a significant direct effect ($c' = 1.16, p < .00$). The indirect effect is 38.86% ($[1.36 \times .54] \div 1.89$) of the total effect.

We also argued that the negative association between the buyer's exploitative velocity and the supplier's approval is mediated by the supplier's perceptions of the buyer's future exploitative intent. The evidence is consistent with this expectation. Perceived future exploitative intent partially mediates the path between the buyer's exploitative velocity and its successful

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3 bankruptcy survival. The total effect of exploitative velocity on the supplier approving the
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5 buyer's plan ($c = -2.06, p < .00$) comprises a significant indirect effect through perceived future
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7 exploitative intent ($a = 1.16, p < .00$; $b = -.54, p < .00$; $a \times b = -.63, CI = [-.93, -.36]$), as well
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9 as a significant direct effect ($c' = -1.43, p < .00$). The indirect effect is 30.41% ($[1.16 \times -.54] \div$
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11 2.06) of the total effect.
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14 The experiment supports our hypotheses that a bankrupt buyer's accommodative
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16 (exploitative) velocity significantly increases (decreases) the likelihood of the supplier approving
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18 the buyer's plan, and that these effects are partially explained by an increase in suppliers'
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20 perceptions of future accommodative (exploitative) intent.
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24 [Insert Table 6 Here]
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26 Discussion

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29 Our research responds to the call for an "interactive approach to interorganizational
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31 relationships" (Heide and Miner 1992, p. 265). Relying on the novel context of buyer-supplier
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33 interactions occurring in 310 bankruptcies filed by buyer firms in three industries over 14 years,
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35 Study 1 demonstrates that the velocities of a bankrupt buyer's and its suppliers' accommodative
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37 and exploitative acts impact the buyer's bankruptcy survival. These effects are contingent on the
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39 variability in these acts and whether the signaler is the buyer or its suppliers. Study 2
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41 demonstrates an underlying mechanism: the extent to which one party's acts shape its
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43 counterpart's expectations of similar behavior in the future. The convergent results from a
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45 longitudinal-observational study and a scenario-based experiment demonstrate that "prior
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47 relationship dynamics determine future relationship developments" (Schmitz et al. 2020, p. 72)
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49 and influence the buyer's bankruptcy survival. In what follows, we discuss the theoretical and
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51 managerial implications of our findings.
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Theoretical Implications

Contributions to research on dynamics of buyer–supplier relations. Research on interorganizational relationship dynamics has examined the stages and cycles of relationship development (Shamsollahi et al. 2021) and emphasized that these relations follow a predefined trajectory in their evolution over time. However, the marketing discipline has little understanding of how temporal changes in relational behaviors influence firm performance (see Palmatier et al. [2013] for a notable exception). One reason for the lack of research on the relationship trends is the difficulty in observing buyer–supplier interactions over time. The bankruptcy court filings provide a unique opportunity to observe how the parties’ behaviors evolve. By studying two relational constructs that change over time (i.e., accommodative and exploitative velocities) and their impact on the critical outcome of a firm’s bankruptcy survival, we extend prior acknowledgments of the importance of examining different relationship velocities and of quantifying their effects on performance (Palmatier et al. 2013).

Integrating the relationship dynamics literature with signaling theory, we show how parties’ (the buyer’s and its suppliers’) acts convey information about their intent (Porter 1980). We build on Prabhu and Stewart’s (2001, p. 63) contention that “through repeated interaction, receivers first form beliefs about senders and then use these beliefs in making decisions.” In addition, we identify variability in accommodative acts as a significant moderator of the effect of accommodative velocity on bankruptcy survival. When one party’s accommodative velocity is characterized by high variability, its accommodative velocity is not considered a credible signal. Counter to our hypothesis, though, variability in exploitative acts does not moderate the effect of exploitation velocity on bankruptcy survival. These findings suggest asymmetry in the effects of accommodative and exploitative velocities and the variability in the acts. Exploitative velocity

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3 appears to elicit a greater expectation of persistence, despite variability in it. Each party would
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5 do well to be mindful of this asymmetry.
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8 We also hypothesize and find evidence that parties' identities matter. In the present
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10 context, suppliers' acts are discounted more than a buyer's acts. We attribute this differential
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12 discounting to the fact that bankruptcy procedures offer less discretion to suppliers, resulting in
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14 their acts being attributed to external factors (Prabhu and Stewart 2011; Ross and Anderson
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16 1982). In contrast, the buyer strategically and voluntarily files for bankruptcy to reorganize and
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18 start afresh and thus has greater discretion. Consequently, the effects of suppliers'
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20 accommodative and exploitative velocities on the buyer's survival are weaker than those of the
21
22 buyer. The asymmetric moderating impact of the signaler identity on the buyer's bankruptcy
23
24 survival emphasizes the importance of the context in which the parties interact.
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28 An additional critical insight we provide stems from our experiment. We show that
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30 trajectories of acts—both accommodative and exploitative—increase the counterparts'
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32 confidence that the acts will persist. Moreover, these beliefs in the persistence of acts explain the
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34 supplier's decision to influence the buyer's bankruptcy survival efforts. In establishing the
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36 mechanism underlying the impact of accommodative and exploitative acts on bankruptcy
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38 survival, we provide confidence in the results we observe in situ over 14 years of bankruptcies.
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42 *Contributions to signaling theory.* We make two significant contributions to signaling
43
44 theory. First, although the signaling theory acknowledges that a firm's stakeholders lack
45
46 information about not only its (and its offerings') quality but also its behavioral intent (Stiglitz
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48 2000), the empirical evidence has focused on the former (Acar et al. 2021; Cao et al. 2023;
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50 Chase and Murtha 2019). Our focus on understanding how parties use acts to signal *intent* thus
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52 represents an important contribution to the signaling literature. Specifically, Study 1 yields
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evidence consistent with our hypothesizing the signaling value of accommodative and exploitative act velocities. Study 2 further demonstrates that signals do provide information of the sender's intent. That is, upon receiving the sender's accommodative (exploitative) acts, the receiver believes that such accommodation (exploitation) will likely continue. This inference about the sender's intent in turn influences the buyer's bankruptcy survival.

Second, the extant signaling literature has focused overwhelmingly on positive signals. However, signals can also be negative (Connelly et al. 2011). In examining parties' exploitative acts and the receiver's inference of these acts, we emphasize the need to be cognizant of the acts' repercussions. Our focus on signaling intent via accommodative and exploitative acts significantly extends the scope and application of signaling theory to vital managerial decisions.

Contributions to the marketing–finance interface. We also make an important contribution to research on the marketing–finance interface (Srivastava, Shervani, and Fahey 1998). In considering bankruptcy survival pursuant to buyer–supplier interactions, we extend the nascent literature examining the link between marketing actions and bankruptcies (Antia, Mani, and Wathne 2017; Jindal and McAlister 2015; Jindal and Slotegraaf 2023). Academics in economics, finance, marketing, and law have provided robust insight into how a firm's *financial status before* it files for bankruptcy impacts its bankruptcy survival (see Table 1). We extend this literature by demonstrating that *buyer–supplier acts during* bankruptcy also determine the buyer's bankruptcy survival. The demonstrated influence of both parties' acts during bankruptcy bridges the gap between the theory and the practice of bankruptcy. Importantly, our findings demonstrate that marketing can help a firm's financial outcomes not only in steady state but also in crises (Edeling, Srinivasan, and Hanssens 2021; Fang, Palmatier, and Steenkamp 2008).

Managerial Implications

In a postpandemic world characterized by macroeconomic instability and geopolitical uncertainty, firm bankruptcy is unfortunately not a rare incident (American Bankruptcy Institute 2022). Bankrupt firms often leave their customers, suppliers, and employees stranded. Just as importantly, bankrupt firms experience financial losses they are particularly ill-suited to weather. The Chrysler Corporation, for example, lost \$100 million each day that it remained in bankruptcy (Selbst 2009). The firms we studied had assets worth \$8 billion, on average. Moreover, on average, medium-sized firms spend about 3% of their assets and 648 days in bankruptcy (Rosen 2016). We therefore estimate that bankruptcy costs amounted to \$370,000 per day for firms in our sample. Notably, successful and speedy emergence from bankruptcy enables the buyer to make and act on decisions without the court's supervision, providing additional incentive for managers to seek early survival.

We find that a 1% increase in a party's accommodative velocity increases bankruptcy survival by 39%, while a 1% increase in its exploitative velocity decreases bankruptcy survival by 33%. Each party would do well to note that accommodative velocity has a greater effect on bankruptcy survival even though these acts represent only 15% of the motions filed during bankruptcy. We also find that the variability in acts mitigates the positive effect of accommodative velocity, but not that of exploitative velocity. These asymmetrical moderating effects suggest two simple yet important pieces of advice to buyers and their suppliers: (1) undertake accommodative acts increasingly and consistently over time, because they aid bankruptcy survival, and (2) reduce exploitative acts over time. These findings underscore managerial agency, particularly the insight that the buyer's fate is not solely determined by its financial status prior to filing for bankruptcy.

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Our findings also have implications for suppliers. Although suppliers' acts are less influential with respect to bankruptcy survival than the buyer's, their effect is nevertheless substantial. Specifically, a 1% increase in suppliers' accommodative velocity increases bankruptcy survival by 32% (for the buyer's accommodative velocity, the increase is 39%). Similarly, a 1% increase in suppliers' exploitative velocity decreases bankruptcy survival by 28% (for the buyer's exploitative velocity, it is 33%). Our findings indicate that the suppliers' velocities influence bankruptcy survival, albeit to a lesser extent than the buyer's velocities. This difference is more pronounced for accommodative velocity than exploitative velocity. The latter findings imply that suppliers should consider the marked bankruptcy survival outcomes consequent to their use of accommodative and exploitative motions in court.

From a public policy perspective, suppliers' participation is a desirable feature of bankruptcy laws. However, suppliers do not always participate in the bankruptcy proceedings because of the costs or a general sense of apathy (Tomasic 2006). The findings from our research indicate that suppliers' acts over time influence buyer's bankruptcy survival. Policy makers can use the findings from our research to encourage suppliers to engage in accommodative acts at a faster rate and reduce the rate of exploitative acts to support a buyer's efforts to emerge from bankruptcy.

Limitations and Research Directions

Our research does have limitations, each of which merits future attention. The U.S. Chapter 11 bankruptcy law assigns priority levels to a firm's creditors based on whether their provided debt is secured or unsecured (Jindal 2020). Because all suppliers provide *unsecured* debt to a buyer firm, their claims fall under the same priority level. However, we cannot rule out the possibility that bankruptcy laws in other countries may assign different levels of priority to

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2
3 suppliers. Nor can we rule out the possibility that other non-supplier-undertaken motions might
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5 impact buyers' bankruptcy survival. Future research may explore non-U.S. settings and non-
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7 supplier-undertaken motions and test our theory. In addition, the court-provided PACER data do
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9 not usually identify the specific supplier, especially for motions filed by the buyer. Relatedly,
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11 while the Securities and Exchange Commission requires a U.S. public firm to disclose its major
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13 customers, no such mandate exists for the firm's major suppliers. As a result, we are unable to
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15 examine heterogeneity in buyer-supplier interactions as a function of supplier characteristics.
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17 Future efforts to remedy this limitation, perhaps in non-U.S. contexts, could prove fruitful.
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22 The archival data preclude us from observing out-of-court negotiations, settlements, and/or
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24 disagreements that could determine the court-filed motions. Future research that complements
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26 the PACER data with surveys of the buyer, suppliers, and/or their counsel measuring out-of-
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28 court interactions could be valuable. Furthermore, we do not observe the extent to which
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30 suppliers attribute blame for the buyer's bankruptcy to its financial mismanagement or to the
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32 external business environment. Because this blame attribution could also influence how signals
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34 are inferred and, in turn, influence bankruptcy outcomes, future research should examine blame
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36 attribution and its implication on the bankruptcy survival. Lastly, although we acknowledge that
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38 buyer-supplier power, dependence, and reciprocity likely influence bankruptcy survival, they are
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40 either unobservable or lie outside the scope of this study. Future research could examine these
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42 and other buyer-supplier relationship constructs and their effect on bankruptcy survival.
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Table 1: Representative Multidisciplinary Research on Bankruptcy Survival

Citation and Sample	Predictors	Dependent Variable(s)	Key Findings
Arora (2018) 307 U.S. firms that petitioned for bankruptcy	The proportion of board meetings attended by the financially linked independent directors	Whether the firm emerges from bankruptcy	A bankrupt firm's independent directors who are linked to a financial institution exert greater effort to help the firm emerge from bankruptcy. Their efforts increase the firm's likelihood of successful reorganization.
Bryan, Tiras, and Wheatley (2002) 175 firms that filed for bankruptcy during 1980–1994	The firm's solvency risk and liquidity risk	Whether the firm emerges from bankruptcy	The debtor firm's solvency risk and liquidity risk predict whether it will emerge from bankruptcy.
Denis and Rodgers (2007) 224 firms that filed for bankruptcy between 1985 and 1994	Firm assets and liabilities, industry-median operating margin, and market-to-book ratio	Duration of firm bankruptcy, whether the firm emerges from bankruptcy, and post-emergence profitability	Firms are more likely to emerge from bankruptcy if they reduce their assets and liabilities.
Elayan and Meyer (2001) 61 debtor-in-possession (DIP) financing announcements by 47 firms that filed for Chapter 11 bankruptcy during 1980–1995	Announcement of DIP financing	Abnormal stock returns, whether the firm emerges, and the number of days under bankruptcy	Stockholders respond positively to the debtor firm receiving DIP financing. DIP financing increases the debtor's likelihood of emergence and decreases the duration of the bankruptcy.
Jindal (2020) 1,504 bankruptcies between 1996 and 2019	Supplier debt levels; advertising and R&D expenses	Bankruptcy survival and time in bankruptcy	Advertising and R&D increase bankruptcy survival when suppliers have a high level of influence.
Moulton and Thomas (1993) 73 Chapter 11 filings from 1980 through 1986	Size (total assets at the end of the fiscal year before filing) and rate of decline (the number of years in which the firm's net income was negative)	Whether the firm emerges successfully (i.e., retains identity, continues to be traded on a stock exchange, has more than 50% of pre-filing assets)	Size and rate of decline predict whether the firm emerges.
This article 310 bankruptcies, in three industries over 14 years from 2001 to 2014	Accommodative and exploitative velocities during buyer's bankruptcy	Bankruptcy survival	Accommodative (exploitative) velocity increases (reduces) buyers' bankruptcy survival. However, this effect varies by the variability in accommodative and exploitative acts and the identity of the signaler (buyer/supplier).





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Table 2: Dimensions Underlying Accommodative and Exploitative Acts

Accommodative Acts	Exploitative Acts
Dictionary meaning⁵: To accommodate is to provide with something desired, needed, or suited; to allow for.	Dictionary meaning: To exploit is to unfairly or cynically using another person or group for profit or advantage.
Our definition: The focal party's <i>accommodative acts</i> comprise behaviors that are intended to allow for or cater to the counterpart's needs (Bello, Katsikeas, and Robson 2010; Cannon and Homburg 2001; Noordewier, John, and Nevin 1990).	Our definition: The focal party's <i>exploitative acts</i> comprise behaviors that are intended to deny the needs of, extract concessions from, or make demands of the counterpart (Bello, Katsikeas, and Robson 2010; Narayandas and Rangan 2004).
Concession-making	Concession-seeking
Cooperative (i.e., characterized by a willingness to work with others)	Competitive (i.e., characterized by each party pursuing its own interests, without regard for others; Montoya-Weiss, Massey, and Song 2001)
Counterpart-serving	Self-serving
Reflecting bilateral considerations	Reflecting unilateral considerations
Value creation	Value appropriation
Relational orientation, emphasis is on maximizing the interests and welfare of dyadic relationships and on maintaining them over time (Heide, Bell, and Tracey 2023)	Individualistic orientation; emphasizing the interests and welfare of the focal firm with respect to key outcomes (Heide, Bell, and Tracey 2023)

⁵ Merriam Webster dictionary ("<https://www.merriam-webster.com/dictionary/>"); accessed July 17, 2023.

Table 3: Velocity and Variability in Acts

		Variability in Acts	
		<i>Lower</i>	<i>Higher</i>
Velocity (accommodative or exploitative)	<i>Lower</i>	<p><i>Lower velocity</i> means that the effect of time is not strong, so the counterpart infers the focal party's behavioral intent (accommodative or exploitative) to persist at a gradual rate. <i>Lower variability</i> means that the counterpart has <i>greater confidence</i> in its prediction as the prior acts have low divergence from the mean acts.</p> 	<p><i>Lower velocity</i> means that the effect of time is not strong, so the counterpart infers the focal party's behavioral intent (accommodative or exploitative) to persist at a gradual rate. <i>Higher variability</i> indicates that the counterpart has <i>lesser confidence</i> in its prediction as the prior acts have high divergence from the mean acts.</p> 
	<i>Higher</i>	<p><i>Higher velocity</i> means that the effect of time is positive and strong, so the counterpart infers the focal party's behavioral intent (accommodative or exploitative) to persist at a fast rate. <i>Lower variability</i> indicates that the counterpart has <i>greater confidence</i> in its prediction as the prior acts have low divergence from the mean acts.</p> 	<p><i>Higher velocity</i> means that the effect of time is positive and strong, so the counterpart infers the focal party's behavioral intent (accommodative or exploitative) to persist at a fast rate. <i>Higher variability</i> indicates that the counterpart has <i>lesser confidence</i> in its prediction as the prior acts have high divergence from the mean acts.</p> 

Notes: Velocity is the rate and the direction of change in either accommodative acts or exploitative acts over time. This is the slope of the line in the table's examples. Variability in acts is the extent to which parties' acts diverge from their mean acts. The stars indicate the intensity of acts and show whether they are close to or scattered away from the line. Further, the lowest level of accommodative (exploitative) velocity is reflected in a steep negative slope of the line.

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Table 4: Study 1: Descriptive Statistics and Correlation Coefficients

		Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1	Survival	.13	.45	—												
2	Accommodative velocity ^a	6.95	.12	-.00	—											
3	Exploitative velocity ^a	6.94	.13	.00	.06	—										
4	Variability in accommodative acts ^a	.54	0.85	-.01	-.00	.02	—									
5	Variability in exploitative acts ^a	.91	1.12	-.04	.00	-.06	.26	—								
6	Supplier	.48	.50	-.04	-.00	-.03	.19	.44	—							
7	Neutral acts	.39	1.24	.01	-.04	.01	-.01	-.11	-.15	—						
8	Amount owed to suppliers	16.76	404.85	.03	.00	.00	-.02	-.02	.00	-.01	—					
9	Cash	506.49	2,897.72	-.04	.00	.00	-.06	.10	.00	-.03	-.01	—				
10	Solvency	.43	.32	-.02	-.01	-.00	-.04	-.02	.00	.02	-.06	-.00	—			
11	Size	6.60	2.04	-.17	-.02	-.01	.04	.12	.01	.01	-.03	.43	-.08	—		
12	Profit	-.57	10.68	-.02	-.01	-.00	.01	.02	-.01	.02	.00	.01	-.01	.12	—	
13	New York/Delaware or other	.63	.48	-.03	-.01	-.01	.19	-.10	.00	-.04	-.05	.12	.02	.36	-.01	—
14	CEO primary	.05	.23	-.01	-.06	-.00	-.01	-.01	-.00	-.01	-.01	-.01	-.01	.04	.01	.02

^aNatural log-transformed.

Notes: All correlations greater than the absolute value of .04 are significant at $p < .10$ (two-tailed). $n = 3,160$.

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Table 5: Study 1: Competing-Risks Model Estimates (N = 3,160)

	Hypotheses (Expected Direction)	Buyer's Bankruptcy Survival	
		Main Effects Model	Full Model
Accommodative velocity ^a	H ₁ (+)	33.33 (1.79)*	38.73 (2.06)**
Exploitative velocity ^a	H ₂ (-)	-29.49 (-1.62)	-33.27 (-1.83)*
Variability in accommodative acts ^a		-.03 (-.26)	.00 (.01)
Variability in exploitative acts ^a		.02 (-.19)	.02 (.24)
Supplier		-1.27 (-4.45)***	-1.29 (-4.50)***
Accommodative velocity × Variability in accommodative acts	H _{3a} (-)	—	-.97 (-3.62)***
Exploitative velocity × Variability in exploitative acts	H _{3b} (+)	—	-.24 (-.46)
Accommodative velocity × Supplier	H _{4a} (-)	—	-7.22 (-2.24)**
Exploitative velocity × Supplier	H _{4b} (+)	—	5.16 (2.33)**
Neutral acts		.16 (1.18)	.17 (1.40)
Amount owed to suppliers		-.00 (-.76)	-.00 (-.76)
Cash		-.00 (-2.13)**	-.00 (-2.24)**
Solvency		1.44 (5.38)***	1.57 (5.59)***
Size		.18 (2.42)**	.18 (2.53)**
Profit		-.00 (-.43)	-.00 (-.29)
New York/Delaware or other		-.02 (-.11)	-.04 (-.17)
CEO primary		1.18 (2.00)**	1.26 (2.10)**
Retail		-.24 (-.77)	-.24 (-.78)
Services		-.11 (-.35)	-.11 (-.35)
Year of filing for bankruptcy (fixed effects)		Yes	Yes
Accommodative velocity – residuals		-33.34 (-1.78)*	-31.98 (-1.72)*
Exploitative velocity – residuals		29.33 (1.61)	29.33 (1.62)

* $p < .1$, ** $p < .05$, *** $p < .01$ (two-tailed).

^aNatural log-transformed.

Notes: Regression estimates are shown with z-statistics in parentheses.

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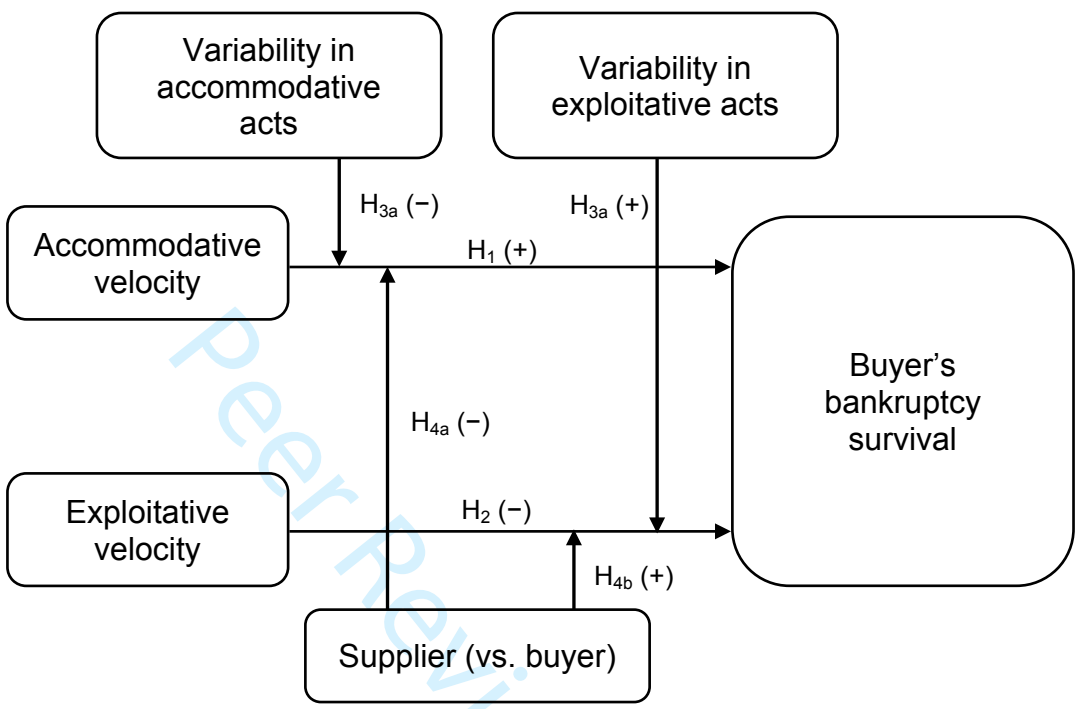
Table 6: Study 2: Regression Results

Likelihood of Approving Buyer's Debt Restructuring Plan	Main Effects	Main Effects with Covariates
Accommodative velocity	1.88 (.17)***	1.89 (.17)***
Exploitative velocity	-2.00 (.23)***	-2.06 (.22)***
Age		-.00 (.02)
Female		-1.59 (1.35)
Male		-1.71 (1.35)
Years of work experience		.01 (.02)
Services industry		-.00 (.32)
Retail and wholesale trade industry		-.03 (.37)
Other industries		-.18 (.34)
Constant	21.43 (.14)***	22.95 (1.45)
Observations	221	221
R-squared	.63	.65

* $p < .1$; ** $p < .05$; *** $p < .01$ (two-tailed).

Notes: Robust standard errors are in parentheses.

Figure 1: Conceptual Framework



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Figure 2: A Prototypical Example of the Sequences of Acts by a Buyer and Its Suppliers

	<i>Sequence s</i>	<i>Sequence s + 1</i>	<i>Sequence s + 2</i>	<i>Sequence s + 3</i>
Amcast Corporation (Focal Party)	Reject contract (Exploitative) Complaint (Exploitative) Pay prepetition debt (Accommodative)		Complaint (Exploitative) Allow claim (Accommodative)	
Amcast's Supplier (Counterpart)		Objection (Exploitative)		Complaint (Exploitative) Objection (Exploitative)

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WEB APPENDICES

Buyer-Supplier Relationship Dynamics in Buyers' Bankruptcy Survival

Sudha Mani

Vivek Astvansh

Kersi D. Antia*

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These materials have been supplied by the authors to aid in the understanding of their paper. The AMA is sharing these materials at the request of the authors.

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Web Appendix A: The U.S. Bankruptcy (Chapter 11) Process

A financially distressed buyer firm that is unable to meet its financial obligations can voluntarily file for bankruptcy¹ under Chapter 11 of the United States Bankruptcy Code. The first step in the bankruptcy process is for the buyer firm to file for Chapter 11 bankruptcy in court (see Figure W1; Frost 2013). A buyer filing for Chapter 11 bankruptcy seeks to reorganize (specifically, reduce and restructure) its pre-bankruptcy debt, while continuing to operate its business with the aim of being viable again upon bankruptcy survival. The filing of the bankruptcy creates a debtor-in-possession status for the buyer and serves as the commencement of bankruptcy, triggering an automatic stay that provides the debtor respite from paying its pre-bankruptcy debt, till the end of the bankruptcy process. Yet, the debtors continue to maintain control over the day-to-day operation of the firm, through the bankruptcy court's involvement. Bankruptcy is an expensive and time-consuming process. Early bankruptcy survival helps the buyer minimize the costs associated with adhering to the court-supervised bankruptcy process.

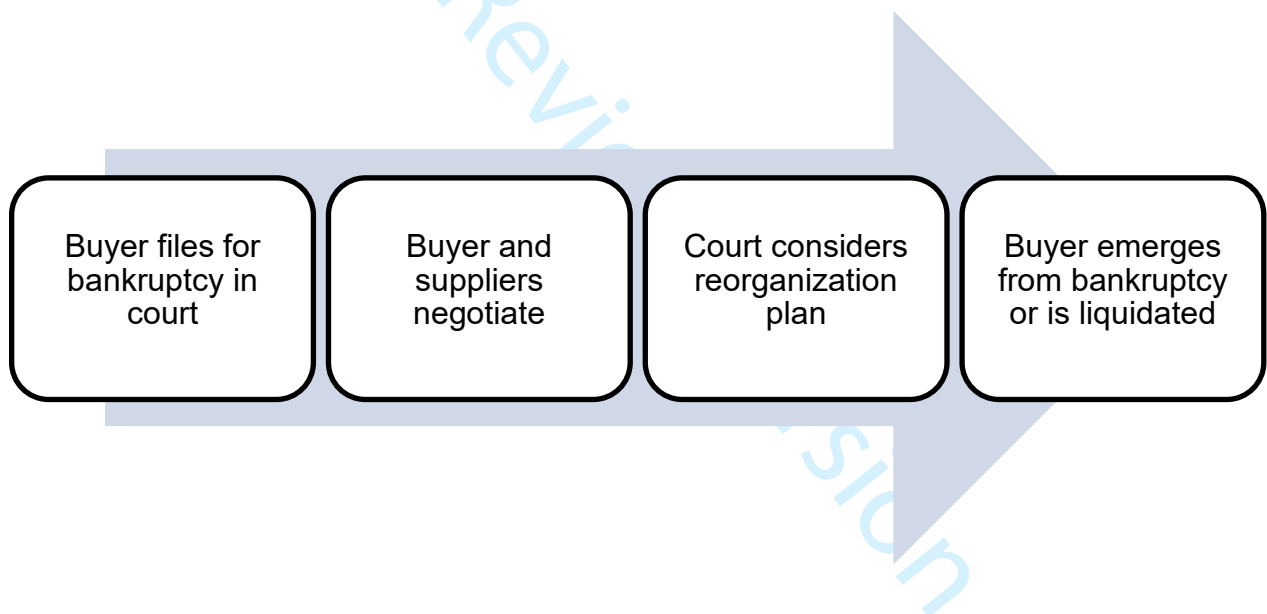
However, early bankruptcy survival depends on buyers and their suppliers' negotiations, where both parties file motions with the court as part of their effort to renegotiate the pre-bankruptcy debt. The buyer may file motions to pay pre-bankruptcy debt owed to their suppliers, to cater to the supplier's needs. Buyers may, however, also file motions to dismiss a supplier's claim of pre-bankruptcy debt. This motion is to seek concessions from the suppliers and is thus exploitative in nature. Suppliers, for their part, may also undertake both accommodative (for example, a no-objection motion in response to a buyer) and exploitative (for example, a motion to reclaim goods that were delivered before the bankruptcy) acts. The individual motions thus have either a cooperative or competitive intent.

¹ Involuntary Chapter 11 bankruptcy filings are beyond the scope of the current research.

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As part of winding down of the bankruptcy process and for the buyer's bankruptcy survival the buyer files with the court a reorganization plan with information on the payment to suppliers. Creditors (suppliers and other creditors) that are expected to receive less than the amount owed to them can vote on this plan. The court approves the reorganization plan once two-thirds of creditors based on the dollar amount owed or 50% of creditors based on number of claims vote in favor of the reorganization plan. If the creditors vote against the plan, then the bankruptcy court typically does not approve the reorganization plan, and the buyer firm is liquidated.

Figure W1: The Bankruptcy Process



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Web Appendix B: Study 1

Table W1: Classification of the 20 Court-Defined Motions

Court-Defined Motion	Description of Motion	Party Filing the Motion	Accommodative or Exploitative? (intensity on a scale of 1 to 7, where 7 is high intensity)	Example Docket Text
Adversary proceeding – file/reopen	A separate but related civil case (typically a complaint) filed against the buyer	Supplier	Exploitative (5)	“motion to reopen adversary proceeding / motion of the official committee of unsecured creditors of Pillowtex Corporation, et al. for an order to re-open adversary proceeding”
Allow claim	Payments of allowed claims take priority in a bankruptcy case	Buyer	Accommodative (6)	“motion to allow claims stipulation allowing administrative claim...and return of equipment to debtors filed by debtor Kitty Hawk, Inc.”
Assume contract	Assumption of the contract by the buyer will obligate both parties to perform under the contract	Buyer	Accommodative (4)	“motion to assume motion of debtors and debtors in possession for entry of an order authorizing assumption of license agreement filed by debtor in possession Amcast Industrial Corporation”
Complaint	A complaint by one party against the other	Supplier	Exploitative (4)	“ complaint by... creditor... against St. Johns Computer Machining, Inc., receipt number cc, fee amount \$150 nature of suit: 454 (recover money/property)”
Convert	A motion filed by either party to convert the Chapter 11 (reorganization) to a Chapter 7 (dissolution) bankruptcy	Buyer	Exploitative (4)	“application filed by debtor to convert case from chapter 11 to chapter 7 (mg)”
		Supplier		“motion filed by creditor to convert case to chapter 7 with certificate of service”
Disallow claim	A motion filed by the buyer to object to a supplier’s claim	Buyer	Exploitative (6)	“motion to disallow claims notice of motion and motion to disallow claim... filed by debtor ”
Dismiss adversary proceeding	A motion filed to withdraw the adversary proceeding	Supplier	Accommodative (4)	“motion to dismiss adversary proceeding filed by creditor ”
Dismiss claim	A motion filed to request the court to dismiss a claim made by either party	Buyer	Exploitative (6)	“ motion by debtor Pride Companies, L.P. to dismiss individual and purported derivative claims”
		Supplier		“ motion by creditor... to reconsider order entered compelling production of documents and examination of witnesses pursuant to rule 2004 of the federal rules of bankruptcy procedure [208-1] and to dismiss motion”
Intent to sell	The buyer’s motion expressing interest to sell certain assets	Buyer	Accommodative (6)	“notice of intent to sell certain personal property free and clear of liens and encumbrances filed by debtor in possession Amcast Industrial Corporation”
No objection certificate	A motion filed in support of buyers’ prior motions	Supplier	Accommodative (4)	“ certificate of no objection regarding motion of the official committee of unsecured creditors, pursuant to bankruptcy code section 105 and bankruptcy rule 9019(a) for approval

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				of settlement agreement (related document(s)2680) filed by the official committee of unsecured creditors ”
Objection	A general objection to either party’s motions	Buyer	Exploitative (5)	“first omnibus objection to claims (see pldg.) filed by debtor Internet Corporation”
		Supplier		“ objection to confirmation of plan filed by creditor ”
Pay claim	The buyer files a motion to pay supplier(s) so as to continue regular business operations	Buyer	Accommodative (6)	“motion to pay reclamation claims / motion of the debtor and debtor in possession for an order authorizing the debtor to grant administrative expense status to the debtor’s undisputed obligations arising from the post-petition delivery of goods ordered in the pre-petition period and authorizing the debtor to pay such obligations in the ordinary course of business”
Pay pre-petition debt	A motion filed asking for the court’s permission to pay a pre-petition debt	Buyer	Accommodative (4)	“emergency motion to pay pre-petition debt ... filed by debtor ”
Prohibit the use of cash	Supplier’s objection to buyer’s motion to use cash, as this will affect the buyer’s ability to repay debt	Supplier	Exploitative (6)	“ motion by creditor to prohibit use of cash collateral , for adequate protection”
Provisional payment	A motion filed by the buyer to pay the supplier	Buyer	Accommodative (6)	“motion to authorize / debtors' motion for an order authorizing a provisional payment by the debtors”
Reclamation	A supplier’s motion to reclaim goods sent to the buyer prior to the filing of the bankruptcy	Supplier	Exploitative (5)	“ reclamation of claim / notice and demand for reclamation of goods by creditor ”
Reject contract	A buyer can reject a contract; affects supplier’s future revenue	Buyer	Exploitative (6)	“motion to reject motion of debtors and debtors-in-possession for an order authorizing rejection... filed by debtor in possession”
Relief	Buyer’s motion to seek relief from stay on using cash	Buyer	Exploitative (4)	“motion for order enlarging time to object to claims and interests filed by debtor AB Liquidating Corp.”
	Supplier’s motion for relief from stay on taking legal action against buyer	Supplier		“motion for relief from stay filed by creditor ”
Use cash	The buyer files a motion to use cash, lowering the cash available for repaying suppliers	Buyer	Exploitative (4)	“emergency motion to use cash collateral of debtor Casting Technology Company for order authorizing use of cash collateral and granting adequate protection filed by debtor in possession Casting Technology Company”
Withdrawal of complaint or objection	A motion to withdraw a prior complaint or objection	Buyer	Accommodative (6)	“ withdrawal filed by debtor in possession Amcast Industrial Corporation”
		Supplier		“ withdrawal filed by creditor (re: related document(s)[426]) motion to compel debtors to assume or reject executory contract”

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Determining and Classifying Motions Filed During Bankruptcy

Determining Motions Filed by a Buyer or Its Suppliers

A Docket Activity Report contains three important text fields: category, event, and docket. We talked to two Deputy Clerks in the U.S. Bankruptcy Court of the Southern District of New York to understand what these fields and their values mean. We use this knowledge to determine, for each bankruptcy, the motions filed by the buyer and its suppliers in two steps. We used (1) *category* and *event* to exclude motions filed by *non-supplier* creditors, and (2) *docket* to determine whether an included motion was filed by the buyer or its supplier of a bankruptcy case's Docket Activity Report (see Figure W2). We describe each step next.

First, we read the values of *category* and *event* to determine which combinations of these values indicate motions undertaken by the buyer and its suppliers. The *event* field includes the specific court-defined motions (see Table W1, Column 1). For example, *event* includes the text "reclamation." We exclude motions in which *category* equals values such as "court" and "trustee" and/or *events* that include terms such as "bank" or "financial." We are thus able to keep motions undertaken by the buyer or its suppliers. Second, we use the *docket* field to determine whether the filing party was the buyer or its supplier. Specifically, if *docket* includes "creditor," or if it had "against" followed by the buyer's name, we attribute the motion to a supplier. If the *docket* included the buyer's name and did not have the word "against" precede the name, we attribute the motion to the buyer.

Classification of Motions into Accommodative, Exploitative, and Neutral Acts

A bankruptcy attorney classified the motions. We provided this expert with our definition of accommodative acts and exploitative acts. We also shared information about survey items that Hibbard, Kumar, and Stern (2001) used to measure an exploitative act and its intensity (that is,

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3 the extent to which the motion is accommodative or exploitative). We next asked the expert to
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5 (a) categorize each type of motion as an accommodative or exploitative act, and (b) rate on a
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7 seven-point Likert scale the intensity of each type of motion. The expert classified three of the 23
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9 types of motion—amend, expedite, and joint administration—as neutral. The remaining 20 types
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11 of motions were classified as either accommodative or exploitative (see Table W1)².
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55 ² We repeated the same exercise with a marketing professor with expertise in buyer–supplier relationships and
56 reciprocity. The Kappa interrater reliability between the two coders was 0.83.
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Table W2: Study 1: Number of Bankruptcies, By Industry and Year

Year of Filing	Manufacturing And Mining	Retail And Wholesale Trade	Services	Total
2001	20	16	11	47
2002	26	1	10	37
2003	14	11	2	27
2004	10	7	2	19
2005	17	2	5	24
2006	14	1	1	16
2007	9	4	1	14
2008	17	7	2	26
2009	31	6	4	41
2010	7	2	2	11
2011	6	4	5	15
2012	6	2	5	13
2013	6	2	5	13
2014	2	3	2	7
Total	185	68	57	310

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Instrument Validity Checks

Estimates from the first-stage regressions suggest that the instruments significantly predict the endogenous predictors, thus meeting the relevance criterion. The Cragg-Donald F-statistic for each of the first-stage equations (accommodative and exploitative velocities) was, however, below the Stock and Yogo's (2005) recommended cut-off of 10, and weak instruments can result in significant bias (Goldfarb, Tucker, and Wang 2022). Following Angrist and Pischke (2009) and Goldfarb, Tucker, and Wang (2022), we establish the validity of our instruments to rule out potential bias. For each endogenous regressor, we provide the OLS results from the regression of the endogenous regressor on excluded and included instruments (Table W3). The peers' average instrument significantly predicts the endogenous regressor and the F-statistics for the first-stage regressions with only the peers' average instrument are 6.04 and 5.02 for accommodative velocity and exploitative velocity, respectively. We report the robustness of our results to the choice of instruments in the robustness analyses section.

Next, we check the incremental impact of the instruments on the R^2 . We first regress the endogenous regressor on the included instruments alone. Next, we regress the endogenous regressor on included and excluded instruments. In each case, R^2 improves with the addition of the excluded instruments. Third, we compare the two-stage least squares (2SLS) model with the limited information maximum likelihood model (LIML) results. When the instruments are weak, the LIML estimator is better than the 2SLS. In each case, the second-stage results of the 2SLS estimator and the LIML estimator yield identical results, suggesting absence of weak instrument problem (Goldfarb, Tucker, and Wang 2022). However, the second-stage regression model (2SLS or LIML) is a linear regression and cannot be used for hypotheses testing.

We next conduct the Hansen J test of overidentifying restrictions. We could not reject the joint null hypothesis that the excluded instruments are uncorrelated with the error term for both

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3 accommodative and exploitative velocities. Lastly, we undertook the Sargan C test to assess the
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5 exogeneity of our instruments. For both accommodative velocity and exploitative velocity, we
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7 could not reject the null hypothesis that the focal instrument was uncorrelated with the error term
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9 in the second stage. These tests provide evidence of instrument validity.
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12 The variability in accommodative acts and variability in exploitative acts can also be
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14 potentially endogenous. However, we do not add additional residual terms for the variability
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16 variables because these variables are computed using the same technique as the velocity
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18 variables. Thus, the residuals of accommodative (exploitative) velocity control for the
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20 endogeneity of the accommodative (exploitative) velocity and the variability in acts. We later
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22 report the robustness of our findings to the inclusion of instruments for the variability variables.
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Table W3: Estimates from First-Stage Regression (N = 3,160)

	Accommodative Velocity^a	Exploitative Velocity^a
Intercept	4.94 (315.04)***	6.95 (399.07)***
Average of Peers' Accommodative Velocity	-.00 (-2.47)**	
Average of Peers' Exploitative Velocity		.00 (2.23)**
Time to Bankruptcy Filing	-.00 (-0.45)	-.00 (-0.23)
Supplier	-.00 (-0.62)	-.01 (-1.44)
Neutral Acts	-.00 (-2.70)***	.00 (0.18)
Amount Owed to Suppliers	.00 (0.08)	-.00 (-0.08)
Cash	.00 (0.64)	.00 (0.47)
Solvency	-.00 (-0.47)	.00 (0.09)
Size	-.00 (-1.34)	-.00 (-0.89)
Profit	-.00 (-0.29)	-.00 (-0.08)
New York/Delaware or Other	-.00 (-0.45)	.00 (0.44)
CEO Primary	.03 (3.03)**	-.00 (-0.19)
Retail	.01 (0.98)	.01 (0.97)
Services	.01 (1.67) *	.01 (1.12)
Year of Filing for Bankruptcy (Fixed Effects)	Yes	Yes

* $p < .1$, ** $p < .05$, *** $p < .01$ (two-tailed).

^aNatural log-transformed.

Notes: Regression estimates are shown with z-statistics in parentheses.

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Figure W2: Screenshot of Docket Activity Report from PACER

Case	Doc Id	Date Entered/Filed	Category/ Event	Judge/ Trustee	Notes
<p>CM/ECF</p> <ul style="list-style-type: none"> Query Reports Utilities Logout <p>Docket Activity Report U.S. Bankruptcy Court -- District of Delaware</p> <p>Report Period: 3/5/2014 12:00 AM - 4/4/2014 11:59 PM</p>					
14-10475-CSS USEC Inc. CASE CLOSED on 01/12/2015		Entered: 03/05/2014 09:24:15 Filed: 03/05/2014	Category: misc Event: Add Attorney	Judge: Sontchi	Subm. by: M. Kenney Group: aty
Office: 1 Chapter: 11 Assets: Yes					
Docket Text for above misc: Attorney Mark S. Kenney and Mark S. Kenney for United States Trustee added to case Filed by United States Trustee. (Kenney, Mark)		Entered: 03/05/2014 06:39:05 Filed: 03/05/2014	Category: court Event: Case Assigned	Judge: Sontchi	Subm. by: J. JohnstonJ Group: crt
Docket Text for above court: Judge Christopher S. Sontchi added to case (JohnstonJ, Julie)		Entered: 03/05/2014 05:16:24 Filed: 03/05/2014	Category: misc Event: RETIRED - Voluntary Petition (Chapter 11)	Judge: Sontchi	Subm. by: M. Collins Group: aty
Docket Text for above motion: Motion to Approve (Motion of Debtor for Order (I) Approving Disclosure Statement, (II) Determining Dates, Procedures and Forms Applicable to Solicitation Process, (III) Establishing Vote Tabulation Procedures, (IV) Establishing Objection Deadline and Scheduling Hearing to Consider Confirmation of Plan and (V) Setting Special Bar Date for Certain Securities-Related Claims to Be Implemented Through Plan Noticing Process) (related document(s) 13, 14, 15) Filed by USEC Inc.. (Attachments: # 1 Exhibit A # 2 Exhibit B # 3 Exhibit C # 4 Exhibit D # 5 Exhibit E # 6 Exhibit F # 7 Exhibit G # 8 Exhibit H # 9 Exhibit I # 10 Exhibit J) (Merchant, Michael)	16	Entered: 03/05/2014 06:40:46 Filed: 03/05/2014	Category: motion Event: Approve - Motion	Judge: Sontchi	Subm. by: M. Merchant Group: aty
Docket Text for above motion: Motion to Approve (Motion of Debtor for Order Pursuant to 11 U.S.C. §§ 105(a) and 365(a) Approving Assumption of Plan Support Agreements) Filed by USEC Inc.. (Attachments: # 1 Exhibit A # 2 Exhibit B # 3 Exhibit C # 4 Exhibit D) (Merchant, Michael)	17	Entered: 03/05/2014 06:43:49 Filed: 03/05/2014	Category: motion Event: Approve - Motion	Judge: Sontchi	Subm. by: M. Merchant Group: aty
Docket Text for above misc: Certificate of No Objection Regarding Motion of Debtor for Order Pursuant to 11 U.S.C. §105(a) and Fed. R. Bankr. P. 2015.3(d) Extending Certain Reporting Requirements Under Fed. R. Bankr. P. 2015.3(a) (related document(s) 26) Filed by USEC Inc.. (Attachments: # 1 Exhibit A) (Steele, Amanda)	103	Entered: 03/25/2014 16:05:22 Filed: 03/25/2014	Category: misc Event: Certificate of No Objection(Any)	Judge: Sontchi	Subm. by: A. Steele Group: aty
Docket Text for above motion: Motion to Reject Lease or Executory Contract (Motion of Debtor for Order Under 11 U.S.C. §§ 105(a), 363(b), 365(a) and 554, Fed. R. Bankr. P. 2002(a)(2), 6004, 6006, 6007, 9007 and 9014 and Del. Bankr. L.R. 2002-1, 6004-1, 9006-1 and 9013-1 (I) Authorizing Limited Demobilization of Certain Business Operations, (II) Authorizing Termination of Executory Contracts Pursuant to Contract Terms or as May Otherwise be Agreed by the Parties Thereto, (III) Authorizing Directions to Subsidiaries to Take Actions Necessary to Effect Limited Demobilization and Make Expenditures to Cover Costs of Such Subsidiary Actions, and (IV) Establishing Streamlined Procedures for (A) Rejection of Executory Contracts, (B) Abandonment of Property and (C) Sales of Certain Miscellaneous Non-Core Assets) Filed by USEC Inc.. (Attachments: # 1 Notice # 2 Exhibit A # 3 Exhibit B # 4 Exhibit C) (Steele, Amanda)	370	Entered: 05/19/2014 18:13:22 Filed: 05/19/2014	Category: motion Event: Reject Lease or Executory Contract - Motion	Judge: Sontchi	Subm. by: A. Steele Group: aty
Docket Text for above motion: Motion to Approve Compromise under Rule 9019 (Debtor's Motion Pursuant to Bankruptcy Code Section 363 and Bankruptcy Rule 9019 for an Order Approving Settlement Agreement with Babcock & Wilcox Company and Babcock & Wilcox Technical Services Group, Inc.) Filed by USEC Inc.. Hearing scheduled for 8/5/2014 at 02:00 PM at US Bankruptcy Court, 824 Market St., 5th Fl., Courtroom #6, Wilmington, Delaware. Objections due by 7/11/2014. (Attachments: # 1 Notice # 2 Exhibit A) (Steele, Amanda)	326	Entered: 06/27/2014 16:58:03 Filed: 06/27/2014	Category: motion Event: Approve Compromise Under Rule 9019 - Motion	Judge: Sontchi	Subm. by: A. Steele Group: aty
Docket Text for above plan: Chapter 11 Plan of Reorganization (Plan of Reorganization of USEC Inc.) Filed by USEC Inc. (Steele, Amanda)	363	Entered: 07/03/2014 10:53:04 Filed: 07/03/2014	Category: plan Event: Chapter 11 Plan	Judge: Sontchi	Subm. by: A. Steele Group: aty
Docket Text for above claims: Objection to Claim by Claimant(s) Robert Blair (Proof of Claim # 7). Filed by USEC Inc.. Hearing scheduled for 9/5/2014 at 01:00 PM at US Bankruptcy Court, 824 Market St., 5th Fl., Courtroom #6, Wilmington, Delaware. Objections due by 8/29/2014. (Attachments: # 1 Notice # 2 Exhibit A # 3 Exhibit B # 4 Exhibit C # 5 Exhibit D # 6 Exhibit E) (Steele, Amanda)	364	Entered: 07/03/2014 10:55:04 Filed: 07/03/2014	Category: plan Event: Disclosure Statement	Judge: Sontchi	Subm. by: A. Steele Group: aty
	448	Entered: 08/05/2014 16:00:21 Filed: 08/05/2014	Category: claims Event: Objection to Claim	Judge: Sontchi	Subm. by: A. Steele Group: aty

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Web Appendix C: Study 1: Robustness Checks and Additional Analyses

We assess the robustness of our results in seven different ways. First, we exclude outlier observations with the five highest and lowest values for buyer's days in bankruptcy. This criterion led to the exclusion of 11 bankruptcies from the analysis. However, all results are identical to those reported in Table 5 (see Table W4). Second, our main analysis uses a three-sequence window to measure the velocity of accommodative and exploitative acts. We check the robustness to a four-sequence window. The main effects of accommodative velocity and its interaction with variability are insignificant. As Table 5 notes, exploitative velocity negatively affects bankruptcy survival. Contrary to our hypothesis, we find that variability in exploitative acts strengthens the negative effect on bankruptcy survival. And, the interaction effect between accommodative velocity and supplier (see Table W5) is consistent with those reported in Table 5. We believe the three-sequence window is more appropriate for our analysis because managers may find it difficult to evaluate the trend over more than three periods.

Third, we add the *level* of accommodative acts and the *level* of exploitative acts (that is, the intercept from the regression of the intensity of accommodation and the sequence counter, along with the slope). We use the same approach to compute the level of exploitative acts. Table W6 (Column 2) reports the regression estimates. All the results reported in Table 5 hold, although neither the level of accommodative acts nor the level of exploitative acts affects bankruptcy survival. These insignificant effects are consistent with Palmatier et al. (2013)'s findings that relational dynamics are more critical than the static level in predicting performance.

Fourth, we use the control function method to correct for the endogeneity of the *variability* in accommodative acts and the variability in exploitative acts (see Table W6, Column 3). We estimate first-stage regressions with the endogenous predictor as the dependent variable, and the

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3 corresponding excluded instruments and the control variables as predictors. We include the
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5 residuals from the first-stage regressions in our substantive equation and find that the hypotheses
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7 continue to be supported. However, the effects of residuals of the two variability variables are
8
9 insignificant, supporting our earlier argument that the residuals of accommodative and
10
11 exploitative velocities already capture the endogeneity of the variability variables.
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14
15 Fifth, we also assess the robustness of our findings using the instrument-free Gaussian
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17 copula approach (Park and Gupta 2012). Except for the main effect of exploitative velocity, all
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19 other results are consistent with those reported in Table 5 (see Table W7).
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23 Sixth, even though the R^2 of the first-stage regressions improved with the addition of the
24
25 second instrument (time to bankruptcy filing), the variable does not significantly associate with
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27 the endogenous regressors. We estimate the first-stage regressions using only the peers' average
28
29 instrument and Equation 1 using the updated residuals. All the results reported in Table 5 hold
30
31 (see Table W8).
32

33
34 Lastly, we also estimate a proportional hazard Cox model and an accelerated failure-time
35
36 model. These models do not account for the competing-risk of liquidation, and instead consider
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38 such observations as censored. Table W9 reports the results from these models. Consistent with
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40 our hypotheses, accommodative velocity increases the hazard and the variability in
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42 accommodative acts weakens the positive main effect. Further, as hypothesized, the negative
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44 effect of exploitative velocity on buyer's bankruptcy survival is weaker for suppliers than that for
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46 the buyer. Our results are thus robust to potential outliers, alternate operationalizations of the key
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48 predictors, alternate control variables, an instrument-free endogeneity correction technique,
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50 alternate instruments, and alternate estimation techniques.
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Additional Analyses. We also conduct two additional analyses. First, the Bankruptcy Abuse Prevention and Consumer Protection Act (BAPCPA) was one of the most significant changes made to the bankruptcy code (New Generation Research [2022](#)). Following the BAPCPA, all suppliers that supply goods to a buyer 20 days before the latter's filing of Chapter 11 bankruptcy are treated as priority creditors and are paid before other unsecured creditors. This Act came into effect for all filings after October 2005 and was a significant win for the suppliers, as it discouraged buyers from over-stocking supplies and then paying the suppliers only a partial amount at the end of the bankruptcy process. We assess the impact of the BAPCPA on our substantive results. We include a BAPCPA indicator variable to control for pre- and post-BAPCPA bankruptcy filings. Although the number of exploitative acts decreased in the wake of BAPCPA, the substantive conclusions remain unchanged (see Table W10). We find that all the results are consistent with the results reported in Table 5.

Second, we do not hypothesize an interaction between accommodative velocity and exploitative velocity as this is neither a characteristic of the signal nor of the signaler. However, we do assess the additional interaction term as parties may send mixed signals (Drover, Wood, and Corbett 2018)—i.e., engage in both accommodative acts and exploitative acts. We find that the interaction effect is negative and significant suggesting that exploitative velocity weakens the positive effect of accommodative velocity on buyer's bankruptcy survival. This finding is consistent with prior research where mixed signals dilute the effect of a positive signal. All other effects remain unchanged, except the interaction between accommodative velocity and the variability in corresponding acts is not significant (see Table W11).

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Table W4: Competing-Risks Model (N = 3,073) – Dropping Outliers

	Buyer's Bankruptcy Survival
Accommodative velocity ^a	32.61 (1.77)*
Exploitative velocity ^a	-34.23 (-1.87)*
Variability in accommodative acts ^a	-.01 (-0.13)
Variability in exploitative acts ^a	.03 (0.28)
Supplier	-1.34 (-4.60)***
Accommodative velocity × Variability in accommodative acts	-.96 (-3.60)***
Exploitative velocity × Variability in exploitative acts	-.29 (-0.55)
Accommodative velocity × Supplier	-8.06 (-2.86)***
Exploitative velocity × Supplier	5.24 (2.40)**
Neutral acts	.13 (1.06)
Amount owed to suppliers	-.00 (-0.72)
Cash	-.00 (-1.87)*
Solvency	1.56 (5.51)***
Size	.16 (2.20)**
Profit	-.00 (-0.50)
New York/Delaware or other	-.01 (-0.06)
CEO primary	1.12 (1.85)*
Retail	-.13 (-0.41)
Services	-.07 (-0.22)
Year of filing for bankruptcy (fixed effects)	Yes
Accommodative velocity – residuals	-25.01 (-1.38)
Exploitative velocity – residuals	30.51 (1.67)*

* $p < .1$, ** $p < .05$, *** $p < .01$ (two-tailed).

^aNatural log-transformed.

Notes: Regression estimates are shown with z-statistics in parentheses.

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Table W5: Competing-Risks Model (N = 3,129) – 4-Sequence Window

	Buyer's bankruptcy survival
Accommodative velocity ^a	73.10 (1.34)
Exploitative velocity ^a	-40.90 (-1.67)*
Variability in accommodative acts ^a	.06 (0.45)
Variability in exploitative acts ^a	.24 (2.30)**
Supplier	-1.56 (-5.14)***
Accommodative velocity × Variability in accommodative acts	-.38 (-0.70)
Exploitative velocity × Variability in exploitative acts	-4.87 (-2.76)***
Accommodative velocity × Supplier	-7.52 (-2.47)**
Exploitative velocity × Supplier	5.41 (0.63)
Neutral acts	.32 (1.22)
Amount owed to suppliers	-.00 (-0.57)
Cash	-.00 (-2.33)**
Solvency	1.67 (4.84)***
Size	.24 (2.03)**
Profit	.00 (0.27)
New York/Delaware or other	-.06 (-0.17)
CEO primary	1.71 (1.27)
Retail	-.48 (-1.05)
Services	-.63 (-0.98)
Year of filing for bankruptcy (fixed effects)	Yes
Accommodative velocity – residuals	-66.02 (-1.21)
Exploitative velocity – residuals	34.13 (1.44)

* $p < .1$, ** $p < .05$, *** $p < .01$ (two-tailed).

^aNatural log-transformed.

Notes: Regression estimates are shown with z-statistics in parentheses.

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Table W6: Competing-Risks Model (N = 3,160)

	Buyer's Bankruptcy Survival	
	Adding the Levels of Acts	Adding the Residuals for the Variability Regressor
Accommodative velocity ^a	37.87 (2.02)**	42.40 (2.17)**
Exploitative velocity ^a	-34.84 (-1.89)*	-32.25 (-1.87)*
Variability in accommodative acts ^a	.03 (0.23)	-.52 (-0.33)
Variability in exploitative acts ^a	.01 (0.17)	2.44 (1.26)
Supplier	-1.28 (-4.40)***	-3.38 (-1.99)**
Level of accommodative acts	-.00 (-0.66)	-.00 (-0.62)
Level of exploitative acts	-.00 (-0.53)	-.00 (-0.62)
Accommodative velocity × Variability in accommodative acts	-1.21 (-2.76)***	-1.19 (-2.64)***
Exploitative velocity × Variability in exploitative acts	-.15 (-0.25)	-.17 (-0.29)
Accommodative velocity × Supplier	-6.74 (-1.92)*	-7.23 (-2.07)**
Exploitative velocity × Supplier	5.87 (2.12)**	5.87 (2.07)**
Neutral acts	.17 (1.40)	.33 (1.85)
Amount owed to suppliers	-.00 (-0.76)	-.00 (-0.49)
Cash	-.00 (-2.21)**	-.00 (-1.70)
Solvency	1.57 (5.56)***	1.45 (4.27)***
Size	.18 (2.54)**	.01 (0.03)
Profit	-.00 (-0.30)	-.00 (-0.55)
New York/Delaware or other	-.05 (-0.19)	1.00 (0.91)
CEO primary	1.26 (2.10)**	1.19 (1.98)**
Retail	-.24 (-0.78)	-.39 (-1.16)
Services	-.11 (-0.36)	-.19 (0.27)
Year of filing for bankruptcy (fixed effects)		Yes
Accommodative velocity – residuals	-32.06 (-1.72)*	-36.13 (-1.87)*
Exploitative velocity – residuals	29.43 (1.62)	26.92 (1.60)
Variability in accommodative acts – residuals		.55 (0.34)
Variability in Exploitative Acts – Residuals		-2.42 (-1.26)

* $p < .1$, ** $p < .05$, *** $p < .01$ (two-tailed).

^aNatural log-transformed.

Notes: Regression estimates are shown with z-statistics in parentheses.

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Table W7: Competing-Risks Model (N = 3,160) – Gaussian Copula

	Buyer's bankruptcy survival
Accommodative velocity ^a	9.79 (3.72)***
Exploitative velocity ^a	-5.11 (-1.10)
Variability in accommodative acts ^a	-.05 (-0.36)
Variability in exploitative acts ^a	.04 (0.42)
Supplier	-1.13 (-4.71)***
Accommodative velocity × Variability in accommodative acts	-.84 (-2.78)***
Exploitative velocity × Variability in exploitative acts	-.03 (-0.04)
Accommodative velocity × Supplier	-9.73 (-3.84)***
Exploitative velocity × Supplier	5.19 (2.38)**
Neutral acts	.01 (0.08)
Amount owed to suppliers	-.00 (-0.65)
Cash	-.00 (-2.35)**
Solvency	1.33 (4.79)***
Size	.16 (2.50)**
Profit	-.00 (-0.27)
New York/Delaware or other	.05 (0.23)
CEO primary	.27 (0.74)
Retail	-.28 (-1.09)
Services	-.03 (-0.12)
Year of filing for bankruptcy (fixed effects)	Yes
Accommodative velocity – copula term	-.16 (-1.35)
Exploitative velocity – copula term	.01 (0.10)

* $p < .1$, ** $p < .05$, *** $p < .01$ (two-tailed).

^aNatural log-transformed.

Notes: Regression estimates are shown with z-statistics in parentheses.

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Table W8: Competing-Risks Model (N = 3,160) – ‘Peer Effect’ Instrument only

	Buyer's bankruptcy survival
Accommodative velocity ^a	37.58 (1.91)*
Exploitative velocity ^a	-33.94 (-1.83)*
Variability in accommodative acts ^a	-.00 (-0.01)
Variability in exploitative acts ^a	.02 (0.25)
Supplier	-1.30 (-4.55)***
Accommodative velocity × Variability in accommodative acts	-.98 (-3.62)***
Exploitative velocity × Variability in exploitative acts	-.23 (-0.45)
Accommodative velocity × Supplier	-7.26 (-2.24)**
Exploitative velocity × Supplier	5.17 (2.30)**
Neutral acts	.17 (1.33)
Amount owed to suppliers	-.00 (-0.83)
Cash	-.00 (-2.14)**
Solvency	1.57 (5.55)***
Size	.18 (2.41)**
Profit	-.00 (-0.32)
New York/Delaware or other	-.04 (-0.18)
CEO primary	1.25 (1.98)**
Retail	-.23 (-0.74)
Services	-.10 (-0.30)
Year of filing for bankruptcy (fixed effects)	Yes
Accommodative velocity – residuals	-30.80 (-1.59)
Exploitative velocity – residuals	29.97 (1.62)

* $p < .1$, ** $p < .05$, *** $p < .01$ (two-tailed).

^aNatural log-transformed.

Notes: Regression estimates are shown with z-statistics in parentheses.

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Table W9: Competing-Risks Model (N = 3,160) – Alternate Model Specifications

	Buyer's bankruptcy survival	
	Cox Proportional Hazard Model	Accelerated Failure-Time Model
Accommodative velocity ^a	29.69 (1.77)*	30.85 (1.95)*
Exploitative velocity ^a	-21.31 (-1.06)	-24.27 (-1.48)
Variability in accommodative acts ^a	.03 (0.30)	.10 (0.88)
Variability in exploitative acts ^a	-.07 (-0.77)	.06 (0.65)
Supplier	-1.24 (-4.46)***	-1.22 (-4.46)***
Accommodative velocity × Variability in accommodative acts	-.93 (-4.10)***	-.87 (-6.22)***
Exploitative velocity × Variability in exploitative acts	.26 (0.45)	.11 (0.28)
Accommodative velocity × Supplier	-4.43 (-1.43)	-3.22 (-1.03)
Exploitative velocity × Supplier	4.49 (2.15)**	6.04 (3.54)***
Neutral acts	.09 (0.72)	.15 (1.42)
Amount owed to suppliers	-.00 (-1.37)	-.00 (-1.33)
Cash	-.00 (-1.73)*	-.00 (-1.96)**
Solvency	1.35 (5.20)***	1.22 (5.48)***
Size	.07 (1.06)	.09 (1.47)
Profit	-.00 (-1.02)	-.00 (-0.96)
New York/Delaware or other	.05 (0.21)	.03 (0.13)
CEO primary	.76 (1.28)	.95 (1.96)**
Retail	-.16 (-0.56)	-.22 (-0.84)
Services	-.12 (-0.37)	-.21 (-0.78)
Year of filing for bankruptcy (fixed effects)	Yes	Yes
Accommodative velocity – residuals	-25.58 (-1.54)	-27.93 (-1.78)*
Exploitative velocity – residuals	15.56 (0.77)	17.76 (1.08)

* $p < .1$, ** $p < .05$, *** $p < .01$ (two-tailed).

^aNatural log-transformed.

Notes: Regression estimates are shown with z-statistics in parentheses.

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Table W10: Competing-Risks Model (N = 3,160) – BAPCPA

	Buyer's bankruptcy survival
Accommodative velocity ^a	13.82 (2.10)**
Exploitative velocity ^a	-36.44 (-4.23)***
Variability in accommodative acts ^a	-.00 (-0.03)
Variability in exploitative acts ^a	.00 (0.04)
Supplier	-1.35 (-5.64)***
Accommodative velocity × Variability in accommodative acts	-1.02 (-3.91)***
Exploitative velocity × Variability in exploitative acts	-.07 (-0.13)
Accommodative velocity × Supplier	-7.16 (-2.29)**
Exploitative velocity × Supplier	4.94 (2.40)**
Neutral acts	.05 (0.61)
Amount owed to suppliers	-.00 (-0.56)
Cash	-.00 (-1.54)
Solvency	1.34 (4.61)***
Size	.15 (2.32)**
Profit	-.00 (-0.22)
New York/Delaware or other	.09 (0.41)
CEO primary	.56 (1.55)
Retail	-.21 (-0.82)
Services	.13 (0.59)
Year of filing for bankruptcy (fixed effects)	No
Accommodative velocity – residuals	-7.05 (-1.17)
Exploitative velocity – residuals	31.78 (3.84)***
BAPCPA	.46 (2.22)**

* $p < .1$, ** $p < .05$, *** $p < .01$ (two-tailed).

^aNatural log-transformed.

Notes: Regression estimates are shown with z-statistics in parentheses.

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Table W11: Competing-Risks Model (N = 3,160) – Interaction Between Accommodative Velocity and Exploitative Velocity

	Buyer's Bankruptcy Survival
Accommodative velocity ^a	38.01 (2.01)**
Exploitative velocity ^a	-33.81 (-1.87)*
Variability in accommodative acts ^a	-.01 (-0.06)
Variability in exploitative acts ^a	.02 (0.22)
Supplier	-1.27 (-4.47)***
Accommodative velocity × Variability in accommodative acts	-.58 (-1.59)
Exploitative velocity × Variability in exploitative acts	-.16 (-0.31)
Accommodative velocity × Supplier	-7.75 (-2.62)***
Exploitative velocity × Supplier	5.07 (2.29)**
Accommodative Velocity x Exploitative Velocity	-5.68 (-2.00)**
Neutral acts	.17 (1.40)
Amount owed to suppliers	-.00 (-0.75)
Cash	-.00 (-2.22)**
Solvency	1.56 (5.58)***
Size	.18 (2.48)**
Profit	-.00 (-0.30)
New York/Delaware or other	-.03 (-0.13)
CEO primary	1.27 (2.11)**
Retail	-.23 (-0.75)
Services	-.10 (-0.31)
Year of filing for bankruptcy (fixed effects)	Yes
Accommodative velocity – residuals	-31.47 (-1.68)*
Exploitative velocity – residuals	29.58 (1.64)

* $p < .1$, ** $p < .05$, *** $p < .01$ (two-tailed).

^aNatural log-transformed.

Notes: Regression estimates are shown with z-statistics in parentheses.

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Web Appendix D: Study 2 – Scenario-Based Experiment

Introduction and Scenario

We're interested in understanding how managers of a supplier company react to their buying partner company's bankruptcy. Please read the instructions and answer the questions that follow. Please take enough time to read the following scenario carefully. The proceed button will appear once you have read the scenario.

Imagine that you are a manager at a company supplying raw materials under contract to a buyer company named TKS Associates for over five years.

Recently, TKS Associates has been unable to pay your invoice and has filed for bankruptcy. By United States bankruptcy law, TKS Associates needs to submit to creditors (including your company) a plan of how it will restructure its debt (e.g., which creditors will be paid, and how much they will be paid). If the majority of the creditors vote to support the plan, TKS Associates can come out of bankruptcy and resume its business operations without the involvement of the bankruptcy court. If the creditors do not support the plan, then TKS Associates' assets will be sold off to pay the creditors.

While in bankruptcy, TKS Associates will interact with its creditors (e.g., your company) by filing motions in the court. Using court-filed motions, TKS Associates can decide whether to pay its creditors now or only at the end of the bankruptcy. The bankruptcy law also gives TKS Associates the right to decide whether to continue or discontinue its existing supplier contracts.

Treatment Conditions

On the next screen, you will see a summary of motions TKS Associates filed in the bankruptcy court over the past three weeks. Please read the following summary of motions carefully. The proceed button will appear once you have read the summary.

Accommodative Velocity condition:

1. TKS Associates has filed a motion to **pay your invoice immediately**.
2. TKS Associates has indicated its intention to **continue its obligations** under the contract with your company.
3. TKS Associates has **supported** a previous motion your company had filed.

Exploitative Velocity condition:

1. TKS Associates has filed a motion to **delay paying your invoice to the end** of its bankruptcy.
2. TKS Associates has indicated its intention to **discontinue its obligations** under the contract with your company.
3. TKS Associates has **opposed** a previous motion your company had filed.

Neutral condition:

1. TKS Associates has filed a motion to **provide a statement** of its assets and liabilities.
2. TKS Associates has filed a motion for **joint administration of cases** associated with its bankruptcy.

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3. TKS Associates has filed a motion to **amend a document** it submitted to the bankruptcy court.

Measures

Dependent Variable: How likely are you to approve TKS Associates' debt restructure plan? (7-point Likert item ranging from Extremely Unlikely to Extremely Likely)

Future Accommodative Intent:

(7-point Likert items ranging from Strongly Disagree to Strongly Agree)

1. In the future, TKS Associates will work towards a compromise with my company.
2. In the future, TKS Associates will make concessions to my company.
3. In the future, TKS Associates will support my company's interests.
4. In the future, TKS Associates will continue to work with my company.
5. In the future, TKS Associates will meet my company's demands.

Future Exploitative Intent:

(7-point Likert items ranging from Strongly Disagree to Strongly Agree)

1. In the future, TKS Associates will work against a compromise with my company.
2. In the future, TKS Associates will seek concessions from my company.
3. In the future, TKS Associates will oppose my company's interests.
4. In the future, TKS Associates will continue to work against my company.
5. In the future, TKS Associates will make demands of my company.

Manipulation Checks

(7-point Likert items ranging from Strongly Disagree to Strongly Agree)

TKS Associates' recent motions have **accommodated** my company.

TKS Associates' recent motions have **exploited** my company.

Control Variables

How many years of work experience do you have? _____

Which of these industries have you most recently worked in?

- Manufacturing
- Retail and wholesale trade
- Services
- Other

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3 What is your age? _____
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