WHEN GOOD BUSINESS RELATIONSHIPS GO BAD: A QUANTITATIVE ANALYSIS OF DARK SIDE VARIABLES IN MATURE SUPPLY CHAIN RELATIONSHIPS

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A survey of supply chain managers examines the dark side effect of relationship variables in mature business relationships. Specifically examined was the moderating impact of relationship quality on the relationship between five potentially dark side relationship variables with two variables of performance. There was evidence of the positive moderating effect of relationship quality between the relationship variables of relationship-specific investment and long-term relationship orientation and performance. For the majority of relationship variables, however, relationship quality did not have a positive moderating effect (social capital, reciprocity, and learning/absorptive capacity), suggesting a potential for diminishing returns indicative of a dark side effect.

INTRODUCTION

While the supply chain literature encourages firms to develop strong relationships as a means of improving performance and reducing uncertainty (Cannon & Perreault, 1999; Hove-Sibanda & Pooe, 2018; Kwamega, Li, & Abrokwah, 2018), empirical studies have shown the effects of such relationships to be mixed (Grayson & Ambler, 1999; Pillai & Sharma, 2003; Barnes, 2005; Teller, Kotzab, & Grant, 2012) or even negative (Granson & Ambler, 1999; Backhaus & Buschken, 1999; Raweewan & Ferrell, 2018). Supply chain collaboration may not be sustainable over the long run (Barratt, 2004) and collaboration may be difficult to implement and benefit from (Barratt, 2004; Min et al., 2005). While strategic alliances may fortify partners against outside competition, they may also increase dependence among the partners or vulnerability of one partner (Hamel, Doz, & Prahalad, 1989) and these closer relationships do not always deliver the expected value (Piercy, 2009). Empirical evidence shows that very few businesses achieve the anticipated level of results from collaborative efforts (Jap & Ganesan, 2000; Anderson & Jap, 2005; Villena, Revilla, & Choi, 2011).

While previous work has explored the ways in which close relationships may not realize the benefits expected of them, it does not address the dark side of these organizational relationships (Anderson & Jap, 2005; Musarra, Robson, & Katsikeas, 2016). This dark side refers to factors and behaviors expected to have a positive impact on the relational outcome but whose actual effects have potential hidden risks (Chowdhury, Gruber, & Zolkiewski, 2016). While business relationships may experience negative factors such as conflict and strife which make them likely to dissolve, dark side variables work from the inside to undermine relationships even when one or both parties feel satisfied with their partnership and their received benefits (Anderson & Jap, 2005). These dark side variables may actually result from the efforts of the partners to develop strong, lasting relationships (Bensaou & Anderson, 1999; Grayson & Ambler, 1999; Anderson & Jap, 2005; Grover et al., 2006; Gu Hung & Tse, 2008; Lechner et al., 2010; Villena et al., 2011).

Thus, the dark side of business relationships remains a limited area of research. Research has addressed network interdependence, personality traits, and dependence on various dependent

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variables such as value co-creation, brand performance, lock-in and basic performance outcomes (Gupta, Vaatanen, & Khaneja, 2016; Musarra, et al., 2016; Schmitz, Schweiger, & Daft, 2016). They often represent a unidimensional approach to investigation and do not address context such as the life cycle of the organizational relationship and the level of relationship quality in the existing relationship. Therefore, this study will contribute to previous literature by empirically studying whether the positive effects of business relationships suggested in the literature hold in the mature phase or if the dark side effect of relationship variables occur with adding the focus of relationship quality as a moderator.

The results of this study hold considerable managerial implications. When buyers and suppliers evaluate their relational portfolio, they select partners with whom to maintain or enrich relationships, and partners with whom they will reduce or terminate relationships. In managing those relationships, it is essential for organizations and their decision-makers to clearly understand both the potential upsides as well as the potential dark side of these relationships (Abosag, Yen, & Barnes, 2016). With this goal, this study presents an essential evaluation of the potential dark side effect of five variables on organizational relationships and helps answer the question of the existence of the dark side, in the presence of multiple relational variables in mature supply chain relationships. Specifically, the effects of five potentially dark side relationship variables (social capital, reciprocity, long-term relationship orientation, relationship-specific investment, and learning/absorptive capacity) on relationship success (perceptions of relationship financial performance and the likelihood of relationship termination) given the moderating impact of relationship quality are investigated. This paper will first discuss the literature, presenting the proposed model and hypotheses. Then it will discuss the methodology of surveying supply chain managers to test the hypotheses. Finally, the results and implications will be discussed.

LITERATURE REVIEW

Business relationships are not static and the progression of a relationship may alter the effect of relational constructs (Johnson & Selnes, 2004; Eggert et al, 2006; Kusari et al., 2013). Researchers agree there are distinguishable phases in a relationship life cycle (Jap & Ganesan 2000; Eggert et al., 2006; Kusari et al., 2013). Firms intending to expand their relationships are in the growth phase, while those with lower intention to expand those relationships are in the mature phase, and those who intend to diminish their relationships are in the decline phase (Eggert et al., 2006). The growth phase is characterized by potential errors and a bumpy learning process, while the mature phase often finds partners who are experiencing the satisfaction and rewards they expected from the relationship and thus a relaxation of expectations regarding their partner's motivations and intentions (Jap & Ganesan, 2000; Kusari et al., 2013). During the mature phase, partners have illustrated competence, leading to additional trust (Kusari et al., 2013) and partners are more willing to forego short-term benefits for the expectation of long-term benefits (Jap & Ganesan, 2000; Kusari et al., 2013).

Jap and Ganesan (2000) identified four phases of the relationship life cycle: exploration, buildup, maturity and decline. The phases vary in terms of their direction of relationship growth (i.e., increasing or decreasing) and their relationship strength. This study uses the Jap and Ganesan (2000) conceptualization of the relationship life cycle and focuses on the maturity phase, which is characterized by: (1) an acceptable level of benefits and satisfaction for both partners in (most often) a longer-term relationship; and (2) an often-unspoken pledge to continue the relationship even longer (Blau, 1964; Dwyer et al., 1987; Jap & Ganesan, 2000). This, however, may also be the stage in which complacency sets in, fatigue and opportunity costs become problematic and commitment and trust are taken for granted (Jap & Ganesan, 2000), potentially causing the relationship to move into decline or deterioration. Thus, this research examines if the positive impact holds or if a dark side impact occurs during this phase.

This study focuses on the mature relationship stage for two important reasons. First, earlier stages of the relationship are often characterized by low trust and low investment

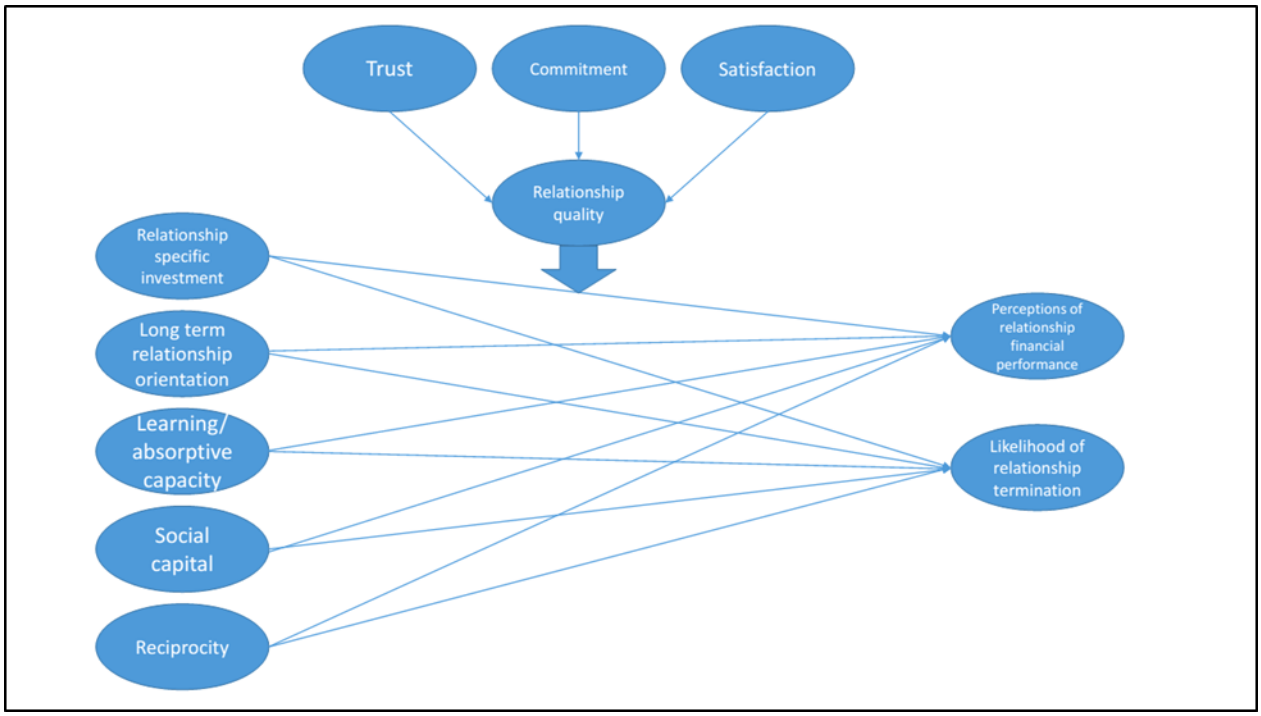
which are indicative of a transactional relationship and an increased probability of relationship termination (Pillai & Sharma, 2003). Further, earlier relationship stages are often prone to turbulence that may create instability in the relationship. Because this turbulence is experienced in the earlier relationship stages, organizations with mature relationships are perceived as having moved beyond that type of volatility and settled into a more stable relationship with a relational, as opposed to transactional, focus (Dwyer, Schurr, & Oh, 1987; Pillai & Sharma, 2003).

Second, mature relationships are perceived to exhibit higher trust and commitment to one another, with ongoing, anticipated, mutual benefit (Ganesan, 1994; Pillai & Sharma, 2003). While mature relationships are often anticipated to have the highest rate of survival, empirical observations of mature relationships have shown mixed results (Pillai & Sharma, 2003). Some research has shown a lack of positive results and some has revealed the presence of negative results from a long-term, ongoing, mature relationship (Pillai & Sharma, 2003). Relationship damage is unavoidable (Samaha, Palmatier, & Dant, 2011; Abosag, Yen, & Barnes, 2016) at any stage of the relationship life cycle. Relationship tension tends to build over time, reaching a delayed breaking point (Beverland & Lockshin, 2003) in a mature relationship. Because often the buyer-supplier relationship goal is to retain each party, strong relationships are a prime focus so that buying will continue into the future (Theoharakis & Hooley, 2003). These relationships frequently experience opportunism (Chowdhury, Gruber, & Zolkiewski, 2016) or an unanticipated termination. Because of the potential outcomes of the maturity stage, we focus on this stage of the relationship life cycle in examining the dark side effect shown in Figure 1.

Social Exchange Theory

Social Exchange Theory (SET) has been very influential in business disciplines (Cropanzano & Mitchell, 2005). The central tenet of the

FIGURE 1:
Structural Model



Note: Relationship Quality is a moderator for the links for all the IVs and DVs.

theory is that series of social exchanges create social obligations which, over time, will create mutually beneficial relationships (Emerson, 1976; Cropanzano & Mitchell, 2005). SET predicts that benefits accumulate when partners behave in a reciprocal way to benefit one another (Homans, 1958; Thibaut & Kelly, 1959; Gouldner, 1960; Blau, 1964; Emerson, 1976). According to SET, the costs to develop and maintain a supply chain relationship are lower in socially close relationships (Thibaut & Kelley, 1959). In the business context, behaviors by one firm, according to SET, will result in reciprocal behavior by the other firm (Thibaut & Kelley, 1959; Hald et al., 2009) as the primary motivation for creating partnerships is to avoid punishments and seek rewards (Emerson, 1976; Griffith, et al, 2006). Some of the earlier theoretical conceptualizations of SET, though, support the point of diminishing returns for reciprocity and social exchange (Homans, 1958; Thibaut & Kelly, 1959; Blau, 1964; Emerson, 1976) and the fatigue and satiation concepts (Thibaut & Kelly, 1959). These concepts are central and supportive to the study of the dark side effect in business relationships which will be explored in this research.

Relationship Quality

One of the more effective moderators of a business relationship outcome is relationship quality (Kusari, Hoeffler, & Iacobucci, 2013). Relationship quality refers to the condition in which partners can rely on performance levels and honesty of one another because these mutual expectations are essential to maintaining a productive relationship (Crosby et al., 1990; Fang et al., 2011) and it has a strong effect on relationship performance (Crosby et al., 1990; Kumar et al., 1995; Nyaga & Whipple, 2011). Relationship quality is impacted by the fairness of suppliers (Kumar et al., 1995) and is positively related to relationship continuity (Crosby et al., 1990), relationship satisfaction and supply chain operational performance (Nyaga & Whipple, 2011). Per Rauyruen and Miller (2007), relationship quality significantly influences attitudinal loyalty.

Relationship quality is most often conceptualized as a higher-order construct made of trust and commitment (Morgan & Hunt, 1994; Palmatier et al., 2007; Fang et al., 2011) and relationship satisfaction (Crosby et al.,1990; Palmatier et al., 2007). Trust between partners reduces the likelihood of opportunistic behavior and provides a greater focus on long-term, mutual benefits by making the actual economic exchange more transparent and efficient (Fang et al., 2011). A high level of commitment in a relationship reduces the desire to seek alternative partners, increases the amount of effort and investment expended on improving the relationship and improves perceptions and expectations of future rewards (Fang et al., 2011). Given the importance of relationship quality, it is included as a moderator of the paths between the dark side variables and the dependent variables. Relationship quality will be tested as a second order construct composed of satisfaction, commitment and trust.

Relationship Performance

There are two dependent variables of interest in exploring if a relationship is performing successfully or not: (1) the likelihood of relationship termination; and (2) perceptions of relationship financial performance. Because close business relationships are promoted for improving firm performance, perceptions of the financial costs and benefits of a buyer-supplier relationship can affect the partners' perceptions of relationship success (Spekman & Carraway, 2006; Duffy, 2008). These two dependent variables are expected to show a more complex picture of relationships that end or are expected to end due to a relationship failure.

Dark Side Variables

While research has corroborated the positive side of buyer-supplier relationships touting greater benefits from a strong relationship than from a transactional one, the high quantity of failed and underperforming business relationships emphasizes the need for clear understanding of all dimensions of organizational relationships—including the dark side (Musarra, et al., 2016). The dark side of relational variables results in tension, conflict and reduced cooperation, commitment and trust (Abosag, Yen, & Barnes, 2016). These dark side factors can lead to reduced relational performance, organizational

performance and relationship termination (Abosag, Yen, & Barnes, 2016). These dark side effects have been underrepresented in organizational literature (Grayson & Ambler, 1999; Schmitz, Schweiger, & Daft, 2016).

Dark side variables are those that may have positive effects on the relationship performance but, at some point, begin to exhibit diminishing returns while still requiring increasing costs in time and investment (Villenna et al., 2011; Anderson & Jap, 2005). This study is addressing what variables may be more prone to this dark-side effect in the mature stage of the relationship life cycle and thus includes the following as potentially dark-side variables: (1) relationship-specific investments (Backhaus & Buschken, 1999; Bensaou & Anderson, 1999; Jap & Ganesan, 2000); (2) long-term relationship orientation (Grayson & Ambler, 1999; Barnes, 2005); (3) learning/absorptive capacity (Hamel, 1991; Dyer, Singh, & Kale, 2008); (4) social capital (Inkpen & Tsang, 2005; Autry & Griffis, 2008); and (5) reciprocity (Gu et al., 2008; Lechner et al., 2010). These variables chosen are relevant to SET as they include social behaviors, determined by human behavior patterns in which social norms and the norm of reciprocity create an expected equal return in behavior.

Relationship-Specific Investment. Relationship-specific assets are those which are mutual, though not necessarily balanced and cannot be used with other business partners (Bensaou & Anderson, 1999). These assets are the reason a continuous relationship makes economic and operational sense and they help create an atmosphere of mutual commitment (Backhaus & Büschken, 1999). Since each partner's investment is at risk of loss if the relationship ends before the return is realized, relationship-specific investments may hold a firm in a relationship even when there is dissatisfaction with it (Backhaus & Büschken, 1999) and may increase a firm's vulnerability to opportunism (Backhaus & Büschken, 1999; Bensaou & Anderson, 1999). This is particularly true when relationship-specific investments are asymmetrical, allowing one partner to experience increased bargaining power and thereby gain benefits in excess of what the other partner receives (Jap & Ganesan, 2000; Lavie, 2006; Dyer et al., 2008). Thus, assets created to protect business relationships may actually endanger those relationships by increasing the potential gains of opportunistic behaviors and actions (Bensaou & Anderson, 1999).

Research has produced contradictory results regarding the contribution of relationship-specific investments to the performance of supply-chain relationships (Jap & Ganesan, 2000). Jap and Ganesan (2000) and Poppo et al. (2008) found that balanced relationship-specific investments increase the perception of commitment of the other party only in the exploration phase of the relationship life cycle. A mature position in the relationship life cycle would suggest that relationship-specific investments, if used, would lead to a feeling of satisfaction and commitment. Achrol and Gundlach (1999) found that relationship quality is positively related to relationship performance and reduces the likelihood of relationship dissolution. The following hypotheses are proposed to determine if the positive impact of these variables hold or if there is a dark side effect:

H_{1a}: The relationship between relationship-specific investment and relationship financial performance is stronger for mature supply chain relationships with a higher level of relationship quality than for mature supply chain relationships with a lower level of relationship quality.

H_{1b}: The relationship between relationship-specific investment and likelihood of termination is stronger for mature supply chain relationships with a lower level of relationship quality than for mature supply chain relationships with a higher level of relationship quality.

Long-Term Relationship Orientation. Long-term relationship orientation involves continuous business relationships between two partners, as opposed to arm's-length, market- or transaction-based (i.e., short-term) relationships. Research suggests longer-term relationships reduce costs and increase profits to both parties over time (Ganesan, 1994; Skarmeas, 2006), increase trust and commitment (Bitner, 1995; Barnes, 2005;

Poppo et al., 2008) and reduce risk (Bitner, 1995).

Despite the potential advantages, longer-term relationships increase the need for relationship-specific investments (Backhaus & Büschken, 1999) and may not result in either greater profit (Moorman et al., 1992; Reinartz & Kumar, 2003) or sales growth (Kalwani & Narayandas, 1995) than transactional relationships. They may also increase the potential for opportunism as the dissolution of the relationship can be difficult and expensive (John, 1984; Anderson & Weitz, 1992). As relationships develop over time, negative influences may become more common (Grayson & Ambler, 1999; Barnes, 2005) and reduce the long-term relational impact on trust and commitment (Grayson & Ambler, 1999). Expectations often increase with the duration of the relationship (Moorman et al., 1992), which contributes to the potential diminishing returns of long-term relationships. Complacency can become normal in long-term relationships (Barnes, 2005), resulting in "relational inertia" (Villena et al., 2011), or a reluctance to seek other partners or replace current partners even if expected benefits are not forthcoming (Anderson & Jap, 2005; Fang et al., 2011). Relational inertia limits innovation (Anderson & Jap, 2005), knowledge creation (McFadyen & Cannella, 2004) and product/ market development (Fang et al., 2011).

Long-term relationship orientation may affect supply chain relationships positively but can also produce negative results. Because relationship quality is composed of trust and commitment, this moderator is expected to improve the potential longevity and performance of the relationship. SET suggests that the trust and commitment inherent in relationship quality will improve the outcomes of the relationship. Kusari et al. (2013, p. 119) though offer "there is a time and a place to trust one's business partners and a time and a place to verify their trustworthiness" suggesting the potential downsides of a long-term relationship orientation. Therefore, the following hypotheses are proposed to determine if the positive impact of these variables hold or if there is a dark side effect:

H_{2a}: The relationship between long-term relationship orientation and relationship financial performance is stronger for mature supply chain relationships with a higher level of relationship quality than for mature supply chain relationships with a lower level of relationship quality.

H_{2b}: The relationship between long-term relationship orientation and likelihood of termination is stronger for mature supply chain relationships with a lower level of relationship quality than for mature supply chain relationships with a higher level of relationship quality.

Learning/Absorptive Capacity. Absorptive capacity is the ability of a firm to exploit the knowledge base of its partners by identifying, evaluating and assimilating that knowledge (Cohen & Levinthal, 1990). Firms often enter alliances with a perception of value arising from acquiring new knowledge (Cohen & Levinthal, 1990; Lavie, 2006; Poppo et al., 2008; Dyer et al., 2008; Li et al., 2008). These relationships most often occur when knowledge asymmetries are involved and the process of collaboration creates a conduit though which knowledge can be shared (Hamel, 1991). Absorptive capacity is partially responsible for greater firm performance (Lavie, 2006) and deeper learning strengthens business relationships, making it more difficult for partners to dissolve the relationship (Poppo et al., 2009). There is, however, a potential dark side. A learning goal may be an effort to poach as much knowledge and technology as possible and then quit the relationship to avoid the dependence which comes along with it (Hamel, 1991; Dyer et al., 2008). This suggests a lack of commitment to the relationship. Firms involved in learning-type alliances must balance the flow of knowledge in both directions and try to protect any knowledge they do not wish to share (Inkpen & Beamish, 1997; Li et al., 2008). Concerns about unintentional knowledge transfer, partner encroachment and information poaching may lead firms to invest in information gatekeepers, employees who monitor and restrict the flow of knowledge between partners (Hamel, 1991), indicating a lack of trust in the relationship.

Hamel (1991) found that if a firm cannot learn from its partner as quickly as its partner can learn from it, the firm becomes dependent upon

the faster-learning partner and to the relationship itself. Thus, a higher level of absorptive capacity results in a higher level of bargaining power for the faster-learning partner. Inkpen and Beamish (1997) assert that the acquisition of knowledge creates an imbalance of power which may, in the longer run, make the relationship obsolete. When firms behave opportunistically in their desire to win the learning race, this may lead to an inability to gain or maintain a competitive advantage and hence reduced levels of performance and innovation (Li et al., 2008).

In the mature stage of the relationship life cycle, learning paths between partners would be expected to be relatively well-established and stable. SET suggests that learning would improve relationship financial performance and reduce the likelihood of termination (Homans, 1958; Thibaut & Kelly, 1959; Gouldner, 1960; Blau, 1964; Emerson, 1976). This is particularly true when learning is combined with high levels of relationship quality, which includes trust and commitment (Palmatier et al., 2007; Nyaga & Whipple, 2011). We propose to determine if there is a positive impact of these variables or a dark side effect:

H_{3a}: The relationship between learning/ absorptive capacity and relationship financial performance is stronger for mature supply chain relationships with a higher level of relationship quality than for mature supply chain relationships with a lower level of relationship quality.

H_{3b}: The relationship between learning/ absorptive capacity and likelihood of termination is stronger for mature supply chain relationships with a lower level of relationship quality than for mature supply chain relationships with a higher level of relationship quality.

Social Capital. Social capital is defined as the interpersonal relationships between individuals (McFadyen & Cannella, 2004). It includes perceptual variables such as reciprocity, respect and friendship which are developed over longer -term relationships (Villena et al., 2011). SET suggests that social capital creates value for partners by increasing trust, commitment and performance, however others have cautioned against the dark side of social capital (Portes & Sensenbrenner, 1993; Inkpen & Tsang, 2005).

Lock et al. (1999) states firms that base their competitive advantage goals primarily on social capital will likely encounter extreme disadvantage. Personal networks are capable of creating very strong group identification and group norms, which limits the members' openness to other groups (McFadyen & Cannella, 2004). This results in a failure to consider new options (Kern, 1998), which reduces the performance of both the firm and the partnering relationship (Villena et al., 2011). It may also lead to opportunistic behavior, non-optimal decision making or loss of objectivity (McFadyen & Cannella, 2004; Grover et al., 2006; Villena et al., 2011).

A mature position in the relationship life cycle would support the positive effects of social capital on relationship performance, increasing performance while reducing the probability of termination. Adding relationship quality as a moderator would accentuate the positive results and further reduce the probability of termination. So, the following hypotheses are proposed to determine if the positive impact of these variables hold or if there is a dark side effect:

H_{4a}: The relationship between social capital and relationship financial performance is stronger for mature supply chain relationships with a higher level of relationship quality than for mature supply chain relationships with a lower level of relationship quality.

H_{4b}: The relationship between social capital and likelihood of termination is stronger for mature supply chain relationships with a lower level of relationship quality than for mature supply chain relationships with a higher level of relationship quality.

Reciprocity. Reciprocity involves a perception of increased benefit based on cooperation and an expectation of similar behavior from a partner (Gouldner, 1960; Poppo et al., 2008). When partners understand it is in their best interest to act cooperatively, they frequently assume that the other party is also aware of this often-unspoken agreement (Poppo et al., 2008).

SET suggests that reciprocity can create substantial performance benefits in supply chain relationships and this conclusion has been supported by empirical evidence (Gu et al., 2008).

The dark side of reciprocity results from its consumption of resources without a guarantee of return on investment (Lechner et al., 2010). When reciprocity is strong, a feeling of obligation may diminish the importance of the original goals or effective actions (Uzzi, 1997; Lechner et al., 2010). Unintended consequences include ignorance of true market conditions (Gu et al., 2008), failure of network relationships (Uzzi, 1997) and even excessive debt accumulation (Vanhonacker, 2004). This can affect a firm's performance and survival (Gu et al., 2008).

SET predicts that reciprocity would have a positive effect on relationship performance and a negative effect on likelihood of termination but the original conceptualization of the theory suggests there is a point of diminishing returns for reciprocity on the dependent variables (Homans, 1958). Therefore, the following hypotheses are proposed to determine if the positive impact of these variables hold or if there is a dark side effect:

- **H_{5a}:** The relationship between reciprocity and relationship financial performance is stronger for mature supply chain relationships with a higher level of relationship quality than for mature supply chain relationships with a lower level of relationship quality.
- **H_{5b}:** The relationship between reciprocity and likelihood of termination is stronger for mature supply chain relationships with a lower level of relationship quality than for mature supply chain relationships with a higher level of relationship quality.

METHODOLOGY

This research examines the proposed relationships with a cross-sectional survey of supply chain professionals administered online via Qualtrics. The survey was successfully pretested with twelve logistics professionals and academics to assure the readability, face validity, understandability and ease of completion of the survey.

Sample and Measures

The target respondents were mid- and upper-level managers who were involved in mature supply chain relationships. Following a general approach suggested by Bartell (2014), social media was utilized to obtain a robust list of logistics professionals at these management levels. As Bartell (2014) pointed out, social media is becoming a widely used research recruitment tool due to its cost, time and convenience benefits. To that end, an email contact list of 3,600 subscribers of a professional logistics and supply chain management blog (The Logistics of Logistics) was obtained for this study. Invitations to participate were sent in a pseudo-random approach by systematically sending an invitation to participate to every other one of the 3,600 potential subjects. Invitations to participate were made in two stages (the initial first wave and a subsequent second wave approximately four weeks later). As incentive to participate in the survey, subscribers were offered access to a summary practitioner report published exclusively on the blog once the survey was complete. There were 305 initial responses to the survey. Deletion of incomplete surveys and those not involving mature business relationships resulted in a final sample size of 191 respondents. The demographics of the respondents are summarized in Table 1. The majority of participants were supervisors/ managers (69.6%) who have been in the position for at least a year (97%) for the same firm (98%). There was a diversity of industries and firm sizes (measured by revenue and number of employees) represented in the sample.

The survey respondents were instructed to consider a business relationship in which they were involved that was in the mature phase of the life cycle (the definition being provided in the survey instructions). They were then asked to briefly describe the relationship, as a check on their understanding of the type of relationship being studied. That open-ended question was followed by the survey items for each variable, with each item adapted from established, tested scale items as described in

TABLE 1:
Demographics of Respondents

Demographic Variable	Frequency	%
Job Title		
Supervisor/ Manager	132	69.6%
Front-line employee	43	22.5%
Vice President	2	1%
Director	13	6.8%
C-suite	0	0%
Length in Position		
Less than one year	4	2.1%
Between one and five years	102	53.4%
Between five and ten years	62	32.5%
Between ten and fifteen years	13	6.8%
More than fifteen years	10	5.2%
Industry category for partner company		
Manufacturing	35	18.3%
Logistics	17	8.9%
Retail	28	14.7%
Information technology	44	23%
Marketing	10	5.2%
Hospitality	14	7.3%
Length with this company		
Less than one year	4	2.1%
Between one and five years	73	38.2%
Between six and ten years	78	40.8%
Between eleven and fifteen years	27	14.1%
More than fifteen years	9	4.7%
Approximate annual revenue of your company.		
Less than $100,000	15	7.9%
Between $100,000 and $500,000	32	16.8%
Between $500,001 and $1,000,000	39	20.4%
Between $1,000,001 and $2,000,000	30	15.7%
Above $2,000,000	75	39.3%
Number of employees in your company		
Less than 50	52	27.2%
Between 50 and 100	34	17.8%
Between 101 and 200	26	13.6%
Between 201 and 500	26	13.6%
More than 500	53	27.7%
Industry category for your company		
Manufacturing	30	15.7%
Logistics	21	11%
Retail	44	23%
Information technology	43	22.5%
Marketing	12	6.3%
Hospitality	21	11%
Research/ development	20	10.5%

Table 2. Where appropriate, the more-general word "partner" was substituted (for supplier, customer, etc.) since respondents could have different roles in the particular business relationships used as the basis for their responses. All adapted items are tested on a 5-point Likert scale from 1 (strongly disagree) to 5 (strongly agree).

The survey responses were analyzed using structural equation modeling (SEM). One advantage of SEM is the ability to include

TABLE 2:
Final Survey Items Analyzed

Construct	Source	Item	Tested in hypothesis:
Relationship termination - 4 items	Johnson (1999)	We expect the relationship with this partner to last a long time. (R)	All
		It is likely that our relationship with this partner will be terminated within the next 2 years.	
		Our firm has been successful in getting this partner to commit to long term cooperation. (R)	
		This partner is hesitant to come to any long term agreements.	
Perceptions of relationship financial performance – 9 items originally	Duffy (2008)	We see a lot of future growth potential with this partner.	All
		Investments we have made in this relationship have made our business operations more cost effective and efficient.	
		Returns we have made from this relationship have enabled us to reinvest and expand our business with this customer.	
		The amount of business we have with this partner is growing.	
		The future viability of this relationship does not look good. [R]	
		Investments of time and money in this partner have been worthwhile.	
		The cost of servicing this partner is low given the amount of business it generates.	
		We have been required to make investments in this relationship that have cost us a lot of money but offer little benefit to our own operations. [R]	
		We are satisfied with the level of profits we achieve with this partner.	
Relationship specific investment – 3 items	Nyaga & Whipple (2011)	We have invested substantially in personnel dedicated to this relationship.	H_{1a}, H_{1b}
		We have provided proprietary expertise and/ or technology to this relationship.	
		We have dedicated significant investments (e.g. equipment or support systems) to this relationship.	
Long term orientation – 7 items originally	Ganesan (1994)	We believe that over the long run our relationship with this partner will be profitable.	H_{2a}, H_{2b}
		Maintaining a long term relationship with this partner is important to us.	
		We are willing to make sacrifices to help this partner from time to time.	
		We expect this partner to be working with us for a long time.	
		Any concessions we make to help out this partner will even out in the long run.	
		We focus on long term goals in this relationship.	
		We are only concerned with our outcomes in this relationship. [R]	
Learning and absorptive capacity - 6 items originally	Schoenheit et al. (2014)	Working with this specific partner, we have developed processes for:	H_{3a}, H_{3b}
		Protecting knowledge from inappropriate use outside the organization.	
		Encouraging the protection of knowledge.	
		Acquiring knowledge about new products or services within our industry.	
		Generating new knowledge from existing knowledge.	
		Restricting access to some sources of knowledge.	
		Collaborating.	

TABLE 2: ***Continued***

Construct	Source	Item	Tested in hypothesis:
Social Capital – 5 items	Villena, Revilla & Choi (2011)	Please indicate the extent to which the relationship between your company and this supplier is characterized by:	H_{4a}, H_{4b}
		A close personal interaction between the partners.	
		Mutual respect between the partners.	
		Mutual trust between the partners.	
		Personal friendship between the partners.	
		Reciprocity between the partners.	
Reciprocity – 4 items originally	Chan and Li (2010)	When my partner needs my help, I am willing to assist them even if it may cost me time and effort.	H_{5a}, H_{5b}
		When I ask this partner for help, I think they will help me.	
		Even if this partner, who I have helped may not help me in return, I believe they will in the future.	
		I am willing to help and share information with my partner when they need it.	
Trust – 5 items	Kumar et al. (1995)	When making important decisions, this partner is concerned about our welfare.	All
		We can rely on this partner handling critical information on our company confidentially.	
		When we have an important requirement, we can depend on this partner's support.	
		We are convinced that this partner performs its tasks professionally.	
		We can count on this partner's promises made to our firm.	
Commitment – 4 items	Anderson & Weitz (1992)	We are patient with this partner when they make mistakes that cause us trouble.	All
		We are willing to dedicate whatever people and resources it takes to grow sales for this partner.	
		We are quite willing to make long-term investments in this partner.	
		We are not continually on the lookout for another partner to replace this partner.	
Satisfaction – 4 items	Nyaga & Whipple (2011)	My firm is satisfied with this partner in terms of:	All
		Coordination of activities.	
		Level of commitment.	
		Level of information sharing.	
		Management of activities.	
Statistical Process Controls (Marker)	Shah & Ward (2007)	At my company, we make extensive use of statistical techniques to reduce variance in our business volume.	Marker

Note: Removed items are in italics; R means reverse coded items

latent variables in a complex model (Lowry & Gaskin, 2014). The full model was evaluated using Partial Least Squares (PLS-SEM), a mathematically iterative approach which maximizes the explained variance of the dependent variables, or latent constructs (Hair, Ringle, & Sarstedt, 2011). PLS-SEM allows rigorous analysis with a smaller sample size than covariance-based SEM methodologies (Hair et al., 2011). The software used to run the PLS-SEM analysis was WarpPLS 4.0 which, unlike other PLS software, is capable of estimating nonlinear relationships among the latent variables (Kock, 2013). Since WarpPLS path coefficient calculation allows interpretation of the path coefficients as if they are the path coefficients of linear regressions (Kock, 2014), there is no need to split the data set into high or low conditions of the moderator (i.e., it allowed the data set to be tested in its entirety).

The minimum required sample size to run PLS-SEM is the number required to run the

estimates for one latent variable block at a time. In this study, the largest number of manifest variables in the model belongs to the perceptions of financial performance variable. Because the maximum number of paths from manifest variables to this latent construct is 9, the recommended sample size for a significance level of 5 percent is 181 to detect R-squared values of 0.10 and to achieve statistical power of 80 percent (Hair et al., 2014). As the final sample size of 191 respondents is greater than the sample size of 181 recommended by the Hair et al. (2014) approach, it is therefore sufficient to achieve the specified levels of predictive power.

RESULTS

Initial Data Analysis

Initial data analysis showed no evidence of outliers. Although normality is not a required distribution assumption for partial least squares analysis (Hair et al., 2014), examination of skewness and kurtosis indicated non-normality only with respect to the nature of the relationship (which, as requested and expected, was heavily skewed toward mature relationships). Since respondents not involved in mature relationships were eliminated during the data cleansing process, the non-normality of this item did not affect the analysis of the data. In terms of nonresponse bias, early versus late responders were tested for significant differences (Armstrong & Overton, 1977) using data collected over roughly a two-month period. There were no significant results, indicating that nonresponse bias is not problematic in this data set.

Common method bias was tested by including a marker variable in the survey instrument which is theoretically unrelated to the constructs of the study (Lindell & Whitney, 2001; Lowry & Gaskin, 2014). The marker variable is then correlated to the data; if correlations are higher than expected, then the common method bias may be present (Lowry and Gaskin, 2014). The best way to address this problem using the marker variable is to include a theoretically unrelated variable in the questionnaire to justify the a priori zero correlation between this marker variable and the other study variables (Lindell and Whitney, 2001). Previous research supports the use of a single-item Likert-scale marker variable (Johnson & Hall, 2005; Williams, Hartman, & Cavazotte, 2010), therefore the marker variable used in this study was a measure of lean production methods adapted from Shah and Ward (2007), "At my company, we make extensive use of statistical techniques to reduce variance in our business volume". The marker variable was non-significant to both the likelihood of relationship termination ($p=.167$) and perceptions of relationship financial performance ($p=.490$) as well as the rest of the variables in the model, indicating that common method bias is not a concern. Finally, to test for multicollinearity, the variance inflation factor (VIF) was calculated for each variable to evaluate indicator multicollinearity. All indicators satisfied even the most restrictive threshold of VIF < 3.3 (Kock, 2014), indicating that multicollinearity is not an issue.

The Final Model

The model underlying this study was provided in Figure 1. To perform a more robust analysis, the model was revised to include control variables related to both the firm and the demographics of the respondents (Villena et al., 2011). Firm-level control variables include: (1) individual firm financial performance, measured as the approximate value of annual net sales (Tokman et al., 2007; Modi & Mabert, 2007); (2) firm size, measured by number of employees (Tokman et al., 2007; Modi & Mabert, 2007); (3) relationship criticality, measured by the percent of business satisfied by the particular relationship in question (Modi & Mabert, 2007); and (4) industry (Modi & Mabert, 2007). Consistent with the Modi and Mabert (2007) study, demographic control variables including age, duration at the current position and job title were collected.

The impacts of the control variables on the model were tested by including the control variables in the full model and evaluating the paths for significance. Only one control variable (importance of this partner to your company) was significant for the dependent variable of likelihood of relationship termination and this was incorporated in the structure of the final model. None of the other

control variables significantly impacted the dependent variables and thus were excluded from further tests. The path coefficients and significance of the control variable paths are provided in Table 3.

The internal consistency of the model was evaluated using reliability, convergent validity and discriminant validity. This evaluation involved an iterative process which first evaluated all internal consistency measures and then removed eleven measurement items illustrated in Table Two which were reducing internal consistency. Six of the items removed came from Duffy's (2008) nine item scale related to the perception of relationship financial performance, two items removed came from Ganesan's (1994) seven item scale related to long-term orientation, two related to Schoehert et al.'s (2014) six item scale related to learning/absorptive capacity and one item was removed from Chan and Li's (2010) reciprocity scale. Per Duffy (2008), it is acceptable to refine measures to correct lower internal consistency scores, including reliabilities. Once those were removed, reliability, convergent validity and discriminant validity were within accepted thresholds and an adequate number of items remained for the final measures utilized as illustrated in Table 2.

Reliability was calculated for each latent variable using both Cronbach's alpha and composite reliability (see Table 4). When calculating reliability for the first-order constructs which make up the second-order latent construct (relationship quality), the

TABLE 3:
Effect of Control Variables

Control Variable	Likelihood of Relationship Termination		Perceptions of Relationship Financial Performance	
	Path Coefficient	P Value	Path Coefficient	P Value
Importance	-0.162	0.006	0.065	0.160
Marker	0.063	0.167	0.002	0.490
Job Title	0.085	0.096	-0.048	0.233
Duration in Position	0.033	0.307	0.010	0.443
Partner Industry	-0.087	0.090	0.033	0.443
Duration at Company	0.044	0.251	0.011	0.435
Own Revenue	-0.106	0.051	0.045	0.247
Own Employment	0.091	0.082	0.006	0.464
Own Industry	0.001	0.496	-0.038	0.279

TABLE 4:
Reliabilities for Latent Constructs

Construct	Final # of Items	Cronbach's Alpha	Composite Reliability
Relationship-specific investment	3	0.781	0.873
Long-term orientation	5	0.876	0.910
Learning/ absorptive capacity	4	0.827	0.885
Relational social capital	5	0.795	0.860
Reciprocity	3	0.713	0.840
Relationship termination	4	0.816	0.879
Relationship financial performance	3	0.751	0.858
Relationship Quality	13	0.893	0.934

recommendation is to calculate a reliability for the second-order construct (Kock, 2014). All latent construct reliabilities exceed the 0.7 threshold for both Cronbach's alpha and composite reliability.

The criterion for acceptable convergent validity is average variance extracted (AVE) above 0.50 (Hair et al., 2013). With the original set of measurement items, only one construct (perceptions of relationship financial performance) did not achieve the 0.50 threshold. After removal of the eleven items described above, the AVE increased for long-term orientation (0.572 to 0.669), learning and absorptive capacity (0.527 to 0.658), reciprocity (0.615 to 0.636) and perceptions of relationship financial performance (0.45 to 0.668). The criterion for discriminant validity is that the square root of the AVE is higher than the correlation between the latent variables (Hair et al., 2010). Table 5 shows (on the diagonal) the correlations between latent variables and the square root of AVE. All constructs demonstrate discriminant validity.

PLS-SEM evaluates a model by fitting it to the sample data, thereby optimizing the parameter estimates and maximizing the explained variance (R^2 and adjusted R^2) in the dependent variables (Hair et al., 2014). PLS-SEM uses measures of the model's predictive ability (Q^2, or predictive relevance) instead of goodness-of-fit statistics to determine the value of the model in predicting the effects of the independent variables on the dependent variables (Hair et al., 2014). For the dependent variable of the likelihood of relationship termination, the R^2 was .523, the adjusted R^2 was .480 and the Q^2 was .621. For the dependent variable of perceptions of financial performance, the R^2 was .657, the adjusted R^2 was .629 and the Q^2 was .729. The R^2 values in this model are moderate (above 0.50) for both likelihood of relationship termination and perceptions of relationship financial performance (Hair, Ringle, & Sarstedt, 2011). The exogenous variables in the full model are responsible for 52% of the variance explained for likelihood of relationship termination and 66% of the variance for perceptions of relationship financial performance.

Adjusted R^2 takes into account the explanatory power of the model as well as the sample size and complexity of the model. This measure is affected by the number of exogenous relationships within the model and adjusts the R^2 accordingly (Hair et al., 2014). The adjusted R^2 for the likelihood of relationship termination is 0.48 and for perceptions of relationship financial performance is 0.629, showing that the model complexity does not detrimentally affect its explanatory power. An additional measure of the model's value is its predictive relevance (Q^2), also called the Stone-Geisser test (Geisser, 1974; Stone, 1974). A PLS-SEM model has predictive relevance if the independent variables accurately predict the dependent variables. Positive Q^2 values indicate acceptable levels of predictive relevance for the model (Hair et al., 2014). Both endogenous variables have positive Q^2,

TABLE 5:
Discriminant Validity of Full Model

	SocCal	LTO	RSI	Learn	Recip	Term	Perf	RQ
SocCal	**0.744**	0.673	0.41	0.451	0.551	0.48	0.618	0.711
LTO	0.673	**0.818**	0.573	0.509	0.664	0.75	0.799	0.798
RSI	0.41	0.573	**0.834**	0.559	0.435	0.397	0.538	0.547
Learn	0.451	0.509	0.559	**0.811**	0.434	0.322	0.557	0.541
Recip	0.551	0.664	0.435	0.434	**0.798**	0.51	0.631	0.777
Term	0.48	0.75	0.397	0.322	0.51	**0.803**	0.617	0.695
Perf	0.618	0.799	0.538	0.557	0.631	0.617	**0.817**	0.795
RQ	0.711	0.798	0.547	0.541	0.777	0.695	0.795	**0.908**

indicating predictive accuracy of the model.

Hypothesis Tests. Effect sizes (f^2), path coefficients and p-values are used to determine which paths are significant and substantial to the full model. Effect sizes of 0.35, 0.15 and 0.02 are viewed as large, moderate and small, respectively (Hair et al., 2014). The model exhibits both small and moderate effect sizes, as shown in Table 6. The hypothesized interactions of relationship quality with each of the independent variables were tested one at time as recommended by Hair et al. (2010; 2013).

TABLE 6:
Effect Size (f^2) in the Full Model

Effect Size (f2)				
	Likelihood of Relationship Termination		Perceptions of Relationship Financial Performance	
Relationship-Specific Investment	0.007	Very small	0.029	Small
Long-Term Orientation	0.525	Large	0.333	Moderate
Learning & Absorptive Capacity	0.029	Small	0.140	Small
Relational Social Capital	0.035	Small	0.031	Small
Reciprocity	0.032	Small	0.118	Small
RQ * Relationship-Specific Investment	0.095	Small	0.105	Small
RQ * Long-Term Orientation	0.048	Small	0.129	Small
RQ * Learning & Absorptive Capacity	0.010	Very small	0.069	Small
RQ * Relational Social Capital	0.156	Moderate	0.042	Small
RQ * Reciprocity	0.046	Small	0.128	Small

TABLE 7:
Test of Paths in Full Model

	Perceptions of Relationship Financial Performance			Likelihood of Relationship Termination		
Latent Independent	Path Coefficient	P-value	R^2	Path Coefficient	P-value	R^2
Relationship Specific investment	0.050	0.280	0.657	-0.0174	0.420	0.523
Long-Term Orientation	0.413	<0.001		0.697	<0.001	
Learning	0.223	0.004		0.073	0.235	
Relationship Social Capital	0.048	0.287		0.071	0.203	
Reciprocity	0.185	0.014		0.078	0.128	
RQ x RSI	0.259	<0.001		-0.264	<0.001	
RQ x LTO	0.249	<0.001		0.109	0.099	
RQ x SocCal	-0.091	0.142		0.410	<0.001	
RQ x Recip	-0.273	<0.001		0.113	<0.001	

The path testing results are provided in Table 7. The main effects testing reveals three positive significant paths for perceptions of relationship financial performance: (1) long-term orientation; (2) learning; and (3) reciprocity. For the main effects of the likelihood of relationship termination, there was a positive significant path for long-term orientation. For the impact of the moderating variable of relationship quality, the hypotheses results are described next.

Hypothesis 1 - Relationship-Specific Investment. The first hypothesis examines the moderated relationship between relationship-specific investment and perceptions of relationship financial performance (Hypothesis 1a) and likelihood of relationship termination (Hypothesis 1b). In support of Hypothesis 1a, the results revealed a significant interaction between relationship-specific investment and relationship quality on perceptions of relationship financial performance (path coefficient = 0.259, $p<0.001$). Perception of relationship financial performance was found to be positively and significantly affected by relationship-specific investment, where that effect is stronger for higher levels of relationship quality. Similarly and in support of Hypothesis 1b, the results revealed a negative interaction between relationship-specific investment and relationship quality on likelihood of relationship termination (path coefficient = -0.264, $p<0.001$), such that the effect of relationship investments is stronger for higher levels of relationship quality.

Hypothesis 2 - Long-Term Relationship Orientation. Hypothesis 2 examined the moderated relationship between long-term orientation and perceptions of relationship financial performance (Hypothesis 2a) and likelihood of relationship termination (Hypothesis 2b). In support of Hypothesis 2a, the results demonstrated a positive interaction between long-term orientation and relationship quality on perceptions of relationship financial performance (path coefficient = 0.249, $p<0.001$), indicating that the relationship between long-term orientation and performance is stronger for higher levels of relationship quality. However, contrary to Hypothesis 2b, the results revealed a positive and marginally significant interaction between long-term orientation and relationship quality on the likelihood of relationship termination (path coefficient = 0.109, $p<0.099$). Thus, Hypothesis 2b was not supported.

Hypothesis 3 – Learning/Absorptive Capacity. Hypothesis 3 examined the moderated relationship between learning/absorptive capacity and perceptions of relationship financial performance (Hypothesis 3a) and likelihood of relationship termination (Hypothesis 3b). The results indicated a significant but negative interaction between learning/absorptive capacity and relationship quality on perception of relationship financial performance (path coefficient = -.186, $p=0.013$). Thus, Hypothesis 3a was not supported, suggesting a dark side effect. Similarly, although the relationship between the interaction term of relationship quality and learning/absorptive capacity was significant ($p=0.004$), the path coefficient was positive (0.027), indicating a higher likelihood of relationship termination at higher levels of relationship quality. Therefore Hypothesis 3b was also not supported. Collectively, these results illustrate the dark side effects of learning/absorptive capacity that are not mitigated by the presence of even high levels of relationship quality.

Hypothesis 4 - Relational Social Capital. Hypothesis 4 examined the moderated relationship between relational social capital and perceptions of relationship financial performance (Hypothesis 4a) and likelihood of relationship termination (Hypothesis 4b). With respect to perceptions of financial performance, the interaction term between social capital and relationship quality was found to be nonsignificant ($p=0.142$). Therefore, hypothesis 4a was not supported. However, there was a significant interaction between social capital and relationship quality on the likelihood of relationship termination (path coefficient = 0.41, $p<0.001$) but contrary to predictions, the path coefficient was positive (0.41), indicating a higher likelihood of relationship termination at higher levels of relationship quality. Thus, hypothesis 4b was not supported. This result indicated that, in the presence of relationship quality, relational social capital had an effect indicative of dark side effects.

Hypothesis 5 – Reciprocity. Hypothesis 5 examined the relationship between reciprocity and perceptions of relationship financial performance (Hypothesis 5a) and likelihood of relationship termination (Hypothesis 5b). As it relates to perceptions of relationship financial performance, the relationship between the interaction term (reciprocity and relationship quality) was highly significant ($p<0.001$) but the path coefficient was negative (-0.273). For a given level of reciprocity, there was a reduced perception of relationship financial performance at higher levels of relationship quality. Hypothesis 5a was not supported. Similarly, with respect to likelihood of relationship termination, the relationship between the interaction term (relationship quality and reciprocity) was highly significant ($p<0.001$) but the path coefficient (0.113) was positive, indicating an increased likelihood of relationship termination at higher levels of relationship quality. Hypothesis 5b was not supported suggesting a dark side effect of reciprocity.

Post Hoc Testing. The main effects of the independent variables, when significant, were evaluated for their linearity in relation to the dependent variables to determine the existence of the dark side effect of relationship variables in this data set, where nonlinear relationships are indicative of diminishing returns and hence dark side effects (Anderson & Jap, 2005). The only significant nonlinear relationship found in the full model was the relationship between learning/absorptive capacity and perceptions of relationship financial performance. This indicated that for relationships involving learning/absorptive capacity, there was a point at which an incremental increase in learning/ absorptive capacity did not create a proportional gain in perceptions of relationship financial performance. This finding suggests a point at which the expected return on the relationship variable is not attained, i.e., the dark side effect (Anderson & Jap, 2005).

Post-hoc testing of each independent variable individually with each of the two dependent variables, however, revealed that some of the variables, when tested alone, exhibit a warped relationship and a potential dark side effect on the dependent variable. Two main effects, relational social capital and relationship-specific investment exhibited significant curvilinear relationships with each of the two dependent variables when tested individually. The main effects of both relational social capital and relationship-specific investment were generally positive with respect to perceptions of relationship financial performance and negative in relation to the likelihood of relationship termination. However, in each case there was a flattening of the curve that indicates a point of diminishing returns (i.e., a point of reduced effectiveness in increasing perceptions of relationship financial performance or reducing the likelihood of relationship termination). These results supported the existence of dark side effects, suggesting diminishing returns in the business relationships.

DISCUSSION

The support of H_{1a} suggests that if one partner invests in relationship-specific investments, the other partner will act in a similar way, thereby strengthening and extending the relationship (Homans, 1958; Thibaut & Kelly, 1959; Gouldner, 1960; Blau, 1964; Emerson, 1976). Likewise, as it relates to Hypothesis 1b, SET predicts that creation of relationship-specific investments would strengthen and extend the continuity of a relationship (Emerson, 1976; Cropanzano & Mitchell, 2005), thereby reducing the likelihood of relationship termination. The significant positive (negative) effect from the interaction between relationship -specific investment and relationship quality on perceptions of relationship financial performance (likelihood of relationship termination) emphasizes the beneficial effect of maintaining high levels of relationship quality. There is no evidence of a dark side effect of relationship-specific investment on perception of relationship financial performance or likelihood of relationship termination, when moderated by relationship quality.

The findings with respect to Hypothesis 2a also support the current formulation of SET, which includes mutually beneficial behavior and return of social obligation in response to good treatment (Emerson, 1976; Cropanzano & Mitchell, 2005). There is no evidence of dark-side effects of long-term orientation on perceptions of relationship financial

performance. The results suggest that high levels of relationship quality can mitigate potential dark side effects with respect to perceptions of relationship financial performance. In contrast, the findings related to Hypothesis 2b do not support the current SET formulation, which would predict that the likelihood of relationship termination would decrease as business relationships are strengthened through repeated social interaction. If business partners begin to feel dissatisfaction due to their increased comparison level (Thibaut & Kelly, 1959) or level of diminishing return on their reciprocal obligations (Blau, 1964; Emerson, 1976; Cropanzano & Mitchell, 2005), they prematurely end the relationship, despite high levels of long-term relationship orientation, relationship quality and perceptions of financial performance.

The lack of support for H_3, H_4 and H_5 suggests the concepts of diminishing returns, fatigue and comparison levels leading to feelings of dissatisfaction (Blau, 1964; Emerson, 1976; Cropanzano & Mitchell, 2005). In terms of H_3, if learning is the initial goal but knowledge gains remain the same over time, one or both partners may begin to feel they are not receiving the relationship benefits they were expecting. The results are also consistent with Inkpen and Beamish's (1997) finding that an abnormally high percentage of relationships terminate in the case of learning alliances. Hamel (1991) states that relationships in which learning is a specific goal may be ended suddenly when one party achieves its learning objective. In terms of H_4, particularly H_{4b}, it is possible that as relational social capital increases, there is a point of fatigue for the partner at which there is dissatisfaction, which may lead to an increase in the likelihood of relationship termination. The results are also consistent with organizational literature related to the dark side effect of relationship variables (Portes & Sensenbrenner, 1993; Inkpen & Tsang, 2005). In terms of H_5, our findings suggest that the positive effects of reciprocity predicted by the current formulation of SET, which is focused on social obligations and its resulting mutual benefit, did not occur due to perceptions of diminishing returns.

Theoretical Implications

SET has been long used to support the positive effect of relationship variables on various performance measures (Homans, 1958; Thibaut & Kelly, 1959; Gouldner, 1960; Blau, 1964; Emerson, 1976). However, literature over decades has pointed out and in some cases empirically supported, mixed results, non-significant results, or significant negative results suggesting that relationship variables do not always have the positive results desired by business partners (Backhaus & Buschken, 1999; Grayson & Ambler, 1999; Pillai & Sharma, 2003; Barnes, 2005; Teller, et al., 2012; Raweewan & Ferrell, 2018). SET has included the norm of reciprocity and the concept of social obligations created by iterative interactions which strengthen the relationship and enhance performance of both parties (Homans, 1958; Thibaut & Kelly, 1959; Gouldner, 1960; Blau, 1964; Emerson, 1976). This can be seen in the support for hypotheses H_1 (a and b) and H_{2a}. The results of this study, though, suggest earlier concepts within SET, such as the concept of diminishing returns of increased relationship variables, fatigue and satiation and comparison level (Homans, 1958; Thibaut & Kelly, 1959; Gouldner, 1960; Blau, 1964; Emerson, 1976) may also explain relationship performance between businesses. Namely, the rejection of H_3 through H_5 supports the existence of the dark side effect of those independent relationship variables. Thus, the hypotheses that were supported indicate that high levels of relationship quality can help keep the dark side effect for some relationship variables at bay. The hypotheses not supported indicate some relationship variables for which, regardless of the level of relationship quality, there is the potential for diminishing returns, or the dark side effect of those variables in which one partner increasing their efforts at learning, social capital and/or reciprocity for the other partner may have the opposite result in trying to enhance their financial performance perceptions or decrease the likelihood of termination.

Managerial Implications

The results of this study provide evidence of both positive and potential dark-side effects of relationship variables. Relationship-specific investments and long-term orientation were

both found to have an amplifying effect on perceptions of relationship financial performance and the former was also shown to reduce the likelihood of relationship termination. Relationship-specific investments represent a shared risk in the relationship, which may produce a buffering effect in which two different positions are brought to bear on tactical and strategic decisions which are involved in the perception of long- and short-term financial success. An organic self-correction process takes place which may not occur when the risk is carried by just one partner. This knowledge contributes confidence to managers in the positive effect expected when investing in relationship-specific investments and can contribute faith in the likely benefits of doing so. Additionally, long-term orientation creates a strategic business environment that sees past the volatile nature of short-term results and encourages corrective actions and strategic responses with the perception of greater probability of financial results yielding results beyond the short-term expectation.

On the other hand, the results also suggest dark-side effects and a point of diminishing returns to investing in relationship variables. Investments to strengthen relationships, particularly in terms of learning/absorptive capacity, social capital and reciprocity should be done with understanding the possibility there may be a point at which the higher investment yields no additional financial benefit and the relationship may still nonetheless end. This suggests the need for managers to take time to analyze the impact of their business relationship efforts on a continual basis and to not assume that previous efforts will have the same impacts during the mature phrase of the business relationship.

Thus, the results do suggest there can be benefits of managers building relationship quality in terms of trust, commitment and satisfaction with their business partners. Building these elements of relationship quality may particularly enhance the impact of relationship-specific investment in terms of both perceptions of financial performance and reduced likelihood of relationship termination. There can also be benefits with building relationship quality with enhancing perceptions of relationship financial performance when there is a long-term relationship orientation. Managers though must be aware that, while there may be an ongoing beneficial nature of maintaining high levels of relationship quality, building these high levels of relationship quality may not always be enough to mitigate the dark side effect of all relationship variables. In this study, the results suggest this dark side effect when increasing the relationship variables of learning/absorptive capacity, social capital and reciprocity can occur with diminishing impact of perceptions of relationship financial performance and reducing the likelihood of relationship termination.

Limitations and Future Research

In this research, supply chain managers were reached through an online blog for participation. The use of the online blog to get a sample of supply chain managers for this cross-sectional survey had the practical benefit of getting logistics managers' perspectives. While this seems an acceptable approach for an initial study, care must be used when generalizing the results of this study in other populations. An additional issue is that the survey involved asking these managers to consider a business relationship in the mature phase of the life cycle. While checked with the use of the respondents' description of the relationship, this type of relationship may have been more complicated to utilize in answering the survey questions as it involved more careful thought. Future research, using a variety of data collection approaches to tap into managers' perspectives of the mature phase of the relationship life cycle, is needed to determine if these results can be replicated with other managers to determine if there are business relationship variables that are consistently more prone to diminishing returns. Additionally, the use of a larger sample of managers may aid in reducing the non-effects. The use of a longitudinal study may also be better able to measure the atrophy of the relationship as part of the relationship evolution.

This study hypothesized that the five relationship variables of relationship specific investment, long-term relationship orientation, learning/absorptive capacity, social capital and reciprocity will increase perceptions of

relationship financial performance and decrease the likelihood of relationship termination when there is relationship quality. While there was support for three of the ten hypotheses dealing with relationship specific investment and long-term relationship orientation, there was lack of support for the other three variables. Post hoc testing suggests a dark side effect could be a possible explanation but future research is needed to determine more definitively when the dark side effect occurs. One potential way could be with an experiment to test different conditions in which diminishing returns occur. Another potential need is for qualitative research along with dyadic research to determine if these diminishing returns are felt by both parties involved.

A final limitation is this research only examined five relationship variables due to constraints with survey length. Future research is needed to examine additional measures of these relationships as well as additional relationship variables to determine if they are prone to a dark side effect. For example, future research is needed to examine additional measures for financial performance perceptions given the number of items that had to be deleted to obtain acceptable internal consistency (Duffy, 2008). Thus, while this research aims to explain why collaboration between supply chain partners may decline in mature relationships and when relationship quality may be able to enhance performance for supply chain organizations, more research is needed.

CONCLUSION

This research supports three hypotheses (H_{1a}, H_{1b} and H_{2a}) related to the positive effects of relationship variables while, at the same time, providing evidence of potential dark side effects and lending support to the inclusion of earlier tenets of SET related to the potential negative side of relationships. The hypotheses that were supported suggest that high levels of relationship quality can help keep the dark side effect of relationship variables at bay but the unsupported hypotheses indicate there are some relationship variables for which there is the potential for diminishing returns, regardless of the level of relationship quality. Post-hoc testing for nonlinear effects of the relationship variables on the dependent variables found that learning, relational social capital and relationship-specific investment each exhibit a point of diminishing returns which is indicative of dark side effects and is consistent with the newly emphasized facets of SET brought forth in this study. The results of the study show that high levels of relationship quality do not always improve the perceptions of relationship performance or the likelihood of relationship termination. In fact, for three of the five relationship variables tested, higher levels of the relationship variable itself and/or relationship quality did not improve the relationship outcomes. As such, our findings support the inclusion of earlier theoretical constructs of SET related to the dark side effect.

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