

## *Quality of relationships with alternative suppliers: The role of supplier resilience and perceived benefits in supply networks*

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### **Abstract**

Supplier–buyer exchange relationship and quality of that relationship (supplier satisfaction and commitment) have been examined from various angles in the extant literature. Yet, there is a paucity of research investigating the influence of supplier characteristics – especially supplier resilience – on relationship quality. Driven to fill this gap, this study aims to develop theory of the influence of perceived benefits from supplier–buyer exchange relationship and supplier resilience on relationship quality. Data drawn from 97 supplier–buyer dyads were used. Hierarchical regression analyses showed the positive influence of both perceived benefits from supplier–buyer exchange relationships and supplier resilience on relationship quality. Further empirical and theoretical implications, as well as the limitations of the study, are discussed.

**Keywords:** supplier–buyer exchange relationship, resilience, relationship quality, satisfaction, commitment

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### **INTRODUCTION**

In highly volatile, uncertain, competitive and turbulent business environments, buyer firms feel the pressure to develop more effective (Essig & Amann, 2009; Colliccia & Strozzi, 2012) and resilient (Ponomarov & Holcomb, 2009; Colliccia & Strozzi, 2012) supply networks. It is a widely held view that effectiveness of a supply network is associated with flexibility and agility (Borgström, 2005). Achieving relationship quality is arguably one of the drivers of effectiveness for companies engaged in such supplier–buyer relationships (Palmatier, 2008). The resilience of a supply network is its ability to stand against adverse conditions and disturbances (Christopher & Rutherford, 2004). Use of alternative suppliers (multiple/parallel sourcing) both for sustainability and successful performance, is one of the drivers for supply network resilience (Christopher & Peck, 2004). Therefore, achieving and sustaining high relationship quality, while making use of alternative suppliers, is a challenge facing companies that aim for resilience in their supply networks.

Sustenance of high levels of quality (high levels of supplier satisfaction and commitment) in the network of relationships is associated with positive outcomes, including protection from opportunistic behaviours (Zhang, Fang, Wei et al., 2008) and improvement of performance in terms of product quality, operational support, service quality, service delivery and responsiveness (Benton & Maloni,

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2005; Essig & Amann, 2009). In line with these observations, parties in supplier–buyer relations seek ways to increase the quality of their relationships in terms of satisfaction and commitment in a reciprocal manner. Developing beneficiary exchange relationships is one way of improving relationship quality (satisfaction and commitment) of the parties involved in supplier–buyer relations (Hennig-Thurau, Gwinner, & Gremler, 2002). However, when using alternative suppliers, it could be hard to maintain the same level of high relationship quality with all suppliers because of the complexity of sharing and distributing benefits.

Using alternative suppliers leads to variation in benefit distribution. Development of relationships that yield higher benefits takes time for alternative suppliers. Determination of the supplier characteristics that might enable some of those alternative suppliers with which firms find themselves in low-benefit relationships to lift their performance becomes very significant (Hennig-Thurau, Gwinner, & Gremler, 2002; Benton & Maloni, 2005; Essig & Amann, 2009). The characteristics of suppliers who stay in the game; who try to improve themselves; who react constructively to low-benefit relationships by engaging in self-improvement; who demonstrate resilience (Robb, 2000; Kantur & Iseri-Say, 2012), warrant further investigation. The concept of resilience offers a way to conceptualise positive behaviour of suppliers in such circumstances (McCann, 2004; Lengnick-Hall & Beck, 2009). When capabilities increase and vulnerabilities decrease, resilience increases (Pettit, Fiksel, & Croxton, 2010). Businesses that have redundancies to provide structural reliance (Kantur & Iseri-Say, 2012), requisite variety to guarantee organisational capability (Lengnick-Hall & Beck, 2009) and resources to ensure continuity of process (Layne, 2001) are argued to be resilient in maintaining their existence, despite all the obstacles present in their environments (Hamel & Valikangas, 2003; Jamrog, McCann, Lee, Morrison, Lelsky, & Vickers, 2006; Glassop, 2007). Suppliers with such characteristics are likely to believe in their potential and to adapt to the buyer's changing demands, as they have the necessary resources to demonstrate flexibility when faced with disruptions or disturbances (Ghemawat & del Sol, 1998; Balu, 2001; Gittell, Cameron, Lim, & Rivas, 2006).

This research aims to make at least two key contributions: first, to extend social exchange theory (SET) in general and psychological contracts in particular, to enhance our understanding of perceived benefits from supplier–buyer relations (Rousseau & Tijoriwala, 1998; Conway & Coyle-Shapiro, 2011). Even though SET is one of the most influential paradigms that explain reciprocity-based work relations (Homans, 1958; Gouldner, 1960; Blau, 1964; Coyle-Shapiro & Neuman, 2004), it has been criticised on grounds of rules and norms of exchange; resources exchanged; and the novel types of relationships that emerge towards more relational psychological contracts (Chaudhry, Coyle-Shapiro, & Wayne, 2011).

Second, as for supplier resilience, we drew on social cognitive theory (SCT; Bandura, 1982) and emphasised the significance of being resilient under a positive organisational behaviour approach (Luthans & Youssef, 2007). We aim to extend knowledge of organisational resilience, specifically of supplier resilience, by drawing on SCT (Bandura, 1982) and positive organisational psychology (Luthans, 2002; Luthans & Youssef, 2007) to construct a framework. This investigation of resilience at the organisational-dyadic level with reference to SCT will be among the first such attempted in the field of organisational science (Hamel & Valikangas, 2003). This study will also be one of the first to investigate in detail both the effects of perceived benefits from supplier–buyer relationships and supplier resilience in relation to supplier satisfaction and commitment within a complex netted model using a non-Western sample context.

In line with its suggested contributions and content, this research aims to enlarge our understanding of the role of supplier resilience and perceived benefits derived from supplier–buyer exchange relations on relationship quality. We draw an overall picture of these antecedents of supplier satisfaction and commitment (relationship quality). In addition to our theoretical contributions, we hope to extend

SET (psychological contracts) to inter-firm relations and examine misunderstandings of these influential conceptual paradigms via empirical analyses.

In the first part of this paper, the theoretical background is reviewed. In the second part, hypotheses are developed regarding relationship quality, perceived benefits from supplier–buyer exchange relationships and supplier resilience. Then we discuss the research methods, including the sample setting, procedure for data collection, data analyses and results. Finally, theoretical and managerial implications are discussed, addressing limitations and making recommendations for future research.

## THEORETICAL BACKGROUND

SET is among the most influential of paradigms explaining workplace behaviours (Homans, 1958; Gouldner, 1960; Blau, 1964). Although there are different views regarding the context and content of social exchanges, scholars agree that social exchange encompasses a series of interactions that generate obligations (Emerson, 1976). SET's explanatory value lies in these interdependent transactions that generate high-quality relationships (Coyle-Shapiro & Neuman, 2004), mostly in the context of psychological contracts (Rousseau & Tijoriwala, 1998). Despite its frequent use (Konovsky, 2000; Rousseau, 2004; Conway & Coyle-Shapiro, 2011), recent reviews have emphasised the problems and deficiencies facing SET theory (Coyle-Shapiro & Conway, 2004; Cropanzano & Mitchell, 2005). Building on the core premises of SET, we emphasise and trace some misconceptions associated with this theory and show the changing nature of supplier–buyer contracts from a transactional focus towards a relational focus (Rousseau & Tijoriwala, 1998). We hope to contribute an extension of SET theory and psychological contracts by reviewing:

- a. rules and norms of exchange in supplier–buyer relations;
- b. resources exchanged in these dyadic networks;
- c. the relationships that emerge towards relational psychological contracts for supplier–buyer networks.

While each of these ideas is of central importance, each has lacked clear definitions and has been the source of conceptual misunderstanding (Coyle-Shapiro & Conway, 2004; Cropanzano & Mitchell, 2005). Previous research is replete with findings where reciprocity is treated as a moral norm and as a folk belief among parties to the relationship. As argued by Cropanzano and Mitchell (2005), rules and norms of exchange are contextual. There are also misconceptions about resources exchanged. In addition to most pronounced economic-material benefits, exchange relations involve social and emotional benefits that Foa and Foa (1980) collapsed into socio-emotional benefits. This distinction, which is under-researched, is especially salient for supplier–buyer relations where socio-emotional benefits such as trust and loyalty prevail, in addition to tangible outcomes and benefits. Lastly, the relationships that emerge are an important source of misconceptions in SET. Accordingly, transactional and economic exchange-based contracts between suppliers and buyers should emphasise relational elements such as trust and social benefits in order to achieve relational quality (Rousseau, 2004). Therefore, we argue that relational psychological contracts ultimately demonstrate the newly emerging relational contexts.

Previous research using SET predominantly focused on individual relationships. In this research, we hope to extend SET to inter-firm relationships and examine the misconceptions of this influential paradigm by testing our hypotheses.

While we draw on SET in general and the changing nature of psychological contracts specifically to explain relationship quality and perceived benefits from supplier–buyer exchange relationships, we investigate resilience in the frame of SCT and positive organisational psychology. Portraying the ability

to bounce back and stand against adverse conditions, resilience has not been examined at the organisational level in the context of supplier–buyer dyadic relationships. Under the umbrella of positive organisational psychology, we relate resilience to SCT. This investigation of resilience at the organisational-dyadic level with reference to SCT will be among the first attempts at such an approach within the organisational sciences.

### **Relationship quality: Rules of exchange**

One of the central tenets of SET is that relationships evolve over time into mutual commitments and satisfaction (Coyle-Shapiro & Conway, 2004). Relationship quality indicates ‘the atmosphere present in a buyer-supplier relationship’ (Liu, Li, & Zhang, 2010: 3). The presence of that ‘atmosphere’, accompanied with quality in a supplier–buyer relationship, will be influential when the concerned supplier makes decisions about development and maintenance of a longer-term relationship with this buyer (Walter, Müller, Helfert, & Ritter, 2003).

Under SET, relationship quality is considered as a higher-order construct comprised of satisfaction and commitment (Dwyer, Schurr, & Oh, 1987; Crosby, Evans, & Cowles, 1990; Dorsch, Swanson, & Kelly, 1998; Hennig-Thurau, Gwinner, & Gremler, 2002; Palmatier, Dant, Grewel, & Evans, 2006; Palmatier, 2008). Previous research has shown that the success of supplier–buyer relationships is associated with supplier satisfaction and commitment (Andaleeb, 1996; Wong, 2000).

In this regard, rules and norms of exchange between suppliers and buyers form the basis for exchange processes. While the reciprocity assumptions of SET are based on reciprocity as a moral norm and reciprocity as a folk belief (Gouldner, 1960; de Ruyter & Wetzels, 2000), we argue that the quality of relationships between suppliers and buyers is built on reciprocity as a transactional pattern of interdependent exchanges. This reciprocity implies contingent transactions between suppliers and buyers. Sustaining this transactional pattern in the longer term is positively associated with reciprocity in relations (Macneil, 1980; Dwyer, Schurr, & Oh, 1987). Put in practical terms, as satisfaction and commitment levels of partners in a network improves, performance in terms of product quality, operational support, service quality, delivery performance and responsiveness also improves (Benton & Maloni, 2005; Essig & Amann, 2009). Thus, it is to the benefit of buyers to increase and maintain the satisfaction and commitment of those in their supply networks.

### ***Supplier satisfaction***

Supplier satisfaction is an evaluative attitude that has affective, cognitive and behavioural aspects. It represents a supplier’s current state of mind about its relation with a buyer. Benton and Maloni (2005: 4) define supplier satisfaction as ‘a feeling of equity with the supply chain relationship’. Suppliers will have positive feelings about maintaining relations with buyer firms when they feel satisfied (Benton & Maloni, 2005). Furthermore, Essig and Amann (2009: 104) state that ‘supplier satisfaction is a supplier’s feeling of fairness with regard to buyer’s incentives and supplier’s contributions within an industrial buyer-seller relationship as relates to the supplier’s need fulfillment, such as the possibility of increased earnings or the realization of cross-selling’. Satisfaction is regarded as an evaluation of the relationship depending on cognitive judgements (Martínez Caro & Martínez García, 2007). Behavioural aspects of satisfaction are realised in terms of behavioural intentions about the relationship. Jaiswal and Niraj (2011) indicate that satisfaction affects behavioural intentions such as to respond by making internal or external complaints.

### ***Supplier commitment***

Supplier commitment can be defined as an evaluative attitude with affective, cognitive and behavioural components that denotes a supplier’s long-term orientation towards its relationship with a buyer.

Anderson and Weitz (1992: 19) conceptualise commitment as ‘a desire to develop a stable relationship, a willingness to make short-term sacrifices to maintain the relationship, and a confidence in the stability of the relationship’. Thus, committed party believes that it is worthwhile to invest in the relationship (Gundlach, Achrol, & Mentzer, 1995). Cultivating a long-term relation is intended by the committed parties (Anderson & Weitz, 1992) and long-term benefits are valued more than the short-term opportunities (Ganesan, 1994). Committed suppliers demonstrate a willingness to preserve their relation, to invest, and to cooperate in order to satisfy the buyer firm (Lai, Cheng, & Yeung, 2005; Li, 2012).

### **Perceived benefits from supplier–buyer exchange relationship: Resources exchanged**

Key insights on the nature of SET resources originated from Foa and Foa’s (1974, 1980) argument that resources within the organisational sciences usually collapse into two forms: economic and socio-emotional. Economic resources or benefits are tangible, while socio-emotional outcomes address one’s social and esteem needs (and are usually symbolic and particularistic). Such use of socio-emotional resources sends the message that the other party is valued and trusted (Shore, Tetrick, & Barksdale, 2001). In supplier–buyer relationships, suppliers are economically motivated to gain benefits from the buyers that are important for them. In return, buyers are also interested in obtaining benefits from their suppliers as the products and services that they will obtain from those suppliers are needed to create value that will contribute to their competitiveness. Beyond this transactional pattern of interdependent exchange relationships, supplier–buyer exchange relationships are also built on socio-emotional needs. Therefore, they are relationally oriented (Hennig-Thurau, Gwinner, & Gremler, 2002). Hennig-Thurau, Gwinner, and Gremler (2002) argue that relational benefits are most likely to result from long-term relations built on mutual trust. The buyer may ask for an unexpected delivery, or redesign of a product, which may pressure suppliers to work overtime. In response, focal suppliers may expect learning and development opportunities such as buyer-led innovation programmes that are aimed at sustaining longer-term relationships. Relational benefits are discussed in the extant literature as special treatment benefits, confidence benefits and social benefits (Gwinner, Gremler, & Bitner, 1998; Hennig-Thurau, Gwinner, & Gremler, 2002). There are other benefit categories such as product, service and relationship benefits, as presented by Lapierre (2000) and Ulaga (2003). Walter et al. (2003) use direct and indirect functions to classify the benefits offered in a supplier–buyer relationship. Li (2011) classifies benefits as special treatment benefits, value-added benefits and collaborative benefits.

Our conceptualisation and arguments for perceived benefits from supplier–buyer exchange relationships are in line with a social exchange paradigm, according to which, parties engage in voluntary behaviours that will mutually benefit them (Blau, 1964). This paradigm does not rest on specified obligations and formal agreements but on ‘feelings of personal obligation, gratitude, and trust’ (Blau, 1964: 92). One party does a favour for the other party and, although there is an expectation of a future return, the terms of the return are not specified, but are left to the preference of the receiver of the favour.

In social exchange, a resource is any item that can be transacted between the parties in a relationship (Foa & Foa, 1980). A resource can be tangible, such as money, goods and services, or intangible, such as affection, approval, information, status, expressions of respect and friendship. In supplier–buyer relationships, organisations, parts of organisations or their representatives (contact persons) may engage in role behaviours beyond those demanded by their roles, and may provide resources or favours to indicate their sense of obligation to the other party in exchange for resources they have received from them (Organ & Konovsky, 1989; Chen & Chiu, 2008; Karriker & Williams, 2009).

### **Supplier resilience**

The literature offers two distinct but related perspectives on organisational resilience. According to one view (Horne, 1997; Robb, 2000; Balu, 2001; Rudolph & Repenning, 2002; Sutcliffe & Vogus, 2003;

Gittell et al., 2006), organisational resilience represents the ability to rebound from unexpected, stressful and adverse situations. A second perspective on organisational resilience evaluates the construct beyond restoration to encompass the development of new capabilities and abilities to keep up with changing dynamics (Layne, 2001; Coutu, 2002; Guidimann, 2002; Freeman, Hirschhorn, & Maltz, 2004; Jamrog et al., 2006; Lengnick-Hall & Beck, 2009). This second view is of organisational resilience thriving because the organisation leverages its resources and capabilities, not only back to established benchmarks, but also towards exploitation of opportunities for sustainable performance.

Combining the two perspectives, we argue that supplier resilience represents the focal firm's ability to absorb, and develop context-specific responses to and gradually engage in transformative reactions to disruptive threats (Coutu, 2002; Guidimann, 2002; Hamel & Valikangas, 2003; Freeman, Hirschhorn, & Maltz, 2004; McCann, 2004; Jamrog et al., 2006; Lengnick-Hall & Beck, 2009; Kantur & Iseri-Say, 2012).

While organisational resilience shares many common aspects with such organisational constructs as robustness, flexibility, agility and adaptability, there are important distinguishing elements. Resilience manifests itself in unexpected and disturbing conditions, while flexibility and agility constitute the strategic stance of an organisation and enhance its overall manoeuvrability in the longer term (Ghemawat & del Sol, 1998; McCann, 2004). Second, as argued by Kantur and Iseri-Say (2012), organisational resilience is an inside-out construct that builds on renewal and transformation. Adaptability, on the other hand, reflects the need for environmental fit from an outside-in perspective. Third, characteristics such as robustness, flexibility, agility and adaptability, while they contribute to and constitute the construct of resilience, cannot singularly represent organisational resilience.

As there is little consensus on the definition and operationalisation of supplier resilience, we build on the theoretical discussions of Christopher and Peck (2004) and, for our research purposes, we adopt the scale developed by Glassop (2007). Thus, we have focused on a definition and classification in which firms having structural reliance (redundancy), organisational capability (requisite variety) and processual continuity (resources) are considered resilient. Glassop (2007) proposes that systems with structural reliance have technical, social and economic redundancy built on know-how in order not to be overly dependent on any single person, machine or functional role. Technical redundancy includes know-how related to organisational procedures and process maps, maintenance programmes and disaster contingency plans. Social redundancy involves know-how related to personnel's job roles and skills and succession planning. Sufficient operational fund provision and financial capacity must be developed if economic redundancy is to be achieved. A hypothetical system that has made provision in each of these areas for every contingency would be able to continue to function in the face of any disturbance.

Glassop (2007) suggests that systems having organisational capability have technical (market), social (productive) and economic (risk) capability. Market capability ensures that a firm is not dependent on a few customers and/or products. Productive capability is when a firm has a willing, flexible and diverse workforce. Risk capability involves ensuring that a firm has a low financial risk profile. Such systems can respond well to perturbations when they occur.

Processual continuity involves continuous flow of a system's technical, social and economic resources (Glassop, 2007). Technical resources are raw materials, technology and information. In order to ensure continuous flow of technical resources, a firm should reduce its dependence on the suppliers that provide those resources. Social resource continuity depends on processes that guarantee the hire, development and retention of skilled labour. Economic resource continuity ensures business continuity through access to funding and by strategic planning.

These dimensions of resilience must be put in place to ensure a system's appropriate reaction to perturbations in its environment. These definitions imply a restorative emphasis to restore and a return to the original structure. However, a proactive and adaptive system will have capacity to learn, change

and create in all three dimensions. Therefore, adaptability and change potential must be built into all three dimensions to ensure the kind of resilience that is the focus of this study.

## HYPOTHESIS DEVELOPMENT AND RESEARCH MODEL

### Perceived benefits from supplier–buyer exchange relations affecting relationship quality

Every day, companies make decisions about whether to act as givers or takers. When they give, they contribute assistance, sharing knowledge, providing development opportunities to others and make valuable contributions. Adam Grant (2013a), in his recent book *Give and take*, emphasised that organisations have strong interests in fostering giving behaviours. Similarly, since Foa and Foa's (1974, 1980) seminal study on socio-emotional resources, scholars have devoted considerable attention to intangible, development-based, social and emotional resources that are characterised by a focus on giving. Previous research has established that collaboration and trust-based relations with suppliers related positively with innovation, quality improvement and service excellence (Sonnentag & Grant, 2012; Grant, 2013a, 2013b). Chaudhry, Coyle-Shapiro, and Wayne (2011) investigated the impact of organisational change on the relational and transactional (economic) nature of psychological contracts. They found that trust and confidence in exchange relations are fundamental drivers for long-term partnerships. Similarly, Dulac, Coyle-Shapiro, Henderson, and Wayne (2008), in their longitudinal study, examined the social exchange processes from the perspective of relational and intangible benefits shared. As in previous research (Shore & Coyle-Shapiro, 2003; Coyle-Shapiro, Morrow, & Kessler, 2006), they found that benefits and aspects of exchange relations that accrue to confidence, trust, development opportunities and emotional exchanges act as preliminary and central drivers for long-term sustained relations.

At the buyer–supplier relationship level, Benton and Maloni (2005: 16) found that the 'buyer-supplier relationship serves as a fundamental driver of supplier satisfaction'. Similarly, Walter et al. (2003) argued that providing relational benefits to the other party can be seen as an investment and antecedent for the long-term existence of exchange relations. In line with the reciprocity principle of SET (Blau, 1964), the party receiving the benefits shows more willingness to maintain a long-term relationship by making sacrifices in the short term. Walter et al. (2003) also indicated that benefits exchanged between buyers and suppliers will give rise to longer-term relations characterised by satisfaction and commitment. On similar grounds, Ghijssen, Semeijn, and Ernston (2010) identified that both human-specific supplier development (advice, knowledge exchange) and capital-specific supplier development opportunities positively influence supplier commitment. Receiving relational benefits influences willingness to form and maintain a positive long-term relationship with party offering the benefits (Gwinner, Gremler, & Bitner, 1998). Patterson and Smith (2001) proposed that relational benefits are also positively associated with satisfaction. Research revealed that special treatment benefits positively influence supplier satisfaction (Gwinner, Gremler, & Bitner, 1998). For example, perceptions of relational benefits in logistics services are shown to have positive effects on satisfaction (Su, Li, & Qui, 2009). Hennig-Thurau, Gwinner, and Gremler (2002) demonstrated a significant and strong influence of confidence benefits on satisfaction. Li (2011) confirmed that relational benefits influence satisfaction positively. Li et al. (2011) demonstrated that relational benefits lead to positive outcomes, which in turn result in commitment. Hennig-Thurau (2002) finds strong impacts of special treatment and social benefits on commitment.

Social, trust-based and special treatment benefits emerge and are shared between suppliers and buyers via the people whose roles cross the boundaries between the firms (Walter et al., 2003; Ghijssen, Semeijn, & Ernston, 2010). Thus, the buyer's purchasing personnel and the supplier's selling personnel especially act across these boundaries. As argued by Morgeson and Hofmann (1999: 253),

collective constructs, which usually stand for organisational strategies and directions, are embedded in certain employees' skills, experience and knowledge. Therefore, satisfaction and commitment outcomes in buyer–supplier relationships significantly depend on identification and engagement of employees who hold boundary spanning roles in these organisations. Quality of the relationships with such critically relevant employees of the organisations should be based on mutual trust, loyalty and reciprocity, just as it would be in other high-quality relationships (e.g., leader–member exchange relations) (Graen & Uhl-Bien, 1995). Achieving such relationships between suppliers and buyers will be a key factor for sustenance of supplier satisfaction and commitment in the longer term.

In the context of a reciprocity framework (Walter et al., 2003; Coyle-Shapiro, Morrow, & Kessler, 2006; Ghijzen, Semeijn, & Ernston, 2010; Chaudhry, Coyle-Shapiro, & Wayne, 2011; Grant, 2013b), we argue that special, social and trust-based benefits shared within supplier–buyer relations will subsequently affect supplier satisfaction in positive ways. Similarly, it is conceivable that supplier satisfaction and supplier commitment will positively affect benefits received from the supplier–buyer relationship. The principle of reciprocity is based on this (Blau, 1964). However, we argue that initial trust developed between supplier and buyers, and special social benefits received from such relations act as preliminary instruments necessary for sustained relationships (Cropanzano & Mitchell, 2005; Coyle-Shapiro, Morrow, & Kessler, 2006). In their longitudinal study, Chaudhry, Coyle-Shapiro, and Wayne (2011) tested a reciprocity-based relationship, using a construct very similar to the supplier–buyer benefits and relationship quality constructs of the present research. They found that the explanatory power of the initial relationship was stronger compared with the longitudinal and lagged effect of the reverse relationship. The nature of this longitudinal relationship is also prone to confounding variables that might distort the original effects (Dulac et al., 2008). Moreover, satisfaction and commitment represent important attitude-based outcome variables in organisation studies. Previous research has almost exclusively treated these two constructs as central outcome variables (Campbell, 1997; Carr, Kaynak, Hartley, & Ross, 2008; Praxmarer-Carus, Sucky, & Durst, 2013).

Hence, we hypothesise that alternative suppliers' perceptions regarding the benefits they receive from their relationship with the buyers will have a positive impact on supplier relationship quality. In line with above arguments, we form our hypotheses as below.

Hypothesis 1a: As an alternative supplier's perceptions of benefits from supplier–buyer exchange relationship increase, satisfaction with the relationship increases.

Hypothesis 1b: As an alternative supplier's perceptions of benefits from supplier–buyer exchange relationship increase, commitment to the relationship increases.

### **Supplier resilience influencing relation quality**

Although relationship quality is related to important outcome variables in a supplier–buyer relationship, it is increasingly accepted that non-uniform relationships exist, with the recognition that there is differential treatment in supplier–buyer relationships (Petroni & Panciroli, 2002; Goffin, Lemke, & Szwejcjewski, 2006). While some enjoy being the lead suppliers and take a central role, others face and bear the conditions of alternative suppliers. When buyer firms make use of multiple or parallel sourcing to access to higher innovation and higher effectiveness, they do so via competition, cooperation and co-competition among a list of alternative suppliers (Wu, Choi, & Rungtusanatham, 2009). Such sourcing behaviour may cause even the lead suppliers feel the pressure of having several competitors that could overtake them. With limited time and resources, buyers find it extremely difficult to interact uniformly with all suppliers. Thus, some suppliers are able to receive differential treatment and establish high beneficiary relationships, whereas others might receive only limited attention and resources from the buyer.



As Liu, Leach, and Bernhard (2005: 567) stated, ‘established norms, learned procedures, personal relationships and other transaction-specific investments’ accumulate and hinder to switching even in the case of multiple sourcing. Buyer firms may need time to fully appreciate supplier firms in terms of product and service quality (Essig & Amann, 2009). As it takes time for a buyer to provide an increase in its input to the relationship in order to reciprocate an alternative supplier’s input (Hald, Cordon, & Vollman, 2009), the supplier needs to be able to stay in the game and survive that time. An alternative supplier must withstand these conditions to attain the benefits of a long-term relationship.

We argue that supplier resilience is a strong predictor of supplier satisfaction and supplier commitment for several reasons. Resilience (Freeman, Hirschhorn, & Maltz, 2004; Jamrog et al., 2006) enables a supplier to survive and sustain as it develops structural redundancy, organisational capabilities and process continuity without being overly dependent on other stakeholders. Thus, supplier resilience might be treated as an enduring characteristic of a system (Kantur & Iseri-Say, 2012), which is separate from the relations prevailing in the networks. As the satisfaction and commitment level of an alternative supplier in a supplier–buyer relationship increases over time (owing to increased benefits enjoyed), the alternative supplier may become more attached to and even overly dependent on the buyer. As a result, the supplier might have little incentive to develop in terms of structure, capabilities and the process continuity requirements of the buyer. As resilience involves being not overly dependent on any person, machine, functional role, customer, supplier, resource and product (Glassop, 2007; Lengnick-Hall & Beck, 2009) increased satisfaction and commitment levels (increased relationship quality) therefore may not necessarily lead to an alternative supplier becoming more resilient over time.

We also base our argument that supplier resilience is a strong predictor of relation quality on previous research (Guidimann, 2002; Gittel et al., 2006). Research shows that higher levels of resilience result in more effective behaviour in fuzzy circumstances (Block & Kremen, 1996). Resilient suppliers are designed to act quickly and proactively having built flexibility and redundancy into their structures, capabilities and resources. Thus, resilient suppliers know their flexible potential to answer the changing demands of the buyers and their ability to survive disruptions to the environment. Drawing from SCT, it can be stated that if an organisation believes in its capacity to affect its environment and to achieve desired outcomes, it demonstrates coping behaviours (Bandura, 1982). According to Locke and Latham’s (1990) high performance cycle, when organisational members face a high challenge or difficult goals, high performance can be achieved if they have confidence and adequate ability. In turn, this high performance leads to satisfaction and commitment. As Stajkovic and Luthans (2002: 128) state ‘under social cognitive theory, organizational participants would at the same time be both products and producers of their own motivation, their respective environments and their behaviors’. Resilient suppliers believe in their potential capacity to improve and to achieve more benefits, resulting in a better quality relationship. Studies have shown that hope, optimism and resilience are positively related to organisational commitment and job satisfaction (Youssef & Luthans, 2007; Çetin, 2011). As supplier satisfaction is based on the fulfilment of needs and, as the possibility of increased benefits in their supplier–buyer relationships is among the needs of the alternative suppliers, supplier resilience has a positive influence on need fulfilment and satisfaction of those suppliers.

According to the central tenets of SCT (Bandura, 1982), self-efficacy and self-evaluation are among the important processes of goal realisation (Redmond, 2010). In this context, supplier resilience has a positive influence over supplier satisfaction through positive self-evaluation and self-efficacy regarding the achievement of improved supplier–buyer relationships. For supplier commitment, which is based on willingness to make short-term sacrifices to maintain the relationship and confidence in its stability (Anderson & Weitz, 1992), resilient suppliers’ commitments will build on belief in their capacity to influence endurance of their relationships with the buyers and to derive long-term benefits from them (Griffith, Harvey, & Lusch, 2006). They come adapt to the buyer’s changing demands as they have the

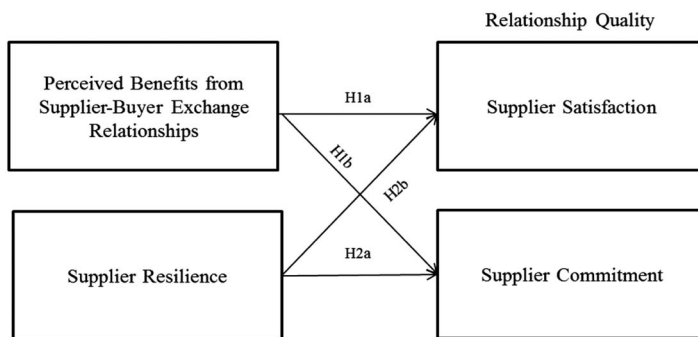


FIGURE 1. PROPOSED RESEARCH MODEL

resources for flexibility. These suppliers tolerate short-term inequities, as they believe that in time they achieve positive balances in these relationships (Ganesan, 1994).

Overall, previous research argues that resilience leads to better performance (Luthans, 2002). It is also suggested that resilience is a strong factor strongly promoting effective relationships (Mallak, 1999). In cases of differential treatment and the resulting difficulties in relationships, resilient suppliers react positively by engaging in self-improvement and other constructive behaviours. Resilient suppliers invest more in the relationship, resulting in increased commitment. They also endure difficult times and develop their capabilities to improve relationships with buyers and possibilities of increased benefits, thus increasing satisfaction. Therefore, it is expected that resilience will enable alternative suppliers to survive uncertain and unfair processes in their relationships with buyer firms. Taking together these various explanatory lines concerning supplier resilience, we argue that an alternative supplier's resilience leads to higher relationship quality in terms of supplier satisfaction and supplier commitment.

Hypothesis 2a: As an alternative supplier's resilience increases, satisfaction with the relationship increases.

Hypothesis 2b: As an alternative supplier's resilience increases, commitment to the relationship increases.

In our hypothesised model given in Figure 1, supplier resilience and perceived benefits from supplier–buyer exchange relationship are presented as influencing relationship quality, particularly supplier satisfaction and commitment.

## METHODOLOGY

### Research settings and data collection

The survey was administered to a wide range of multinational companies operating in Turkey. Industries represented include various sectors, such as ready-to-wear, food, pharmacy, heating and cooling (please refer to Table 1 for further details of sectors represented). We attempted to include a wide range of industries to be representative of an overall economic outlook. This insight is especially important within an emerging economy, where sectors follow huge growth trends. Such a wide variety of sectors will also enable us to draw more sound generalisations. Moreover, contributions of these sectors account for majority of GDP generated in last decade for this economy (OECD, 2011). Regarding selection criteria for buyers, we selected companies with the largest market shares in their

TABLE 1. DEMOGRAPHIC CHARACTERISTICS OF PARTICIPANT SUPPLIER FIRMS

<i>Supplier industry</i>	<i>Number of suppliers</i>	<i>Range of age of suppliers</i>	<i>Range of number of employees in suppliers</i>
Paper manufacturing	32	6–162	4–47,000
Heating and cooling	9	4–38	20–1,009
Home construction and appliances	15	3–176	7–114,000
Food	5	10–138	144–2,300
Pharmacy	11	1–44	5–85
Pet food	3	2–79	6–22,000
Plastic building materials	10	10–53	3–350
Ready-to-wear	12	2–56	27–100,000

Note.  $N = 97$ .

respective industries. We wanted to ensure buyer attractiveness in the eyes of the alternative suppliers. Multinational companies were also favoured, as their subsidiaries provide more resources and opportunities for administration of survey studies. We communicated with our contact people from the targeted companies and briefed them about the content of the study. After receiving their approvals, we sent our translated surveys to those contact people for pre-approval of purchasing managers' participation in the study. Ten companies were contacted. Eight of them willingly agreed to participate. Our contact people handed the surveys to the purchasing managers.

Our survey was administered to two different sets of samples. The first set of respondents was composed of multinational buyer firms. Purchasing managers from participating buyer firms were asked to identify a list of suppliers they considered to be alternative suppliers and with whom they have considerable length of relationship. Following this step, responsible buyers completed the surveys regarding their reflections of supplier satisfaction and commitment. As a last step, our survey, which included items representing resilience, benefits from supplier–buyer relations, supplier satisfaction and commitment were filled in by the selected suppliers of the participating buyer companies. Hence, data from our participants included two interdependent but different perspectives.

As our constructs are collective in terms of functions and outcomes, we follow the recommendation of Morgeson and Hofmann (1999) in operationalising them. They argued that collective constructs that represent overall organisational functions, strategies or processes are embedded in a set of knowledge, skills and abilities held by particular individuals. In this context, supplier resilience, perceived benefits from supplier–buyer relations, and relationship quality in terms of supplier satisfaction and supplier commitment represented the shared organisational routines, processes, outcomes and strategies that guide the focal firm and that are commonly embedded in individual employees. As our constructs represent phenomena that 'emerge, are transmitted and persist' across organisations, we used data from salient and related participants as representative of their focal companies. This approach was used in previous research relevant to our study objectives (Coyle-Shapiro & Neuman, 2004; Lengnick-Hall & Beck, 2009). Levinson, Price, Munden, Mandl, and Solley (1962) argued that employees view actions of managers as actions taken by the organisation itself. This idea of attributing human qualities to organisations – anthropomorphisation – has been applied with scrutiny in social exchange-related studies (Coyle-Shapiro & Neuman, 2004; Conway & Briner, 2005). Therefore, we treated the responses of our participants as representing their focal organisations. We built this reasoning on the recommendations of Morgeson and Hofmann (1999) and via drawing on anthropomorphisation idea of Levinson et al. (1962).

Out of 10 buyers we contacted, eight of them provided full support and participation. Out of 106 questionnaires that reflected responses from suppliers and buyers, 97 were returned completed in a

manner that allowed satisfactory data analysis, an effective response rate of 92%. Only nine of the surveys were not fully completed, so they were not used in the data analysis. The two buyer firms that were not willing to participate were operating in retail market and food industries. We took data from other companies operating in those sectors. The reasons for the non-participation of these companies were related to procedural approvals and lack of time at managerial levels. Table 1 represents the profiles of the responding companies.

### **Construct measurement**

In order to test the proposed model a survey was designed. In the process of crafting the survey instrument, original scales were borrowed from existing literature and they were back-to-back translated to match the Turkish context. Necessary modifications were made to existing scales to ensure that they were salient to the context of this investigation. The content of the survey was pre-tested with professional employees from selected industries. Following this pre-testing process, only minor changes in wording of sentences were necessary. As suggested by Yin (2003), translation of surveys is a very critical step for clarity and understanding. The survey included items assessing supplier resilience, supplier perceived benefits from supplier–buyer exchange relations, supplier commitment and satisfaction. Furthermore, we controlled for the effects of age and number of employees of participant suppliers before testing the hypotheses.

### **Measures**

All questions were anchored on a 5-point Likert scale (1 = ‘strongly disagree’ 5 = ‘strongly agree’). Questions measuring different constructs were mixed in order to reduce method bias impact (Podsakoff, Mackenzie, Lee, & Podsakoff, 2003).

#### ***Perceived benefits from supplier–buyer exchange relationships***

Supplier perceptions related to special treatment, confidence and social benefits (Gwinner, Gremler, & Bitner, 1998; Hennig-Thurau, Gwinner, & Gremler, 2002) were used to measure this construct. In all, 14 items measured what the supplier thinks about special treatment benefits such as purchase quotas (Ramsay, 2005), opportunities to attend buyer-led training and development programmes (Ellegaard, Johansen, & Drejer, 2003). Four items measure what the supplier thinks about confidence benefits such as trust (Blau, 1964) and loyalty (Heide & Weiss, 1995). Eight items measure what supplier thinks about social benefits such as joint teams (Rozemeijer & Van Weele, 2002) and shared values (Hald, Cordon, & Vollman, 2009). Example of statements for the scale include: ‘buyer makes timely payment (special treatment); when we have important requirements, we can depend on buyer’s support (confidence benefits); and problems are treated as joint rather than as individual responsibilities (social benefits)’. Internal reliability (Cronbach’s  $\alpha$ ) of the scale is 0.91.

#### ***Supplier resilience***

To measure supplier resilience, we used a scale based on Glassop (2007). The scale included separate subdimensions. The structural reliance dimension had seven items, including measures for technological maintenance, cash flow, contingency planning and related functions. The organisational capability dimension comprised five items, measuring aspects such as product diversity, financial risk, customer diversity. Finally, the processual continuity dimension included four items, measuring employee development and supplier selection. Examples of the statements from the scale included we implement maintenance programmes (redundancy – reliance on know-how); we produce a diverse set of products (requisite variety – market capability); we have appropriately trained staff (resources – input continuity). Internal reliability for the overall scale (Cronbach’s  $\alpha$ ) is 0.92.

### ***Supplier satisfaction***

Supplier satisfaction was measured with items borrowed from the study of Ghijsen et al. (2010) and Benton and Maloni (2005). The scale is composed of four statements. Examples of statements are: dealing with this buyer benefits our company and this buyer is a good company to do business with. To obtain an overall supplier satisfaction value, we used 360° approach in which perspectives of suppliers and buyers were integrated for a composite score. This perspective follows extant literature regarding satisfaction research fields. A few studies in marketing have also used a composite scale value (Edwards & Ewen, 1996; Maunu, 2003). As supplier satisfaction is a multifaceted and multidimensional construct that reflects the insights of various parties, use of an overall composite value is imperative for our purposes. As inter-class correlation coefficients are moderate (0.3–0.5), it is acceptable to have a composite score. We obtained an overall internal reliability (Cronbach's  $\alpha$ ) of this scale at 0.90.

### ***Supplier commitment***

Scales developed by Anderson and Weitz (1992) and Ganesan (1994) were used to examine supplier commitment. There are four items measuring suppliers' commitment levels. Examples from the scale are: 'We are committed to the preservation of a good relationship with this buyer; we are willing to invest time and other resources into the relationship with this buyer'. The 360° measurement approach (Maunu, 2003) we followed for the measurement of supplier satisfaction was also applied for supplier commitment measure, for which we obtained an overall score sourced from suppliers and buyers. As the inter-class correlation coefficients were moderate (0.3–0.5), it is acceptable to use a composite score. We reached an overall internal reliability (Cronbach's  $\alpha$ ) of this scale at 0.89.

### ***Control variables***

We controlled for both the age of suppliers and the number of employees of suppliers in our model of relations.

### **Validity**

We tested validity of our measurement theory with respect to reliability, convergent, discriminant and nomological validity (Hair, Black, Banin, & Anderson, 2010). Internal reliability values (Cronbach's  $\alpha$ ) were above the cut-off values suggested by Hair et al. (2010). An important indicator of convergent validity is the average percentage of variance extracted from a set of construct items. Average percentage of variance extracted of 0.50 or higher suggests adequate convergence (Hair et al., 2010). Our findings offer sufficient evidence for convergent validity (refer to Appendix B in Supplementary Material).

Discriminant validity is assessed by comparing each factor's average percentage variance extracted with the square of the correlation estimate between that factor and other factors (Fornell & Larcker, 1981). As seen in Appendix C (in Supplementary Material), for all the constructs, the average percentage of variance extracted values are higher than the squared correlation estimates between others. This provides good evidence for discriminant validity.

Nomological validity is assessed by examining whether the correlations among the constructs in the measurement theory make sense (Hair et al., 2010). Table 2 shows the matrix of construct correlations. Strong correlations exist between supplier resilience and perceived benefits from supplier–buyer relations in line with previous research. This provides supportive evidence for nomological validity.

### **Common method bias**

Under the context and objectives of this investigation, our core aim was to examine how suppliers perceive benefits from mutual dyads and how resilient they perceive themselves to be in the conduct of these relationships. Accordingly, both constructs of perceived benefits from supplier–buyer relations

**TABLE 2. MEANS, STANDARD DEVIATIONS AND TWO-WAY CORRELATIONS OF STUDY CONSTRUCTS**

	Means (SD)	1	2	3	4	SA	SE
SA <sup>a</sup>	33.78 (32.18)					1	
SE <sup>a</sup>	4.023 (16.762)					0.60**	1
1. PBSB	3.91 (0.58)	0.91				(0.08)	(0.05)
2. SR	4.35 (0.49)	0.53**	0.92			0.03	0.02
3. SS	4.56 (0.33)	0.38**	0.39**	0.90		(0.24)*	(0.25)*
4. SC	4.37 (0.38)	0.53**	0.50**	0.75**	0.89	-0.11	-0.12

Note. *N* = 97. Diagonal values stand for Cronbach's  $\alpha$  of each construct.

<sup>a</sup>Control variable.

PBSB = perceived benefits from supplier–buyer relations; SA = supplier age; SC = supplier commitment; SE = supplier number of employees; SR = supplier resilience; SS = supplier satisfaction.

\* $p < .05$ ; \*\* $p < .01$ .

and degree of resilience mirror self-reflections about internal states and feelings of suppliers. The nature of these measures necessitates use of a self-report questionnaire. For our dependent variables of supplier satisfaction and commitment, we calculated and used a composite measure that included reflections of suppliers and buyers. Therefore, we tried to rule out common method bias by consulting two different sets of parties (Maunu, 2003).

However, as with all studies using self-reported data, our study may have suffered from common method biases. There might also be some social desirability effects (Podsakoff & Organ, 1986; Podsakoff et al., 2003). In line with the procedure followed by Podsakoff and Organ (1986), we tried to ensure that our participants responded to surveys based on factual experience and company data, in addition to their personal perceptions, which cannot be avoided in self-report-driven investigations. We implemented the Harmon-one-factor test, for all study constructs (Podsakoff & Organ, 1986), to examine the existence and explanatory structure of constructs. Our findings supported a view that there were four conceptually critical and theory-driven constructs, including supplier resilience, benefits from supplier–buyer relations, supplier commitment and supplier satisfaction. Results showed that the maximum covariance explained was 24.12%, meaning that common method biases did not pose significant deviation effects. Given this finding and the inclusion of two different sources for criteria and predictor variables, we find that method-driven bias was not a major problem in the current study.

### Measurement of the model with exploratory factor analyses

Before hypothesis testing, a principal components factor analysis was conducted using the varimax rotation. Measurement of sampling adequacy (0.88) was performed using Barlett's test of sphericity ( $\chi^2 = 3,750$ ,  $p < .000$ ), which offered evidence favouring use of exploratory factor analyses. The communality values of all measures were above 0.50, indicating that the measures fit well with the other measures in the relevant construct (Nunnally & Bernstein, 1994). All factors loaded in their respective factors with cut-off values above 0.50 (Nunnally & Bernstein, 1994). The overall variance explained by the rotated factors is 56%. Cronbach's  $\alpha$  values for all the multi-item constructs were also calculated and were found to be above 0.70 (Nunnally & Bernstein, 1994).

### Measurement of the model with confirmatory factor analyses

Confirmatory factor analysis was conducted using a maximum likelihood estimation procedure in M-Plus. The measurement model included perceived benefits from supplier–buyer relations, resilience,

supplier satisfaction and supplier commitment. The items of all the constructs were restricted to load on their prior extracted factors and all the constructs were allowed to correlate with each other in the measurement model.

In terms of fitness indices, we used a  $\chi^2$  differences test for comparing competing models that are not prone to samples size effects, standardised root mean square residual value, which is an absolute fit index (Hu & Bentler, 1995, 1999), which is required to be smaller than 0.06, root mean square error of approximation, which should be as small as possible ( $<0.06$ ) along with the related 90% confidence interval indicators. Regarding the comparative indices, the Tucker Lewis index and the comparative fit index were used. Last, but not least, for comparison, we made use of  $\chi^2/df$ , which should be below 2, 3 or 5; Akaike's information criterion and Bayesian information criterion, which should be small (Hair et al., 2010). Except for the RMSEA value, the rest of the fit indices provided support for the validity of fit with our model. The comparative fit indices are above the cut-off values, most importantly  $\chi^2/df$ , which is a sample free indicator of fit. Therefore, we proceeded to test the hypotheses using a hierarchical multiple regression modelling approach.

## RESULTS AND FINDINGS

Data analysis is presented in two parts. In the first part, we discuss the descriptive findings from our study constructs. In the second part, we test our hypotheses using hierarchical multiple regression analyses. Table 2 depicts descriptive statistics and Pearson bi-variate correlations of all study variables. The mean responses of all study variables ranged between 3.91 (SD = 0.58) (for perceived benefits from the supplier–buyer exchange relationship) and 4.56 (SD = 0.33) (supplier satisfaction). Pearson bi-variate correlation patterns across measures of constructs differed in terms of strength and significance. The range of correlation values was between  $r = 0.38^{**}$  (between supplier satisfaction and perceived benefits from supplier–buyer exchange relationships,  $p < .01$ ) and  $r = 0.75^{**}$  (between supplier commitment and supplier satisfaction,  $p < .01$ ). As suggested by Hair et al. (2010), correlation values above 0.80 should be treated with caution, as closer correlations might inform us on convergence to the same construct measurement. Most correlation values were in the middle range. They were clustered between 0.38 and 0.75 values. Direction and significance of bi-variate correlation values were as expected and in line with the extant literature. Our study also controlled for effects of age of suppliers and number of employees of suppliers. As shown in Table 3, the average age of supplier firms was 33.78 years (SD = 32.18) and the average number of employees was 4.023 (SD = 16.762).

The correlations of our controlled variables with supplier satisfaction deserve attention. Age of suppliers was negatively correlated with supplier satisfaction ( $r = -0.24^*$ ). Number of employees also correlated negatively with supplier satisfaction ( $r = -0.25^*$ ). An implication of this pattern of correlation is that suppliers who are in operation for longer years and suppliers with high number of employees tend to be less satisfied. However, we should note that results do not show causality and only show the direction of possible relationships (Hair et al., 2010). Possible distortions of these correlation patterns in regression analyses are ruled out by controlling for both age of suppliers and number of employees in suppliers.

This study set out to test two main hypotheses. To test the effects of perceived benefits from supplier–buyer relationship over supplier satisfaction (Hypothesis 1a) and supplier commitment (Hypothesis 1b), and the effects of supplier resilience over supplier satisfaction (Hypothesis 2a) and supplier commitment (Hypothesis 2b), hierarchical multiple regression analyses were run. Findings are reported in Table 4.

Our first set of hypotheses aimed to capture perceived benefits from supplier–buyer exchange relations and supplier resilience over supplier satisfaction in a form, the predictive power of which could be tested. Hypothesis 1a predicted that as supplier perceptions of benefits from supplier–buyer

**TABLE 3. PREDICTION OF SUPPLIER SATISFACTION WITH PERCEIVED BENEFITS FROM SUPPLIER–BUYER EXCHANGE RELATION AND SUPPLIER RESILIENCE**

	Step 1 ( $\beta$ )	Step 2 ( $\beta$ )	Step 3 ( $\beta$ )
Control variables			
Supplier age	0.13	0.12	0.11
Supplier number of employees	0.17	0.16	0.16
Predictors			
Perceived benefits from of supplier–buyer exchange relationships		0.36****	0.20***
Supplier resilience			0.30**
$R^2$	0.07	0.21****	0.27***
$\Delta R^2$	0.07**	0.13****	0.06**
F change	3.88**	15.40****	8.08**

Note. Standardised regression coefficients are reported.  $N = 97$ .

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ ; \*\*\*\* $p < .0001$ .

**TABLE 4. PREDICTION OF SUPPLIER COMMITMENT WITH PERCEIVED BENEFITS FROM SUPPLIER–BUYER EXCHANGE RELATION AND SUPPLIER RESILIENCE**

	Step 1 ( $\beta$ )	Step 2 ( $\beta$ )	Step 3 ( $\beta$ )
Control variables			
Supplier age	0.05	0.02	0.01
Supplier number of employees	0.09	0.09	0.08
Predictors			
Perceived benefits from of supplier–buyer exchange relationships		0.53****	0.37***
Supplier resilience			0.31**
$R^2$	0.02	0.30****	0.37***
$\Delta R^2$	0.02	0.28****	0.09***
F change	0.85	37.72****	10.17***

Note. Standardised regression coefficients are reported.  $N = 97$ .

\*\* $p < .01$ ; \*\*\* $p < .001$ ; \*\*\*\* $p < .0001$ .

relationships increase, supplier satisfaction also increases. The results showed a positive statistically significant pattern of relationship for Hypothesis 1a ( $\beta = 0.20^{***}$  with  $p < .001$ ), which emphasises benefits for supplier–buyer relationships. Suppliers who receive benefits from their existing relationships with buyers tend to be more satisfied. Hypothesis 2a predicted a positive relationship between supplier resilience and supplier satisfaction, for which we also found supportive evidence ( $\beta = 0.30^{**}$  with  $p < .0001$ ). Moreover, supplier resilience explained significant additional variance ( $\Delta R^2 = 0.06^{**}$  with  $p < .01$ ). The share of the overall variance explained by supplier satisfaction is 27%\*\*\* ( $p < .001$ ). Our model explains an additional 20% of the variance beyond that explained by the control variables. However, caution should be exercised with respect to the explanatory power of  $\beta$ 's over supplier satisfaction, which is less significant compared with the effects of the two independent variables over supplier commitment.

Findings from hierarchical multiple regression analyses fitted with our hypothesised relationships between perceived benefits from supplier–buyer exchange relations and supplier commitment ( $\beta = 0.37^{***}$ ,  $p < .001$ ). Therefore, Hypothesis 1b is supported. Accordingly, we propose that as



suppliers obtain more benefits from their existing supplier–buyer relations, they become more committed to these dyadic relations. Hypothesis 2b, which attempted to test relationships between supplier resilience and supplier commitment, was also supported ( $\beta = 0.31^{**}$ ,  $p < .01$ ) in the context of our findings. Our findings suggest that resilient suppliers become more committed to buyers. The additional variance explained by supplier resilience should also be noted ( $\Delta R^2 = 0.009^{***}$ ,  $p < .001$ ). The overall explanatory power of the model also deserves attention. The variance explained by supplier commitment is 37% ( $p < .001$ ). An additional 35% is explained, beyond that explained by control variables, which further offer compelling support for our proposed patterns of relationship. It should be noted that the predictive power of benefits from supplier–buyer relations and supplier resilience over supplier commitment was significantly greater than that of supplier satisfaction.

## DISCUSSION AND CONCLUSIONS

### Theoretical implications

Resilience is a concept predominantly developed in developmental psychology and environmental systems literatures (Coutu, 2002; Freeman, Hirschhorn, & Maltz, 2004). However, although the concept has a long history, there is no consensus on the definition of resilience (Fernandez-Perez, Del Mar Fuentes-Fuentes, & Bojica, 2012; Kantur & Iseri-Say, 2012). In this study, the concept of resilience is adapted, in the context of supplier–buyer relationships, to understand the effect of supplier resilience on relationship quality.

This study attempted to contribute to knowledge of relationships between alternative supplier perceptions regarding benefits from supplier–buyer exchange relationships and relationship quality. In explaining these relationships, we heavily drew on SET and on the psychological contracts framework (Rousseau, 2004; Coyle-Shapiro & Conway, 2005; Coyle-Shapiro, Morrow, & Kessler, 2006; Dulac et al., 2008). This study confirmed that perceived benefits from the relationships between supplier and buyer firms shape supplier commitment and satisfaction in positive ways. Similar findings were achieved with respect to supplier resilience, where the impact of supplier resilience on commitment was much stronger, compared with its influence on supplier satisfaction. We investigated some of the misconceptions in SET (Cropanzano & Mitchell, 2005; Coyle-Shapiro, Morrow, & Kessler, 2006) by reviewing rules and norms of exchange in supplier–buyer relations, resources exchanged and the relationships that tend towards relational psychological contracts. We found support for the notion that socio-emotional resources (Foa & Foa, 1974, 1980) shape relations between suppliers–buyers. Our findings also demonstrated that relational contracts, similar to Rousseau's (2004) relational psychological contract taxonomy, dominate relations between suppliers and buyers. Benefits perceived as received from supplier–buyer relations included social, special treatment and trust-based resources, all of which involve relational and non-transactional contracts (Rousseau, 2004). This finding also supports our prediction that trust and other relational elements that constitute supplier–buyer relationships are primary drivers for long-term supplier satisfaction and commitment.

Buyers may face difficulties in providing similar levels of benefits for all of their suppliers (Petroni & Pancioli, 2002; Goffin, Lemke, & Szwajczewski, 2006), as time is a significant caveat for the improvement of such mutual relations. In such circumstances, where lead suppliers have already received high benefits and where the buyer firm has already invested differential resources to those suppliers, there will most likely be alternative suppliers who perceive and receive low benefits, which in turn lead to lower supplier satisfaction and commitment levels.

As another antecedent of relationship quality, we found that supplier resilience plays a significant role in characterising and sustaining supplier satisfaction and supplier commitment. We tried to conceptualise and theoretically support supplier resilience by drawing on SCT (Bandura, 1982;

Locke & Latham, 1990; Stajkovic & Luthans, 2002) and positive organisational psychology perspectives (Luthans, 2002). We built our understanding of resilience's influence on relationship quality (satisfaction and commitment), on resilient suppliers' beliefs in their capacity to influence their relationships with buyers to derive benefits and ensure endurance of the relationship. Sutcliffe and Vogus (2003) suggest that longer-term adaptability and the ability to stand against disturbances during times of uncertainty are considered to constitute resilience. More resilient alternative suppliers who appreciate their own potentials and have confidence about their capacities will seek to obtain long-term benefits. Building self-reliance and self-confidence, (Bandura, 1982; Luthans & Youssef, 2007) these alternative suppliers develop more positive cognitive sets and behaviours that ultimately yield high-quality relationships defined by supplier satisfaction and commitment.

As the satisfaction levels of partners in the network improve, their performance in the network increases in terms of product quality, operational support, service quality, delivery performance and responsiveness (Benton & Maloni, 2005; Essig & Amann, 2009; Waard, Volberda, & Soeters, 2012). In addition, positive satisfaction and commitment levels in the network of relationships reduce opportunistic behaviours (Zhang et al., 2008). The findings of this study contribute to understanding how the alternative suppliers develop cooperative and positive behaviours in the network of supplier–buyer relationships. To do so we drew on SET and psychological contracts perspectives. This study also emphasised the significance of supplier resilience as an antecedent to relationship quality. We drew on and extended SCT and positive organisational behaviour to investigate the resilience construct in the context of supplier–buyer networks. We showed that supplier resilience is an organisational characteristic separate from supplier relationships. Thus, we brought supplier resilience to the fore, as it enables a supplier to survive and sustain itself owing to its structural redundancy, organisational capabilities and process continuity, without being overly dependent on anything. On the other hand, increased levels of quality of relationship (satisfaction and commitment) with a buyer may limit a supplier's improvement and development efforts, in terms of structure, capabilities and process continuity, to the requirements of that particular buyer. As resilience involves being not overly dependent on any person, machine, functional role, customer, supplier, resource and product, increased satisfaction and commitment levels (increased relationship quality) may not lead to that alternative supplier's becoming more resilient over time. Hence this research adds to our understanding of how business networks survive and evolve.

### **Managerial implications**

In order to have a satisfied and committed supplier base, managers of the buyer firms should attach importance to assessing their alternative suppliers' perceptions of the benefits they receive from the relationship. Further, results of this study reveal that managers should pay attention to selecting resilient suppliers who have the potential for reinvention, learning and adaptation. Including resilient suppliers in networks would contribute to sustenance of longer-term business relationships.

Buyer firms may need time to fully appreciate alternative supplier firms in terms of product and service quality (Liu, Leach, & Bernhardt, 2005; Essig & Amann, 2009) and to increase their benefit distribution accordingly. Resilience helps these suppliers to endure the waiting period during which the buyer firms carry out their assessments. Buyer firms may have already established high-quality relationships with some of their suppliers and see other supplier firms as alternative choices in case of need for extra capacity or of production problems in their lead suppliers. Some buyer firms may think that the supplier should improve in aspects that are vital for their potential selection as a beneficial relationship partner. While achieving a high-benefit relationship with a buyer firm brings such benefits as increased training and development opportunities, shared plans and forecasts, predetermined orders, better quotas than those of competitor suppliers', it is difficult for alternative suppliers in low-benefit

relationships with targeted buyer firms to bear not being the first alternative and not having predetermined orders or forecasts. Resilient alternative suppliers, knowing and trusting their potential, will be long-distance runners and look to their eventual success. They have strong beliefs in their capacities to learn, to change and to adapt. Thus, they treat suggestions for improvement from buyers as important and valuable contributions to their success in the end.

We have shown that resilient alternative supplier firms have more satisfaction and commitment than non-resilient ones, who might receive similar benefits. By emphasising the resilience of selected suppliers, firms ensure increased supplier dedication to improving relations, which may take longer than expected. As resilient suppliers feel more satisfied and are more committed than non-resilient ones, firms ensure increased levels of performance by selecting resilient suppliers. Managers also need to try to improve resilience of their existing supplier bases through collaboration, and not only by selecting suppliers that have demonstrated resilience.

In addition, managers of alternative supplier firms need work to improve their firms' resilience by improving their capacity to learn, change and adapt. By increasing their resilience, supplier firms will be more responsive to their target buyer firms' requirements and are also likely to develop higher levels of satisfaction and commitment. This study points to possibilities for improvement of a supplier's resilience by targeting improvements in structural reliance (redundancy), organisational capability (requisite variety) and processual continuity (resources) dimensions.

## LIMITATIONS AND FURTHER SUGGESTIONS

While this study presents a model tested within the context of a sample from an emerging economy, we acknowledge certain limitations to this work. Our data were collected from selected multinational companies operating in a wide variety of sectors. The cross-sectional nature of our sample, when accompanied with the limited number of companies participating, may have limited the validity of our extrapolations. A follow-up study might be designed using data collected from a random sample of companies that represent different industries, attempting to replicate the findings of the current investigation.

Our results and the findings of our statistical analyses are based on composite average values obtained from suppliers and buyers. This approach is extensively used in the literature (Atwater, Roush, & Fischthal, 1995; Wood, Allen, Pillinger, & Kohn, 1999; Atkins & Wood, 2002), more so than 360° evaluations. This approach, even though used in a limited number of studies, can be argued to be relevant to the objectives of our study. Our priority in this study was not to reveal differences in perceptions or attitudes of suppliers and buyers, but to build an argument that existing patterns of relations between suppliers and buyers are driven by mutual exchange, support, trust and strategic partnership. Following this line of thinking, we calculated a composite value for supplier satisfaction and commitment. Caution should be used when attempting to make generalisations from our study findings in other contexts in which social, political and other macroeconomic variables may limit the validity of such extrapolation.

## CONCLUDING REMARKS

A review of the existing literature revealed that there are various antecedents of supplier satisfaction and commitment within a network of supplier–buyer relations. By including the perception of benefits from supplier–buyer relations and supplier resilience, we hoped to test our proposed model in an emerging market. Our results confirmed the positive effects of having resilient suppliers within a network over both supplier satisfaction and commitment. In addition, we also found supporting evidence for the positive effects of benefits realised from supplier–buyer exchange relationships.

**SUPPLEMENTARY MATERIAL**

To view supplementary material for this article, please visit <http://dx.doi.org/10.1017/jmo.2014.51>

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