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The impact of internal integration: do suppliers have a soft spot for internally integrated buyers?

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Abstract

Buyer-supplier relationships have become increasingly important. Next to the purchasing function, other functions interact with suppliers as well. Therefore, part of the buyer-supplier relationship management takes place outside the purchasing department. This study examines the effect of internal integration between purchasing and other functions at the buying firm on the buyer-supplier relationship and supplier performance. Drawing on social exchange theory, this study recognizes power and trust as the key relational mechanisms through which the dynamics in buyer-supplier relationships can be explained. A conceptual model is built which proposes the effects of internal integration on different power and trust dimensions and supplier performance. Survey data of 54 buyer-supplier relationships is analyzed by using partial least squares regression. Although no significant effects were found, results showed substantial effects of internal integration on expert power and reward power. Second, goodwill trust and competence trust showed to have a substantial positive effect on supplier performance. For reward power this effect showed to be negative. The contributions of this study for purchasing and supply chain management literature and the practical implications for buying organizations are discussed.

Keywords

Buyer-supplier relationship, internal integration, social exchange theory, purchasing and supply chain management.

1. Introduction

In recent decades, the relationship between the buying organization and the supplier has received increasing attention. As nowadays competition has moved away from ‘among organizations’ towards ‘between supply chains’ (Li et al., 2006), the buyer-supplier relationship has become more and more important and a subject for research (Dwyer, Schurr, & Oh, 1987). Supplier knowledge and financial, human, technological and physical resources are key for achieving competitive advantage (Ellegaard & Koch, 2012). The buyer-supplier relationship plays a crucial role in acquiring these supplier resources (Ellram, Tate, & Feitzinger, 2013; Gianiodis, Markman, & Panagopoulos, 2019). Buying firms and their competitors often rely on the same limited number of suppliers that can fulfil their needs (Schiele, 2012). Therefore, the supplier must choose which buying organizations receive preferred access to scarce resources and better supplier performance over their competitors (Schiele, Calvi, & Gibbert, 2012; Steinle & Schiele, 2008). Within the buying organization, the purchasing function can be seen as a boundary-spanning function, placed between suppliers and internal functions (Monczka et al., 2016). However, other functions within the buying organization are in contact with the supplier as well. For that reason, not only the interaction between the purchasing function and the supplier is important, but the interaction between purchasing and other functions within the buying organization is critical as well (Pardo et al., 2011).

When studying the buyer-supplier relationship, and the associated relational dynamics of such a relationship, organizations are often viewed as monolithic entities (e.g., Terpend & Ashenbaum, 2012; Wagner, Coley, & Lindemann, 2011; Zhao et al., 2008). This assumes that functions within the organization are integrated and that members across different functions have similar interests, expectations and perspectives (Brattstrom & Faems, 2020). However, according to March (1962), organizations cannot be conceptualized as monolithic entities. Instead, what defines organizations, is that they consist of different coalitions, each with different goals, perspectives and expectations. Lumineau and Oliveira (2018) also question this monolithic approach and state that, within organizations, individuals are part of different entities at different levels of hierarchy. This influences the expectations and perceptions of individuals and their expectations and perceptions of relationships with external partners like suppliers (Brattstrom & Faems, 2020). According to Lumineau and Oliveira (2018), conducting a single-level analysis, instead of a multi-level analysis, can even be considered as one of the major blind spots in the study of interorganizational relationships. Thus, when studying the buyer-supplier relationship, the level of integration/fragmentation within the organization should be considered.

In the broad sense, internal integration refers to “the degree to which a firm can structure its organizational practices, procedures and behaviours into collaborative, synchronized and manageable processes” (Zhao et al., 2011, p. 19). When focusing on the purchasing and supply chain management field, internal integration implies that “organizational functions responsible for purchasing and supply management activities, such as purchasing, logistics, operations, and product development, act in a coordinated manner in their boundary spanning behaviours in exchange with suppliers” (Ellegaard & Koch, 2012, p. 148). Previous studies found positive effects of internal integration on purchasing performance as well as overall organizational performance (Cousins & Spekman, 2003; Ellegaard & Koch, 2012). Besides the influence of internal integration on the organization itself, research found that internal integration influences the capability of a company to integrate with external partners, like suppliers and customers, as well (Fawcett et al., 2007).

Most studies investigating the effect of internal integration on the relationship with suppliers and supplier performance, study the effect on external integration and from there the effect on other variables like new product development, quality improvement and global sourcing success (Carr & Kaynak, 2007; Horn, Scheffler, & Schiele, 2014; Koufteros, Vonderembse, & Jayaram, 2005). The results of these studies suggest an indirect effect of internal integration on supplier performance through external integration. However, the direct effect of internal integration on supplier performance has not yet been studied. Monczka et al. (2016) already speculated a direct effect of internal integration on supplier performance, by stating that to receive high supplier performance, the buying organization must understand and adapt to the supplier's needs and expectations. It can be argued that internal integration between functions that are in contact with the supplier is needed to achieve this. Therefore, this research paper aims to explore the direct effect of internal integration on supplier performance, which further expands knowledge about the external effects of internal integration as called for by Ellegaard and Koch (2012). Furthermore, current research has not examined how internal integration influences the buyer-supplier relationship. Internal integration might have an influence on the relational mechanisms that are part of the relationship between the buyer and supplier. Ellegaard and Koch (2012) also called for further research into the effects of internal integration on exchange variables that are part of the buyer-supplier relationship. Therefore, the second aim of this research is to investigate how internal integration influences the relational dynamics of buyer-supplier relationships.

To examine the influence of internal integration on the buyer-supplier relationship, this paper builds on social exchange theory (SET). This theory "is driven by the central concept that the behaviour of a company and resource exchanges in relational exchanges can be explained by relational mechanisms" (Pulles et al., 2014, p. 18). Following SET two core mechanisms can be identified that are crucial to understand the dynamics of the buyer-supplier relationship: power and trust (Bachmann, 2001). Whereas power can be divided into non-mediated power and mediated power (Maloni & Benton, 2000), trust can be divided into goodwill trust and competence trust (Das & Teng, 2001). Both power of the buying organization and the trust of the supplier in the buying organization can have an influence on the supplier (Terpend & Ashenbaum, 2012). Moreover, mediated power and goodwill trust can deliberately be used by buying organizations to influence the supplier's behaviour.

This research paper aims to investigate the direct effect of internal integration on supplier performance. In addition, this paper builds on SET to hypothesize on the effects of internal integration on non-mediated power, mediated power, goodwill trust and competence trust. Since the supplier's perception of the buyer's power might differ from the actual power used by the buyer, this paper explores the effects of internal integration on perceived power. Contrary to power, no difference can exist between the supplier's actual trust and the supplier's perception of trust. Therefore, perceived power but not perceived trust will be used

Consequently, this paper explores whether internal integration can serve as an antecedent for supplier performance, by examining the effects of internal integration on perceived power and trust. This leads to the following research question:

What is the effect of the buyer's internal integration on the supplier's performance and what is the intermediated effect of perceived power and trust?

This study makes several contributions. To the supply chain management (SCM) literature that focuses on internal integration and its external effects this study contributes by exploring the

direct of internal integration on supplier performance. Current literature has mainly focused upon the external effect of internal integration on supplier integration. Koufteros et al. (2005) for example found that in the specific context of new product development, higher levels of internal integration at the buying firm leads to higher levels of external integration and consequently to higher profitability. Carr and Kaynak (2007) found a positive effect of internal integration on information sharing between buyer and supplier, which indirectly relates to quality improvement and better financial performance. This study explores the direct effect of internal integration on supplier performance, thereby further expanding current literature on the external effects of internal integration. As second contribution this paper focuses on the mediating role of power and trust as the relational mechanisms through which internal integration at the buying organization influences the buyer-supplier relationship and supplier performance. This provides further insights into the effects of internal integration on exchange variables in buyer-supplier relationships, as asked for by (Ellegaard & Koch, 2012). Hereby following the example of Horn et al. (2014) who already found a mediating role of social capital within the relationship of internal integration and external integration.

The remainder of this paper is structured as follows. First, by reviewing current literature, supplier performance, internal integration and SET will be discussed. Then, based on the findings from literature, hypotheses and the research model are developed. Third, the research methodology is explained, then the results are discussed. The paper concludes with a discussion of the results and a conclusion followed by limitations and some recommendations for further research.

2. Literature review

2.1. Supplier performance

Supplier performance can be described as the supplier's "ability to meet or exceed current and future customer (i.e., buyer and eventually end customer) expectations or requirements within critical performance areas on a consistent basis" (Monczka et al., 2016, p. 288). In their definition, Wu, Choi, and Rungtusanatham (2010) make these critical performance areas more specific and state that supplier performance "is manifested as the operations outcome in terms of quality, delivery, responsiveness, cost and technical support" (p. 117). Buying organizations should be concerned with supplier performance, because poor supplier performance can have a major impact on the buyer's quality of production processes and end products and thus influences the buying organization's overall performance (Handley & Benton, 2012; Maloni & Benton, 2000). Within last decades, firms got more and more involved in outsourcing, therefore their reliance on suppliers for raw materials, components and end products has increased (Monczka et al., 2016). Consequently, supplier performance plays an important role in establishing and maintaining competitive advantage (Humphreys, Li, & Chan, 2004). To achieve competitive advantage through superior supplier performance, buying organizations engage in supplier development activities to improve the supplier's ability to meet the buyer's needs (Prahinski & Benton, 2004). In addition, it is argued that superior supplier performance can be achieved by means of strong buyer-supplier relationships (Dyer & Singh, 1998). Idiosyncratic inter-firm linkages can generate relational rents which are jointly created and cannot be created by either firm in isolation (Prahinski, Benton, & Fan, 2020). Therefore, strong buyer-supplier relationships, characterized by cooperation and commitment result in higher levels of supplier performance (Prahinski & Benton, 2004; Shin, Collier, & Wilson, 2000).

When measuring supplier performance, one can distinguish between financial- and operational measures (Venkatraman & Ramanujam, 1986). This study measures supplier performance as the operations outcome in the critical performance areas product quality, delivery performance, sales services and technical support and overall cost performance.

2.2. Internal integration

In recent decades supply chain integration (SCI) has received increasing attention among academics as well as practitioners (Zhao et al., 2008). SCI can be defined as “the degree to which an organization strategically collaborates with its supply chain partners and manages intra- and inter-organization processes to achieve effective and efficient flows of products, services, information, money and decisions, with the objective of providing maximum value to its customers” (Zhao et al., 2011, p. 374). As can be understood from this definition SCI consists of integration of internal functions, called internal integration, and integration with customers and suppliers, called external integration (Stank, Keller, & Daugherty, 2001). Most studies have focused on the effects of external integration, whereas few papers have touched upon the influence of internal integration on suppliers (Ellegaard & Koch, 2012). The remainder of this section will discuss internal integration, as this is the focus of this research.

2.2.1. Defining internal integration

Several academics have defined and evaluated the concept of internal integration. Besides the term internal integration (Germain & Iyer, 2006), researches have used many other terms to describe integration between purchasing and other functions (e.g., Eng, 2005; Flynn, Huo, & Zhao, 2010; Lintukangas, Peltola, & Virolainen, 2009; Narasimhan & Das, 2001). Within this paper, the term internal integration will be used. Based on existing definitions in earlier literature, O’Leary-Kelly and Flores (2002) state that internal integration “refers to the extent to which separate parties work together in a cooperative manner to arrive at mutually acceptable outcomes” (p. 226). Pagell (2004) further framed the definition by focusing on three internal supply chain functions (manufacturing, purchasing and logistics) and gave the following meaning: “a process of interaction and collaboration in which manufacturing, purchasing, and logistics work together in a cooperative manner to arrive at mutually acceptable outcomes for their organization” (p. 460). This involves bringing people with a different point of view together, formally or informally, to work together, physically or by information technology, on a strategy or problem. It is important that these participants commonly agree on a certain end goal or purpose (Monczka et al., 2016). For example, to work together on new product development or process improvement.

Internal integration requires that different functions within the organization do not work as functional isolated silos, but in cooperation as part of an integrated process (Lai et al., 2012; Zhao et al., 2011). For the purchasing department, this might involve working together with several internal functions like: operations, engineering, quality assurance, finance, marketing and the legal department (Monczka et al., 2016). As opposite of internal integration, internal fragmentation can be recognized. In this case, functions within the organization have conflicting goals and divergent interests (Brattstrom & Faems, 2020). Such an internally fragmented organization consists of coalitions of individuals, which all pursue different goals (Stevenson, Pearce, & Porter, 1985).

2.2.2. Elements of internal integration

By examining current literature, multiple elements can be found that define internal integration. Reck and Long (1988) gave the following four characteristics of a purchasing function that is fully integrated with other functions in the organization:

- 1) Frequent communication between purchasing and other departments
- 2) Purchasing personnel are included in sales proposal activities
- 3) Purchasing personnel are included in current (simultaneous) engineering teams
- 4) Purchasing executives receive cross-functional training.

Communication between functions is an important element of internal integration and is mentioned by many authors. Open communication of problems and opportunities between individuals and functions can be seen an important antecedent for internal integration (Pagell, 2004). Information systems can play a key role here, by using information technology (IT)- and enterprise resource planning (ERP) systems different functions in the organization have access to the same data and information can easily be shared, which helps to integrate activities between these areas (Ellegaard & Koch, 2012; Flynn et al., 2010; Pagell, 2004). In addition, informal (face-to-face) communication plays an important role here, in particular in a situation where a problem or opportunity arises (Pagell, 2004). Following SET, relationships, in this case between different functions within an organization, develop by norms of reciprocity (Lambe, Wittmann, & Spekman, 2001). This implies that when one party in the relationship behaves cooperatively, it is likely that the other party will reciprocate this behaviour (Gulati, 1995). Thus, because of such norms of reciprocity, initial cooperative behaviour by one function in the organization, is likely to be followed by cooperative behaviour of another function. Once these norms of reciprocity are built, both parties do not want to violate this norm (Ring & van de Ven, 1994). Consequently, a reinforcing positive spiral is established, which is characterized by cooperative action and the joint pursuit of common interests and common benefits, for example in problem solving or opportunity exploitation (Brattstrom & Faems, 2020).

Other elements of internal integration mentioned in current literature are the establishment of cross-functional teams, cross-functional job rotation and joint planning (Ellegaard & Koch, 2012; Flynn et al., 2010; Germain & Iyer, 2006). Finally, Narasimhan and Das (2001) state that, to reach internal integration, the practices of the purchasing department should be aligned with the competitive priorities of the organization. Consequently, purchasing should participate in the strategic planning process, for example by the representation of purchasing in the top-level management.

2.2.3. Benefits of internal integration

The benefits of internal integration are twofold. First, internal integration has a positive impact on the organization itself, in other words on organizational performance. According to Cousins, Lawson, and Squire (2006) a high level of internal integration is what distinguishes developed purchasing organizations from less developed purchasing organizations. This is in line with the findings of Kocabasoglu and Suresh (2006), who found in their study that organizations that engaged in strategic sourcing, all showed high levels of internal integration between purchasing and other functions. By including supply managers to cross-functional teams, purchasing can contribute significantly to new product development and disseminate information about supply markets that has an influence on the organization's marketing efforts (Kocabasoglu & Suresh, 2006). Moreover, Reck and Long (1988) developed a four-stage model which assesses the competitive contribution of the purchasing function to the organization. The final stage, in which purchasing becomes a competitive weapon, can only be reached by fully integrating purchasing in the organization.

Second, internal integration can positively influence external partners like suppliers. It has a positive impact on external integration with suppliers in new product development, information

sharing, concurrent engineering and lean production systems (Carr & Kaynak, 2007; Koufteros et al., 2005; Shah & Ward, 2003; Stank et al., 2001; Swink, 1998). Furthermore, Eng (2005) found evidence for the positive relationship between internal integration and supply chain responsiveness. Ellegaard and Koch (2012) found that internal integration helps suppliers to effectively mobilize their resources at the buying organization. Furthermore, internal integration is often seen as a pre-condition for external integration (Romano, 2003). To integrate with suppliers, buying organizations must have the willingness and capability to do so. This capability is defined by Fawcett et al. (2007) as the degree of internal integration. Monczka et al. (2016) argue that when, as buying organization, you expect high quality and performance of your supplier, you should be a good customer. To receive quality goods and services, the buying organization must understand and adapt to what suppliers need, expect and appreciate in the buyer-supplier relationship. One could argue that, to achieve this, there must be internal integration between purchasing and other functions that are in contact with the supplier. However, this effect has not empirically been tested. When buying organizations are internally fragmented and behaviour of different functions towards the supplier is conflicting, the supplier may be negatively affected and choose to withdraw from integrative practices (Brattstrom & Faems, 2020; Ellegaard & Koch, 2012). Internal fragmentation can thus be a barrier to developing a collaborative relationship with the supplier (Moses & Åhlström, 2008; Pardo et al., 2011). The above-named influence of internal integration on suppliers, will be the focus of this study.

Current literature does describe that internal integration can have a positive influence on the buyer-supplier relationship and indirectly on supplier performance. When the buying organization is internally fragmented, the opposite should be true. However, little is known about how internal integration of the buying organization influences the supplier's perception of the relationship and their performance. For example Koufteros et al. (2005) found in their study that internal integration has a positive effect on supplier integration in terms of supplier product integration and supplier process integration. However, they lack an explanation about the mechanisms through which internal integration influences supplier integration. The same is true for the research done by Eng (2005), who did investigate the positive effect of internal integration on supply chain responsiveness, but did not investigate why this positive effect comes about. Consequently, this research aims to investigate if internal integration influences supplier performance directly and tries to investigate the 'how'. Although Ellegaard and Koch (2012) did investigate how internal integration between purchasing and operations at the buying organization affects supplier's resource mobilization, their research focused mainly on the negative effects of low internal integration. They did not discuss how higher levels of internal integration at the buyer's side can have a positive influence on the supplier's behaviour and performance. Furthermore, their research is qualitative in nature, which means the 'how' is only described and not based on statistics. They call for future research designs that adopt a multiple case study or questionnaire methodology to generalize findings. In addition, they call for further research into exchange variables that are part of the buyer-supplier relationship. This paper tries to answer this call by Ellegaard and Koch (2012).

Drawing on SET, the following sections identify power and trust as key mechanisms that influence the buyer-supplier relationship.

2.3. Social exchange theory

According to Homans (1958), SET is developed to understand the social behaviour of individuals in economic undertakings. However, social exchange can be observed not only in market relations, but also in any other type of relationships (Blau, 1964). A social exchange "is

a situation in which the actions of one person provide the rewards or punishments for the actions of another person and vice versa in repeated interactions” (Muthusamy & White, 2005, p. 418). A social exchange relationship is defined by Blau (1964) as a relationship in which there are “favours that create future obligations, not precisely defined ones, and the nature of the return cannot be bargained about but must be left to the discretion of the one who makes it” (p. 93). There is a significant difference between social exchanges and economic exchanges. According to Blau (1964) social exchange involves unspecified obligations and cannot be bargained about. In economic exchange, however, the obligations can be negotiated and are stipulated in a contract. Second, social exchanges can entail an exchange of both tangibles and intangibles. Economic exchanges, however, are limited to the exchange of material goods (Pulles et al., 2014).

An important element of SET is the norm of reciprocity. This norm “requires that if others have been fulfilling their status duties to you, you in turn have an additional or second-order obligation (repayment) to fulfil your status duties to them” (Gouldner, 1960, p. 176). To continue to receive rewards from the other party, it is a necessary condition that individuals discharge their own obligations and thus follow this norm of reciprocity (Blau, 1964). Partners first calculate the benefits derived from the other party and, based on that, they determine the value of their repayment (Nyaga et al., 2013). Since the benefits derived from social exchanges are often not explicitly contracted, partners are never certain about the amount of debt to each other (Das & Teng, 2002; Muthusamy & White, 2005). This uncertainty constantly generates and reinforces the partners’ feelings of moral obligation to repay the other party. Consequently, partners tend to increase the level of inputs or provide additional resources that were not exchanged before. Due to this reciprocal behaviour the value and range of exchanged resources gradually expands and mutual trust grows (Blau, 1964; Muthusamy & White, 2005).

Next to relationships between individuals, social exchanges are important for relationships between firms (Hosmer, 1995). For interorganizational relationships the same applies as for interpersonal relationships: “they develop through repeated interactions in which firms can use different mechanisms to influence the exchange partner” (Pulles et al., 2014, p. 18). Strong buyer-supplier relationships can, without paying additional costs, create better services and benefits for the buying organization (Lindgreen & Wynstra, 2005; Schiele, 2020). Therefore, the behaviour of a supplier that is dependent on the relational mechanisms applied by the buying organization can be explained by using SET (Pulles et al., 2014). SET is for example used by Pulles et al. (2014) to theorize on the effects of a buying firm’s SCM strategies on supplier resource allocation.

This paper aims to examine the effects of internal integration on the supplier’s behaviour and supplier performance. Since SET argues that the behaviour of a company can be explained by relational mechanisms (Pulles et al., 2014; Zhao et al., 2008), the hypotheses of this study will be developed based on SET. Within SET, power and trust are identified as the key mechanisms, used by organizations to influence each other (Ireland & Webb, 2007; Terpend & Ashenbaum, 2012) for example in buyer-supplier relationships. For that reason, the hypotheses will be based on those two variables. Both power and trust can be seen as multi-dimensional concepts (Pulles et al., 2014), and will be further explained in the following sections.

2.3.1. Power

In the general sense, power can be seen as the ability of party A (individual or group) to force party B to do something, that party B otherwise would not have done (Dahl, 1957). In SCM, power is the ability of one firm “to control the behaviours or influence the decisions of other

members of the value chain” (Handley & Benton, 2012, p. 53). Consequently, within the buyer-supplier relationship, power is the ability of the buyer to influence the supplier, for example to shorten delivery times (Pulles et al., 2014). Power can be divided into two different sources of power: non-mediated power and mediated power. Mediated power indicates influence efforts that are deliberately exercised by the power holder to manipulate the target. Non-mediated power is not specifically exercised to manipulate the target (Brown, Lusch, & Nicholson, 1995; Maloni & Benton, 2000)

First, non-mediated power sources are not exercised to directly influence the other party’s behaviour, but are more indirect in the way in which the other party is influenced (Brown et al., 1995; Terpend & Ashenbaum, 2012). Examples of non-mediated power resources are expert power, referent power and legitimate power (Terpend & Ashenbaum, 2012). First, expert power refers to power that one party derives from having access to knowledge or skills that are desired by the other party (Maloni & Benton, 2000). More specifically, organizations that interact with an expert partner, receive increased value, therefore their relationship becomes increasingly important and consequently they invest more effort in strengthening and maintaining the relationship (Palmatier et al., 2006). An example of this is a supplier that wants to participate in one of the buying organization’s programmes to develop expertise (Maloni & Benton, 2000; Terpend & Ashenbaum, 2012). According to Nyaga et al. (2013) “referent power exists when one firm admires the way another conducts its operations and therefore values being identified with it” (p. 47). It might for example be beneficial for a supplier to be associated with a well-known and respected enterprise (Maloni & Benton, 2000; Terpend & Ashenbaum, 2012). Finally, legitimate power stems from the believe of the power recipient that the power holder has the natural and legitimate right to influence the power recipient and that the power recipient is obliged to accept the power holder’s influence (French & Raven, 1959; Maloni & Benton, 2000). To illustrate: the buying organization has as a customer the right to make certain demands to the supplier, the supplier is obliged to comply with those demands (Terpend & Ashenbaum, 2012). Although there are multiple types of non-mediated power, this paper focuses on expert and legitimate power. According to Terpend and Ashenbaum (2012) “referent power can almost be considered the “brand” of the buyer in the mind of the supplier” (p. 67). Moreover, referent power is influenced by many different variables and is difficult to build and to apply. Therefore, this paper does not hypothesize on the effect of internal integration on referent power as the effect of internal integration would only be a small part of a larger whole and therefore would be negligible.

Second, when using mediated power, the buying organization deliberately controls the reinforcements guiding the supplier’s response (Maloni & Benton, 2000). Mediated power can be further divided into reward power, coercive power and legal legitimate power (Benton & Maloni, 2005). Of which reward power and coercive power are the most widely recognized types of mediated power (Pulles et al., 2014). “Reward power depends on the power holder’s ability to administer positive valences and to remove or decrease negative valences” (French & Raven, 1959, p. 156). For example, the buying organization can reward the supplier with additional business, when the supplier behaved as desired (Terpend & Ashenbaum, 2012). On the other hand, “coercive power stems from the expectation on the part of the power recipient that he will be punished by the power holder if he fails to conform to the influence attempt” (French & Raven, 1959, p. 157). The buying firm, for example, can punish the supplier by withholding future contracts or reducing future order volumes (Terpend & Ashenbaum, 2012).

When exercising power on a supplier, the buying firm should always be aware of their possibilities and in what way the supplier will response. Applying the wrong source of power

may have negative effects on the buyer-supplier relationship and consequently on the way in which the supplier treats the buying organization. For example, by punishing the supplier, the supplier may become reluctant to invest in future projects that could benefit the buying organization (Pulles et al., 2014)

Within this study, power is thus the ability of the buying firm to influence or manipulate, either deliberately or not deliberately, the decisions and the behaviour of the supplier. This study investigates the effect of internal integration on the supplier's perception of the buyer's non-mediated and mediated power. Before hypotheses about the effect of internal integration on perceived power are developed, the second relational mechanism that is part of this study, trust, will be explained.

2.3.2. *Trust*

Contrary to power, trust is generally seen as a positive coordination mechanism within the buyer-supplier relationship (Terpend & Ashenbaum, 2012). It can be defined as the willingness of one party to rely on the actions of the other party, based on the expectation that the other party will behave according to a mutual agreement (Currall & Inkpen, 2002; Mayer, Davis, & Schoorman, 1995). Within trust there is relation risk, since the other party may act opportunistically by not fulfilling the common agreement (Gattiker, Huang, & Schwarz, 2007; Ireland & Webb, 2007). Trust is an important aspect of the buyer-supplier relationship. Moreover, Fawcett and Magnan (2002) state that, without a sufficient level of trust between buyer and supplier, both parties are less likely to build a relationship with each other. Furthermore, Cai et al. (2013) argue that trust, just like power, is an important antecedent for knowledge sharing between buyer and supplier. Based on the notion that trust is about a party's ability to perform according to the common agreement and the party's willingness to do so, Das and Teng (2001) have distinguished between two types of trust: goodwill trust and competence trust.

“Goodwill trust exists when partners are willing to act in ways exceeding stipulated contractual agreements” (Ireland & Webb, 2007, p. 484). It is argued that when there is a high level of goodwill trust between partners, they are more likely to share knowledge and information accurately (Ireland & Webb, 2007). Interaction between partners is mostly informal and knowledge transfer will be at the tacit level (Roy, Sivakumar, & Wilkinson, 2004). On the other hand, when there is no goodwill trust between partners, they can withhold knowledge or provide the other partner with inaccurate information. However, following norms of reciprocity it is expected that a favour by one party will be followed by a favour of the other party, this strengthens goodwill trust (Adler & Kwon, 2002; Ireland & Webb, 2007).

Competence trust “refers to a firm's expectations about the ability of the other party to carry out particular activities relevant to its role” (Roy et al., 2004, p. 69). It is based on the resources and capabilities of an organization (Das & Teng, 2001). To enter a relationship, a certain level of competence trust must be present, goodwill trust can only be developed stepwise through repeated actions and interactions between partners (Ireland & Webb, 2007).

3. Hypotheses

As found in literature internal integration can be seen as an antecedent for external integration with the supplier, more specifically Horn et al. (2014) and Romano (2003) describe internal integration as a pre-condition for external integration success. Although internal integration affects supplier behaviour, it cannot be argued that buying organizations deliberately use

internal integration as a mechanism to influence supplier behaviour. Moreover, wanting to be internally integrated is mainly driven by the desire of buying firms to align different functions within the organization, to make sure they work together, on the same goals in a integrated process (Zhao et al., 2011). Since internal integration at the buyer's side does influence supplier behaviour but cannot be seen as a tool for the buying firm to do so, this paper uses supplier's perceived power and trust as relational mechanisms through which internal integration influences supplier behaviour (Brown et al., 1995; Zhao et al., 2008).

In the next section, the hypotheses will be introduced, all hypotheses are drawn by following SET. The first hypothesis links internal integration and supplier performance. The remaining hypotheses link internal integration directly to perceived power and trust. In the end, the conceptual model, which is based on the reviewed literature and the proposed hypotheses, will be built.

3.1. The effect of internal integration on supplier performance

Most studies on internal integration, focus on the effects of internal integration on external integration. (Ellegaard & Koch, 2012). External integration with the supplier includes the integration of inter-organizational systems and the investment in relational capital by practices as cost sharing, synchronized planning, cross-functional involvement, supplier relationship development and joint problem solving (Ellegaard & Koch, 2012). Several studies have found that internal integration positively influences external integration, for example in new product development, information sharing and resource mobilization (Hillebrand & Biemans, 2003; Koufteros et al., 2005; Stank et al., 2001; Vonderembse & Tracey, 1999; Zhao et al., 2011). Other studies have found a positive effect of strong buyer-supplier relationships, characterized by cooperation, commitment and supplier development activities, on supplier performance (Prahinski & Benton, 2004; Shin et al., 2000). This research does not aim to investigate the effect of internal integration on external integration, nor the effect of the type of buyer-supplier relationship on supplier performance but aims to investigate the direct effect of internal integration on supplier performance. According to Monczka et al. (2016), buying organizations that strive for high supplier performance, should behave as good customers by understanding and adapting to the supplier's needs. This implies, among other things, minimizing changes to purchase orders, providing insights to future purchase volumes and visibility to new-product requirements. Frequent order quantity and specification changes limit the supplier from performing well and meeting buyer expectations. Internal integration helps buying organizations to understand and learn about suppliers (Ellegaard & Koch, 2012). Furthermore, internal integration stimulates the accurate and timely sharing of operational information to suppliers. Which allows for synchronized planning and processes, facilitates operations with suppliers and helps to solve potential problems with suppliers. Consequently, it is argued that internal integration helps buying organizations to behave as good customers and to understand and adapt to the supplier's needs. As such, it is postulated that increased internal integration leads to a higher level of supplier performance:

H1: Internal integration has a positive effect on supplier performance

3.2. The effect of perceived power and trust on supplier performance

Following SET, power and trust are important mechanisms used to influence the other party (Terpend & Ashenbaum, 2012). The relationships between both power and trust have already been tested by others. Since exploring the effects of power and trust on supplier performance is not part of the purpose of this research, but power and trust are part of the research model, this research follows earlier findings and includes the hypotheses of the effect of power and trust

on supplier performance as explicit hypotheses. For the sources of non-mediated power both Maloni and Benton (2000) and (Terpend & Ashenbaum, 2012) found positive effects on supplier performance. Therefore, the following hypotheses are proposed:

H2a: Perceived expert power has a positive effect on supplier performance

H2b: Perceived legitimate power has a positive effect on supplier performance

Second, both studies hypothesized a negative effect of mediated power sources on supplier performance. For coercive power both Maloni and Benton (2000) and Terpend and Ashenbaum (2012) found a negative effect on supplier performance. However, for reward power Maloni and Benton (2000) found a positive but nonsignificant effect and Terpend and Ashenbaum (2012) no effect. In addition, Pulles et al. (2014) found that reward power has a positive and significant effect on supplier resource allocation. In line with this, this study proposes the following hypotheses:

H3a: Perceived coercive power has a negative effect on supplier performance

H3b: Perceived reward power has a positive effect on supplier performance

Finally, Terpend and Ashenbaum (2012) found a positive influence of trust on supplier performance, without making any distinction between goodwill trust and competence trust. In their study, Pulles et al. (2014) do make a distinction between goodwill trust and competence trust. They found no significant effect of goodwill trust on supplier resource allocation and a positive significant effect of competence trust on supplier resource allocation. Based on this, the following hypotheses are developed:

H4: Goodwill trust has a positive effect on supplier performance

H5: Competence trust has a positive effect on supplier performance

3.3. The effect of internal integration on perceived non-mediated power

Non-mediated power cannot be deliberately used to manipulate the supplier as the power holder does not control the reinforcements which guide the target's behaviour. It may even be the case that the buying organization is not aware of their non-mediated power source (Benton & Maloni, 2005; Brown et al., 1995; Maloni & Benton, 2000). Within the context of SET, which suggests that a firm's behaviour in a transaction cannot be solely explained by economic factors, but by social factors as repeated exchanges and future obligations as well (Blau, 1964; Zhao et al., 2008), the power recipient itself decides whether and how much it will be influenced by the non-mediated power wielded by the power holder (Brown et al., 1995; Nyaga et al., 2013). Stated somewhat differently, the supplier itself seeks association with the buying organization, because of its perception of the buyer's expertise (expert power), reputation (referent power) or its belief that the buyer holds the natural right to exert influence which the supplier is obliged to accept (legitimate power) (Zhao et al., 2008).

As internal integration is more intra-organizational focused than inter-organizational focused, it could influence the supplier unintentionally. This means that internal integration could positively influence the supplier's perception of non-mediated power and consequently the willingness of the supplier to be influenced by that non-mediated power. Following SET and the norm of reciprocity, the supplier might feel morally obligated to answer the buyer's wielded

non-mediated power by repaying the buying organization with better services, better performance and other benefits.

Expert power, for example, “varies with the extent of the knowledge or perception which the power recipient attributes to the power holder within a given area” (French & Raven, 1959, p. 163). Maloni and Benton (2000) base expert power on the supplier’s perception of the buyer’s business expertise and the supplier’s respect towards the judgement of the buyer’s representatives. When different functions within the buying organization are integrated, and thus are aligned about their business and goals, it is more likely that the supplier perceives this buying organization as one with business expertise. When different functions are not aligned and they all communicate divergently towards the supplier about what is expected from the supplier, it is less likely that the supplier perceives this buying organization as an expert. In addition, when the communication of different representatives of the buying organization is on the same line, it is more likely that the supplier respects the judgement of the representatives, compared to when these representatives all communicate divergently.

Finally legitimate power stems from the belief of the supplier that they are obligated to comply with the buyer’s demands, because the buyer holds the natural right to influence them (French & Raven, 1959; Maloni & Benton, 2000). This means that when the supplier perceives referent power, the supplier would comply with the buyer’s demands and adjust their performance level to these demands. In other words, referent power arises from the extent to which the supplier believes it is obligated to meet customer demands. In internally integrated organizations different departments share information, plan jointly and work together to efficiently interact with suppliers (Flynn et al., 2010). When the buying organization is internally integrated their demands towards the supplier are clear for all departments and they are plainly formulated and communicated to the supplier. In contrast, when the buying organization is internally fragmented, different departments might communicate different demands. It is expected that the extent to which the supplier believes it is obligated to meet customer demands is higher when demands are clearly formulated and stated, compared to when demands are unclear and differ per department. Therefore, it is expected that internal integration positively influences the supplier’s perception of legitimate power.

Within existing literature, no articles have attempted to measure the effect of internal integration on non-mediated power. In the absence of prior research and in the expectation that all sources of non-mediated power are positively influenced by internal integration, the following hypotheses are developed:

H6a: Internal integration has a positive effect on perceived expert power

H6b: Internal integration has a positive effect on perceived legitimate power

3.4. The effect of internal integration on perceived mediated power

In contrast to non-mediated power, mediated power is used deliberately to influence and manipulate the target’s (in this case the supplier’s) behaviour, by punishments or rewards (Brown et al., 1995; Terpend & Ashenbaum, 2012). Internal integration is not used as a power source to deliberately change the behaviour of the supplier. In that sense, internal integration does not relate to mediated power. However, being internally integrated might change the supplier’s perception of mediated power and therefore internal integration and mediated power might relate to each other. Several studies have already suggested that, within supply chain relationships, partners hold different perceptions and expectations of their relationship (Corsten

& Kumar, 2005; Nyaga, Whipple, & Lynch, 2010). This means that the supplier's perception of used power might differ from the buyer's perception and this could significantly influence the supplier's willingness to collaborate and the supplier's performance (Nyaga et al., 2013).

Although, some researchers state that punishing the power recipient or threatening to do so, can have positive effects for the power holder because the power recipient might be willing to adjust his behaviour to avoid punishment (Molm, 1994; Yeung et al., 2009). Most studies state the negative affects of coercive power (Pulles et al., 2014), because victims seek ways to resist when the power holders exploits his power to extract unfair concessions (Kumar, 1996). Poor internal integration at the buyer's side might have as consequence that agreements between the buying organization and the supplier that strive for mutual benefits, like cost savings, do fail (Ellegaard & Koch, 2012). The reason for this is that low internal integration between purchasing and other functions leads to highly uncoordinated behaviours of employees in each function. In this case, purchasing develops initiatives with suppliers to reach mutual benefits, motivates suppliers to participate and builds expectations. However, behaviours of other functions within the buying organization are unaligned or even work against the purchasing initiatives. Consequently, the supplier invests resources in the purchasing initiatives without reaching the expected benefits and, even worse, has to invest more resources to deal with the uncoordinated behaviours (Ellegaard & Koch, 2012). Although this example describes a situation in which the buying organization and supplier have made an agreement to develop initiatives to reach mutual benefits, the same logic can be applied to a buyer-supplier relationship in which this is not the case. Uncoordinated behaviours of purchasing and other departments towards the supplier, causes that the supplier has to put more effort in the relationship to deal with these uncoordinated behaviours.

Hence, when internal integration is low, perceptions of coercive power are high because, due to uncoordinated behaviours of the buying organization, the supplier has to put more effort into the relationships and might get the idea that agreements are not kept. Therefore, the supplier might feel punished by the buying organization. Reversely, when internal integration is high, perceptions of coercive power are low because interaction between the supplier and different functions of the buying organization runs smoothly and agreements are kept. Therefore, it is unlikely that the supplier will feel the threat of being punished by the buying organization. Based on this logic, the following hypothesis is proposed:

H7a: Internal integration has a negative effect on perceived coercive power.

Contrary to coercive power, reward power is more often related to positive effects. Based on the norm of reciprocity in SET, the supplier receiving the reward will feel obliged to adjust his behaviour according to the expectations of the buying organization (Griffith, Harvey, & Lusch, 2006; Nyaga et al., 2013). As a result, the supplier will choose actions for which the expected benefits for the buying organization will be greater (Pulles et al., 2014). Reward power not only differs from coercive power in the way in which it influences the power recipient, it also evokes other perceptions at the power recipient's side. "Whereas coercive power can be viewed as a form of opportunism in which the buying firm expects to gain at the expense of the supplying firm, reward power, in contrast, is likely to encourage positive perceptions by the supplier" (Pulles et al., 2014, p. 20). Internal integration can be seen as the willingness of the buying organization to integrate with the supplier to reach mutual benefits and better performance (Zhao et al., 2011). Since internal integration positively influences the supplier' perception of the buyer's willingness to cooperate and to reach mutual benefits, it is expected that internal

integration positively influences the supplier's perception of reward power. Based on this logic, the following hypothesis is proposed:

H7b: Internal integration has a positive effect on perceived reward power.

3.5. The effect of internal integration on trust

Goodwill trust exists when the buyer and supplier have the same expectations of their relationship and do not take advantage of each other (Roy et al., 2004). Goodwill trust between partners relates to the benevolence to share resources and cultivates the exchange of important information (Pulles et al., 2014). Moreover, when there is a high level of goodwill trust between supply chain partners, they are more willing to share knowledge and other resources (Ireland & Webb, 2007). Furthermore, within the buyer-supplier relationship, buyers and suppliers can verify the amount of goodwill trust by starting trading and seeing if they share common principles of fairness and convergent mutual expectations about informal obligations (Sako, 1992).

Although the direct effect of internal integration on goodwill trust has not been studied, several studies have investigated the effect of internal integration on information sharing with suppliers. According to Lai et al. (2012) internal integration forms the basis for information sharing with suppliers, as it is difficult to share information with suppliers when functions within the organization work separately from each other as functional silos (Moyano-Fuentes, Sacristán-Díaz, & Garrido-Vega, 2016; Paulraj & Chen, 2007). Furthermore, internal integration increases the accuracy and timeliness of information shared with the supplier, this helps the supplier to better understand the buyer's requirements and specifications of needed materials (Williams et al., 2013; Zhang et al., 2018).

By following the notion that goodwill trust lies at the basis of information sharing, it is not likely that the supplier perceives goodwill trust from the buying organization when the buying organization is internally fragmented. Receiving different information from different functions does not cultivate an intensive cooperation nor the supplier perceives buyer's benevolence. Furthermore, the supplier can get the idea that the buying organization does not share the same principles of fairness and convergent mutual expectations, which are essential for verifying goodwill trust (Sako, 1992). Finally, the norm of reciprocity, which lies at the basis of SET, can play a role here. When the supplier takes the initiative to benefit the buyer, the supplier is willing to be in the buyer's debt (Sako, 1992). When the supplier, in that situation, receives unclear and divergent information from different functions, the supplier might get the idea that the buyer is not willing to repay his debt. This would negatively influence the supplier's goodwill trust.

To build goodwill trust, the buying organization should thus make sure that functions are internally integrated and that all functions communicate with the supplier in the same way. This leads to the following hypothesis:

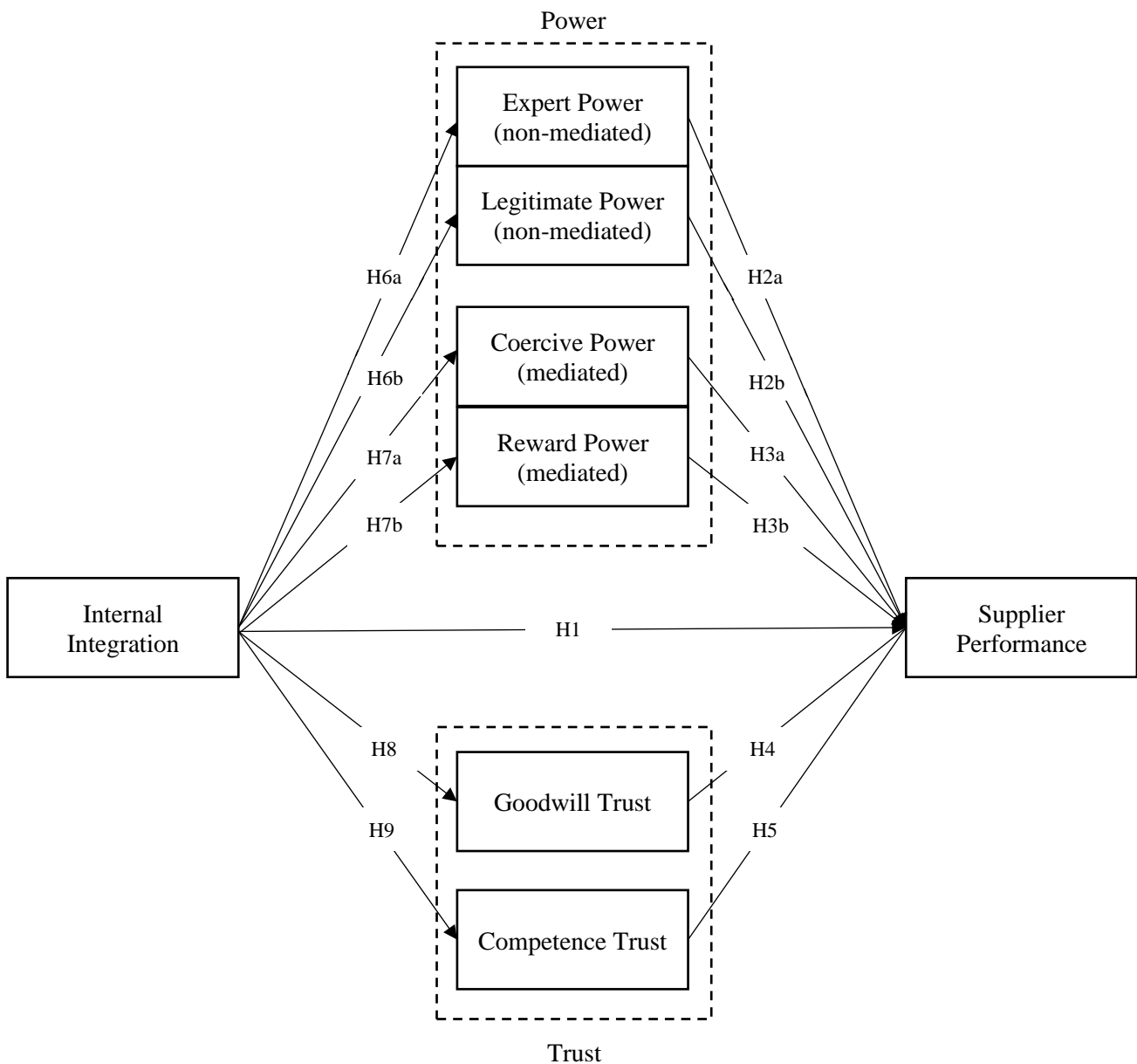
H8: Internal integration has a positive effect on goodwill trust.

Second, competence trust is the extent to which one partner believes in the competence of the other party (Mayer et al., 1995). In this study, competence trust refers to the supplier's expectation of the buyer's expertise. According to (Pulles et al., 2014), competence trust can stimulate reciprocity between the buyer and the supplier. When the supplier recognizes competent behaviour of the buying organization, the supplier is likely to reciprocate this with behaviour that benefits the buyer, for example by allocating critical resources. Consequently,

suppliers only want to participate in strategic initiatives, for example innovation generation (Roy et al., 2004), with buyers of which they think are capable (Fawcett et al., 2007).

Internal integration enables functions within the buying organization to develop and communicate consistent expectations from suppliers, in terms of product requirements, costs and planning (Zhang et al., 2018). By developing a common understanding among different functions of the buying firm’s strategic plans and the role of the supplier within these plans, a foundation of competence is built and suppliers can be involved into these strategic plans (Huo et al., 2014; Zhang et al., 2018).

Figure 1
Proposed Model.



Thus, when a supplier receives divergent information from different functions or these functions all act in divergent ways, it is not likely that the supplier develops trust in the competence of the buyer. It is more likely that the supplier creates trust in the competence of the buying organization when functions within this organization act in a coordinated manner and communicate the same information towards the supplier. By following this logic, the next hypothesis is developed:

H9: Internal integration has a positive effect on competence trust.

Based on the above developed hypotheses, Figure 1 shows the conceptual model proposed in this study.

4. Methodology

4.1. Sample and data collection

This research is quantitative in nature, which means an empirical research was conducted with data in the form of numbers (Punch, 2013). Data was collected by means of online surveys, which is a data collection method in which participants respond to a set of questions in a predetermined order (De Vaus, 2013). Surveys are widely used in causal research that aims to examine and explain relationships between variables (Saunders, Lewis, & Thornhill, 2019). Since this research tries to examine cause-and-effect relationships, using surveys is considered an appropriate data collection method for this research. Furthermore, surveys were used because they provide an efficient way to collect data from a large sample in short time, in particular when compared to interviews (Gillham, 2008). This study's data was collected in collaboration with two case companies. The first is a CNC machinery manufacturer providing solutions for the steel construction and manufacturing industry. The headquarter of the case company is based in the Netherlands, here the data was collected. The number of employees exceeds 250, which means it can be considered as a large enterprise according to Dutch standards (Centraal Bureau voor de Statistiek, 2017). The company serves customers all over the world, with main markets being Europe, USA and Asia. The second case company is a Dutch division of a multinational company that designs and builds technical solutions. The Dutch division focusses on the defense, cybersecurity, and transportation market, serving customers all around the globe. Also, this case company can be considered a large enterprise according to the Dutch standards (Centraal Bureau voor de Statistiek, 2017).

This study used three different surveys to collect data: one survey for suppliers of the case company, one for the purchasers of the case company and one for other internal functions, from now on called 'other internals', of the case company. This means that for every buyer-supplier relationship a set of three surveys was conducted. Collecting surveys among purchasers as well as other internals, was done because in this way internal integration could be measured. Purchasers filled in the surveys related to suppliers for which they are responsible. Other internals filled in the surveys related to suppliers with which they often communicate. Suppliers that were approached to participate in this research were selected in consultation with the purchasers from the case companies. Suppliers were selected with whom the case company has regular contact. Based on the participating suppliers, purchasers and other internals were selected and connected to the suppliers.

In May 2022, an e-mail was sent to a sample of 113 suppliers. In this e-mail, sales representatives from the suppliers were informed about the upcoming online survey and were

invited to participate. All suppliers were informed that, although the case company is involved in the research project, only the research team would see the answers and that all gained data would be made anonymous and held strictly confidential. Furthermore, all respondents were explained that no ‘good’ or ‘best’ answers existed and were asked to fill in the answer that fitted their firm’s situation best. Five days after the invitation mail was sent to the supplier, the link to the online survey was sent. Suppliers who did not have participated after one week, were called and asked to participate. The suppliers who could not be reached by phone were sent a reminder by e-mail. This led to a total of 54 suppliers participating, which represents a response rate of approximately 48 percent.

As shown in Table 1, the majority of responding suppliers in the final sample are located in the Netherlands. To evaluate the competency of respondents, survey items asked about their expertise and organizational tenure (Kumar, Stern, & Anderson, 1993; Schilke, 2014). On average the respondents have 25.2 years of work experience and work on average 13.4 years for their current organization. In addition, 75.9 percent of the participants in the final dataset have been with their current organization for 5 years or longer. One of the two case companies provided spending data, based on which comparative tests between respondents and nonrespondents were conducted to assess nonresponse bias. With an average spend of €969.538,98 for the respondents and €711.022,38 for the nonrespondents no significant difference was revealed.

When the supplier survey was received, surveys were sent out to the connected purchaser and other internal. Again, all respondents were informed that data would be made anonymous and treated strictly confidential and that no ‘good’ or ‘bad’ answers existed. All invited purchasers and other internals did participate in the survey, in total 16 purchasers and 33 other internals did participate. This means that some purchasers and other internals filled out surveys for more than one supplier.

Table 1
Profile of suppliers (n = 54).

	Frequency		Frequency
<i>Industry sector</i>		<i>Country</i>	
Automotive	1.9%	Belgium	7.4%
Chemicals/Pharmaceuticals	1.9%	Denmark	1.9%
Industrial Machinery	42.6%	France	1.9%
Other	53.7%	Germany	14.8%
		Norway	1.9%
<i>Number of employees</i>		Spain	1.9%
< 50	38.9%	Switzerland	1.9%
50 - 250	38.9%	the Netherlands	64,8%
≥ 250	22.2%	Turkey	1.9%
		United Kingdom	1.9%
<i>Respondent function</i>			
Operational	31.5%		
Tactical	18.5%		
Strategic	31.5%		
Executive	18.5%		

Table 2
Profile of purchasers (n = 16).

	Frequency		Frequency
<i>Function</i>		<i>Organizational tenure</i>	
Tactical	29.6%	0-5 year(s)	46.3%
Strategic	70.4%	5-10 years	37.0%
		10-20 years	14.8%
		≥ 20 years	1.9%
<i>Work experience</i>			
0-5 year(s)	37.0%		
5-10 years	18.5%		
10-20 years	22.2%		
≥ 20 years	22.2%		

As can be seen in Table 2, most participating purchasers have a strategic function. Their average work experience equals 10.9 years, whereas their average organizational tenure is approximately 6 years. Furthermore, 53.7 percent of the purchasers work for their current organization for 5 years or more.

Table 3 shows the profile of the other internals, most of the other internals were represented by engineers. As both case companies produce technically complex products, engineers often work together or interact with suppliers to ensure that purchased products meet the technical requirements. Since this study defines internal integration as the level of interaction and collaboration between purchasing and other departments, one might wonder why the purchasing department is included here. Because purchasing departments consists of a variety of functions, some functions must interact and collaborate with one another as if they both are part of different departments. A project buyer, for example, represents the new product development team and interfaces with other purchasers who are responsible for specific materials (Zijm et al., 2019). For this interaction, internal integration between the new product development team and the purchasing department is needed, therefore some other internals are part of the purchasing department. As can be seen from Table 3, most other internals are part of the engineering department. Their average work experience is approximately 20.5 years, whereas they work on average about 12.5 years for their current organization. In addition, 68.5 percent of participating other internals work for their current organization for 5 years or more.

Table 3
Profile of other internals (n = 33).

	Frequency		Frequency
<i>Department</i>		<i>Organizational tenure</i>	
After Sales	5.6%	0-5 year(s)	31.5%
Engineering	81.3%	5-10 years	24.1%
Purchasing	5.6%	10-20 years	14.8%
Supply chain management	1.9%	≥ 20 years	29.6%
Work preparation	5.6%		
<i>Work experience</i>			
0-5 year(s)	11.1%		
5-10 years	11.1%		
10-20 years	27.8%		
≥ 20 years	50.0%		

4.2. Measures

This study's measures and their corresponding factor loadings can all be found in Table 4. Constructs were measured on a seven-point Likert scale ranging from 1 ('strongly disagree') to 7 ('strongly agree'). Measures used in this study were based on previously used scales by others, as this often makes more sense than creating your own scales (Schrauf & Navarro, 2005).

Internal integration was measured based on scales of Zhao et al. (2011) and Horn et al. (2014). This construct considers the extent to which the purchasing department and other departments within the buying organization interact and collaborate with each other. Internal integration was comprised of four survey items which were included in both the purchaser survey as well as the other internal survey. To get a final internal integration value for each buyer-supplier relationship, the values of the purchaser and other internal were added up and an average score was calculated.

Expert power and *legitimate power*, both sources of non-mediated power, were measured with items based on Maloni and Benton (2000) and were only included in the supplier survey. For expert power, the respondents were asked to assess the extent to which they see the buying organization as an expert in his industry, the extent to which they respect the judgement of the buyer's representatives and the level of business expertise of the buyer. For legitimate power, the respondents were asked to assess the extent to which the buying organization has the right to tell the suppliers what to do and to which extent the suppliers should follow the buyer's instructions and recommendations.

Coercive power and *reward power*, both sources of mediated power, consist both of three survey items based on (Pulles et al., 2014). The survey items of coercive power measured the supplier's perception of the extent to which they are punished by the buying organization when they do not conform to the buyer's influence attempt. The construct items of reward power measured the supplier's perception of the extent to which the buying organization tries to influence the supplier by offering benefits. The survey items of coercive power and reward power were both included in the supplier survey.

Goodwill trust and *competence trust* were measured based on earlier used scales by Pulles et al. (2014) and were both included in the supplier survey. Goodwill trust considers the extent to which the supplier can rely on the buying organization to treat them fairly and to take initiatives for mutual benefits that go beyond the contractual agreements. For competence trust, suppliers were asked to assess the extent of their trust in the buying organization's managerial and technical capabilities.

Supplier performance was measured based on a scale developed by Wu et al. (2010). Respondents were asked to assess the level of the supplier's performance in four dimensions: 1) product quality; 2) delivery performance; 3) sales, service and/or technical support and 4) overall cost performance. Supplier performance was added in both the purchaser and other internal survey. A final supplier performance value was calculated by taking the average of the purchaser and other internal score.

Finally, *relationship length* and *supplier dependence* were added as control variables. Both control variables were added because it could be argued that the perceived power and trust by the supplier and supplier performance could be influenced by the length of relationship and the supplier's dependence on the buyer (Pulles et al., 2014; Terpend & Krause, 2015). Relationship

Table 4
Measurement items.

Constructs and measurement items	Factor Loadings
<i>Internal integration (purchaser and other internal survey)</i>	
My department often interacts with other departments in dealing with this supplier.	0.87
We have good communication with other departments regarding this supplier.	0.85
My department has good collaborations with other departments in dealing with this supplier.	0.85
My department and other departments work as a team regarding this supplier.	0.84
<i>Expert power (supplier survey)</i>	
This buyer is an expert in his industry.	0.76
We respect the judgement of this buyer's representatives.	0.94
This buyer retains business expertise that makes them likely to suggest the proper thing to do.	0.75
<i>Legitimate power (supplier survey)</i>	
This buyer has the right to tell us what to do.	0.94
Since this buyer is our customer, we should accept their request and recommendations.	0.83
Customers have a right to expect suppliers to follow their instructions.	0.59
<i>Coercive power (supplier survey)</i>	
This buyer makes it clear that failing to comply with their requests will result in penalties against us.	0.77
If we do not agree with this buyer's suggestions, they could make things difficult for us.	0.85
If we do not do as asked, we will not receive very good treatment from this buyer.	0.90
<i>Reward power (supplier survey)</i>	
This buyer offers rewards so that we will go along with their wishes.	0.61
We feel that by going along with this buyer, we will be favoured on other occasions.	0.54
If we do not do as asked, we will not receive the rewards offered by this buyer.	1.00
<i>Goodwill trust (supplier survey)</i>	
We can rely on this buyer to help us in ways not required by our agreement with them.	Removed
We can depend on this buyer to always treat us fairly.	0.88
This buyer takes initiatives for mutual benefits that exceed the contractual agreements.	0.77
<i>Competence trust</i>	
We feel that this buyer is a highly capable partner.	Removed
This buyer is very capable of providing value to our firm.	1.00
We trust that this buyer has the managerial and technical capabilities to do what it says it will do.	0.43
<i>Supplier performance (purchaser and other internal survey)</i>	
Compared with other suppliers, how does this supplier perform in the following areas?	
Product quality.	0.86
Delivery performance	0.70
Sales, service and/or technical support.	0.84
Overall cost performance.	0.75

length was measured in the internal other survey, since it turned out they were better able to indicate the relationship length than the supplier respondents and purchasers. Supplier

dependence was measured in the supplier survey, here questions were asked about how the supplier would be affected when the case company would stop buying from them.

4.3. Data analysis

To test the developed hypotheses and to assess the conceptual model, a partial least square (PLS) analysis was used. PLS can be seen as one of the extant techniques for structural equation modelling (SEM) (Henseler, 2020). SEM has become popular in business and social sciences, because it has the ability to test models with latent variables and the ability to test entire theories (Henseler, Hubona, & Ray, 2016). Two subtypes of SEM can be distinguished: covariance based and variance based (Henseler, 2017). PLS falls in the group of variance based estimators and has been widely used in various fields of business administration (Benitez et al., 2020; Müller, Schubert, & Henseler, 2018). Because PLS is in particular useful when dealing with small sample sizes and has shown to result in robust findings (Chin, 1998), PLS is considered the appropriate technique to analyze this study's data. SmartPLS 3 was used to obtain the PLS estimates, because this software is freely available, has a friendly user interface and has advanced reporting features (Wong, 2013).

4.4. Assessment of the reflective measurement model

Before conclusions can be drawn about the relationships between the constructs, it must be ensured that the used measures are reliable and valid. To do so, the construct reliability, indicator reliability, convergent validity and discriminant validity were assessed (Hulland, 1999). Since all this study's constructs are reflective in nature (Edwards & Bagozzi, 2000), construct reliability was assessed by using composite reliability (CR) (Horn et al., 2014). As shown in Table 5, the CR values ranged between 0.71 and 0.91, thereby exceeding the threshold of 0.7 established by Nunnally (1978). To assess indicator reliability the factor loading estimates of the indicators with their respective construct were analyzed (Table 4). Most items exceeded the 0.707 threshold (Benitez et al., 2020). As can be seen in Table 4, two indicators, one for goodwill trust and one for competence trust were removed. Both indicators had insufficient factor loadings, but most importantly they were removed due to their negative effects on construct reliability and validity. After removing both indicators, construct reliability and validity criteria for goodwill trust and competence trust were met. Furthermore, Table 4 shows that four other indicators also had insufficient factor loadings. However, these four indicators were not removed, because removing them did not notably improve construct reliability and validity criteria (Benitez et al., 2020). Robustness checks have shown that removing these four indicators does not significantly change the outcome of the model.

To test the convergent validity of the constructs, the average variance extracted (AVE) was examined. Table 5 shows that the AVE values of all constructs exceeded the recommended 0.50 cut-off criteria (Fornell & Larcker, 1981). To assess discriminant validity, this study took into consideration the Fornell-Larcker criterion, cross loadings and the Heterotrait-monotrait (HTMT) criterion (Henseler, Ringle, & Sarstedt, 2015; Hulland, 1999). As shown in Table 6, the square root of each construct's AVE is greater than their squared correlations with other constructs. Therefore all constructs fulfil the requirement established by Fornell and Larcker (1981). Establishing discriminant validity by using cross loading, requires that each "measurement correlates weakly with all other constructs except for the one to which it is theoretically associated" (Gefen & Straub, 2005, p. 92). For all this study's measurement items this requirement is fulfilled, except for the first two measurement items of the construct reward power (Table 8, Appendix A). Table 9 in Appendix B shows the HTMT ratios of correlations between the constructs. As can be seen, all HTMT ratios are below 0.85, which means discriminant validity is established according to the HTMT criterion (Henseler et al., 2015).

Table 5

Quality criteria of constructs.

Construct	No. of items	AVE	CR	Cronb. α
Internal integration	4	0.73	0.91	0.89
Expert power	3	0.67	0.86	0.77
Legitimate power	3	0.64	0.84	0.79
Coercive power	3	0.71	0.88	0.80
Reward power	3	0.55	0.78	0.78
Goodwill trust	2	0.69	0.81	0.55
Competence trust	2	0.59	0.71	0.68
Supplier performance	4	0.63	0.87	0.81

Notes: AVE = Average variance extracted; CR = Composite reliability; Cronb. α = Cronbach's alpha

Table 6

Means, standard deviations and correlations of constructs.

Construct	M	SD	1	2	3	4	5	6	7	8
1. Internal integration	5.60	0.59	0.85							
2. Expert power	6.23	0.64	0.30	0.82						
3. Legitimate power	4.61	1.14	0.05	0.26	0.80					
4. Coercive power	3.40	1.29	0.07	0.17	0.49	0.84				
5. Reward power	3.72	1.33	0.18	0.20	0.24	0.71	0.74			
6. Goodwill trust	5.56	0.77	-0.08	0.16	0.20	-0.18	0.05	0.83		
7. Competence trust	6.36	0.56	-0.01	0.28	0.35	0.22	0.04	0.23	0.77	
8. Supplier performance	4.80	0.82	0.02	0.06	0.09	-0.17	-0.29	0.19	0.22	0.79

Notes: M = Mean; SD = Standard deviation

Finally, because data was collected by means of surveys, common method bias could potentially threaten the validity of the results (Podsakoff & Organ, 1986). Therefore, a Harman's single factor test was performed to check for common method bias. To do so, all indicators were loaded by using SPSS into a principal component factor analysis (PCA) with an unrotated solution (Horn et al., 2014). Since in this study the largest factor only explained 20.2 percent of the variance, common method bias is not considered a major concern.

5. Results

To test the statistical significance of the proposed hypotheses, a bootstrapping procedure using 500 resamples was used. To assess the stability of the results, similar bootstrapping procedures of 250 and 1000 resamples were used (Pulles et al., 2014). No differences in the estimates across the bootstrap samples were found. Due to the small sample size of this study, a beta cut-off value instead of the significance level is used to assess the results. Based on a significance level of 0.05 all hypotheses would be rejected. Therefore, this study considers hypotheses as substantially supported when the effect (beta coefficient) is equal to or stronger than 0.15 or -0.15. All hypotheses were tested in one model. Figure 2 shows the full model, a summary of the results can be found in Table 7

Hypothesis 1 stated that internal integration positively influences supplier performance. Although the model showed a positive path, Hypothesis 1 is not supported ($\beta = 0.05$, $t = 0.34$, $p = 0.37$). Also, no empirical support was found for Hypothesis 2, which assumed a positive

influence of perceived expert power (2a) and perceived legitimate power (2b) on supplier performance ($\beta = 0.03$, $t = 0.16$, $p = 0.44$ and $\beta = 0.03$, $t = 0.15$, $p = 0.44$). Hypothesis 3a and Hypothesis 3b are both rejected ($\beta = 0.06$, $t = 0.19$, $p = 0.43$ and $\beta = -0.40$, $t = 1.10$, $p = 0.14$). However, the negative effect of perceived reward power on supplier performance (3b) showed to be negative instead of positive but exceeds the cut-off value. Meaning that reward power has

Figure 2
Empirical model.

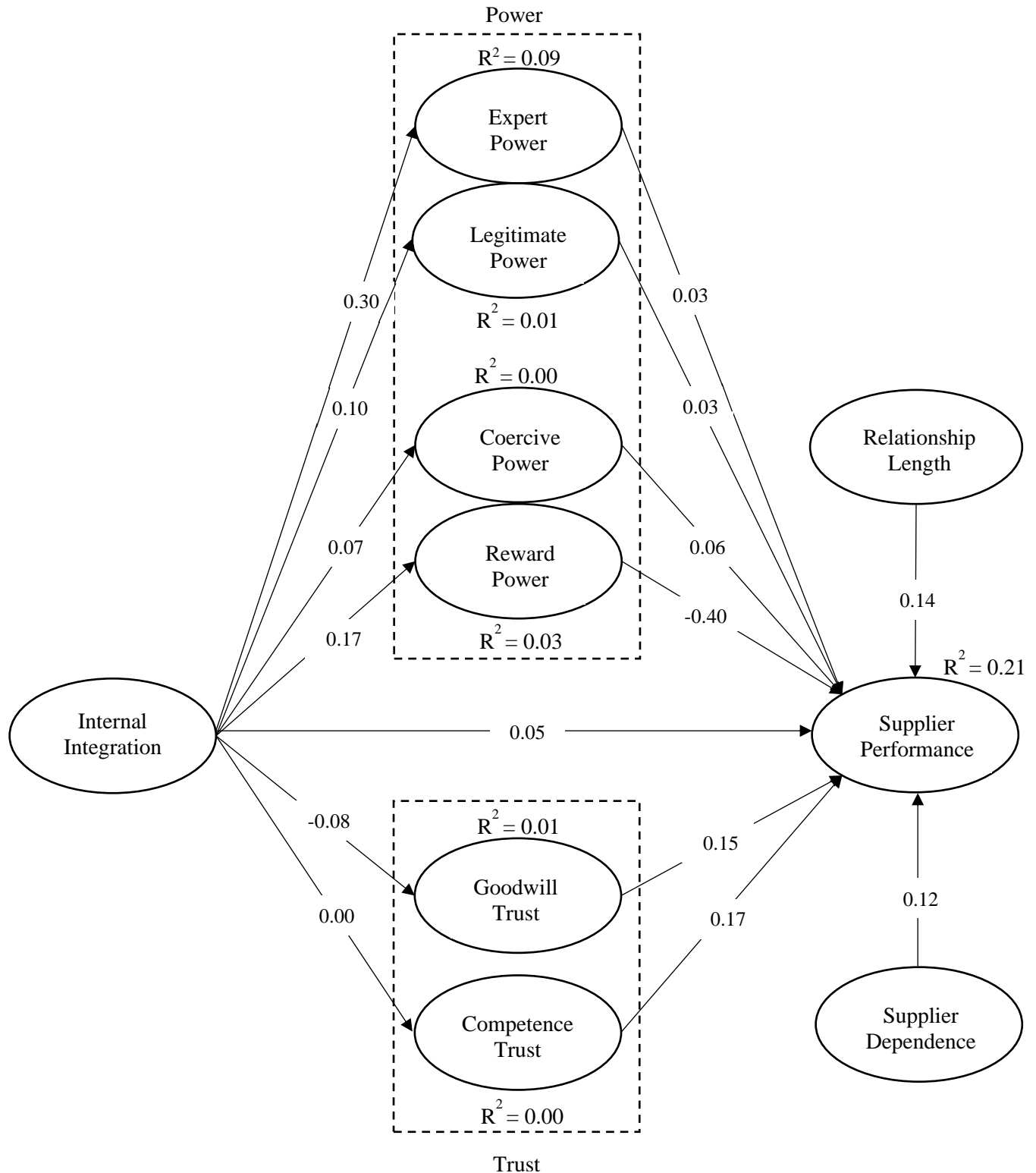


Table 7

Results of hypotheses tests.

Hypothesis	Path coefficient	Outcome
Internal integration → supplier performance (H1)	0.05	Not supported
Perceived expert power → supplier performance (H2a)	0.03	Not supported
Perceived legitimate power → supplier performance (H2b)	0.03	Not supported
Perceived coercive power → supplier performance (H3a)	0.06	Not supported
Perceived reward power → supplier performance (H3b)	-0.40	Not supported
Goodwill trust → supplier performance (H4)	0.15	Subst. supported
Competence trust → supplier performance (H5)	0.17	Subst. supported
Internal integration → perceived expert power (H6a)	0.30	Subst. supported
Internal integration → perceived legitimate power (H6b)	0.10	Not supported
Internal integration → perceived coercive power (H7a)	0.07	Not supported
Internal integration → perceived reward power (H7b)	0.17	Subst. supported
Internal integration → goodwill trust (H8)	-0.08	Not supported
Internal integration → competence trust (H9)	0.00	Not supported

Note: Subst. supported = substantially supported

a substantial, but nonsignificant, negative effect on supplier performance. Both Hypothesis 4 and Hypothesis 5 showed to be substantially supported, meaning that both goodwill trust and competence trust have a substantial, but nonsignificant, positive effect on supplier performance ($\beta = 0.15$, $t = 0.62$, $p = 0.27$ and $\beta = 0.17$, $t = 0.73$, $p = 0.23$). Furthermore, Hypothesis 6a, which proposed a positive effect of internal integration on perceived expert power is substantially supported ($\beta = 0.30$, $t = 1.42$, $p = 0.08$), Hypothesis 6b is rejected ($\beta = 0.10$, $t = 0.42$, $p = 0.34$). Next, no empirical evidence was found that supports Hypothesis 7a ($\beta = 0.07$, $t = 0.31$, $p = 0.38$). However, Hypothesis 7b is substantially supported ($\beta = 0.17$, $t = 0.77$, $p = 0.22$). Which means that internal integration has a substantial and positive effect on perceived reward power. Finally, Hypothesis 8 ($\beta = -0.08$, $t = 0.46$, $p = 0.32$) and Hypothesis 9 ($\beta = 0.00$, $t = 0.02$, $p = 0.49$) are both rejected.

Also, the model showed no evidence for a mediating role of all the power and trust sources between internal integration and supplier performance. In addition, both control variables, relationship length and supplier dependence had no statistically nor substantially relevant effect on this study's findings.

6. Conclusions and discussion

The aim of this research is twofold. First, this research attempted to investigate whether there is a direct effect of internal integration on supplier performance. Second, this study tried to investigate how the external effect of internal integration works and how this influences the buyer-supplier relationship. To explore how internal integration influences the buyer-supplier relationship, this study was based on SET and identified power and trust as the two core relational mechanisms through which dynamics in the buyer-supplier relationship can be explained (Bachmann, 2001).

The results, as shown in Figure 2, indicate that internal integration at the buying firm does not significantly affect supplier performance. A possible reason for this, might be the level of external integration between the buying firm and the supplier. Other studies that did research internal integration and its effects, found that internal integration positively influences external

integration (Fawcett et al., 2007; Koufteros et al., 2005; Romano, 2003). Furthermore, it was found that by positively influencing the level of external integration, internal integration indirectly leads to higher supplier performance. For example by improving the quality of products and better financial performance (Carr & Kaynak, 2007). Since this study did not find evidence for a direct effect of internal integration on supplier performance, external integration might be a mediating variable through which internal integration influences supplier performance. However, this study did not include external integration. Therefore, the mediating effect of external integration could not be empirically tested. This research did find a substantial positive effect of the level of internal integration at the buying firm on the supplier's perception of the buyer's expert power and reward power. However, no effect was found between internal integration and perceived legitimate power and perceived coercive power. Furthermore, no significant effect was found between internal integration and goodwill trust and competence trust. Finally, the findings indicate substantial effects of reward power, goodwill trust and competence trust on supplier performance. Whereas the effect of reward power showed to be negative and the effects of goodwill trust and competence trust positive. This study did not find evidence for the effects of expert power, legitimate power and coercive power on supplier performance.

The findings of this study contribute to current literature. First, this study's findings contribute to the internal integration literature by exploring the effect of internal integration at the buying firm on the relational mechanisms of buyer-supplier relationships. This study found substantial effects of internal integration on the supplier's perception of the buyer's expert power and reward power. Although both effects are not statistically significant, they suggest that internal integration influences the social aspects of the buyer-supplier relationships. This can be seen as a try to answer the call by Ellegaard and Koch (2012) to investigate the effects of internal integration on exchange variables in buyer-supplier relationships and an addition to Horn et al. (2014) who used social capital theory to study the effects of internal integration on the social aspects of the buyer-supplier relationship. The results indicate that the level of internal integration has a substantial effect on the supplier's perception of the buyer's business expertise. Which means that the strength of the buyer's expert power as defined by French and Raven (1959) might vary with the level of internal integration at the buying organization. Furthermore, results indicated that a higher level of internal integration at the buying firm increases the supplier's perception of the buyer's ability to control rewards. Since this study used perceived reward power, this adds to current literature that reward power not only stems from the ability of the buyer to control rewards, but also from supplier's perception of the buyer's ability.

Second, this study contributes to the buyer-supplier relationship literature by examining the effect of power on supplier performance. Whereas many studies found positive effects of reward power (Griffith et al., 2006; Nyaga et al., 2013; Pulles et al., 2014), this study found a substantial negative effect of reward power on supplier performance. This might be explained by and complement the findings of Brown et al. (1995), who found that the use of mediated power sources (e.g. reward power) lowers the target's relationship commitment because of dissatisfaction over the subordinate situation. Furthermore, Maloni and Benton (2000) state that the suppliers might mistakenly interpret reward power as an intention of coercion. Since coercive power is more often associated with negative effects compared to reward power (Brown et al., 1995; Kumar, 1996), this might explain why this study found a negative effect of reward power on supplier performance. However, it is important to stress that the findings of this study are substantial but nonsignificant.

Third, this study contributes to the buyer-supplier relationship literature by exploring the effects of both goodwill trust and competence trust on supplier performance. Since trust is a multidimensional concept (Das & Teng, 2001), different dimensions of trust might have different effects. This study found substantial positive effects for both goodwill trust and competence trust on supplier performance. This effect showed to be the strongest for competence trust, however the difference is almost negligible. The findings of this study shed a different light on the work by Terpend and Ashenbaum (2012), who found a positive effect of trust on supplier performance, without making a distinction between goodwill trust and competence trust. Making a distinction between goodwill trust and competence trust in their study, might have produced different results and effects.

6.1. Practical implications

Although the found effects in this study are nonsignificant but only substantial, they provide insights in the direction and strength of effects and can therefore be interesting for managers. This study's findings show that internal integration at the buying firm has a substantial positive effect on the supplier's perception of expert power and reward power. Although this study did not find a positive effect of expert power on supplier performance, others did (Maloni & Benton, 2000; Terpend & Ashenbaum, 2012). Therefore, managers should recognize that firms cannot be seen as monolithic entities but rather as an organization existing of different functions with each having different goals, expectations, and perspectives. Since the level of integration between the purchasing department and other departments that are in contact with the supplier influences the supplier's perception of the buyer's expertise, managers should focus on maintaining or increasing the level of internal integration. This can be done by bringing purchasing and other departments together to work in a cooperative manner on mutually acceptable outcomes. Hereby, it is important that all departments and participants commonly agree on an end goal (Pagell, 2004). For purchasing managers this implies that the purchasing department should not work as a functional isolated silo but should work together with several internal functions like operations, engineering, and quality assurance (Monczka et al., 2016; Zhao et al., 2011). To reach this cooperation between the purchasing department and other functions, there should be frequent communication between purchasing and other departments, purchasing personnel should be included in engineering teams and purchasing executives should receive cross-functional training (Reck & Long, 1988). Furthermore, this study showed a negative effect of reward power on supplier performance. This might be explained by supplier's mistakenly viewing rewards as an intention of coercion (Maloni & Benton, 2000). Therefore, managers should always ensure that the intentions of their rewards are clear to the supplier. Finally, this study found a substantial effect of both goodwill trust and competence trust on supplier performance. Managers should, therefore, recognize the importance of trust in buyer-supplier relationships. To build trust with supplier, managers may want to focus on a limited number of suppliers instead of a large supply base (Terpend & Ashenbaum, 2012).

6.2. Limitations and future research

This research has some limitations that should be mentioned. First, the results in the research were based on a sample size of 54 buyer-supplier relationships. To estimate the minimum sample size when using PLS, often the '10-times rule' is used. This rule builds on the assumption that the minimum sample size should be greater than ten times the largest number of indicators used to measure one construct or the number of structural paths directed at a latent construct in the inner model (Hair, Ringle, & Sarstedt, 2011). The maximum of inner model structural paths directed at a construct in this study is nine (Figure 2), therefore the minimum sample size should be 90. Since the sample size of this study is smaller than the minimum sample size, statistical power is decreased. Second, most suppliers in this study

indicated not to be dependent on the buying organization. Earlier research showed that the effect of power and trust on supplier behaviour differs when the supplier is (highly) dependent on the buyer (Brennan & Turnbull, 1999). Therefore, the low dependence of the suppliers on the buying organization might have had an influence on the results. Finally, this study did not include the level of external integration between the buying organization and supplier. External integration might have a mediation effect between internal integration and supplier performance. Since external integration was not part of this study, this mediation effect could not be investigated.

For future research it is important to use a sample size that meets the requirements of the '10 times-rule' for minimum sample size. Furthermore, since the effects of power and trust differ when supplier dependence is high, future research could compare a sample of suppliers who are highly dependent on the buyer to a sample of less dependent suppliers. In addition, future research could include external integration to study whether there is a mediating effect between internal integration and supplier performance. Finally, future research could compare the supplier's perception of the buyer's power and the buyer's perception of their power at different levels of internal integration at the buying firm. By doing so, future research could investigate whether higher levels of internal integration only influence the supplier's perception of power or actual power as well.

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Appendix

Appendix A

Table 8

Cross loadings.

Item	Internal integration	Expert power	Legitimate power	Coercive power	Reward power	Goodwill trust	Competence trust	Supplier performance
II1	0.87	0.35	0.12	0.19	0.20	-0.14	0.04	-0.03
II2	0.85	0.15	-0.01	-0.08	0.10	0.00	-0.06	0.11
II3	0.85	0.18	0.04	-0.06	0.08	0.00	0.01	0.08
II4	0.84	0.22	-0.07	-0.02	0.15	-0.03	-0.06	-0.02
EP1	0.17	0.76	0.06	0.01	0.17	0.12	0.10	0.07
EP2	0.34	0.94	0.27	0.17	0.15	0.12	0.31	0.08
EP3	0.18	0.75	0.30	0.21	0.24	0.17	0.24	-0.04
LP1	0.09	0.33	0.94	0.43	0.26	0.22	0.34	0.07
LP2	-0.04	0.08	0.83	0.47	0.15	0.12	0.27	0.10
LP3	-0.04	0.05	0.59	0.46	0.25	0.22	0.32	0.02
CP1	0.07	0.22	0.30	0.77	0.57	-0.10	0.34	-0.12
CP2	0.01	0.20	0.53	0.85	0.57	-0.01	0.13	-0.12
CP3	0.07	0.05	0.43	0.90	0.64	-0.27	0.11	-0.19
RP1	0.01	-0.07	0.08	0.40	0.61	0.28	0.00	-0.04
RP2	0.03	0.10	0.26	0.45	0.54	0.33	0.30	0.02
RP3	0.19	0.22	0.25	0.71	0.99	0.03	0.05	-0.30
GT2	-0.08	0.25	0.27	-0.20	-0.05	0.88	0.29	0.18
GT3	-0.05	0.02	0.03	-0.08	-0.02	0.77	0.05	0.14
CT2	0.00	0.33	0.36	0.22	0.04	0.24	0.99	0.20
CT3	0.04	0.56	0.33	0.12	-0.04	0.27	0.43	-0.02
SP1	0.00	0.09	0.06	-0.21	-0.37	0.09	0.23	0.86
SP2	-0.04	-0.02	0.14	-0.01	-0.08	0.25	0.16	0.70
SP3	0.03	-0.01	0.00	-0.16	-0.23	0.13	0.13	0.84
SP4	0.07	0.09	0.11	-0.14	-0.16	0.20	0.14	0.75

Appendix B

Table 9

Heterotrait-monotrait ratio (HTMT).

Construct	1	2	3	4	5	6	7	8
1. Internal integration								
2. Expert power	0.29							
3. Legitimate power	0.10	0.27						
4. Coercive power	0.13	0.27	0.68					
5. Reward power	0.13	0.23	0.32	0.77				
6. Goodwill trust	0.10	0.28	0.31	0.25	0.46			
7. Competence trust	0.10	0.70	0.49	0.30	0.19	0.44		
8. Supplier performance	0.10	0.13	0.15	0.23	0.24	0.31	0.20	

Appendix C

Management Report

The buyer-supplier relationship has become increasingly important within recent decades. Since buying organizations and their competitors often source from shared suppliers, the supplier determines which buying organizations receive preferred treatment and better supplier performance. Next to the purchasing department other departments of the buying organization maintain contact with the supplier as well. This study investigated the effect of internal integration, which is the level of collaboration and interaction between purchasing and other functions, on the buyer-supplier relationship and supplier performance. Power and trust were identified as the core relational mechanisms through which dynamics in the buyer-supplier relationship can be explained. Therefore, this research aimed to answer the following research question: “What is the effect of internal integration at the buying firm on perceived power and trust of the supplying firm and supplier performance?”

The study provided an extensive literature review, based on which hypotheses and a conceptual model were built. Four sources of power were identified: expert power, legitimate power, coercive power and reward power. Furthermore, two sources of trust were recognized: goodwill trust and competence trust. To test the hypotheses, data in means of surveys was collected in collaboration with two case companies. For every buyer-supplier relationship three surveys were collected. One survey was filled out by a supplier of the case company, one survey by a purchaser of the case company and one survey by another internal function of the case company. In this way internal integration at the buying organization, the supplier’s perception of the buyer’s power, the supplier’s trust in the buyer and supplier performance could be measured. In total 54 buyer-supplier relationships were studied.

Analysis showed that all proposed effects in the conceptual model are nonsignificant, therefore all developed hypotheses in this research could not be supported. The small sample size could possibly be an explanation of why all effects turned out to be nonsignificant. However, results can still provide valuable insights into the effects of internal integration. The results showed a substantial positive effect between internal integration and perceived expert power and perceived reward power. Meaning that it is more likely that suppliers perceive a buyer as an expert in the industry when the buying organization shows high levels of internal integration. Furthermore, the results showed that supplier’s goodwill trust and competence trust have a substantial positive effect on supplier performance. It is therefore of importance for buying organizations to develop relationships with suppliers based on trust. Perceived reward power showed to have a substantial negative effect on supplier performance. A possible explanation might be that suppliers mistakenly view rewards as an intention of coercion. Therefore, buying organizations should always ensure that their intentions with rewards are clear for the supplier.

This study adds up to current literature as it explored how the effect of internal integration works in buyer-supplier relationships through the relational mechanisms power and trust. Since not only the purchasing department, but other departments as well maintain the relationship with the supplier, managers should recognize that internal integration plays an important role in buyer-supplier relationships. This study implies that managers should focus on maintaining or strengthening the level of internal integration within their organization, because internal integration positively influences the supplier’s perception of expert power and reward power. In addition, this study showed the importance of the supplier’s trust in buyer-supplier relationships and the possibly negative effect of the supplier’s perception of reward power on supplier performance.