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Attraction in industrial relationships: the strategic relevance of customer attractiveness to  
improve supply chain performance

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**ABSTRACT**

Customer attractiveness is collecting increasing attention from managers and scholars. Being an attractive customer is in fact a requisite to obtain best efforts from suppliers. This article investigates, on the one hand, why customer attractiveness is relevant for supply chain management, and what are the effects on innovation and cost performance ensured by suppliers; on the other hand, antecedents of customer attractiveness are considered, as the literature is lacking indications about strategies to achieve attractiveness. To this end the study exploits data as part of an international survey on purchasing strategies, practices and performance conducted across ten countries. Results confirm that customer attractiveness positively affects both innovation and cost performance ensured by suppliers. Moreover, several direct and indirect antecedents of customer attractiveness are identified, including characteristics of the buying firm's procurement department, purchasing category characteristics, and supply chain relationship characteristics.

**KEYWORDS:** Supply Chain relationships; Customer attractiveness; Procurement department

## **INTRODUCTION**

A growing body of research has reserved great attention to the principal “enabling factors” that influence the success of collaboration programs in buyer-supplier relationships (Anderson & Narus, 1990; Badaracco, 1991; Jap & Ganesan, 2000; Menguc et al., 2014; Makkonen et al., 2016). A relevant role has been associated to relational issues such as length of buyer supplier relationship, culture, trust, commitment, satisfaction, confidence in other party's capabilities, which can overcome different barriers existing between two counterparts (Ragatz et al., 1997). But, despite the great interest for social interaction, appears clear that something is missing to complete the understanding of this subject et al., 2003). Recently, the concept of “attraction” starts to be investigated as explaining factor of how relationship initiate, endure and develop (Mortensen et al., 2008; Hald et al., 2009; Kumar & Routroy, 2016). Attraction is described by Hald et al. (2009), as “the force fostering voluntarism in purchasing and marketing exchanges, and further pushing a buyer and supplier closer together in a mutual advantageous relationship” (p. 968). Due to the scarcity of high-skilled, innovative suppliers, the latter may not dedicate their resources equally to all customers, and become highly selective. Thereby, in order to have access to the best resources, such as brainpower, customer must increase its level of attractiveness Schiele et al., 2010a). The relevance of this topic is not limited to oligopolistic supply market, but it's also crucial in situation in which buyers and suppliers work closely together, for example in joint product development (Zhao et al., 2014). Some authors have also addressed the main benefits of customer attractiveness, such as product quality and innovation, support, delivery reliability, price, and costs (Nollet et al., 2012), presenting customer attractiveness as a recurring process. However, despite the literature supports the importance of being an attractive customer, there is still need to clarify how this status might be achieved and

what are the outcomes for the buying firm. This study aims therefore at investigating the “chain of evidence” leading the buying firm to be an attractive customer. We do so by investigating, through an international survey, a set of possible antecedents to customer attractiveness such as characteristics of the buyer - supplier relationship (i.e., level of supplier involvement, level of supplier integration, and trust), characteristics of the procurement department (i.e., knowledge, status, and organizational climate), and characteristics of the good/service purchased (i.e., technological uncertainty, and category innovation objectives). Furthermore, in order to determine performance resulting from customer attractiveness, we test which results are obtained for the purchased category considered in terms of innovation rate as well as cost reduction.

The article is organised as follows. Firstly, the concept of customer attractiveness and its relevance for supply chain management is defined and positioned within the literature. Next, an overview of possible antecedents of customer attractiveness is presented. Through this review we are then able to describe our research framework and consequent hypotheses. Next, the research method is presented. The last three sections present data analysis, discuss results, and summarise main conclusions respectively.

## **LITERATURE REVIEW**

### **The concept of attraction in business relationship**

A general definition of the verb “to attract” is “to cause interest or pleasure and to pull someone towards you by the qualities you have, especially positive and admirable ones” (Cambridge Dictionaries Online). As research topic, the first works concerning attraction are related to social psychology and social exchange literature, the latter come to live as an offspring of the first. Social exchange deals with interdependence between social actors and focuses on the rewards and costs that individuals gain through interaction with each other (Homans, 1973; Thibaut & Kelley, 1959), reason for why its application was valued particularly interesting for buyer-supplier relationship research. A social definition of the concept of “attraction” was given by Blau (1964), who describes it as an evaluation of rewards which bring to establish a rapport: “Actor A is attracted to actor B, if A expects that association with B to be in some way rewarding for A”. This statement highlights how attraction is a force which acts to get closer two distinctive parts, whether these are individuals, groups or companies, and it underlines how the concept of value is a core element in this construct. Attraction is a fundamental element to start a relation, principally cause of desired payoff, and after the establishment, it acts to continue and strengthen the relation. Additionally, the social exchange perspective dedicates a central role to human feelings and emotions (Blau, 1964). Also, since valuable resources and rewards make both parties dependent to each other, we might argue that attraction influences the distribution of dependence (Emerson, 1962), which in turn influences the ability to control the relationship (Blau, 1964). In short, social exchange suggests that human factors are crucial components of attraction and that attraction plays an important role in value creation, as it influences trust and commitment between parties (Blau, 1964; Kelley & Thibaut, 1978; Thibaut & Kelley, 1959). Extending this view to a supply chain relationship between a buying firm and its supplier, we might say that both the buyer and the supplier need to see the relationship as attractive to effectively create and transfer value (Hald et al., 2009). Attraction is also relevant in describing how industrial relationships initiate and develop (Pulles et al., 2016). Dwyer et al. (1987) define attraction as the degree to which buyers and sellers achieved a reward–cost outcome in excess

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of some minimum level, by distinguishing five different stages in buyer–supplier relationships and explore the role of motivation, expectations, alternatives, dependency, power and attractiveness.

Attraction can be also thought as an alternative approach to manage relationship based on the creation of voluntary motivation and commitment between partners, which differs from the traditional approach of managing relations by power and control mechanisms (Cox, 1999; Wagner & Bode, 2014). This view is in line with the relationship marketing perspective, according to which non-economic factor, particularly interpersonal ones, contribute to govern relationships, in addition to economic drivers (Schiele et al., 2015; Kim & Choi, 2015). The traditional supply relationship management approach, as conceived by Transaction Cost Economic (Williamson, 1975), specifies how, in order to protect relational specific investments from opposite party's opportunistic behaviour, an actor needs to introduce various means of safeguards, including contracts, penalties and any form of coercive power to dominate the relational power balance (Cox, 2001). Relationship marketing considers the ability of human interactions to establish relational norms that act as governance mechanism and favour attraction. As a consequence attraction is ultimately able to support long-term relationships and to get the most from the collaborative partner, excluding, or at least limiting, opportunistic behaviour (Ellis et al, 2012).

As explained by social exchange theorists, attraction can be linked to other important behavioural concepts as trust, commitment, and value, which have become cornerstones in the purchasing and supply chain management literature. Jean et al. (2012) & Hüttinger et al. (2012), for example, argue that attraction is a prerequisite for developing trust and commitment and, as a matter of fact, the level of buyer-supplier attraction depends on disconfirmed vs. confirmed expectations.

### **The supply chain perspective on customer attractiveness**

Customer and supplier attractiveness are the two sides of attractiveness in any buyer-supplier relationship. Each side can be analysed according to different purposes: in a decision-making process, in order to select a counterpart for a specific relationship (external perspective) (e.g., Olsen & Ellram, 1997); to influence the other party's perception in order to increase the likelihood to be chosen among different alternatives (internal perspective) (e.g., Bonner & Calantone, 2005; Tanskanen & Aminoff, 2015). On one hand, the need to scan the level of supplier attractiveness from an external perspective is more common in the procurement literature, where it is defined as a collection of critical factors that make a company choosing a specific supplier (Pulles et al., 2014; Makkonen et al., 2016) and it is related to a vast field of literature, including for instance supplier selection (e.g. Choi & Hartley, 1996; ) and supplier portfolio management (e.g. Kraljic, 1983; Dubois & Pedersen, 2002; Wagner & Johnson, 2004; Gelderman & van Weele, 2005; Hespings & Schiele, 2015). According to this perspective, customer attractiveness depends on the perception of the potential value and duration of a specific relationship. Also several marketing researchers have been focusing on this issue as a segmentation criteria for customer portfolio analysis (e.g., Turnbull & Zolkiewski, 1997; Ritter & Andersen, 2014). On the other hand, according to the internal perspective, supplier attractiveness has been widely investigated by industrial marketing literature, stressing how important is for a firm the capability to influence the buyer attention toward the supplier, as it leads to profitable buyer/customer purchasing behaviours (Hüttinger et al., 2012).

Recently, the internal perspective of customer attractiveness has been on the top of researchers' agenda: scholars emphasize the importance for buyers to "sell" their firm to critical

suppliers (Krolkowski & Yuan, 2017). As a matter of fact, in the modern business context, for a buying firm it is getting increasingly important to become attractive, in order to secure satisfactory performance from suppliers (Christiansen & Maltz, 2002). Recently, many authors point out the relevance of customer attractiveness by arguing that suppliers will not improve processes or product technologies unless attraction is present (Schiele, 2012; Schiele et al., 2013; Tanskanen & Aminoff, 2015); in particular, attraction becomes a prerequisite for mobilizing suppliers' resources and developing trust and commitment (Schiele, 2012).

During the years, different authors have proposed several approaches for defining and measuring customer attractiveness in a supply chain relationships; Table 1 provides a summary of previous discussion on this.

Table 1. Approaches proposed for customer attractiveness measurement

Author	Customer attractiveness definition and measurement
<b>Fiocca (1982)</b>	Factors that describe customer attractiveness are: market factors, competition, financial and economic factors, technological factors and socio-political factors
<b>Harris et al. (2003)</b>	Describe attractiveness as made of three major drivers: economic, resource based, and socially based; the level of experienced "familiarity" and "similarity" influence the perception towards the other party
<b>Wilkinson et al. (2005)</b>	Partners are attractive to each other if they own skills and/or technologies the other lacks, but sufficient similarity is needed to mesh one's own operations with theirs; financial issues, organizational culture, strategic issues, technology issues, are indicators visible to other firms which affect the firm's perceived attractiveness
<b>Ellegaard (2006)</b>	Classify different levels of customer's distinguishing three relationship typologies: satisfying relationship, occurring when a customer is able to fulfil supplier's basic performance expectations in a short term; valuable relationship, occurring when the customer is perceived as strategic by the supplier in a long-term perspective; attractive relationship, occurring when a customer strengthens personal social relations with the supplier.
<b>Ellegaard &amp; Ritter (2007)</b>	Attractiveness is determined by three drivers: value creation, interaction process, and emotions. Value creation is measured on how much buying firm contributes to the supplier's value creation; interaction process defines trust and commitment as variables by which it is possible to measure attraction; emotions describe that very primitive, extremely fast, unconscious mechanisms controlling the individual response
<b>Mortensen et al. (2008)</b>	Propose a model to identify the proper level of attractiveness for a relationship depending on two dimensions: the maturity of the company and the complexity of the relationship
<b>Hald et al. (2009)</b>	Dyadic partner attraction and is determined by three major components: expected value, trust and dependence. The authors measure attractiveness by considering both customer and supplier's perspective according to each of the three dimensions.
<b>Schiele et al. (2012)</b>	Introduce customer attractiveness, has linked in a "cycle of preferred customership", together with supplier satisfaction and preferred customer status
<b>La Rocca et al. (2012)</b>	Measure customer attractiveness on the basis of development potential, intimacy, relational fit, and profitability.
<b>Huttinger et al. (2012)</b>	In reviewing literature on customer attractiveness, supplier satisfaction and preferred customer status, conceptualize attractiveness through market growth factors, risk factors, technological factors, economic factors, social factors

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<b>Mortensen &amp; Albjorg (2012)</b>	Divide attractiveness into three major drivers: economical attractiveness; resource-based attractiveness; and socially based attractiveness
<b>Kumar &amp; Routroy (2016)</b>	Describe attractiveness as made by several operational factors (level of interest, level of value/waste, level of confidence in transactions, level of commitment, level of responsiveness, level of mutual works, level of joint efforts and responsibilities, level of information exchange, level of customer requirements fulfilment, level of commonalities in operating conditions, level of certifications and accreditations, level of ethics and moral values)
<b>Pulles et al. (2016)</b>	Define customer attractiveness as a multi-dimensional construct, which finally affects preferential resource allocation (i.e. the extent to which a supplier is integrated in logistic and production process of a buying firm)

This set of studies clarifies that customer attractiveness is certainly a complex construct, which is hard to define: many aspects, such as trust and supplier involvement, can be considered antecedents rather than direct measures of customer attractiveness. Moreover, direct and indirect measures of customer attractiveness might be considered. Instead of directly asking to what extent a customer/supplier is perceived as attractive, items describing the strength of the relationship and/or the resources invested might reflect the level of attraction between parties.

### Empirical studies on customer attractiveness antecedents

The fundamental idea of customer attractiveness is to make the supplier follow the customer's wishes by indirectly influencing the actions of the supplier (Nollet et al., 2012); for this reason, several studies tried to explore its potential antecedents.

Ellegaard et al. (2003) emphasize the role played by the human factor. As many human emotions and feelings (e.g. trust, confidence and commitment) are acknowledged by academics as fundamental to establish and maintain a business relationship, attractiveness seems more often about interpersonal matters than about inter-organizational ones. Thus, the success with influencing suppliers by being attractive is expected to depend on supplier actors' perceptions. For this reason, social behavioural concepts, as feeling and emotions, have been adopted in the purchasing domain to increase the understanding of buyer-supplier relationships (e.g. Jain et al., 2014), and relational matters have been studied both as antecedents and consequences of attractiveness.

Sharma (2008) develops a conceptual framework to examine the role of customer attractiveness and the customer's commitment in driving the supplier perceptions of relationship value. In particular, the author shows that supplier's commitment increases supplier's perception of value creation, where customer attractiveness and customer's commitment have a moderating role.

Blonska et al. (2008) investigate the effects of preferential buyer treatment and "relational embeddedness" on the relationship. Buyer's investments to develop a supplier and some relational mediators - trust, commitment, and dependency - positively influence supplier's preferential judgment toward the buying firm. As a consequence, suppliers will more likely exploit buyer's relational investments according to buyer's expectation and excluding opportunistic behaviour.

Schiele et al. (2011) investigates the antecedents of supplier innovativeness and supplier pricing and explain how the preferred customer status positively influences supplier innovativeness and leads to a more benevolent pricing policy by the supplier. Beyond supplier's innovative capabilities and specialization, specific characteristics of the dyadic relationship, such as

supplier development programs, have a positive effect on the supplier's contribution to the buying firm's innovation.

This stream of research suggests that characteristics of the buyer-supplier relationship are as much important as the supplier's technical skills in explaining supplier innovativeness.

Huttinger et al. (2012) make a comprehensive literature review on the topic, discussing on the consequences of being perceived as an attractive customer, and its importance in a supply chain context. The literature review presented above clarifies that a customer perceived by a supplier as attractive receives a better resource allocation and a stronger level of commitment, which are able to improve relational performances.

According to Hald et al. (2009), this level of attraction depends on some supply relationship characteristics. Efforts dedicate to transfer knowledge to a supplier (i.e. supplier development programs), sharing of critical information and the integration of the partner in production and logistic processes are among the constructs considered.

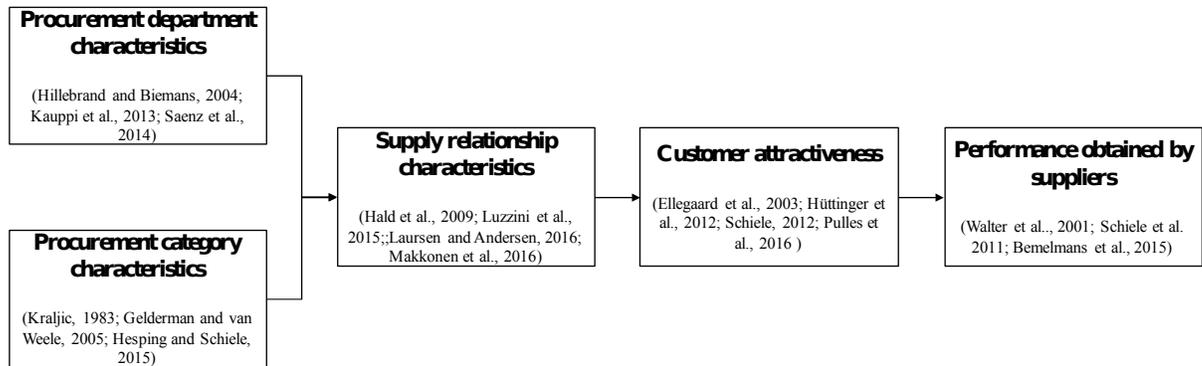
In addition, procurement department characteristics might be considered as antecedents of customer attractiveness as they certainly affect the way the supply relationship is managed (Yeniyurt et al., 2014). As some authors suggest, procurement organizational configuration, recognition among others departments, tools implemented, and procurement professionals' skills are strictly related to the successful management of supply relationship (Schiele et al., 2013; Bemelmans et al., 2015; Tanskanen & Aminoff, 2015).

Finally, procurement category features drive different supply management strategies and deployments, as testified by the wide literature on portfolio management (Kraljic, 1983; Olsen & Ellram, 1997; Gelderman & van Weele, 2005). Therefore, characteristics of the good/service purchased (such as the degree of technological uncertainty) might be considered as another set of possible antecedents (Huttinger et al., 2012).

## **RESEARCH FRAMEWORK AND HYPOTHESES**

The literature discussed previously allowed us to identify a wide set of potential antecedents of customer attractiveness in terms of procurement, category, and supply relationship characteristics. Based on previous literature review, we were able to build a preliminary research model shown in Figure 1.

Figure 1. Research model



**Effects of procurement department characteristics on supply relationship characteristics**

According to the concept of absorptive capacity (Cohen & Levinthal, 1990), a well-formed intra-unit communication network and a good communication climate and culture lead to improve employees’ ability to learn and consequently to an effective implementation of new ideas. A functional integration is essential to let information flow among different units (Cohen & Levinthal, 1990) and it is required to implement complex technologies (Aletan, 1991). In addition, an internal “climate of openness” (Nevis et al., 1995) is one of the most important factors facilitating organizational learning (Saenz et al., 2014). Based on these considerations, hypothesis 1 is formulated as follows:

H1. A higher level of internal communication positively influences procurement professionals’ knowledge

Pearson et al. (1996) and Hesping & Schiele (2015) point out that the access to critical information is a determinant of procurement status and recognition. Indeed, the information sharing from other function shows a greater support for purchasing activities. Based on these considerations, hypothesis 2 is formulated as follows:

*H2. A higher level of internal communication positively influences purchasing status*

According to several authors (e.g. Moller, 1994; Rothstein, 1995) an adequate level of employees’ knowledge and skills contribute to empower a department within the organization. Especially important is the development of technical competence of procurement professionals in order to get the most from interactions with technical personnel in team decision-making processes and increase purchasing recognition from others functions (Kauppi et al., 2013). Based on these considerations, hypothesis 3 is formulated as follows:

H3. A higher procurement knowledge positively influences procurement status

Burt & Soukup (1985) discuss the link between purchasing recognition and responsibilities assigned for NPD activities, while Hillebrand & Biemans (2004), Tracey (2004) and Thomas (2013) conclude that suppliers are more likely to be involved at early stages of NPD when procurement contributions are recognized by the top managers, and purchasing professionals are part of the development team. Similarly, Schiele (2010) links the possibility to involve

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supplier and procurement in NPD to the participation of procurement professionals into strategic planning processes. Based on these considerations, hypothesis 4 is formulated as follows:

H4. A higher procurement status positively influences supplier involvement efforts

### **Effects of procurement category technological uncertainty on the supply relationship characteristics**

Robertson et al. (1986) and Cassiman et al. (2002) clarify that technological uncertainty should be reduced, firstly, through the definition of a structured innovation strategy. We also expect, building on portfolio literature (e.g. Ferreira et al., 2015), that the more a category is considered strategic, the more innovation will be a competitive priority for that category. Based on these considerations, hypothesis 5 is formulated as follows:

*H5. A higher level of procurement category technological uncertainty positively influences the emphasis on category innovation objectives*

When innovation is considered a competitive priority for a given procurement category, it will lead to look for higher integration with suppliers (Teece 2010; Laursen & Andersen, 2016). Firms will try to optimize their capability to involve suppliers in innovation programs and, consequently, innovate their final products by leveraging on suppliers specialized capabilities and know-how (e.g. Schilling, 2008; van Echtelt et al. 2008; Luzzini et al., 2015). Emphasizing category innovation objectives and supplier's capabilities to innovate increase supplier's contribution in originating process and product improvement (Schiele, 2012; Jean et al., 2014; Wagner & Bode, 2014). Based on these considerations, hypothesis 6 is formulated as follows:

H6. A higher emphasis on category innovation objectives positively influences supplier involvement efforts

### **Effects of supply relationships characteristics on customer attractiveness**

Relational specific investments reflect a commitment and long-term orientation (Shiele & Vos, 2015). For investigating the relationship between supply relationship characteristics and customer attractiveness, we used the lens of the Transaction Cost Economics (TCE) theory. Transaction costs are mentioned by Williamson (1975) as "the costs that attend completing transactions by one institutional mode rather than another". In other words, transaction costs are all the costs that occur during any exchange between firms in a marketplace (Luzzini et al., 2012); based on the Williamson's definition, transaction costs pertain to the cost of doing business with suppliers (Walker & Poppo, 1991). The TCE would identify three main elements that could impact on costs, namely asset specificity, uncertainty and frequency of transaction (Williamson, 1995). Thereby, according to TCE, idiosyncratic investments increase switching costs and mutual dependency (Barney & Ouchi, 1986). As a consequence, we expect that the more customers invest in the relationship the more customer attractiveness will increase (Hald et al., 2009; Schiele, 2012).

In particular, Vollman & Cordon (2002) also argue that "what makes customer attractive to a supplier – over the long run – is learning". According to this perspective, supplier development programs or its integration in order fulfilment and new product development represent opportunities for a supplier to increase its own knowledge (Nagati & Rebolledo, 2013). This is link to the concept of TCE, that mentioned prior knowledge as an element impacting on the

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transaction costs (Pisano, 1990). Based on these considerations, the hypotheses 7 and 8 are formulated:

*H7. A higher level of supplier integration positively influences supplier's perception of customer attractiveness*

*H8. A higher level of supplier involvement positively influences supplier's perception of customer attractiveness*

Generally speaking, we also know that trust plays an important role in successful relationship (Morgan & Hunt, 1994; Wilson, 1995; Baxter, 2012). Trust is also presented as an element to mitigate transaction costs according to the TCE theory. The relationship between trust and attraction in buyer-supplier relationship emerges as a closed loop in the literature. On the one hand attraction might potentially generate trust and commitment (Dwyer et al., 1987; Ellegaard, 2012). On the other hand, trust is a fundamental condition to increase attraction (Hald et al., 2009). In short, the level of trust positively influences the value perceived by the supplier (Walter & Ritter, 2003; Jain et al., 2014), which is a major component of attraction (Hald et al., 2009; Pulles et al., 2016). Based on these consideration, hypothesis 9 is formulated as follows:

H9. A higher level of trust positively influences supplier's perception of customer attractiveness

### **Effects of customer attractiveness on category performance**

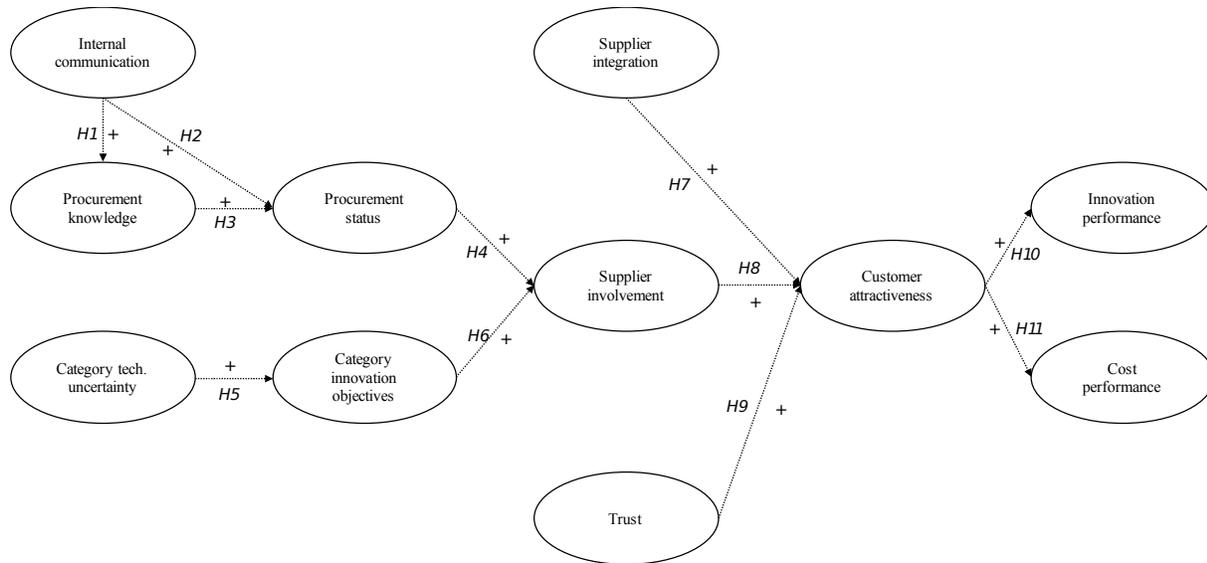
The value of customer attractiveness on several performances is discussed in literature (e.g., Nollet et al., 2012). The pursuit of being an attractive customer is expected to lead suppliers to improve processes and technologies which can be exploited according to customer's wishes (Ellegaard, 2012). Customer attractiveness has a positive effect on the innovation contribution of the supplier in a buyer-supplier relationship (Schiele et al., 2011; Luzzini et al., 2015). However, we also assume that a stronger innovation effort is not compromising cost performance ensured by suppliers. Indeed, the attracted supplier will reserve a more benevolent pricing method and will constantly be interested in aligning its own wishes with buyer's ones (Christiansen & Maltz, 2000; Schiele et al., 2011; Bemelmans et al., 2015). Based on these considerations, hypotheses 10 and 11 are formulated as follows:

*H10. A higher level of customer attractiveness positively influences the category innovation performance*

*H11. A higher level of customer attractiveness positively influences the category cost performance*

The overall research framework is reported in Figure 2.

Figure 2. Research framework



**METHODOLOGY**

**Sample**

To investigate our research questions, we use the data collected by the International Procurement Survey (IPS) (Knoppen et al., 2010). IPS is a project that was started in 2007 by a group of researchers from Europe and North America who wished to design and administer an international survey designed to investigate how companies define their procurement strategies, what their procurement skills and capabilities are, how the procurement activities are conducted and what effect the procurement activities exert on procurement and firm performance. In this project, a relevant part of the survey does not address the procurement activity of the company as a whole but instead asks each respondent to focus on a single procurement category of his/her choice to provide more precise and consistent answers. Therefore, this project is well-suited to investigate our research questions because the unit of analysis is the single procurement category.

All of the research partners collected data during 2009 in their own countries while using the same multi-language web platform; the survey was originally designed in English and subsequently translated according to a standard procedure (TRAPD, Harkness et al., 2002). Before administering the survey, the questionnaire was tested in several countries with procurement professionals to check the clarity of the questions. The respondents consisted of highly qualified procurement professionals who had played important roles in the procurement functions of their firms. These individuals were selected by collaborating with the procurement professionals' national associations, which had provided the lists of their members who had been personally contacted by the local research group. After the data collection process, each country cleaned its own data in accordance with a common agreement to build a shared international database.

The total sample contains 681 companies from 10 countries. However, only 524 companies provided sufficient information to test the hypotheses stated above: the section 5 (Data analysis) explains how we selected observations (Table 2). The targeted companies vary in size and are

mostly from the manufacturing sector, although other industries are represented as well. Non-respondent bias was tested for by identifying the differences between the first wave of respondents, and the later waves (the ANOVA shows no significant differences in terms of company size and sectors distribution). The average response rate was 10%.

Knoppen et al. (2010 and 2011) provided a detailed description of the project and demonstrated that, although the data were collected in slightly different ways in each country (e.g., different methods of contacting respondents and different languages), the responses and constructs were consistent and reliable. Thus, the entire database may be used together.

**Measures**

To measure latent variables included in the research framework we considered the extant literature and we operationalised a set of eleven constructs. For each construct, we identified several items derived from the literature that needed to be adapted to the survey’s questions. The constructs we measured are described in Table 1 whereas the indicators used are detailed in Table 3.

Table 2. Measures

<b>First-order construct</b>	<b>Description</b>	<b>References</b>
<b>Internal communication</b>	Scope and strength of structural connections that bring flows of information and knowledge to different organizational units. Atmosphere within the organization that defines accepted communication behaviour	Cohen & Levinthal (1990); Nevis et al. (1995); Roth et al. (1994); Goldhar & Lei (1994), Tasi (2001)
<b>Procurement status</b>	The actual and formal recognition of the procurement department strategic role within the buying firm	Pearson et al. (1996); Carter & Narasimhan (1996); Carr & Smeltzer (1997); Mol (2003); Cousins et al. (2006); González-Benito (2010)
<b>Procurement knowledge</b>	The procurement managers’ technical and managerial knowledge	Carter & Narasimhan (1996); Carr & Smeltzer (1997); Tu et al. (2006); Zheng et al. (2007); Bals et al. (2009)
<b>Category technological uncertainty</b>	Rate of change in technology & newness of the products for the buying firm	Song and Montoya-Weiss (2001); Olsen and Ellram (1997); Kraljic (1983)
<b>Category innovation objectives</b>	The importance of increasing innovation & reducing time to market for the concerning category	Hayes & Wheelwright (1984); Ward et al. (1990); Lagacé (2003)
<b>Supplier involvement</b>	The extent to which supplier participate to critical process such as new product development and buying firm invests for supplier development	Clark (1989); Wasti&Liker (1997); Ragatz et al. (1997)
<b>Supplier integration</b>	The extent to which a supplier is integrated in logistic and production process of a buying firm	Galt & Dale (1991); Joshi & Stump (1999); Krause & Scannell (2002); Narasimhan et al. (2001)
<b>Trust</b>	A willingness to rely on an exchange partner in whom one has confidence	Moorman et al. (1993); Hald et al. (2009); Anderson & Narus, (1990)
<b>Customer attractiveness</b>	The customer’s characteristics which create supplier’s effort to establish and develop a relationship with a buying firm	Hald et al. (2009); Ellegaard & Ritter (2007); Amann et al. (2011); Schiele (2012)
<b>Innovation performance</b>	The extent to which the buying firm get innovation from suppliers of the given category	Ward et al. (1990); Lagacé (2003)

<b>Cost performance</b>	The extent to which the buying firm get cost reduction performance from suppliers of the given category	Clark (1989); Hartley et al. (1997)
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**DATA ANALYSIS**

Before going on with data analysis, we selected observations useful to test our research model. In particular, starting from a sample of 681 records, we excluded firms not performing at all supplier involvement into NPD, supplier integration into the order cycle, and supplier development, necessary to test the model. As a result, the sample considered includes 524 firms (Table 3) from 10 countries and mostly from the manufacturing sector.

Next, we performed some tests to assess common method bias. Given that we relied on a single respondent design, we controlled for common method bias in two ways: through the procedure of the study and through statistical control (Podsakoff et al., 2003). Regarding the survey, the research project was labelled as a comprehensive overview of procurement strategies and practices, therefore no explicit reference to customer attractiveness or its effect on innovation performance was evident. Thus, respondents' attention was not drawn to the relationships being targeted in this study. Moreover, questions were organized in an order that separated category characteristics from strategies and practices as well as from performance to prevent respondents from developing their own theories about possible cause-effect relationships. Furthermore, the questionnaire was carefully created and pretested and respondents were assured of strict confidentiality. As a second mean to ensure against common method bias, we performed Harman's single-factor test (Podsakoff et al., 2003), obtaining a 22% variance associated to a single factor for category characteristics and category strategy respectively. Overall, this ensures data analysis is not excessively affected by common method bias.

The presented hypotheses were tested using maximum likelihood (ML) estimation method (Arbuckle, 2009). Most structural equation models (SEM) described in the literature are analyzed with this methodology. The hypothesized model was tested statistically in a simultaneous analysis of the entire system of variables to determine the extent to which it is consistent with the data. As long as the goodness-of-fit is adequate, the model argues for the plausibility of postulated relations among variables. The research model is analyzed and interpreted sequentially in two stages: first the assessment of the reliability and validity of the measurement model and secondly the assessment of the structural model (Anderson & Gerbing, 1988; Hulland, 1999). The program Amos v.18 was used to estimate both the measurement model and the structural model. The ML algorithm was used to obtain the paths, the loadings, the weights and the quality criteria.

Table 3. Sample descriptives

	Descriptive	Frequency	Percentage
<i>Country</i>			
	Italy	46	8.8%
	Netherlands	39	7.4%
	United Kingdom	66	12.6%
	Germany	48	9.2%

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	Spain	44	8.4%
	Sweden	115	21.9%
	Finland	30	5.7%
	United States	59	11.3%
	Canada	43	8.2%
	France	34	6.5%
	<i>Sales (mln €)</i>		
	< 50	91	17.4%
	< 100	60	11.5%
	< 200	56	10.7%
	< 500	92	17.6%
	< 1000	65	12.4%
	>= 1000	120	22.9%
	Missing	40	7.6%
	<i>Sector</i>		
	Manufacturing	343	65.5%
	Transportation, storage and communication	29	5.5%
	Wholesale and retail trade	28	5.3%
	Other	26	5.0%
	Construction	23	4.4%
	Electricity, gas, and water supply	13	2.5%
	Professional and administrative services	13	2.5%
	Human health and social work activities	10	1.9%
	Financial services	9	1.7%
	Public administration and defense	8	1.5%
	Agriculture, forestry, fishing, and mining	7	1.3%
	Hotels and restaurants	5	1.0%
	Arts, entertainment and recreation	4	0.8%
	Missing	6	1.1%
	<i>Respondent position</i>		
	CPO, VP of procurement	70	13.4%
	Procurement director	115	21.9%
	Procurement manager	238	45.4%
	Senior, Project buyer	44	8.4%
	Buyer, Procurement agent	28	5.3%
	Other	28	5.3%
	Missing	1	0.2%
	 <b>Total</b>	 <b>524</b>	 <b>100%</b>

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**RESULTS**

**Measurement model**

Table 3 shows the results of confirmatory factor analysis (CFA). All of the model fit indicators were found to be satisfactory ( $\chi^2=851.554$ ;  $\chi^2/d.f.=1.944$ ; RMSEA=.042; NFI=.8587; RFI=.856; IFI=.942; CFI=.941). The factors reliability, as measured by the Cronbach's alpha and Composite Reliability (CR, Fornell & Larcker, 1981) was fully satisfactory (Nunnally, 1994). Additionally, convergent validity was assessed through significant loadings from all scale items on the hypothesized constructs, and through the Average Variance Extracted (AVE, Anderson & Gerbing 1988): AVE ranges between 45 and 72%.

Table 4. Resulting measurement model

First-order construct	Indicators	Loading	CR	AVE
Internal communication	To what extent do procurement supervisors and subordinates communicate in your organization?	0.665	0.869	0.527
	To what extent are new ideas from the procurement department communicated to other departments?	0.727		
	To what extent are employees supportive of each other?	0.776		
	To what extent do employees have a sense of belonging to your organization?	0.744		
	To what extent do employees share ideas freely with each other?	0.801		
	To what extent are employees willing to accept changes?	0.627		
Procurement status	Top management is supportive of efforts to improve the procurement department	0.755	0.862	0.678
	Procurement's views are considered important by most top managers	0.887		
	Procurement is recognized as an equal partner with other functions of the top management team	0.823		
Procurement knowledge	The knowledge of procurement manager(s) when making business decisions	0.8	0.840	0.569
	The knowledge of procurement manager(s) when dealing with new technologies	0.737		
	The knowledge of procurement manager(s) when managing daily operations	0.725		
	The knowledge of procurement manager(s) when dealing with human issues	0.754		
Category technological uncertainty	The extent to which technologies in this category are new to your firm	0.801	0.807	0.519
	The extent to which technologies change in this category	0.644		
Category	The extent to which products/services are new to your firm	0.837	0.836	0.722
	Improving time-to-market with suppliers	0.720		

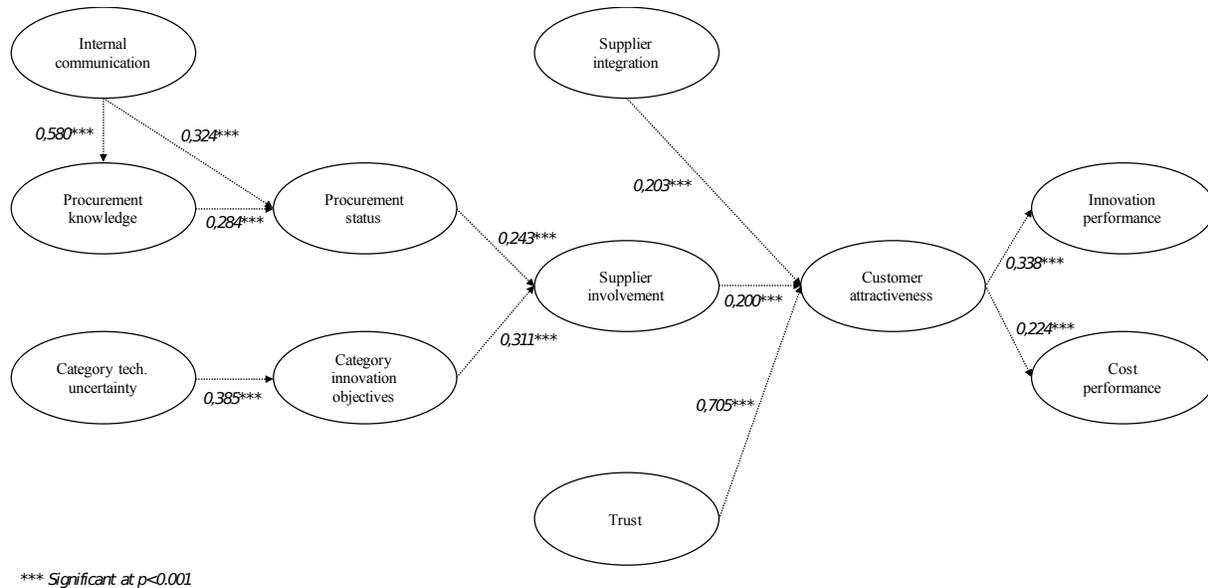
**Attraction in industrial relationships: the strategic relevance of customer attractiveness to improve supply chain performance**

innovation objectives	Improving introduction rates of new/improved products/services	0.963	0.875	0.702
	Supplier development	0.806		
Supplier involvement	Supplier involvement into NPD	0.907	0.714	0.556
	Supplier integration in order fulfillment	0.796		
Supplier integration	Electronic invoicing and automated payment	0.755	0.748	0.511
	Electronic data exchange (EDI, XML, web-EDI) with suppliers	0.736		
Trust	Long term contracts	0.466	0.773	0.534
	Share inventory level knowledge with suppliers	0.855		
	Share production planning and/or demand forecast information with suppliers	0.765		
Customer attractiveness	Dedicated capacity from suppliers	0.666	0.660	0.502
	Vendor (supplier) managed inventory	0.724		
	Joint planning and replenishment with suppliers	0.796		
Category cost performance	The procurement price	0.563	0.622	0.453
	The cost of managing the procurement process	0.829		
Category innovation performance	The supplier time-to-market for new or improved product/services	0.725	0.617	
	The level of innovation in products/service from suppliers	0.617		

**Structural model**

The postulated path model produced a sufficient fit to the data ( $\chi^2=1075.613$ ;  $\chi^2/d.f.=2.260$ ; RMSEA=.049; NFI=.858; RFI=.832; IFI=.915; CFI=.914). Figure 3 shows the results of the hypotheses testing. All the standardized effects are positive and highly significant.

Figure 3: Resulting structural model



## DISCUSSION

All the formulated hypotheses have been confirmed. First of all, we were able to demonstrate that customer attractiveness positively affects the buying firm performance related to a given procurement category, in terms of both innovation and cost. This result is interesting to discuss how the strategy at the function level (in this case, the procurement department) might influence the overall company's strategy (Hesping & Schiele, 2015). This result would determine also the impact on company strategic performance: in particular, this is true not only in terms of innovation outcome from the supplier (e.g. Brush, 2014) but also in terms of costs (Kim & Choi, 2015). We can therefore conclude that customer attractiveness seems to produce win-win outcomes for the dyad, as the buying firm is able to leverage on its suppliers' technological skills in order to innovate, without neglecting procurement prices or being afraid of non-benevolent pricing policies in the long run. As a matter of fact, innovation is not only dealing with launching new/better products and services on the market but also with making the production process more efficient, therefore it is not necessarily increasing costs, thus solving a debated supply chain trade – off (Carr & Person, 2002; Lawson et al., 2015).

Moreover, we were able to determine three direct antecedents of customer attractiveness related to the way the buyer-supplier relation is managed, respectively: 1) supplier integration; 2) supplier involvement; 3) trust. This result support previous studies on drivers of industrial relationships, to be considered for improving the customer attractiveness of the focal company (e.g. Baxter, 2012; Huttinger et al., 2012; Wong et al., 2013). The first antecedent concerns the supplier integration into supply activities through electronic tools. This result would confirm literature addressing the relevance of integration between buyer and supplier to increase the value of the relationship as well as the attractiveness of customers (Schiele et al., 2011), and also demonstrate that an integration through electronic tool is not realized just for efficiency reasons but also to improve the relationship along the supply chain, thus improving also the

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effectiveness as well as the innovation along the chain. The second antecedent concerns the supplier involvement into development as well as procurement activities. Past and recent literature is rich in presenting the value of integration of both buyer and supplier into new product development and procurement activities (e.g. Handfield et al., 2007; Yan & Nair, 2015; Luzzini et al., 2015), showing the value of anticipating constraints as well as sharing different knowledge and different experience. This paper illustrates an additional value of supplier involvement, discussing also the impact on cost, a performance often neglected in literature. Finally, the third antecedent pertains to the level of trust: the higher the level of trust between supplier and customer, the more the customer is likely to become attractive. This result is new from literature perspective, because trust is often presented in literature as a key variable for managing the relationship, but the direct link with the customer attractiveness is not clearly shown (Smeltzer, 1997; Poppo et al., 2015). These antecedents are relevant also to illustrate a new area of application of the TCE theory; as a matter of fact, the highest level of involvement, integration and trust are key elements not only to reduce the transaction costs but also to enhance customer attractiveness, with potential high value in terms of both innovation and costs (Dwyer et al., 1987; Schiele et al., 2015). The identification of the main antecedents is a value because, as a consequence, companies might better understand which can be actions to put in place in order appear more attractive, thus improving overall performance of the chain. This result would show an implication of the TCE theory with the supplier perspective, understanding which are the levers to put in place to enhance and foster the attractiveness of its customer. In order to better investigate the antecedents, we focus our analysis on antecedents of supplier involvement, which can be considered indirect antecedents of attractiveness. In this vein, two slightly different antecedents were identified, related to the organization of procurement department and to the features of procurement categories. As far as the procurement department is concerned, we were able to show that greater procurement managers' skills and capabilities, the higher is the status within the firm (i.e. its recognition by other departments) which in turn enables supplier involvement (Mortensen & Arlbjørn, 2012); so, with procurement being the primary interface with the supply network, its formal recognition in the firm's organisation chart might pave the way to successful supplier involvement. This is a key point for companies, that are often use to neglect the pivotal role of procurement for company success and also for the achievement of better performance of the whole supply chain. This result shed also some new light on the literature about organizational choices in procurement and company performance, by illustrating a new important benefit achieved through the adoption of a strategic procurement department (Zheng et al., 2007). Finally, an organisational climate favouring information exchange positively influences both procurement knowledge and procurement status: top managers have therefore an indication of positive effects that can stem from a fertile organisation and thereby having a clear understanding of the strategic role of procurement in the overall company strategy (Adobor & McMullen, 2014).

As far as procurement managers are concerned, we also conclude that supplier involvement is particularly consistent for categories requiring a high degree of innovation, which is generally associated with technological uncertainty of such categories. This result would reinforce the necessity to consider the category perspective in managing procurement (e.g. Gelderman & van Weele, 2005) especially when effective performance – such as innovation – should be achieved because it is the strategy defined at the category level that would enhance the achievement of the overall supply chain strategy. This confirms an intuitive conclusion: from the buyer perspective, being a preferred customer is particularly strategic in the case of goods and

services that account for a great share of the procurement budget and/or are subject to relevant technological turbulence.

## **CONCLUSIONS**

This paper aims to investigate the impact of customer attractiveness on performance (innovation and cost) and assess the impact of supplier relationships on customer attractiveness. Customer attractiveness is presented as a key element to foster industrial relationships and better achieving the desired goal in terms of performance. The paper addresses also the key role of three main antecedents to customer attractiveness, respectively supplier integration, supplier involvement and trust. Moreover, the paper investigates the antecedents of supplier involvement (one of the most debated antecedents of customer attractiveness) showing the impact of procurement status and category innovation objectives on supplier involvement.

From a theoretical perspective, this study sheds light on the construct of customer attractiveness as a key variable to manage buyer-supplier relationship, as often addressed in the past (e.g. Schiele et al., 2011). In particular, possible indirect measures of customer attractiveness are proposed, in line with past approaches (e.g. La Rocca et al., 2012). This measure has the disadvantage not to directly assess suppliers' perception by explicitly asking about the level of customer attractiveness, despite having the advantage to avoid social desirability biases that might come in place when asking buyers and suppliers about the quality of their relationship. Furthermore, we were also able to show that customer attractiveness is not only related to innovation performance but also positively affects costs offered by suppliers to buyers (Ellram, 1996). However, the main contribution of the study is the identification of several antecedents of customer attractiveness, both direct and indirect. Direct antecedents relate to the characteristic of the supply relationship the buying firm put in place, whereas indirect antecedents reflect procurement function's as well as procurement category characteristics. An additional contribution of the paper pertains to the discussion of the results under the light of the TCE theory, illustrating a new area of investigation of this theory.

On the other hand, results are relevant also from a managerial perspective. This study supports procurement managers in deciding in which cases and how their firm might become attractive for strategic suppliers, illustrating the levers to put in place, the antecedents to consider and the potential value obtainable. We do not only identify the direction the buyer-supplier relation should take but we also show what are the levers that allow effective supplier involvement (Makkonen et al., 2016).

Further research could be identified as well. Investigation on either specific industry or specific countries could be performed to address whether significant differences would appear in different areas of investigation.

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**REFERENCES**

- Adobor, H., & McMullen, R. S. (2014). Strategic purchasing and supplier partnerships—The role of a third-party organization. *Journal of Purchasing and Supply Management*, 20(4), 263-272.
- Aletan, S., (1991). The Components of a Successful CIM Implementation. *Industrial Engineering*, 23(11), pp.2-22.
- Anderson, J.C. & Narus, J.A., (1990). A model of distributor firm and manufacturer firm working partnerships. *the Journal of Marketing*, 54(1), pp.42–58.
- Aydogdu, G., (2009). Attraction in Business Relationships from the Perspective of Suppliers. Thesis, pp.1-64.
- Badaracco, J., (1991). *The knowledge link: How firms compete through strategic alliances*, Boston, Massachusetts: Harvard Business Press.
- Bals, L., Hartmann, E. and Ritter, T., (2009). Barriers of purchasing departments' involvement in marketing service procurement. *Industrial Marketing Management*, 38(8), pp.892-902.
- Barney, J.B., Ouchi, W.G. & Mundial, B., (1986). *Organizational economics*, San Francisco, CA: Jossey-Bass, Publishers.
- Bemelmans, J., Voordijk, H., Vos, B., & Dewulf, G. (2015). Antecedents and benefits of obtaining preferred customer status: Experiences from the Dutch construction industry. *International journal of operations & production management*, 35(2), 178-200.
- Bew, R., (2007). The New Customer of Choice Imperative: Ensuring Supply Availability, Productivity Gains, and Supplier Innovation. In *The 92d Annual International Supply Management Conference*. pp. 1-4.
- Blonska, A., Rozemeijer, F. & Wetzels, M., (2008). The Influence of Supplier Development on Gaining a Preferential Buyer Status, Supplier Adaptation and Supplier Relational Embeddedness. In *The 24th IMP Conference*. pp. 1-19.
- Bonner, J.M. & Calantone, R.J., (2005). Buyer attentiveness in buyer- supplier relationships. *Industrial Marketing Management*, 34(1), pp.53-61.
- Brush, G. J. (2014). *Perspectives on Supplier Innovation: Theories, Concepts and Empirical Insights on Open Innovation and the Integration of Suppliers*, Series on Technology Management (Vol. 18), by Alexander Brem and Joe Tidd (eds.) Imperial College Press, 2012.
- Burt, D.N. & Soukup, W.R., (1985). Purchasing's role in new product development. *Harvard Business Review*, 63(5), pp.90–97.
- Cabral, J.E.O. & Traill, W.B., (2001). Determinants of a firm's likelihood to innovate and intensity of innovation in the Brazilian food industry. *Journal on Chain and Network Science*, 1(1), pp.33-48.
- Carr, A. & Smeltzer, L.R., (1997). An empirically based operational definition of strategic purchasing. *European Journal of Purchasing and Supply Management*, 3(4), pp.199-207.

- 
- Carr, A.S. & Pearson, J.N., (2002). The impact of purchasing and supplier involvement on strategic purchasing and its impact on firm's performance. *International Journal of Operations and Production Management*, 22(9), pp.1032-1053.
- Carter, J.R. & Narasimhan, R., (1996). Purchasing and supply management: future directions and trends. *Journal of Supply Chain Management*, 32(4), pp.2-12.
- Cassiman, B., Veugelers, R. & Research, C.E.P., (2002). Complementarity in the innovation strategy: internal RandD, external technology acquisition and cooperation. Discussion Paper Series - Center For Economic Policy Research London.
- Choi, T.Y. & Hartley, J.L, (1996). An exploration of supplier selection practices across the supply chain. *Journal of Operations Management*, 14(4), pp.333-343.
- Christiansen, P.E. & Maltz, A., (2002). Becoming an "interesting" customer: Procurement strategies for buyers without leverage. *International Journal of Logistics: Research and Applications*, 5(2), pp.177-195.
- Clark, K.B., (1989). Project scope and project performance: the effect of parts strategy and supplier involvement on product development. *Management science*, 35(10), pp.1247-1263.
- Cohen, W. & Levinthal, D.A., (1990). Absorptive capacity: a new perspective on innovation and learning. *Administrative Science Quarterly*, 35(1), pp.128-152.
- Cordon, C., Vollmann, T.E. & Hald, K.S., (2005). Managing attraction in customer -supplier partnerships. IMD International.
- Cousins, P.D., Lawson, B. & Squire, B., (2006). An empirical taxonomy of purchasing functions. *International Journal of Operations and Production Management*, 26(7), pp.775-794.
- Cox, A., (1999). Power, value and supply chain management. *Supply Chain Management: An International Journal*, 4(4), pp.167-175.
- Cox, A., (2001). Understanding Buyer and Supplier Power: A Framework for Procurement and Supply Competence. *The Journal of Supply Chain Management*, 37(2), pp.8-15.
- Croom, S., (2001). The dyadic capabilities concept: examining the processes of key supplier involvement in collaborative product development. *European Journal of Purchasing and Supply Management*, 7(1), pp.29-37.
- Deshpandé, R., (1993). Corporate culture, customer orientation, and innovativeness in Japanese firms: a quadrad analysis. *The Journal of Marketing*, 57(1), pp.23-37.
- Dowlatshahi, S., (1998). Implementing early supplier involvement: a conceptual framework. *International Journal of Operations and Production Management*, 18(2), pp.143-167.
- Dubois, A. & Pedersen, A.C., (2002). Why relationships do not fit into purchasing portfolio models—a comparison between the portfolio and industrial network approaches. *European Journal of Purchasing and Supply Management*, 8(1), pp.35-42.
- Dwyer, F.R., Schurr, P.H. & Oh, S., (1987). Developing Buyer-Seller Relationships. *Journal of Marketing*, 51(2), pp.11-27.

- 
- Ellegaard, C., Johansen, J. & Drejer, A., (2003). Managing industrial buyer-supplier relations – the case for attractiveness. *Integrated Manufacturing Systems*, 14(4), pp.346-356.
- Ellegaard, C. (2012). Interpersonal attraction in buyer–supplier relationships: A cyclical model rooted in social psychology. *Industrial Marketing Management*, 41(8), 1219-1227.
- Ellram, L.M., (1990). The supplier selection decision in strategic partnerships. *Journal of Purchasing and materials Management*, 26(4), pp.8–14.
- Ellram, L.M., (1996). A structured method for applying purchasing cost management tools. *The Journal of Supply Chain Management*, 32(1), pp.11-19.
- Emerson, R.M., (1962). Power-Dependence Relations. *American Sociological Review*, 27(1), p.31.
- Ferreira, L. M. D., Arantes, A., & Kharlamov, A. A. (2015). Development of a purchasing portfolio model for the construction industry: an empirical study. *Production Planning & Control*, 26(5), 377-392.
- Fiocca, R., (1982). Account portfolio analysis for strategy development. *Industrial Marketing Management*, 11(1), pp.53–62.
- Ford, D., (1980). The Development of Buyer-Seller Relationships in Industrial Markets. *European Journal of Marketing*, 14(5/6), pp.339-353.
- Galt, J. & Dale, B., (1991). Supplier development: a British case study. *International Journal of Purchasing and Materials Management*, 27(1), pp.16–22.
- Ganesan, S. & Hess, R., (1997). Dimensions and levels of trust: implications for commitment to a relationship. *Marketing Letters*, 8(4), pp.439–448.
- Gelderman, C.J. & van Weele, A.J., (2005). Purchasing Portfolio Models: A Critique and Update. *The Journal of Supply Chain Management*, 41(3), pp.19-28.
- George, P., (1987). The Economic Institutions of Capitalism: Firms, Markets, Relational Contracting by Oliver E. Williamson. *The Canadian Journal of Economics/Revue*, 20(2), pp.442-444.
- Goldhar, J.D. & Lei, D., (1994). Organizing and managing the CIM/FMS firm for maximum competitive advantage. *International Journal of Technology Management*, 9, 5(6), pp.709–732.
- Gonzalez-Benito, J., (2007). A theory of purchasing's contribution to business performance. *Journal of Operations Management*, 25(4), pp.901–917.
- Hakansson, H. & Eriksson, A.K., (1993). Getting Innovations Out of the Supplier Networks. *Journal of business-to-business marketing*, 1(3), pp.3–34.
- Hald, K.S., Cordón, C. & Vollmann, T.E., (2009). Towards an understanding of attraction in buyer–supplier relationships. *Industrial Marketing Management*, 38(8), pp.960-970.
- Harris, L.C., O'mally, L. & Petterson, M., (2003). Professional interaction: Exploring the concept of attraction. *Marketing theory*, 3(1), pp.27-32.

- Hartley, J.L., Meredith, J.R., McCutcheon, D. & Kamath, E.R., (1997). Suppliers' contributions to product development: an exploratory study. *IEEE Transactions on Engineering Management*, 44(3), pp.258-267.
- Hesping, F. H., & Schiele, H. (2015). Purchasing strategy development: A multi-level review. *Journal of purchasing and supply management*, 21(2), 138-150.
- Hillebrand, B. & Biemans, W.G., (2004). Links between Internal and External Cooperation in Product Development: An Exploratory Study. *Journal of Marketing*, 21(2), pp.110-122.
- Homans, G.C., (1973). *Social behaviour: Its elementary forms*, Taylor and Francis.
- Hüttinger, L., Schiele, H., & Veldman, J. (2012). The drivers of customer attractiveness, supplier satisfaction and preferred customer status: A literature review. *Industrial Marketing Management*, 41(8), 1194-1205.
- Jain, M., Khalil, S., Johnston, W. J., & Cheng, J. M. S. (2014). The performance implications of power–trust relationship: The moderating role of commitment in the supplier–retailer relationship. *Industrial Marketing Management*, 43(2), 312-321.
- Jap, S. & Ganesan, S., (2000). Control mechanisms and the relationship life cycle: Implications for safeguarding specific investments and developing commitment. *Journal of marketing research*, 37(2), pp.227-245.
- Jean, R. J., Sinkovics, R. R., & Hiebaum, T. P. (2014). The effects of supplier involvement and knowledge protection on product innovation in customer–supplier relationships: a study of global automotive suppliers in China. *Journal of Product Innovation Management*, 31(1), 98-113.
- Kauppi, K., Brandon-Jones, A., Ronchi, S., & van Raaij, E. M. (2013). Tools without skills: Exploring the moderating effect of absorptive capacity on the relationship between e-purchasing tools and category performance. *International Journal of Operations & Production Management*, 33(7), 828-857.
- Kelley, H.H. & Thibaut, J.W., (1978). *Interpersonal relations: A theory of interdependence*, New York: John Wiley and Sons Inc.
- Kettunen, O., Aminoff, A. & Kortelainen, K., (2009). Attractiveness in Buyer-Supplier Relationships: An Agenda for Empirical Research. In POMS 20th Annual Conference. pp. 1-16.
- Kim, Y., & Choi, T. Y. (2015). Deep, sticky, transient, and gracious: An expanded buyer–supplier relationship typology. *Journal of Supply Chain Management*, 51(3), 61-86.
- Kohli, A.K. & Jaworski, B.J., (1990). Market orientation: the construct, research propositions, and managerial implications. *The Journal of Marketing*, 54(2), pp.1–18.
- Kraljic, P., (1983). Purchasing must become supply management. *Harvard business review*, 61(5), pp.109–117.
- Krapfel, R.E., Salmond, D. & Spekman, R., (1991). A strategic approach to managing buyer-seller relationships. *European Journal of Marketing*, 25(9), pp.22–37
- Krolkowski, M., & Yuan, X. (2017). Friend or foe: Customer-supplier relationships and innovaton. *Journal of Business Research*, 78, 53-68..

- 
- Kumar, S., Routroy, S. (2016). Analysis of preferred customer enablers from supplier's perspective. *Business Process Management Journal*, 22(6), 1170-1191.
- La Rocca, A., Caruana, A. & Snehota, I., (2012). Measuring customer attractiveness. *Industrial Marketing Management*, 41(8), 1241-1248.
- Lagace, D., (2003). Linking manufacturing improvement programs to the competitive priorities of Canadian SMEs. *Technovation*, 23(8), pp.705-715.
- Lawson, B., Krause, D., & Potter, A. (2015). Improving supplier new product development performance: the role of supplier development. *Journal of Product Innovation Management*, 32(5), 777-792.
- Laursen, L. N., & Andersen, P. H. (2016). Supplier involvement in NPD: A quasi-experiment at Unilever. *Industrial Marketing Management*, 58, 162-171.
- Luzzini, D. & Ronchi, S., (2010). Organizing the purchasing department for innovation. *Operations Management Research*, 4(1-2), pp.14-27.
- Luzzini, D., Caniato, F., Ronchi, S., Spina, G., (2012). A transaction costs approach to purchasing portfolio management. *International Journal of Operations and Production Management* 32(9), pp. 1015-1042.
- Luzzini, D., Amann, M., Caniato, F., Essig, M., & Ronchi, S. (2015). The path of innovation: purchasing and supplier involvement into new product development. *Industrial Marketing Management*, 47, 109-120.
- Madhok, A. & Tallman, S.B., (1998). Resources , Value Transactions Through and Rents: Managing Interfirm Relationships Collaborative. *Organization Science*, 9(3), pp.326-339.
- Makkonen, H., Vuori, M., & Puranen, M. (2016). Buyer attractiveness as a catalyst for buyer-supplier relationship development. *Industrial Marketing Management*, 55, 156-168.
- Mayer, R.C., Davis, J.H. and Schoorman, F.D., (2011). An Integrative Model of Organizational Trust. *Management*, 20(3), pp.709-734.
- Menguc, B., Auh, S., & Yannopoulos, P. (2014). Customer and supplier involvement in design: The moderating role of incremental and radical innovation capability. *Journal of Product Innovation Management*, 31(2), 313-328.
- Mol, M., (2003). Purchasing's strategic relevance. *Journal of Purchasing and Supply Management*, 9(1), pp.43-50.
- Monnier, B., (2005). A new tool to evaluate suppliers ' level of innovation. In *The 14Th International Annual IPSERA Conference*. pp. 1147-1154.
- Moorman, C., Deshpande, R. & Zaltman, G., (1993). Factors affecting trust in market research relationships. *The Journal of Marketing*, 57(2), pp.81-101.
- Morgan, R.M. & Hunt, S.D., (1994). The Commitment-Trust Theory of Relationship Marketing. *Journal of Marketing*, 58(3), p.20.
- Mortensen, M.H., Freytag, P.V. & Arlbjørn, J.S., (2008). Attractiveness in supply chains: a process and maturity perspective. *International Journal of Physical Distribution and Logistics Management*, 38(10), pp.799-815.

- 
- Mortensen, M., & Arlbjørn, J. (2012). Inter-organisational supplier development: the case of customer attractiveness and strategic fit. *Supply Chain Management: An International Journal*, 17(2), 152-171.
- Møller, C., (1994). Employeehip: The Necessary Prerequisite for Empowerment: The Success or Failure of an Organization Is Not (only) the Manager's Responsibility. *Empowerment in Organizations*, 2(2), pp.4-13.
- Nagati, H., & Rebolledo, C. (2013). Supplier development efforts: The suppliers' point of view. *Industrial Marketing Management*, 42(2), 180-188.
- Narasimhan, R. & Das, A., (2001). The impact of purchasing integration and practices on manufacturing performance. *Journal of Operations Management*, 19(5), pp.593–609.
- Narver, J.C. & Slater, S.F., (1990). The Effect of a Market Orientation on Business Profitability. *Journal of Marketing*, 54(4), p.20.
- Nevis, E.C., DiBella, A.J. & Gould, J.M., (1995). Understanding organizations as learning systems. *Sloan Management Review*, 36(2), p.119.
- Nollet, J., Rebolledo, C. & Popel, V., (2012). Becoming a preferred customer one step at a time. *Industrial Marketing Management*, 41(8), 1186-1193.
- Noordewier, T.G., John, G. & Nevin, J.R., (1990). Performance outcomes of purchasing arrangements in industrial buyer-vendor relationships. *The Journal of Marketing*, 54(4), pp.80–93.
- Olsen, R. & Ellram, L., (1997). A portfolio approach to supplier relationships. *Industrial Marketing Management*, 26(2), pp.101-113.
- Pearson, J., (1999). A longitudinal study of the role of the purchasing function: toward team participation. *European Journal of Purchasing and Supply Management*, 5(2), pp.67-74.
- Pearson, J.N., Ellram, L.M. & Carter, C.R., (1996). Status and Recognition of the Purchasing Function in the Electronics Industry. *The Journal of Supply Chain Management*, 32(2), pp.30-36.
- Powell, W.W., Koput, K.W. & Smith-Doerr, L., (1996). Interorganizational collaboration and the locus of innovation: Networks of learning in biotechnology. *Administrative science quarterly*, 41(1), pp.116–145.
- Poppo, L., Zhou, K. Z., & Li, J. J. (2015). When can you trust “trust”? Calculative trust, relational trust, and supplier performance. *Strategic Management Journal*.
- Pulles, N. J., Veldman, J., & Schiele, H. (2014). Identifying innovative suppliers in business networks: An empirical study. *Industrial Marketing Management*, 43(3), 409-418.
- Pulles, N. J., Schiele, H., Veldman, J., & Hüttinger, L. (2016). The impact of customer attractiveness and supplier satisfaction on becoming a preferred customer. *Industrial marketing management*, 54, 129-140.
- Ragatz, G.L., Handfield, R.B. & Scannell, T.V., (1997). Success factors for integrating suppliers into new product development. *Journal of product innovation management*, 14(3), pp.190–202.

- 
- Rangan, V.K., Moriarty, R.T. & Swartz, G.S., (1992). Segmenting customers in mature industrial markets. *The Journal of Marketing*, 56(10), pp.72–82.
- Ritter, T., & Andersen, H. (2014). A relationship strategy perspective on relationship portfolios: Linking customer profitability, commitment, and growth potential to relationship strategy. *Industrial Marketing Management*, 43(6), 1005-1011.
- Robertson, T.S. & Gatignon, H., (1986). Competitive effects on technology diffusion. *The Journal of Marketing*, 50(3), pp.1–12.
- Roth, A.V. et al., 1994. The Knowledge Factory for accelerated learning practices. *Strategy & Leadership*, 22(3), pp.26-46.
- Rothstein, B.L.R., Griffin, M. and Starr, S., (1995). The Empowerment Effort that come done. *Harvard Business Review*, 73(1), pp.20-31.
- Saenz, M. J., Revilla, E., & Knoppen, D. (2014). Absorptive capacity in buyer–supplier relationships: empirical evidence of its mediating role. *Journal of Supply Chain Management*, 50(2), 18-40.
- Sako, M. & Helper, S., (1998). Determinants of trust in supplier relations: Evidence from the automotive industry in Japan and the United States. *Journal of Economic Behavior and Organization*, 34(3), pp.387-417.
- Schiele, H. (2006). How to distinguish innovative suppliers? Identifying innovative suppliers as new task for purchasing. *Industrial Marketing Management*, 35(8), pp.925-935.
- Schiele, H., (2010a). Early supplier integration: the dual role of purchasing in new product development. *RandD Management*, 40(2), pp.138-153.
- Schiele, H., Veldman, J. & Hüttinger, L., (2011). Supplier Innovativeness and Supplier Pricing: the Role of Preferred Customer Status. *International Journal of Innovation Management*, 15(01), p.1.
- Schiele, H. (2012). Accessing supplier innovation by being their preferred customer. *Research-Technology Management*, 55(1), 44-50.
- Schiele, H., Ellis, S. C., Eßig, M., Henke, J. W., & Kull, T. J. (2015). Managing supplier satisfaction: Social capital and resource dependence frameworks. *Australasian Marketing Journal (AMJ)*, 23(2), 132-138.
- Schiele, H., & Vos, F. G. (2015). Dependency on suppliers as a peril in the acquisition of innovations? The role of buyer attractiveness in mitigating potential negative dependency effects in buyer–supplier relations. *Australasian Marketing Journal (AMJ)*, 23(2), 139-147.
- Schilling, M., (2005). *Strategic management of technological innovation*. Tata McGraw-Hill Education.
- Schumacher, S.C. et al., 2008. Die 3 faktoren des einkaufs: einkauf und lieferanten strategisch positionieren, VCH.
- Sharma, N., (2008). Modelling the Moderating Effect of Customer Attractiveness and Relationship Commitment on Supplier's Perceptions of Value Realization. In *Promaco Conventions for the ANZAM 2008 Conference*. pp. 1-8.

- 
- Song, M. & Montoya-Weiss, M.M., (2001). The effect of perceived technological uncertainty on Japanese new product development. *Academy of Management Journal*, 44(1), pp.61–80.
- Smeltzer, L. R. (1997). The meaning and origin of trust in buyer-supplier relationships. *Journal of Supply Chain Management*, 33(4), 40-48.
- Spekman, R.E., (1998). Alliance management: a view from the past and a look to the future. *Journal of Management studies*, 35(6), pp.747–772.
- Steinle, C. & Schiele, H., (2008). Limits to global sourcing? Strategic consequences of dependency on international suppliers: Cluster theory, resource-based view and case studies. *Journal of Purchasing and Supply Management*, 14(1), pp.3–14.
- Tanskanen, K., & Aminoff, A. (2015). Buyer and supplier attractiveness in a strategic relationship —A dyadic multiple-case study. *Industrial Marketing Management*, 50, 128-141.
- Teece, D.J., (1988). Capturing value from technological innovation: Integration, strategic partnering, and licensing decisions. *Interfaces*, 18(3), pp.46–61.
- Teece, D.J., (2010). Business Models, Business Strategy and Innovation. *Long Range Planning*, 43(2-3), pp.172-194.
- Thibaut, J.W. & Kelley, H.H., (1959). *The social psychology of groups.*, New York: John Wiley and Sons Inc.
- Thomas, E. (2013). Supplier integration in new product development: Computer mediated communication, knowledge exchange and buyer performance. *Industrial Marketing Management*, 42(6), 890-899.
- Tracey, M., (2004). A Holistic Approach to New Product Development: New Insights. *The Journal of Supply Chain Management*, 40(4), pp.37-55.
- Tsai, W., (2001). Knowledge transfer in intraorganizational networks: Effects of network position and absorptive capacity on business unit innovation and performance. *Academy of management journal*, 44(5), pp.996–1004.
- Tu, Q., Vonderembse, M., Ragunathan, T. & Sharkey, T., (2006). Absorptive capacity: Enhancing the assimilation of time-based manufacturing practices. *Journal of Operations Management*, 24(5), pp.692-710.
- Ulaga, W., (2003). Capturing value creation in business relationships: A customer perspective. *Industrial Marketing Management*, 32(8), pp.677-693.
- Vollmann, T.E. & Cordon, C., (2002). The Next Game In Purchasing: Be The Most Attractive Customer To key Suppliers. *IMD International*, 86(1), pp.1-4.
- Wagner, S. & Johnson, J.L., (2004). Configuring and managing strategic supplier portfolios. *Industrial Marketing Management*, 33(8), pp.717-730.
- Wagner, S. M., & Bode, C. (2014). Supplier relationship-specific investments and the role of safeguards for supplier innovation sharing. *Journal of Operations Management*, 32(3), 65-78.
- Walker, G., & Poppo, L., (1991). Profit centers, single-source suppliers, and transaction costs. *Administrative science quarterly*, 66-87.

- 
- Walter, A, Ritter, T. & Gemünden, H.G., (2001). Value Creation in Buyer–Seller Relationships Theoretical Considerations and Empirical Results from a Supplier’s Perspective. *Industrial Marketing Management*, 30(4), pp.365-377.
- Walter, A. & Ritter, T., (2003). The influence of adaptations, trust, and commitment on value-creating functions of customer relationships. *Journal of Business and Industrial Marketing*, 18(4/5), pp.353-365.
- Ward, J.M., (1990). A portfolio approach to evaluating information systems investments and setting priorities. *Journal of Information Technology*, 5(4), pp.222–231.
- Wasti, S.N. & Liker, J.K., (1999). Collaborating with suppliers in product development: a US and Japan comparative study. *IEEE Transactions on Engineering Management*, 46(4), pp.444-460.
- Wheelwright, S.C. & Hayes, R.H., (1984). *Restoring our competitive edge: competing through manufacturing*, John Wiley and Sons Inc.
- Wilkinson, I., Young, L. & Freytag, P.V., (2005). Business mating: Who chooses and who gets chosen? *Industrial Marketing Management*, 34(7), pp.669-680.
- Williamson, O.E., (1975). *Markets & hierarchies: An analysis and antitrust Implications*, The Free Press.
- Wilson, D., (1995). An integrated model of buyer-seller relationships. *Journal of the academy of marketing science*, 23(4), pp.335–345.
- Wynstra, F. & Pierick, E. ten, (2000). Managing supplier involvement in new product development: a portfolio approach. *European Journal of Purchasing and Supply Management*, 6(1), pp.49-57.
- Wynstra, F., Van Weele, A. & Weggemann, M., (2001). Managing supplier involvement in product development: Three critical issues. *European Management Journal*, 19(2), pp.157–167.
- Yan, T., & Nair, A. (2015). Structuring Supplier Involvement in New Product Development: A China–US Study. *Decision Sciences*.
- Yeniyurt, S., Henke Jr, J. W., & Yalcinkaya, G. (2014). A longitudinal analysis of supplier involvement in buyers’ new product development: working relations, inter-dependence, co-innovation, and performance outcomes. *Journal of the Academy of Marketing Science*, 42(3), 291-308.
- Yorke, D.A. & Droussiotis, G., (1994). The Use of Customer Portfolio Theory. *Journal of Business and Industrial Marketing*, 9(3), pp.6-18.
- Zheng, J., James, K., Knight, L., Harland, C. & Humby, S., (2007). An analysis of research into the future of purchasing and supply management. *Journal of Purchasing and Supply Management*, 13(1), pp.69-83.
- Zhao, Y., Cavusgil, E., & Cavusgil, S. T. (2014). An investigation of the black-box supplier integration in new product development. *Journal of Business Research*, 67(6), 1058-1064.

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