How Buyer-Supplier Relationships Can Create Value – Integrating Strategy and Operations

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Abstract

The concept of competitive advantage in strategic management, following the resource-based logic, is recently evolving to a consensus that defines competitive advantage as superior value creation in relation to competition. Value creation is defined as the wedge between the willingness to pay of firm’s customers and the opportunity costs if its suppliers. This paper integrates this theoretical development with the literature of supply chain management and buyer-suppliers relationships in operations management, tapping into the large body of literature in the area. This integration leads to a more comprehensive and theoretically sound rationale for interpreting the impact on performance of both dyad members of collaborative relationships and supports new propositions of value creation and capture, including the role of trust in this process. The new theoretical approach also allows more rigorous operationalization of the related concepts and can be used for practical implications.

Keywords: Buyer-supplier relationship, value creation and appropriation, relational view

Introduction

The Operations Management and Supply Chain Management literatures suggest that supply chain management (SCM) and collaborative relationships are sources of competitive advantage and increased value to the firm and the chain as a whole.
Recently, there was an increase of empirical studies, published in the main journals of Operations (like Journal of Operations Management or International Journal of Operations and Production Management) showing evidences that cooperation between organizations can result in increased operational and firm performance.

The relational view of the strategy (DYER & SINGH, 1998) also considers the relationship as a potential source of superior performance. It states that there are four different sources of relational rents: 1. investments in relation specific assets, 2. substantial knowledge exchange, 3. complementary, but scarce resources and 4. lower transaction costs owing to more effective governance mechanisms, based on informal safeguards, such as trust and reputation.

On the other hand, the concept of competitive advantage has been widely discussed in the field of strategy, although it is still not clearly defined and is often confused with company performance. It has been associated with the company’s ability to overcome its competitors to provide solutions to customers, while optimizing their processes and resources to increase their margins (PETERAF & BARNEY, 2003; SIRMON, HITT, & IRELAND, 2007).

The concept of economic value creation is associated with the differences between the willingness to pay of its customers, price and costs of the firm and the opportunity cost of its suppliers. Brandenburger and Stuart (1996) propose that value created by the company can be defined as the difference between the willingness to pay of its customers and the opportunity cost of its suppliers. More recently this definition has been resumed to the difference between value to customers and costs of the firm (HOOPES; MADSEN & WALKER, 2003; PETERAF & BARNEY, 2003). Both the concept of willingness to pay and opportunity costs are subjective and are based on the
principle that every product or service has a perceived value (use value) and an effective value for the transaction (exchange value) (BOWMAN & AMBROSINI, 2000). It’s also important to highlight the difference between value creation and value capture. (BRANDENBURGER & STUART, 1996; COFF, 1999; BOWMAN & AMBOSINI, 2003; PETERAF & BARNEY, 2003). While the former is associated with a company’s ability to innovate and provide solutions for clients that exceed its competitors being efficient (SIRMON; HITT & IRELAND, 2007), the value appropriation relates to the company’s capacity of protecting or isolating the value of competition and other stakeholders and generate profits or grow (MIZIK & JACOBSON, 2003). This value capture among the various organizations depends on the bargaining power of those involved (BRANDENBURGER & STUART, 1996; COFF, 1999). Despite the use of common terms as competitive advantage and value creation, the integration of the two fields is not part of the academic debate. Only two papers were identified in the literature review. The first one associates SCM to bargaining power and presented testable propositions about the power of companies within a chain, in what situations this power is exercised to take ownership of the resulting benefits of SCM and how companies benefit from the weaker relationship (CROOK & COMBS, 2007). The only empirical research tested how past experience with a supplier influences the value creation and capture in a dyad (CHATAIN, 2011).

The present paper aims to fill this gap discussing conceptually value creation and appropriation em dyads. Based on Brandenburger and Stuart’s (1996) definition, we argue that value can only be created in the chain as a whole when the relationships between its echelons result in increased difference of the final customer willingness to pay and the opportunity cost of the supplier at the beginning of the chain. Value created in dyads can be a form of value appropriation (by one or more organizations) if it is not
reflected in the final difference. As the main empirical studies in the Operations Management field are focused on the performance of the organizations, it cannot be said that supply chain management (SCM) or collaborative partnerships creates value. They only provide evidence that the company can appropriate part of this value.

Our discussion leads to value creation as a consequence of relational resources in addition to firm resources, as proposed by Bowman and Ambosini (2000). The assumption is based also on the concept of value transaction, which states that partnership can expedite the learning process and the knowledge sharing results in better results for both organizations (ZAJAC & OLSEN, 1993). We propose that the relational sources of competitive advantage can create value by increasing not only the firm performance, but affecting the willingness to pay and opportunity cost.

We suggest that the value created in dyads (and appropriated by its members) is not created at the same time for both organizations in a dyad, but that it happens in a dynamic manner. In a first moment, one organization benefits from the relationship, resulting in increased profits and growth. As the firm recognizes that the better performance is a consequence of partnership, it increased the volume of parts purchased from a specific supplier. The supplier also benefits from learning and knowledge sharing, improving its own processes, resulting in reduced opportunity costs. The recognition of the benefits of both members generates a new commitment to the relationship and a new round of value creation happens.

We also discuss the dichotomy of trust and power in the relationship. The strategy literature assumes that value appropriation is defined by the bargaining power between the organizations. We propose that the decision to exercise this power is influenced by both trust and type of chains. Trust is important as one of the source of competitive advantage of the relational view and reduces the conflict in the coordination of chains.
Types of products and chains define the amount of value that is created and can be distributed among its members.

This paper is structured as follows. Next section presents a literature review of buyer-supplier relationships, relational view and value creation and appropriation. Then we present a discussion about how strategy and operations fields should be integrated to have a broaden approach of value creation. A short conclusion section ends the article.

**Literature review**

**Buyer-supplier relationships**

The Operations Management field is broadening its scope from the firm to inter-organizational relationships. A review of recent editions of major journals such as Journal of Operations Management (JOM) or International Journal of Operations and Production Management (IJOPM) reveals the importance of the topic both in academia and in practice. The unit of analysis of empirical research that was the company becomes the dyad or a chain.

Companies can adopt different governance with other members of the chain, depending on the relationship developed and their interdependence. According to Gereffi, Humphrey and Stuart (2005), governance in chains can vary from arm’s length relationship based on price and market to a more relational governance, which assumes complex integration between companies, trust and a past experience.

To describe relational governance, authors use different terms: strategic relationships (JARILLO, 1988), buyer-supplier relationships (CHEN; PAULRAJ & LADO, 2004), supply chain management (CHEN & PAULRAJ, 2004; COOPER, LAMBERT, & PAGH, 1997; MENTZER et al., 2001), just to cite some of the common key words. Despite the lack of consensus on what is the best name to describe these relationships,
the literature emphasizes that firms establish alliances with members of the same chain aiming to improve its competitive advantage manifested by superior operational performance, lower costs and improved customer satisfaction (BECHTEL & JAYARAM, 1997; CHEN & PAULRAJ, 2004; COOPER et al., 1997; MENTZER et al., 2001).

The relationship as a source of competitive advantage can be better understood through the relational view of the strategy (DYER & SINGH, 1998; HOLCOMB & HITT, 2007; KETCHEN Jr & HULT, 2007; RUNGTUSANATHAM, SALVADOR, FORZA, & Choi, 2003). This approach considers that the gains generated by the relationship among organizations cannot be acquired by them individually, but are a result of the combined resources of these corporations. The relational view was developed based on the concept of transaction value (ZAJAC & OLSEN, 1993), which states that, in order to evaluate the best inter-organizational strategy, it’s important to consider both the minimization of the transaction cost and the maximization of value created by the partnership (ZAJAC & OLSEN, 1993).

According to the relational view, there are four different sources of relational rents: 1. investments in relation specific assets, which is only possible in long term relationships based on trust and that result in lower costs due to the reduction of opportunism and more flexibility in the chain and also in more volumes transacted between the partners; 2. substantial knowledge exchange, that happens due to processes and routines integration and information sharing, allowing both firms to expedite products and process development as well as improve conflict resolution; 3. complementary, but scarce resources, that result in improved synergy and better communication and 4. lower transaction costs owing to more effective governance mechanisms, based on informal safeguards, such as trust and reputation (DYER, 1996, 1997; DYER & SINGH, 1998;
HOLCOMB & HITT, 2007; RUNGTUSANATHAM et al., 2003). The relational resources and capabilities should be rare, valuable, hard to imitate or to substitute in order to provide sustained competitive advantage (DYER & SINGH, 1998).

Empirical research in the operations field is trying to confirm the impact of the relational governance on firm performance. However just a few studies were able to measure performance of the dyads, triads or chains or at perspectives from different members of the chain (LANIER Jr, WEMPE, & ZACHARIA, 2010; NYAGA, WHITTLE, & LYNCH, 2010; WU, CHOI, & RUNGTUSANATHAM, 2010).

One important issue in this debate is the definition of competitive advantage and value creation. In the next section, we present a brief literature review from the Strategy field in order to clarify those terms.

**Competitive advantage and value creation**

Competitive advantage has been widely discussed in the field of strategy, although the concept is still not clearly defined and is often confused with company performance. However, it is associated with a "potential of the organization to outperform the competition in terms of gains, profits, market share and other results" and their ability to "create more economic value than its competitors (PETERAF & BARNEY, 2003). It’s is the company’s ability to overcome its competitors to provide solutions to customers, while optimizing their processes and resources to increase their margins. By creating this value in a sequential manner, it obtains a sustainable competitive advantage in time (SIRMON et al., 2007). The concept of value creation is, also, still under development. Although there is a consensus on the importance of the topic, there are no understandings about what exactly is value created, the process by which it is created and the mechanisms to capture this value (LEPAK, SMITH, & TAYLOR, 2007).
Although still on debate, there seems to be a progress of the definition of value creation in terms of willingness to pay of customers and the opportunity cost of suppliers of a specific firm, as proposed by Brandenburger and Stuart (1996) and shown in figure 1. To understand this concept is important to explain willingness to pay and opportunity cost. The willingness to pay from a customer can be defined as the maximum amount of money that someone is prepared to pay for a product or service, while the opportunity cost is the minimum amount a supplier requires to provide a product or service (BRANDENBURGER & STUART Jr., 1996). Both the concept of willingness to pay and opportunity costs are subjective and are based on the principle that every product or service has a perceived value (use value) and an effective value for the transaction (exchange value) (BOWMAN & AMBROSINI, 2000).

![Value creation diagram]

**Figure 1 - Value creation**
BRANDENBURGER; STUART, 1996, P. 10

Firms can try to increase perceived value for their customers through innovation (increasing the degree of novelty) and its capacity to improve its products and services to reach appropriateness to their customer needs. The correct evaluation of the value by the user depends on their degree of knowledge about what is being offered, its
alternatives in the market and a cultural and social context (Lepak, Smith and Taylor, 2007, PRIEM, 2007).

The concept of opportunity cost, on the other hand, is not explored. It includes not only cost of materials, labor, equipment, but also considers if the product or service can be used as other alternatives or in other markets. The opportunity cost should also evaluate the benefit of keeping the firm in operation (LIPMMAN; RUMELT, 2003).

More recently, value creation has been resumed to the difference between value to customers (or willingness to pay) and costs of the firm (PETERAF & BARNEY, 2003; HOOPER; MADSEN; WALKER, 2007).

In summary, a company can achieve competitive advantage if it can create more value than its competitors, either by increasing its customers’ willingness to pay or reducing its costs compared to the market (BOWMAN & AMBROSINI, 2000; BRANDENBURGER & STUART Jr., 1996).

Another important discussion in the literature about value creation is the source of this value ((LEPAK et al., 2007). The individual creates value by developing its tasks properly and because it is the source of knowledge in the organization, while the company creates value by innovating processes and products and provide organizational structures that allow the value generated by its individuals to be maximized (LEPAK et al., 2007).

Bowman and Ambosini (2000) argued that value is created by the transformation process that happens inside one organization and due to its employees. Based on the resource-based view (BARNEY, 1991), they propose that a company, that increases the consumer surplus and its profit, has a valuable resource that is its labor. Although Hoopes, Madsen, Walker (2003) agreed that value can be created by internal resources
and capabilities, they also stated that some other factors can explain the ability of a firm to succeed when compared to its competitors, as industry or region.

Firms create value in a dynamic way through continuous innovation and imitation. First it innovates in a product, service or process, resulting in an increase of willingness to pay or cost reduction. This new value attracts new customers and increases firm’s profitability and cash, that can be reinvested in companies expansions, innovation and process improvements, starting a new dynamic cycle (HOOPES; MADSEN; WALKER, 2003).

One could argue that the company can create value, by retaining valuable employees, while it organizes its processes and structures to optimize the product or service that delivers to its customer client. In this sense, the firm can achieve competitive advantage, by developing different internal resources and capabilities. However, it is also important to consider that both the willingness to pay of a customer as the opportunity cost of a supplier are defined by internal and external environments, depending on the alternatives they have in the market (BOWMAN & AMBROSINI, 2000; BRANDENBURGER & STUART Jr., 1996).

This is one important gap in the literature, as the value creation has been analyzed only in terms of the focal firm, without extending the analysis to its relationships, except when discussing value appropriation, as we discuss in the next section.

*Sustainable competitive advantage, value creation and appropriation*

At this moment, it’s important to highlight the difference between value creation and firm’s profitability. While the first is related to the difference between willingness to pay and opportunity cost, the latter is the share that the firm is able to capture from this total value and it is associated with the price of a firm and its costs ((BOWMAN &
Mizik and Jacobson (2003), for example, stated that value creation and value appropriation are not just two different concepts, but often represent a trade-off for companies. While value is created when an innovation, process or product is delivered to a customer and result in a consumer surplus, the company needs to have mechanisms that restrain competitors and other shareholders to capture that value. According to these authors, both concepts are related to competitive advantage, but in different manners: value creation influences its magnitude, while value appropriation determines its ability to maintain and sustain the competitive advantage (MIZIK & JACOBSON, 2003).

As we can see in figure 1, value is created as a whole, but each organization captures one different share. The firm can increase its share by either increasing its price or reducing its costs, depending on how much of this value they added and its bargaining power (BOWMAN & AMBROSINI, 2000; BRANDENBURGER & STUART Jr., 1996; COFF, 1999; PETERAF & BARNEY, 2003).

The bargaining power of a firm depends on different aspects in a chain: for example, the dependence between organizations, access to key information and the resources a firm have (COFF, 1999; CROOK & COMBS, 2007). Crook and Combs (2007) argue that a firm can forbear its use of power and share some gains with its partners depending on the type of coordination mechanisms inside the chain.

In the next section, we discuss how the literature of Operations and Strategy should be integrated to advance the knowledge of both fields.

Discussion
Despite the use of common terms and the same unit of analysis (the relationship), there is just a few papers that discuss the value creation or appropriation in buyer-suppliers relationships, using both concepts discussed in the previous literature review. The first paper identified in the literature stated that the use of an efficient SCM as a coordination mechanism can result in an extra value creation that is not created by the individual firms (CROOK & COMBS, 2007). However, the main objective of the paper was to discuss value appropriation depending on the type of coordination in the chain and it did not extend the discussion of how value is created.

One can argue that the relational view explains how the relationship between organizations can result in competitive advantage and better performance for its members. However, there are a few questions that are not explained. The relationship results in value creation for the whole chain or just for the dyad? How this value creation happens in time? Do the sources of relational rents result in value creation or just in value appropriation? How is the value created shared between the organizations?

Another important gap in this discussion is the role of trust and power. If in one hand, the relational view is based on trust to create relational rents, on the other hand, the strategy literature just mentioned power as important for value appropriation. In this paper, we discuss all these gaps.

*Does collaborative buyer-supplier relationship create value?*

As we saw earlier in the literature review, firms engage in collaborative relationships to improve its individual and the chain performance and create value to the chain (CHEN & PAULRAJ, 2004; COOPER et al., 1997; MENTZER et al., 2001). If we apply Brandenburger and Stuart (1996) concept to the chain, value creation to the whole chain can be defined as the difference between willingness to pay for the final customer and
opportunity cost of the suppliers at the origin of the chain. We can say then that buyer-supplier relationship creates value for the whole chain only if it has influence on the extremes values of willingness to pay and opportunity cost. If it has impact only on the dyad or triads, it is just a mechanism of value appropriation. So our first proposition is:

**P1:** The buyer-supplier relationship create value for the chain only if it have an impact on the final use value of the customer (willingness to pay) or/and on the opportunity cost at the origin of the chain.

Although the value created in the relationship may not reflect on the whole chain, we can argue that value can be created by the relationship and for the relationship. By adopting an effective collaboration strategy, aiming to reduce costs, improve quality, products and processes and increase innovation, the buyer-supplier relationship can create value for the specific triad (supplier-firm-customer), increasing the use value for the customer or/and reducing opportunity cost for the supplier. This value added can be measured in terms of products and processes innovation, better products and services offered and better costs than its competitors (PRIEM, 2007).

The information and learning sharing between organizations result in greater capacity of the firms to translate customer needs in products and services, as they provide one environment where knowledge can be transferred easily (CHEUNG, MYERS, & MENTZER, 2010; DYER, 1996, 1997; DYER & SINGH, 1998; HOLCOMB & HITT, 2007). Additionally, combining resources, partners in the relationship can expedite new products and processes development and anticipate customer needs, while reducing costs of development. Thus, organizations can enhance customer value, while promoting greater operational efficiency (Dyer, 1996, 1997, Dyer and Singh, 1998). The relationship can contribute to creating value for the parties and result in increased individual performance, which may or may not be reflected in value creation for the
chain. This extra value, as stated by Crook and Combs (2007) is the SCM result and would not be added if firms have not engaged in the strategic governance. Therefore, our next proposition is:

**P2: By adopting an effective buyer-supplier relationship, firms can create value for the specific triad (supplier-firm-customer).**

It’s important to highlight that there is no empirical evidence that the relationship result in value creation, as in the majority, the published studies of relationship are measuring value creation as firm performance. And as we discussed earlier, this is just evidence of value appropriation.

*How is value created in collaborative buyer-supplier relationship?*

Previously we discuss that value is created by one organization in a dynamic cycle (HOOPES; MADSEN & WALKER, 2003). There is also evidence in the literature that the relationship nature and firm performance influence each other in an spiral model (AUTRY & GOLICIC, 2010). The analysis of this spiral model allows companies to make adjustments of their investments and actions, thereby influencing relationships and consequently the performance and vice versa.

We can argue that, if value is created by one organization in a dynamic cycle and if the relationship becomes stronger (or weaker) depending on the performance result, value creation in dyads also happens in a dynamic model, where value creation occurs primarily at enterprise level. The company, then, recognizes that that value is the result of the partnership and depends on its partner and decides to share the results with its supplier, increasing the volume acquired from him. The supplier also benefits from the relationship in terms of process improvement, reducing its opportunity cost. The increase of the share of the supplier encourages him to re-engage in the relationship and a new cycle of value creation starts. Out third proposition is:
P3: The buyer-supplier relationships create value in a dynamic and sequential cycle, where there is first one increase in value for one of the firm and, in a second moment, a benefit for its partner. After that, a new cycle of value creation starts.

One important final comment on value creation in chain refers to the type of product delivered by that the chain. In cost-driven chains, where the main objective of the chain is to minimize costs and improve efficiency, there is lower value added, as there is few opportunities to increase willingness to pay (Ireland & Webb, 2007). On the other hand, innovative chains can create value by either improving willingness to pay and reduce opportunity cost. However, in this chain, there are higher risks involved due to higher interdependence between organizations. Therefore:

P4: The value creation depends not only on the nature of the relationships, but also on the type of product delivered by the chain.

How value is shared in a buyer-supplier relationship?

In the strategy literature, there is a premise that value is appropriated by organizations depending on the bargaining power. The relational view, on the other hand, assumes that relational governance, based on trust, is one of the sources of relational rents and competitive advantage.

Additionally, power and trust can be complementary dimensions, that are used to reduce opportunism and increase performance (IRELAND & WEBB, 2007; LIU, LUO, & LIU, 2009). While trust promotes collaboration and information sharing, therefore reducing conflicts in the chain, stronger firms can exercise their power to expedite decision making and process implementation (Ireland & Webb, 2007).

The Operations literature provides many evidences that relational mechanisms based on trust can result in cost reduction and promotes long term relationships, as trust works as
an informal safeguard, allowing lower monitoring costs and investments in relationship specific assets (FYNES, VOSS, & BÜRCA, 2005; JOHNSTON, McCUTCHEON, STUART, & KERWOOD, 2004; KAUFMANN & CARTER, 2006).

On the other hand, although trust can be effective to address behavioral uncertainties, it is not enough, when there are risks in the relationship. According to Mahapatra, Narasimhan and Barbieri (2010), the adoption of an effective governance structure with characteristics that vary between transactional and relational depends on the strategic interdependence between organizations, i.e., the capability of its own product development, processes and services. This interdependence and complexity depends on the product's life cycle.

If the value appropriation depends on bargaining power and whether the decision to exercise this bargaining power depends on the degree of conflict generated inside the chain and the threat of this conflict the coordination of the chain, one can argue that the value created by the sources of relational competitive advantage will be shared between the parties depending on the degree of trust and power between organizations and also the degree of strategic interdependence between organizations. Then, our next proposition is that:

\textit{P5: In a buyer-supplier relationship based on relational governance, the value appropriation of the value created between both organizations depends not only on the bargaining power, but also on the trust between organizations.}

Additionally, Crook and Combs (2007) affirm that the higher the level of interaction between members of a particular chain, the greater the threat from conflict and, in this situation, the stronger firm forbear to exercise its power, as there is greater needs of collaboration (CROOK & COMBS, 2007). As in the situation that there is greater
interdependence, there is a need of high collaboration and collaboration is promoted by trust between partners, we can propose that:

\[ P6: \text{The higher the interdependence of the organizations, the higher the influence of the trust in the decision of the stronger firm to exercise its bargaining power.} \]

**Conclusions**

The present paper aimed to integrate the discussions about collaborative relationships in the Operations field and value creation and appropriation from Strategy in order to provide better understanding in both areas. The main contribution is to raise many research questions that need further clarification: Based on the definition of value creation (difference between willingness to pay and the opportunity cost), it is clear that the collaborative relationships generate competitive advantage? If so, how does the value creation occur in these relationships? How is the evolution of value creation in time? There are differences between the cost-driven and innovative chains? There are differences in the gains of each link? What is the role of trust and bargaining power in these cases?

We argue that value is created in the chain as a whole only if the value created in dyads or triads is reflected in the difference between the willingness to pay for the final customer and the opportunity cost of the supplier at the beginning of the chain. If this is not the case, the relational gains are just a form of value appropriation.

The paper also discussed how the relationship can be a source of value created in dyads and how this process happens in time. It is proposed that the value creation depends on the type of product and that each organization can benefit from the relationship, but that this does not happen at the same time, but in a sequential cycle.
Finally, we discuss about the influence of trust on value creation and value appropriation. We propose that value appropriation can be influenced by trust in relational governance.

References


