

VALUE CO-CREATION AND PERFORMANCE-BASED CONTRACTING IN THE CUTTING TOOLS MARKET

Abstract: This paper analyzes a contract-based relationship for co-creation of value and share of gains between a tool supplier and an auto parts industry. After three years of good financial results (for both parties) no other share of gains was observed, thus raising questions about the share of gains policy in joint actions. Drawing on relevant literature on co-creation of value and contracts, a longitudinal case study was conducted. The results indicate that the sharing of gains deriving from co-creation can be interrupted when the gains of one of the parties assume considerable proportions. It was also found that co-creation increase the participation of the supplier in the mix of items purchased by the contractor (from 10% to 71%). In fact, the share of orders seems to be the best sharing policy for both parts in a value co-creation project.

Keywords: *Co-creation of value, B2B contract, Profit-sharing, Service.*

INTRODUCTION

The Brazilian auto parts industry today is sixth in the world rankings in terms of numbers of units produced; it has grown considerably in recent years. Specialists in the sector estimate that the BRIC countries (Brazil, Russia, India and China) will represent 37% of the global production in the industry by 2016 (ANFAVEA, 2010). The production of auto parts makes use of machining in its production processing. The correct selection of a cutting tool can significantly reduce the production cost of a machined part, while at the same time increasing the productivity of the equipment that makes use of the tool. It should be pointed out that the degree of down time of the equipment, the finishing requirements for the part being processed and the production volume forecasted for a given time period can create a situation where the selection of a lower cost alternative can be the best option.

The growth of the automotive market in Brazil has caused the large worldwide producers of auto parts to experiment with new management alternatives within the country. This is the case with a project jointly orchestrated by an American manufacturer of auto parts (hereinafter referred to as the contracting party or contractor) and a European supplier of inserts (hereinafter referred to as the supplier). The contracting company is one of the top five global suppliers of components and systems for the automotive industry. Its client portfolio consists of the world's largest manufacturers of vehicles. The supplier is one of three major inserts suppliers in the world. The goal of the project was to combine the competencies of both organizations in such a way as to reduce manufacturing costs of the contracting party. The contract, which regulated the relationship between the parties, stipulated the payment of a variable amount to the supplier for managing the contractor's cutting tools department. This amount should be calculated based on the gains from joint actions in the contracting party's factory. The policy of sharing gains from joint action was observed until the year 2008. After that no other share was observed. This shift in focus raises questions about the factors that prompted the abandonment of a sharing policy which provided mutual profits throughout its existence (though not disclosed, the parties acknowledge that said profits were significant).

An analysis of this relationship shows evidence of elements of contracted-based co-creation of value with profit-sharing. Co-creation of value in the business arena is an action carried out jointly by two companies in order to improve products or services, reduce costs, increase competitiveness, etc. (Bolton and Saxena-Iyer, 2010; Hoyer et al., 2010). Helander and Möller (2008) postulate that the creation of value should focus on the prospects for value, the context and the customer's experience. Several authors have studied the benefits of value co-creation for organizations (Franke et al. 2009; Mathwick et al. 2007; Kristensson et al. 2004; Hoyer et al., 2010) and its implications in team work (Kristensson et al., 2008). Kristensson et al. (2008) suggested strategies for involving customers in the process of co-creating new technology-based services. Barry and Terry (2008) identified three stages wherein this interaction may occur: before delivery (engineering and consulting), during the delivery process (installation and training) and after delivery (maintenance and technical assistance). Helander and Möller (2008) analyzed the requirements for a supplier of products to become a solution provider. Heinonen et al. (2010) investigated the challenges to the viability of CD logic (customer-dominant logic). Hoyer et al. (2010) investigated the relationship of consumers with businesses in terms of levels of inducers and barriers. However, it should be emphasized that this issue, despite its importance to business and science, is still at an early stage of study (Hoyer et al., 2010). One of the issues not yet addressed is the sharing of gains from joint actions in a B2B context. With respect to contracts, the literature presents several studies focused on the contractual regulation of the

relationship, conditions leading to termination of the relationship (Kumar and Kumar, 2004, Kumar et al. 2004; Stremersch et al., 2001) and evaluation of bids (Stremersch et al., 2001).

Analysis of the foregoing references reveals that sharing of profits from the co-creation of value under contractual arrangements in relations between companies has not been studied at a scientific level. Furthermore, no studies were found that focus on identifying the factors that may lead to the end of a relationship of co-creating value with a contractual provision for sharing profits in the B2B (business-to-business) market. In order to contribute to the understanding of the subject, this paper presents an analysis of that relationship as it developed between the aforementioned companies in such a way as to answer the following question: *How does one develop the co-creation with B2B value, with the sharing of gains governed by a contract?*

The investigation was based on the case study method and included interviews and documents analysis with the contracting and service provider parties. The study included the compiling of information related to the following: contractual specifications, contractual goals, contractual provisions for profit-sharing, the track record for profit-sharing, other gains, problems in the relationship and penalties.

THEORETICAL FRAMEWORK

Co-creation of Value

The focus of companies on their core competencies has led them to outsource activities and processes not related to those competencies (cf. Cova and Salle, 2007). As a result, co-creation of value has begun to gain prominence in academic and business spheres (Hoyer et al., 2010). Co-creation implies the customer and supplier working as a team with a view to improving a product or service. This process occurs in multiple contexts (Bolton and Saxena-Iyer 2009) and constitutes an essential element of SDL – Service-Dominant Logic (Lusch et al., 2007). Co-creating value differs from customization of the level of customer engagement, since customer engagement is much greater in co-creation (Prahalad and Ramaswamy, 2004). Recently, the co-creation is being seen as an important manifestation of customer engagement (van Doorn et al., 2010).

Developments arising from collaborative actions are more highly valued by customers, as are lower barriers in the stages of commercialization and introduction (Franke et al., 2009; Mathwick et al., 2007; Kristensson et al., 2004). Co-creating value results in efficiency and effectiveness for businesses, as well as increased complexity of the product or service (Hoyer et al., 2010). Co-creating value results in products or services that better meet the client needs, resulting in greater customer engagement and satisfaction (Hoyer et al., 2010). The CD (customer-dominant) logic opposes provider-dominant logic (Heinonen et al., 2010). According to CD logic, value in services must be created in view of the customer's value-in-use, the context of that customer and the customer's experience with regard to the service in question. Said authors highlight the following challenges to the viability of CD logic: the company's involvement, the customer control over the co-creation process, visibility of value creation, the scope of customer experience and characteristics of customer experience.

Helander and Möller (2008) postulated that the change in status from a mere supplier of products to that of a provider of more complete solutions requires companies to focus on four types of activities: warranty of services, support and maintenance activities, system extensions, and consulting and optimization services. The findings of said authors point to important factors in dealing with the key customers of an organization (KAM - Key Account Management). Kindström and Kowalkowski (2009) developed a model for providing services associated with the sale of manufactured products that encompasses market sensing,

development, sales and delivery. Kristensson et al. (2008) proposed seven strategies for engaging customers in co-creating new technology-based services, namely: identifying needs in their own setting of use, identifying other needs, providing users with analysis tools, motivating users based on potential benefits, non-reliance on brainstorming when generating ideas), taking into account users who are not technology-focused and profile diversity of the customers to be engaged.

Kristensson et al. (2008) warn that customer engagement increases stress on employees and endangers employee satisfaction. Said authors also point out that value co-creation projects must take into account the cultures of both parties. Hoyer et al. (2010) examined the inducers and barriers to consumer involvement in the co-creation process based on a conceptual model that focuses on the degree of co-creation in new product development with customers, the impact of co-creation at each stage of development and the results of this interaction. The results of this study indicate that economic, social, technological and psychological aspects are inducers of customer participation in co-creating value; reducing costs and the possibility of increasing the benefits perceived by the consumer are the main inducers of business involvement. Hoyer et al. (2010) also postulate that preoccupation with confidentiality, sharing of intellectual property, information overload and non-viability of the desired solution are elements that may restrict the interest of businesses in co-creation.

Although co-creation is quickly becoming popular (Vargo and Lusch, 2004), some authors believe that there is a lack of a firm theoretical foundation on which to base an understanding of the strategies (e.g. antecedents and critical processes) which are required for success during the co-creation of services (Kristensson, et al., 2008). Others believe that the study of the subject is still at an early stage (Hoyer et al., 2010).

Performance Based Contracting

The service literature on contracts has focused on regulating the relationship between the business customer and its machinery and equipment suppliers (Kumar and Kumar, 2004, Kumar et al. 2004; Stremersch et al., 2001). Among the topics usually covered are planned services (Kumar et al. 2004; Mirghani, 2001; Löfsten, 1999), unplanned services (Kumar et al., 2004) and product/service guarantees and the implications thereof (Kumar et al., 2004, Kulkarni et al. 2002; Blischke and Murthy, 2000; Chattopadhyay and Murthy, 2000). Kumar et al. (2004) divide the contents of contracts into key elements (targets, payment, product reliability, pricing, training, documentation, replacement parts and operational requirements of the machinery or equipment), duration, influence factors (geography, number and profile of competitors operating in the market, pre-existing client technical expertise and provider expertise) and performance measurement (feedback from customer, parameters established jointly by the agents involved, regular meetings, system/product downtime measurements and customer satisfaction measurements).

Contractual penalties and bonuses are used by business customers to encourage their suppliers to provide a better level of service. Technical service contracts, often comprised of software support, are characterized by Hirsch and Eschenbach (2000) as an extended product. Wagner et al. (2007) pointed out four main types of contracts involving technical service providers: (i) logistical management of spare parts, (ii) monitoring and performance optimization, (iii) technical services, such as installation, start-up, training, simulation and testing, and (iv) improvements and updates.

The evaluation of bids to provide full service maintenance services cannot be based solely on the cost reduction that outsourcing this kind of service to a given provider can offer a company. According to Stremersch et al. (2001), improvements in organizational performance that the provider can offer to the contracting party must be the primary factor in evaluating bids for maintenance services in the food and chemical fields. Said authors also

emphasize that the level of detail of the maintenance services offered by the provider and the provider's reputation are also factors taken into consideration in the analysis.

Reference's analysis

The analysis of the works cited herein reveals that the literature shows no studies focused on the sharing of gains from joint actions undertaken by companies, especially when these relations are governed by long term contracts. Moreover, the studies surveyed did not focus on the breakup of relationships based on co-creation of value between companies (B2B). Identifying these elements will contribute to giving better care to this matter at the academic level and will also provide support to managers responsible for establishing co-creation projects in the B2B market.

METHODOLOGY

Research Setting

In order to contribute to the scientific understanding of the theoretical gap presented and in light of the lack of previous studies on the subject, this study adopts an exploratory approach based on the construction of a grounded theory (Glaser and Strauss, 2006). Said authors postulate that case studies are recommended when conceptual contributions are the desired goal. Thus, a single case study was chosen based on the tenets set forth in the literature (Borch and Arthur, 1995; Eisenhardt, 1989; Yin, 2003). The case study protocol used in this study includes the following sections: overview of the research, topics, objectives, data collection and analysis (Yin, 2003).

Ellram (1996) and Yin (2003) defined four criteria for evaluating the design of empirical research: validity of the constructs, internal validity, external validity and reliability. Given the possibility of low accuracy of qualitative methods arising from the wealth of information in these data (Auerbach and Silverstein, 2003), this study will make use of triangulations in order to ensure the validity of its constructs. Observations were made during the plant visits. The questions and archival data were drawn from the literature and refined in three sessions of focus groups. The first group involved managers of the contracting party. The second group consisted of managers of the supplier. The outcome of the process was discussed with all previous participants in a third brainstorming group in order to refine the issues and the research protocol (Spiggle, 1994, Eisenhardt and Graebner, 2007). All groups used the funnel model (Voss et al., 2002). The unit of analysis was selected based on convenience (see Barrat et al., 2011). The constructs, evidences investigated and supporting references are presented on Table 1.

The codification of findings was followed by multiple iterations of the comparative method of the grounded theory (Glaser and Strauss, 2006). In order to establish internal validity, the findings were first compared to the literature in order to verify the concepts and causal relationships, which were then discussed with academic peers. Two subsequent meetings were held with businesses participating in the study in order to identify their perception with regard to the findings, as proposed by Maxwell (2006). In accordance with the consistency principle that requires researchers to further investigate responses that appear inconsistent (Rubin et al., 1995), any negative instance or contrary proposition was questioned and discussed with the respondents in subsequent interviews.

The search for reliability was addressed by a series of procedures during the preparation (design) phase of the study, the data collection phase and analysis of findings phase. In the design phase, a protocol for data collection was defined. The interviews were conducted face-to-face by the interviewer, recorded and finally transcribed. This approach

aimed to facilitate a high degree of data reliability and traceability (McCutcheon and Meredith, 1993). The transcribed findings were sent to the interviewees for review and approval within one week of the interview (Yin, 2003). As recommended by Miles and Huberman (1984) and Hill et al. (1997), two researchers were used for data collection in order to “enhance the creative potential of the study” and to facilitate “convergent perceptions” (Eisenhardt, 1989, p. 538).

Table 1: Topics investigated

CONSTRUCT	EVIDENCE TO BE INVESTIGATED*	SUPPORTING REFERENCES
Co-creation	Q1 – What is the history of the relationship developed by your company at the level of joint projects for improvement, under a contractual regime for the sharing of results?	Franke et al. (2009); Mathwick et al. (2007); Kristensson et al. (2004); Hoyer et al. (2010); Helander and Möller (2008) e Kindström and Kowalkowski (2009)
	Q2 – What is your evaluation of this joint project for improvement under a contractual regime for the sharing of results?	Franke et al. (2009); Mathwick et al. (2007); Kristensson et al. (2004); Hoyer et al. (2010); Helander and Möller (2008) e Kindström and Kowalkowski (2009)
	Q3 – How did cultural differences affect the results of the project?	Kristensson et al. (2008)
	Q4 – How did the proposals from other potential, lower cost suppliers affect the relationship?	Stremersch et al. (2001)
	D1 – Evolution of the bonuses and penalties over the course of time.	Franke et al. (2009); Mathwick et al. (2007); Kristensson et al. (2004); Hoyer et al. (2010)
	D2 – Data on the share of the contractor in the total supplies of the item.	Stremersch et al. (2001)
Contracts	Q5 – What is your evaluation of the efficacy of the contracts in a relationship involving co-creation with the sharing of gains?	Kumar et al. (2004); Kulkarni et al. (2002); Blischke and Murthy (2000); and Chattopadhyay and Murthy (2000)
	Q6 – How were the indicators stipulated in the contract specified?	Kumar et al. (2004); Kulkarni et al. (2002); Blischke and Murthy (2000); and Chattopadhyay and Murthy (2000)
	D3 – Contractual prescriptions for unplanned services and guarantees on products and services.	Kumar et al. (2004); Kulkarni et al. (2002); Blischke and Murthy (2000); and Chattopadhyay and Murthy (2000)

* Q – Questions or D – Data from File

Data Collection

Two Supply Managers of the contracting party and one Operations Manager of the supplier side were interviewed. One technical specialist of the contracting party was interviewed and helped on the documental analysis. This approach aimed to facilitate the collection of reliable and valid information for the purposes of the study. Data were collected in semi-structured interviews with the objective of enabling some degree of comparability while at the same time allowing respondents to freely express their thoughts (Bryman, 2004). The interviews were conducted between August and November of 2010 in meetings that lasted from 60 to 90 minutes. The researchers made every effort to ensure the anonymity of the sources in order to elicit a better flow of information from respondents.

Each interview was terminated when the researchers felt that a state of information saturation had been reached, i.e., where it could be expected that no new information would be gathered (as proposed by Glaser and Strauss, 2006). In line with the suggestion of King's (2004), the interviews were kept flexible and protocol was always modified to reflect the concepts and themes that emerged spontaneously, or with the aim of improving the ratio between time spent and findings made in the interviews.

RESEARCH FINDINGS

Co-Creation of Value

Both of the companies consulted mentioned the existence of two phases over the course of the relationship. The first of these, called *Ascension* by the managers of the contracting party, began when the contractor decided to concentrate on his core business, delegating the management of the machining processes to the supplier of tools. The idea was to purchase management services that improved the performance of the machining tools, and not simply the tools themselves. The contractor assumes that the seller, as a specialist in the area, would possess all of the conditions for defining a better cost/performance relationship for each tool/part pair in production. On the occasion, it was agreed in the contract that any bonus to the supplier would be conditioned upon the existence of two elements: reduction in costs of the contractor in the area of machining. The first years of the conjoint action between the contractor and the supplier of tools/services were marked by significant financial gains for both parties (up to 26% of reduction in costs by the contractor, which resulted in a bonus of 13% to the contracting party).

The next phase was called *Stabilization* by the contractor, and it began following the fourth year of the project. In this phase, the contractor experienced a great reduction in his sales volume (approximately 25%, according to file data), and this fact caused the contractor to revise the formula for the calculation of remuneration to the supplier, reducing the latter's gains by 8% (in relation to what had been originally contracted), according to an analysis of the contractor's file data. This condition slowed down the sharing of gains between the parties. At the end of the crisis in their operating sector, the contractor never reinstated the supplier's remuneration parameters that were originally defined in the contract, and no new sharing between the parties was registered.

The contractors managers feel that their company gained highly qualified knowledge from having focused on the relationship (to such an extent that the partnership is still active). They also believe that the exchange of managers from both organizations during the relationship, and the absence of better elaborated formulas for the determination of the amounts to be paid to the supplier, compromised the ability to maintain the increased pace of improvements. The supplier said that the relationship in question permitted an improvement

in his products and services. In addition, the operation with a company the size of the contractor's was very positive for the supplier, in terms of making new business deals with other companies in the sector viable. According to the supplier's managers, in general, those new opportunities have resulted in transactions that are much more profitable than those verified in the relationship with the contractor. Both the contractor and the supplier say that the cultural differences between their organizations did not influence the results of the project over the course of the years.

The supplier and the contractor were unanimous in affirming that the offers of the suppliers at lower cost had little influence upon the contractor's choices. Among the reasons for that context, it is cited that those proposals did not bring with them a deep knowledge of the contractor's technical and productive demands. According to them, the relationship between the parties provided the supplier with an exceptional level of understanding regarding the contractor's needs, which was an important trump card in the supplier's dealings with other suppliers of tools.

There were no penalties registered over the course of the years of the contract. The bonuses corresponded to 50% of the contractor's cost reduction provided by the joint actions. An analysis of documents revealed that, in 2003, there was a sharing of gains that amounted to 5% of the tool making costs incurred by the contractor (which means 10% of contractor's cost reduction). In 2004, this figure rose to 13% of the incurred costs (which means 26% of contractor's cost reduction). In 2005, these gains did not reach 1.5% of the incurred costs (which means 3% of contractor's cost reduction). After that point in time, no sharing of gains between the companies was registered until now, despite the fact that the supplier continued to take responsibility for the management of part of the contractor's processes. It is also important to mention that, at the beginning of the project, the supplier was responsible for only 10% of the items supplied to the contractor; however, following the implementation of the project, that figure rose, over the course of less than 8 months, to 71% of the total purchases of machining tools that took place.

Contracts

The documental analysis identified a contractual equation specified by the contractor that took into account the costs of tooling, and the productivity of that tooling, based upon a series of historic quantities utilized, and the costs incurred in the tooling process. This equation defined the amounts to be shared with the supplier of tools and services. The parameters of the equation were revised over the course of the contract, so as to reduce the supplier's expenses by 8% (in 2005).

According to the contractor's executives, the performance based contracts could only generate the expected results if the contractor appointed a *Contract Manager*, fully dedicated to the project. In addition, the formula for calculating the amounts to be shared with the partner should take into account any fluctuations in the contractor's production capacity. In the case of improvements in production equipment, the targets should separate improvements in production line bottlenecks from those outside of them.

In the opinion of the supplier's executives, the problem does not lie with the contracts, but with the sharing of gains. This problem takes on greater significance if the amounts to be shared increase in size. In such cases, the power of the contractor to veto the accounting for improvements, even after the improvements have been made, significantly compromises the profitability expected by the supplier on the basis of the improvements he has provided to the contractor. According to the same source, the contracts should consider a balance of power between the supplier and the contractor with regard to the approval of improvements, and the contracts should have clearer rules regarding compensation for losses experienced by both

companies due to fluctuations in demand. Among the documents analyzed, no type of prescription of unplanned services or of guarantees of products and services were found.

DISCUSSION

Co-creation value

The interruption of the sharing of gains as a result of the contractor's short downtime appears to have caused the contractor to feel that the supplier was being very well remunerated for his activities. Another element that may have caused that feeling was the 13% percent share verified for 2004. So, upon returning to his prior level of production, the contractor began to obstruct the recognition of the improvements achieved by the supplier. This suggests that the eventual facility in the marketing of the products or processes enjoyed by the products or processes developed conjointly (Franke et al, 2009; Mathwick et al., 2007; Kristensson et al., 2004; Hoyer et al., 2010; Helander and Moller, 2008 and Kindstrom and Kowalkowski, 2009) is not verified in the level of sharing of gains. Another possibility is that the higher amounts shared in 2004 could have compromised the personal image of the old managers of the process in the eyes of the contractor, which managers are, at the moment, responsible for the judgment of the improvements achieved by the supplier, and, as a result, for the determination of the supplier's remuneration. It should be pointed out that the literature consulted does not mention the influence that the personal interests of the managers might have on the outcomes of the project on co-creation of value, whether that project involved the sharing of gains, or not.

The acquisition of specific knowledge was the benefit singled out by the contractor's managers, while the supplier mentioned the improvement in his products and services, as well as the development of other highly profitable business deals in the auto parts sector. The learning process gained by the supplier as a result of the relationship also turned out to serve as a barrier to entry for other potential suppliers. These findings confirm that the co-creation of value results in greater efficiency and effectiveness for businesses (Hoyer et al., 2010), while at the same time it permits the supplier to develop activities aimed at attracting his clients to projects for conjoint improvement (Kristensson et al., 2008).

At the meeting for the presentation of the findings to the executives consulted, the researchers questioned the executives from both companies about the absence of penalties throughout the term of the contract. On that occasion, the executives of both organizations stated that those penalties were not applied due to the complicity that was generated during the course of the relationship in question. Basically, many of the problems that arose in the relationship could not be ascribed to either one organization or the other, but to both. In this context, both companies preferred to concentrate their efforts on the search for solutions to problems, rather than searching for someone to blame for them. This conclusion suggests that co-creation of value projects results in greater complicity between the parties, thereby expanding the findings of Franke et al. (2009); Mathwick et al. (2007); Kristensson et al. (2004) and Hoyer et al. (2010).

The data identified in the research of documents regarding the growth in the sharing of the supplier's products in the mix of items purchased by the contractor (from 10% to 71%) may explain why the supplier continued to manage the contractor's processes even after the sharing in results had ended. This would suggest that the sharing of gains within the process of co-creation of value can be more easily done if there are levels of participation by the supplier in the mix of items purchased by the contractor. This conclusion adds a new element to the findings of other authors (Franke et al., 2009; Mathwick et al., 2007; Kristensson et al., 2004).

Contracts

The analysis of the findings, as it relates to the issue of contracts, uncovers an important scientific lacuna regarding the level of gains resulting from co-creation of value projects, that is: *How can one estimate the amounts to be shared between the parties prior to the signing of the contract?* Another important question is: *Which clauses can be included with a view to the protection of the interests of both parties, in case there are alterations in the conditions for marketing for one of the participants in the co-creation project?*

CONCLUSIONS

As far as can be determined through research, this study is one of the first to evaluate the contractual sharing of gains resulting from the co-creation of value for services associated with the sale of a product. The results suggest that such sharing can lead to highly valuable financial results for companies involved in the process. However, the sharing can be interrupted if the gains of one of the parties take on considerable proportions, especially when one of the sharers winds up having a structure that makes it possible to carry out activities similar to those which have been developed by the party that is enjoying significant gains.

As stated in the theory, the acquisition of mutual knowledge is the benefit most often cited by the managers of both of the organizations investigated. However, evidence was found that the supplier of products/services also benefits from the co-creation relationship in that he can explore new and more profitable clients in the contractor's operating sector. The learning gained by the supplier regarding the demands of the contractor turned out to represent an important barrier to competitors with a lower price.

The data contained in the study of documents regarding the growth in the inclusion of the products of the supplier in the mix of items purchased by the contractor (from 10% to 71%) can explain why the supplier continued managing the contractor's processes, even after the final sharing of the results. Consideration of this finding suggests that the sharing of gains within a co-creation of value process can most easily give rise to participation of the supplier's products in the mix of items purchased by the contractor. In fact, the share of orders seems to be the best sharing policy for both parts in a value co-creation project. That finding expands the conclusions of other authors (Franke et al., 2009; Mathwick et al., 2007; Kristensson et al., 2004).

Co-creation projects also appear to generate a certain degree of complicity between the parties. Future studies of this topic should prioritize the proposal of methodologies for calculation that permit an estimation of rules and values to be shared by the parties, to be included in the contract that regulates the sharing.

One limitation of the study is that it deals with a subject matter that is new, and all of the findings derive from a relationship between two companies; other, similar cases that could provide further information have not been identified. One also has to keep in mind that regional and cultural aspects may have influenced the results presented.

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