

# The dyad partnership-credibility and the qualification of suppliers

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## SUMMARY

The need to improve relations between company and supplier suggests that the dyad partnership and credibility must be enhanced in order to maximize gains for both parties that would otherwise not take place. This study demonstrates that companies and suppliers feel the need to review the results achieved by both parties and to influence the way they treat their relationships in the supply of goods and services.

This study highlights the need to explore two aspects: firstly, the focus of the importance of supplier partnership for improvement of the company and, secondly, the need to create links based in credibility for the improvement of relations between company and supplier, in order to establish a win-win process in their purchasing and supplying activities. This research applied a questionnaire to 154 elements of various industrial segments. The results confirm the widespread perception on the part of elements of the companies of the need for deepening the partnership between company and supplier, but it verified, however, less openness with regard to the sharing of knowledge, which can be an obstacle to the realization of this deepening. The analysis is done under the perspective of the qualification of suppliers.

**Keywords:** supplier, partnership, reliability, qualification

**Paper type:** Case study

## **INTRODUCTION**

The market for the supply of goods and services has been the focus of studies that show the need for integration and partnership between company and supplier (Danese, 2013) because, currently, manufacturers become increasingly dependent on their suppliers to gain competitive advantage (Huo et al., 2013). As the knowledge required to produce or successfully develop a new product is often found in more than one company, a change becomes necessary in the way as suppliers and buyers interact with each other, from a shared network with more open information (Petrick & Echols, 2004).

The strengthening of the relationship between company and supplier has been accomplished through the possibilities offered by technological tools, especially information and communication technologies (ICT). The main technological tools used have been the internet, intranets, business-to-business (B2B) and business-to-consumer (B2C) platforms and e-marketplaces. Thus, ICT and, more generally, the World Wide Web, have forced most organizations to rethink the way they do business and how they can restructure it. As a result, ICTs have become a critical asset in product differentiation and daily operations, as well as in strategic management (Nucciarelli, Alberto; Gastaldi, 2008).

However, the technological tools cannot be considered as the only way of solving all the problems in integration with customers. The nature of client integration is also a social process, so it is necessary to consider other factors in addition to technology for improving customer integration (He, Keung Lai, Sun and Chen, 2014).

This research showed that there was an interest of the participants in having greater interaction between companies and their suppliers in the supplier qualification process, as a means to obtain cost reductions in production processes. This article aims to explore the social aspects of this process, in particular those related to the deepening of the nature of partnership, and to the credibility factor between company and supplier, having in mind the supplier qualification.

We present results based on surveys of multinational companies located in the Industrial Pole of Manaus, where employees from different areas of activity related to the supply process, in particular in the areas of engineering, quality, materials, production and purchasing, responded to the survey questions.

The next section of the article frames the theme, referring to approaches linked to the value of the partnership between the company and suppliers and to conceptual developments observed in

several studies that address the issue of trust. The following sections refer to the methodology adopted and the presentation and analysis of the results. The concluding sections include a final analysis and the limitations and conclusions.

## **THEME BACKGROUND: AGGREGATED VALUES IN CREDIBLE PARTNERSHIPS BETWEEN COMPANIES AND SUPPLIERS**

In the field of supply chain management is taking place change management driven by the effectiveness of new management practices in leading industries (McCutcheon & Stuart, 2000).

Studies show that partnerships with suppliers have several important aspects among which we can highlight the sharing of knowledge (Cai, Goh, de Souza, & Li, 2012), the relationship management (Day, Magnan, & Moeller, 2010), and the performance of the supplier (Dubois & Pedersen, 2002), among others. The relationship management is considered the most fragile component (Johnston, McCutcheon, Stuart, & Kerwood, 2004).

These aspects can be developed as an integral part of a strategic path of the company from which responsibilities between the parties are defined. The competitive advantage of these partnerships can derive from close relations of supply throughout the lifetime of a relationship and at various levels between company and supplier (Day et al., 2010).

The relationship between company and supplier collaborates to develop a win-win process, and one can highlight three components: a) information flows, b) provision of product flows and c) relationship management.

a) Information flows in terms of supply have a direct impact on the plans of production scheduling, inventory control and delivery of individual members of the supply chain. Greater exchange of information, coupled with a best level of quality of information, makes the partnership more effective and improves the relationship between company and supplier (Heikkila, 2002).

b) The supply of goods' flows is a component focused on the strategic collaboration with partners in the supply chain and the management of intra and inter-organizational processes, and aims to achieve effective and efficient flow of products to deliver maximum value for customer at low cost and high speed (Flynn, Huo, & Zhao, 2010).

c) Relationship management with suppliers (SRM) is a business process to manage all contacts between an organization and its suppliers. Suppliers, here, refers to any organization that sells something to the company that operates the SRM application. SRM is the activity of the implementation process, including the creation, development, and stabilization of relationships, and includes the dissolution of relationships with non-qualified suppliers, in order to generate and increase the value within these relationships (Tseng, 2014).

Qualification can be defined as a method to demonstrate that an entity or process is able to meet or exceed specific technical requirements. The qualification aims to ensure an acceptable level of variability for all requirements of the product affected by the design and manufacturing, such as geometric dimensions, material properties and product features (Azarian & Pecht, 2008).

Qualification is a process by which the company tries to reduce market uncertainty and may be seen as a process in which the relationship between the companies is marked by strong ties of complementarity and interdependence, where the issue of trust becomes a central factor for the quality of the relationship. In this process, the company seeks to identify potential suppliers and determine their qualifications as a possible supplier of the company (Carr & Pearson, 1999).

For a process of supplier qualification are considered as factors necessary for the consolidation of supply partnership the delivery, time and cost, leaving aside, or in background, other factors such as: quality of service, containment of non-compliance, the overall performance of company and supplier, partnership and trust necessary for the proper development of their relationship (Chicksand, 2015). The uncertainty in the market may be another important dimension of the insecurity of that relationship because, in an environment shaped by rapid changes in the market, no company can predict accurately future changes (Lee, Yeung, Edwin & Cheng, 2009).

Companies that tend to believe and trust in their suppliers in order to maintain a committed partnership with the outcome of these have an explicit interest in the results and development of the supplier, and create a loyalty and priority in the services provided by suppliers (Blonska, Storey, Rozemeijer, Wetzels, & de Ruyter, 2013). This happens because due to the security/confidence that the company shows in its transactional relationship with the supplier, and whose essential requirement is the absence of opportunistic behavior by both the company and supplier.

Trust has been defined as a psychological state comprising the intention to accept vulnerability based on positive expectations of the intentions or behavior of another. It can be seen as the level

of credibility and commitment by the supplier to promote the interests of the buyer, as perceived by the buyer (Schoenherr, Narayanan, & Narasimhan, 2015).

The trust between company and supplier may be linked to factors such as, for example, satisfaction, fair results and the propensity to continue to work, and that should be considered in relational processes by companies (Alejandro Souza, Boles, Ribeiro & Monteiro, 2011), since they tend to reinforce results obtained within such a line of work with their suppliers (Ates, Wynstra, & van Raaij, 2015).

The credibility and loyalty from the supplier to the customer goes beyond the formal barriers (based on pure market transactions) existing in relations between companies, and imply that the provider trusts the client and tends to put the respective company at the top of its priorities in the client portfolio, considering it the most important in the supply board (Adobor & McMullen, 2014).

In this context, there is a significant reduction of limits or barriers that prevent the customer to invest in key suppliers, through supplier strengthening or development programs, and in view of the investment in time and resources required from the customers. These programs can be implemented with a limited number of strategic suppliers (Nagati & Rebolledo, 2013).

Companies can also open their physical structure to suppliers, provide training, etc., as a way of being able to develop their activities in accordance with more efficient methods, according to business need. Studies showed that this collaboration creates a link of supplier's responsibility with the company, which strengthens the relationship, the partnership and the supplier's commitment to achieve the goals together with the company (Li, Humphreys, Yeung & Cheng, 2012).

## **RESEARCH METHOD**

Given the overall objectives and the literature review, a questionnaire was made to estimate practices regarding the qualification of suppliers. We sought to evaluate the relationship of trust between company and supplier, including the involvement and the benefits of the relationship between the parties and confidence aspects of qualifying agreements.

The questionnaire consisted of closed questions with multiple choice answers and was applied to 154 employees in engineering, quality, materials, production and purchasing of six multinational

companies from the following industries: metallurgy, production of electronic components and electronic products for consumption.

The six multinational companies have their headquarters in North America (two American companies), in Asia (one Taiwan company and two companies in China) and South America (one Brazilian company). Interviewed companies are subsidiaries that are installed in the Industrial Pole of Manaus - PIM, in Brazil, acting essentially as production outposts. They are focused on the areas of production of electronic components, mechanical engineering and end consumer products such as televisions, set-box, displays, boxes. All six researched companies play a role both as supplier and customer, since they provide intermediate products and are purchasing production inputs.

The nature of the industrial activity that emerged with the Industrial Pole of Manaus is the result of a tax incentive policy that was implemented to offset the unfavorable geographical location of the city of Manaus relative to main suppliers and consumers centers where technology-related economic activities play a major role (Araujo Filho, 2005).

The sampling technique used in this study was of convenience and the questionnaire was directly administered (the interviewer was present in the completion of the questionnaire). Respondents are part of a group of professionals who have the following functions: inspectors of production processes, analysts, leaders, buyers and coordinators of the departments in which they are inserted. These individuals act on operating processes and therefore on return of the information about the result of the quality of the product provided by the supplier. Thus, they have some influence on the qualification of suppliers.

In the survey we asked participants to quantitatively identify their perception about the partnership between the company and the supplier, the benefits of sharing knowledge on the exclusive provider, the management of supplier quality, supplier qualification, reduction costs, in addition to information in order to meet the mutual needs in support of both parties and the involvement of the supplier partnership to improve development processes and products.

In this article, some of the topics covered in the questionnaire will be analyzed. We will address only the issues related to the partnership and the supplier's credibility. These two issues were addressed in the questionnaire through four questions each, for a total of eight questions. These questions attempt to cover gaps in the supplier qualification process and they provide information

on how companies interact on some difficult to measure aspects, but that may appear in the future as indicators in the processes for supplier qualification.

In terms of composition of the sample, the quality and production areas were the major participants, followed by engineering, materials / logistics and others, and purchasing was the area with the smallest representation (Figure 1).

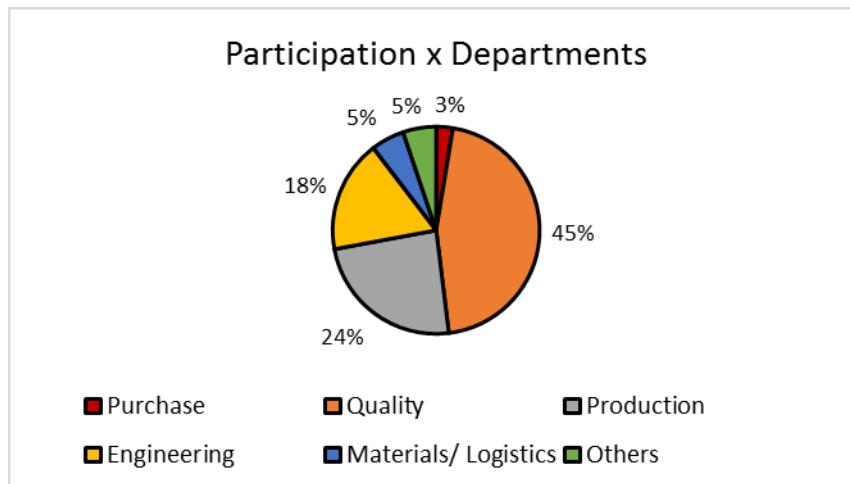


Figure 1: Participation of departments in the data collection process.

The question of the number of participants by area of the company is relevant because it indicates, in itself, the greatest interest that these areas have in the topics on research, particularly on the issues of partnership and trust between company and supplier.

In the process of conducting the survey, it was observed interest by the part of the engineering and production areas for these themes regarding possible advantages of supplier qualification processes, if and when they effectively become partners of the company, not just distant parts of a purchase agreement sale. It was emphasized that a greater supplier involvement in improvement processes, on cost reduction and on the exchange of knowledge, will benefit the two parties, company and supplier.

## **PRESENTATION AND ANALYSIS OF RESULTS**

### **The partnership between company and supplier**

This section will address issues related to the partnership between the company and suppliers. In the following tables, data are presented separately to cover the aspects mentioned so that each participant could evaluate and rank its opinion on those statements.

The four survey questions that addressed the topic of the partnership are:

A1: the relationship between company and supplier is considered important due to the benefits of combining the strengths of knowledge in production processes for both parties;

B1: the importance of the company to make partnerships with the supplier with the benefit of mutually share information about production process improvements;

C1: the need for qualification procedures for suppliers to describe the most appropriate way to cover your needs as a business and needs to support the supplier and, finally;

D1: the validity of the company to increase the involvement of the partnership with the vendor focused on improving development processes and product.

Table 1 shows the obtained results, with response averages and the percentage of respondents by area of operation and by question, in which the columns correspond to the four questions. The total number of respondents of the companies that took part in the survey was 154 participants. Not all questions were responded by all participants, and so the percentages vary slightly according to the question. One Likert scale with five points was used: 1. strongly disagree, 2. disagree, 3. agree, 4. fairly agree and 5. totally agree.

Table 1: Average concordance of responses per question regarding the partnership between company and supplier, by department.

<b>Departments</b>		<b>A1</b>	<b>B1</b>	<b>C1</b>	<b>D1</b>	<b>Total</b>
Purchase	Average	4,00	4,00	4,25	3,25	3,88
	% respondents	2,59%	2,61%	2,61%	2,59%	2,60%
Engineering	Average	3,67	4,08	4,27	4,19	4,05
	% respondents	17,53%	16,99%	16,99%	17,53%	17,20%
Materials/ Logistics	Average	4,13	4,38	3,75	4,13	4,09
	% respondents	5,19%	5,22%	5,22%	5,19%	5,20%
Quality	Average	3,86	4,06	3,96	4,11	4,00
	% respondents	45,45%	45,75%	45,75%	45,45%	45,6%
Production	Average	3,73	3,92	3,62	3,81	3,77
	% respondents	24,0%	24,2%	24,2%	24,0%	24,1%
Other	Average	3,88	3,88	3,63	4,00	3,84
	% respondents	5,19%	5,22%	5,22%	5,19%	5,21%
Total	Average	3,81	4,03	3,91	4,03	3,94
	% respondents	100,0%	100,0%	100,0%	100,0%	100,0%



Table 1 shows the average of the responses related to the areas where the companies operate by department. In general, it was observed a positive assessment of the questions, suggesting that the partnership between the company and suppliers can be considered as strategic, or at least very important. It should be noted that these aspects are not currently considered by these companies in the qualification processes.

It can also be seen that the participation of quality (45.6%) and production (24.1%) departments is much more significant than other departments, showing a greater interest in the topic, which probably is due, as explained by some participants, to the fact that the results of the supplier qualification processes most directly affects the outcome of the production process, in particular on product quality.

On the other hand, the results in Table 1 showed that the total average in the areas of purchasing and production have the lowest results on the importance of partnership between the company and supplier (respectively 3.88 and 3.77), which seems a little contradictory to the previous explanation. The production area (with 3.77) presents the lowest average and this may be due to the fact that production area addresses noncompliance automatically sending the problem to other departments so they can act in the correction of the respective non-conformities related to the acquisition of inputs from their suppliers. These departments will be those who most felt the impact of non-quality. This seems to be confirmed by the results of the areas of material, quality and engineering which have a total average greater than 4, showing that these departments will feel most the impact of non-quality. They are also the areas which will make transactions arising from non-conformity of production processes with the respective vendors for improvements and corrections of products purchased by the company. Thus, these areas are those who value more a deepening and improvement of the partnership.

However, in general, regardless of the number of participants by areas, and depending on the average shown in Table 1, partnership between the company and supplier is perceived as important.

Another way to evaluate the relevance of the partnership between the company and supplier is observing the origin of the company. Table 2 shows the average responses according to the national origin of the company. The Likert scale used was the same as in the previous table. In these results, in general, there are no significant differences between the values of companies depending on their origin.

Table 2: Average answers for question regarding the partnership between company and supplier, by origin of the company.

<b>Origin</b>		<b>A1</b>	<b>B1</b>	<b>C1</b>	<b>D1</b>	<b>Total</b>
American	Average	3,79	3,95	3,81	3,84	3,85
	% respondents	37,01%	36,60%	37,25%	37,01%	36,97%
Asian	Average	3,77	4,09	4,02	4,13	4,00
	% respondents	36,36%	36,60%	35,94%	36,36%	36,37%
Brazilian	Average	3,90	4,07	3,90	4,15	4,01
	% respondents	26,62%	26,79%	26,79%	26,62%	26,70%
Total	Average	3,81	4,03	3,91	4,03	3,94
	% respondents	100,0%	100,0%	100,0%	100,0%	100,0%

American companies have the lowest total average and interestingly, the Brazilian has the highest total average. However, the differences are very small. An almost uniform tendency is observed in the companies considering as important to include and strengthen aspects of the partnership with suppliers to improve their production processes.

### **Credibility as a result of improvement strategy between company and supplier**

The issues related to this topic are intended to understand aspects related to the trust between the agreements on partnership, considering the practice of win-win process between enterprise and supplier and involving credibility in the relationship developed between the parties.

The four survey questions that addressed the issue of credibility are:

A2: It is fair to say that there is a competitive advantage for the company in having relationships with suppliers so as to consolidate the credibility of the supplier.

B2: the supplier has credibility in relation to the company and shares knowledge processes as needed in favor of both parties.

C2: the need for the company to encourage improvement actions in partnership provision to promote a long-term cooperation with the supplier.

D2: the importance of the company to direct efforts in problem solving policy in order to find beneficial solutions for the company and its suppliers.

Table 3 presents the results of the questions, showing the percentage of respondent by area of operation and the average by question, in which the columns correspond to the four questions. One Likert scale with five points was used: 1. strongly disagree, 2. disagree, 3. agree, 4. fairly agree and 5 totally agree.

Table 3: Average answers for question regarding the credibility of company and supplier, by department.

<b>Departments</b>		<b>A2</b>	<b>B2</b>	<b>C2</b>	<b>D2</b>	<b>Total</b>
Purchase	Average	3,50	3,00	3,75	3,50	3,44
	% respondents	2,61%	2,64%	2,63%	2,61%	2,62%
Engineering	Average	3,70	3,19	3,74	4,19	3,70
	% respondents	17,64%	17,88%	17,76%	17,64%	17,73%
Materials/ Logistics	Average	3,88	3,50	3,50	3,63	3,63
	% respondents	5,26%	5,29%	5,26%	5,22%	5,26%
Quality	Average	3,65	3,49	3,70	3,74	3,64
	% respondents	45,09%	45,00%	45,39%	45,09%	45,14%
Production	Average	3,65	3,39	3,86	3,78	3,67
	% respondents	24,18%	23,84%	24,34%	24,18%	24,14%
Other	Average	3,25	3,00	3,86	3,25	3,34
	% respondents	5,22%	5,29%	4,60%	5,22%	5,08%
Total	Average	3,65	3,37	3,74	3,79	3,64
	% respondents	100,0%	100,0%	100,0%	100,0%	100,0%

The credibility in partnership relations can be considered as a delicate process because other factors such as the market situation, the company's stability and strategic background can define the relationship between company and supplier as is regards trust.

As shown in Table 3, the purchasing area has the lowest value in terms of participation (2.62%) and the lowest total average (3.44). This result is interesting because the purchasing area is the initial contact with suppliers or new suppliers, and in general, it is the department that has a higher frequency of contact and knowledge of the suppliers. The indication of a relatively modest ranking in terms of credibility suggests that this is a factor that contains some weaknesses and that can or should be improved.

In general, the purchasing area can be considered as the primary channel of interaction with suppliers, and through which the company, along with other departments, may assess and manage partnership characteristics and credibility with suppliers, improving its capability to chose better suppliers.

Note that the total averages shown in table 3, are allways less than 4 and lower than the total averages in table 2, which refers to the need for strengthening the relationship. It seems therefore that although there is agreement on the need to deepen the nature of the partnership, the question of credibility arises as a most sensitive aspect.

Similar to the analysis above, we present below the results regarding the credibility in the relationship between suppliers and companies, considering the origin of the company and using the Likert scale of five points mentioned above. It shows a tendency of the participants to believe in strengthening the trust between the parties.

Table 4: Average answers for question regarding the partnership between company and supplier, by origin of the company.

<b>Origin</b>		<b>A2</b>	<b>B2</b>	<b>C2</b>	<b>D2</b>	<b>Total</b>
American	Average	3,45	3,23	3,77	3,79	3,56
	% respondents	36,60%	37,08%	36,84%	36,60%	36,84%
Asian	Average	3,73	3,41	3,60	3,80	3,64
	% respondents	36,60%	36,15%	36,18%	36,60%	36,38%
Brazilian	Average	3,80	3,51	3,90	3,78	3,75
	% respondents	26,79%	27,15%	26,97%	26,79%	26,93%
Total	Average	3,65	3,37	3,74	3,79	3,64
	% respondents	100,0%	100,0%	100,0%	100,0%	100,0%

The overall averages are very similar, with no significant differences among the companies considering their origin, and there seems to be agreement on the fact that trust or credibility is an important factor in the supplier qualification process, even though the results are slightly higher than the lower level of agreement, reflecting the sensitivity of the factor, as mentioned above.

## **INTEGRATED ANALYSIS OF PARTNERSHIP AND CREDIBILITY**

The results of this study indicate that participants tend to perceive a need for greater interaction between company and supplier. Clearly, there is a perception that this improvement in the partnership may result in benefits for both parties.

Alongside these results, it was observed that companies tend, in their supplier qualification process, to capture suppliers in a traditional way, not considering the aspects considered here related to the partnership and credibility, or doing it warily. That is, as suggested in other studies (Spekman & Carraway, 2006), the partnership is merely formal which makes the credibility in this relational process noticeably fragile.

Traditional approaches to supplier qualification processes possibly probably result in timid improvements and cost reductions (Li, Humphreys, Yeung, & Edwin Cheng, 2007). By contrast, the aim of a stronger partnership is to strengthen the reciprocal relational responsibilities between the parties and therefore the achievement of positive results. The relationship between company and supplier is important for the benefits of combining the strengths of knowledge in their production processes.

One possible aspect that can be considered relevant to the relationship between company and supplier is linked to the fact that the companies are located in a specific industrial concentration which brings together about 475 small, medium and large companies (SUFRAMA, 2016) which were attracted by a policy of tax incentives. The geographic proximity may be a factor that enhances interest in closer relations. On the other hand, the somewhat volatile nature of the location stimulus, driven more by tax reasons than by a perceived need for geographical proximity to other partners, can be an obstacle to closer relations.

The participants considered that it was needed a focused work for the company in order to review the supplier's involvement in decisions on business processes and improvements in transactional processes and which will result in improving production processes. This reformulation of the relationship between company and supplier is considered necessary because the participants perceive in their routine activities opportunities for improvements that can be developed in partnership with companies.

This reinforces the conclusions of several studies (Wong, Tjosvold, & Yu, 2005) that partnership and trust between companies and suppliers is heading towards an evolution in the relational management in order to achieve better results by avoiding opportunistic behavior.

The question that has lower average results is the question B2, which has to do with sharing company information with the supplier, which seems to be a worrying indicator of the

development of the relationship between company and supplier. The answers seem to indicate that the participants consider not important that the company involves the supplier more intensively on improvements and strategy decisions. It is considered that this relational characteristic weakens the possibility of greater commitment by the supplier resulting that it limits himself to decisions from its customers' purchasing management, promoting a relational discomfort and an increased cognitive distance between the parties (Lumineau & Henderson, 2012).

## **CONCLUSION**

In the scenario assessed in the survey, there was a tendency among companies and suppliers to agree that partnership and trust tend to be influencing factors in reducing costs in order to increase their profits. However, the collaborating companies of this research indicated that the qualification processes currently employed are still formal in nature and similar to qualification systems adopted by companies in a more general context.

From the results, there is an opening in attitudes relative to partnership and credibility, which are regarded as components that can be more explicitly introduced in the supplier qualification process. However, the participants did not see mutual assistance for growth and development and resulting improvements in partnership and trust, as the major ruling factor for supplier qualification.

The survey also highlights the fact that companies, as they keep this qualification vision with its suppliers, limiting the possibility of improvements in production processes, do not potentiate the process of economic growth for both parties. This is due to the perception of the participants that being the supplier involved in the client process may give rise to opportunistic behavior by the part of the supplier (Bhattacharya, Singh & Nand, 2014).

Following this study, and as a way to complement it and substantiate it, it would be important to conduct a comparative study of supplier qualification practices and make a contrast with the trends revealed here. The implication of the results of this research reinforces the need for reconsideration of the supplier qualification process for companies and the evaluation of possible improvements that partnership and trust can bring to the relationship between them.

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