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Full Length Research Paper

Value's association and their influence on price and share of orders

Fabio Benevite*, Giancarlo Medeiros Pereira, Miriam Borchardt and Miguel Afonso Sellitto

Universidade do Vale do Rio dos Sinos – UNISINOS, Av. Unisinos, 950 – Bloco 5A - S. Leopoldo – RS – Brazil – 93022-000, Brazil.

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This paper investigates the influence of values on price and share of orders based on a multiple case study involving four global buyers and their global suppliers of premium industrial components (bearings, electronics, hydraulics and pneumatics). The following value drivers were considered: product, service and supply. Results showed ranges of prices and share of order not described in the literature, as well as the association of values that define a purchasing decision in the buying companies analyzed.

Key words: Value management, pricing, industrial marketing.

INTRODUCTION

Several studies have focused on the values demanded by industrial customers. The results of these studies pointed out to three drivers of value, namely: product values (Matthyssens et al., 2006; Lindgreen and Wynstra, 2005), supply values (Hsieh et al., 2008; Cannon and Homburg, 2001) and service values (Ulaga and Eggert, 2006; Vargo and Lusch, 2004; Banting, 1984).

The greater the perception of values, the greater is the reward that a supplier may get in terms of price. But a price increase also has implications in the share of orders. In one of the few studies focused on the topic showed that a price increase of 10% led to a volume decrease of less than 3% in a chain of 86 supermarkets (5000 products analyzed).

In spite of the valuable work developed on buyer's perception of value, no scientific studies focused on the influence of values on prices and share of orders were found in the literature. Considering that prices and share of orders are important drivers of a company's profitability this study investigated the values demanded by four global companies to their suppliers of premium industrial products (bearings, electronics, hydraulics and pneumatics). The objective was to identify the limits that a superior value provided by a premium component has in terms of prices and share of orders by those customers.

*Corresponding author. E-mail: benevitefabio@gmail.com.

All buyers and suppliers investigated have a global presence and are listed among the top organizations in their sector of activity.

This study is organized into the following: concept of value, value drivers, supplier rewards, research propositions, methodology, data analysis, discussion and conclusions. The limitations of the study and suggestions for further studies are also presented.

Value

The concept of value refers to the difference between the actual and perceived benefits and the costs to the customer. Price paid, switching costs, installation costs, technical support costs and maintenance costs are just a few examples of the costs incurred (Khalifa, 2004; Lindgreen and Wynstra, 2005; Payne and Holt, 2001; Ulaga, 2001). According to Matthyssens and Vandenbempt (2008), customer value is traditionally recognized as the value received by the customer. The authors also point out that a company must launch new value concepts and continuously re-invent the way customer value their products or services in order to remain competitive.

The ability to continuously create customer value is a central theme in the strategy and marketing literature (Khalifa, 2004; Payne and Holt, 2001; Ulaga, 2001). Maximizing returns to customers, as one of the firm's

stakeholders, is a necessary condition in order to achieve superior economic performance (Barney, 2002). Actually, the creation of value must be orchestrated permanently in order to reverse the tendency that products and services have to reach a commodity status sooner or later, what often leads to a profit squeeze in today's volatile and rapidly changing markets. Intense global rivalry and more professional buyers put even more pressure on this process, especially when companies do not find alternatives to implement new differentiation strategies (Matthyssens and Vandenbempt, 2008).

The development of products, processes, or procedures that meet the specific needs of an exchange partner, such as tailoring marketing systems, purchasing new equipment, changing inventory and distribution systems or customizing products is an important source of value to industrial customers. These specific adaptations may improve channel efficiency (Kent and Mentzer, 2003), reduce the customer's acquisition or manufacturing costs, and provide better functionality for the customer (Cannon and Homburg, 2001).

The literature presents several factors affecting customer satisfaction in Business to Business (B2B) contexts. The different decision criteria used by business customers in evaluating their component parts' suppliers vary by industry as identified by Bennion and Redmond (1994). In general, product quality, delivery, price, and service are the key attributes that are used to assess the performance capabilities of vendors (Dempsey, 1978; Dickson, 1966; Matthyssens and Faes, 1985; Wilson, 1994).

The next topics present the elements described in the literature that may influence the buyer's perception of value.

VALUE DRIVERS

The following value drivers were found in the literature revised: product categories, supplier's reliability and service.

Product categories

Matthyssens et al. (2006) stated that differentiation based on product innovation and superior product qualities are important elements to the value creation. However, the investment on technical specifications seem to have some limits, since the "key buying criteria" used by a business customer to evaluate a supplier may vary across product categories (for example, maintenance, repair, and operating supplies versus components that go into a final product) and the general purchasing orientation of the customer firm (Lindgreen and Wynstra, 2005). In spite of the importance of the topic to the buyer's perception of value, no scientific studies focused on the influence of product values (technical specifications or categories) on prices and order sizes were found in the literature.

Supplier's reliability

Identified supplier's reliability as the most important value driver to the customer's satisfaction in the hydraulic and pneumatic equipments. According to Hsieh et al. (2008), market-oriented firms provide value to their customers and avoid an overreliance on current relationships by emphasizing either flexibility or relationship-specific adaptations demanded by the buyer.

Flexibility typically involves short-term responses to sudden customer needs (Cannon and Homburg, 2001), since business buyers expect suppliers to cope with their unexpected needs. The differentiation based on service innovation and customer bonding is a sort of value propositions that leads to competitive differentiation (Matthyssens et al., 2006).

Service

Ulaga and Eggert (2006) demonstrate that product and price are less differentiating factors today. According to the authors, service support and personal interaction, and to a lesser degree access to know-how, have become core differentiators in business relations. Vargo and Lusch (2004) emphasizes that customers make critical value assessments when goods are in use, based on their service-ability. Services also play an important role in determining an industrial customer's satisfaction. This includes technical services such as maintenance, repair, and operation services; financial services such as credit policy; and services that support the products and systems after delivery, including warranty coverage.

Complaint handling is particularly important in B2B, since the majority of customers do not complain until they have a very serious problem. Thus, it is also important that a supplier respond adequately to any complaint and have an established policy to handle returns (Banting, 1984). According to Matthyssens et al. (2006) differentiation based on cost leadership, operational excellence and fair value solutions is an important value proposition on the customer's point of view.

SUPPLIER REWARDS

Financial rewards

The positive effects of values on customer's loyalty was described in literature by authors like Bolton and Drew (1991), Eriksson and Löfmarck-Vaghult (2000), Rust and Zahorik (1993) and Scheuing (1995). Other studies examined the relationships between service, quality, and profitability (Buzzell and Gale, 1987; Chusil and Downs,

1979). Evidences about the profit consequences of service quality were presented by Zeithaml (2000).

Despite a recent surge of interest, the subject of pricing in general and value-based pricing in particular has received little academic investigation (Hinterhuber, 2004). According to the author, pricing has a huge impact on financial results, both in absolute terms and relative to other instruments of the marketing mix. Nevertheless the subject of pricing has received far less attention than other aspects of marketing, from both practitioners as well as academic scholars.

One of the studies focused on the subject was realized by Anderson et al. (2000). The authors investigated how purchasing managers combine information about product offerings' values and prices to make purchase decisions. The results show that managers do not regard monetarily equivalent changes in value and price to be the same. Avila et al. (1993) investigated the importance of price for industrial goods in a survey involving purchasing and sales managers of 200 companies. The authors found that purchasing managers ranked product attributes as the most important criteria, then service attributes, and finally, price as the least important criterion. On the other hand, sales managers ranked price much higher in what they perceived to be the most important purchasing criteria of their customers, indicating how weak their understanding of the critical purchasing criteria of their customers was.

According to Wouters et al. (2005), value based pricing is very closely connected to the concept of 'total cost of ownership'. Total cost of ownership quantifies the costs besides the direct purchasing price, which are involved in acquiring and using alternative offerings and are comprised of transaction costs related to purchasing activities (for example, ordering, freight, and quality control), inventory holding costs (for example, capital, storage, handling, insurance, and obsolescence), as well as costs associated with poor quality (for example, rejection, rework, downtime, and warranties) and delivery failure to customers (Carr and Ittner, 1992).

Regarding services, Gebauer and Friedli (2005) state that "competing through services enables product manufacturers to earn the potentially highest margins". The authors also show how managers attempt to change their mindset form "services as add-on" to "services as value-added" activities. In business practice, however, practice companies seem to struggle with these suggestions (Matthyssens and Vandenbempt, 2008). Their efforts often do not result in higher margins (no market acceptance of higher prices) and/or marketers might lack creativity to differentiate their offering in a meaningful way (Anderson and Narus, 2004; Baden-Fuller and Stopford, 1994).

In spite of challenges described, firms keep trying to explore opportunities to enhance their value propositions by integrating products and services in new business offerings (Windahl and Lakemond, 2006). This approach address specific customer needs implying a shift in focus from product functionality to the actual outcomes of their products and services for customers' operations and processes (Davies, 2003). Clearly, this new strategy challenges traditional business models for selling products, spare parts and support services (Windahl and Lakemond, 2006). Despite recognizing the opportunities integrated solutions provide, many firms have only limited insight into how integration of products and services could and should be carried out, the challenges integration poses, the extent of the service offering, and the factors to consider when deciding on the product–service mix (Oliva and Kallenberg, 2003).

The greater the perception of values provided by a certain supplier to their customers, the greater is the reward that this supplier may make with them in terms of price. But before designing a value based pricing strategy a supplier needs to answer the following question: What is the real influence of values on price? This question is particularly relevant given that, in empirical surveys, marketing managers frequently mention intensified price competition as the main challenge, ahead of issues such as product differentiation and new product launches (Simon, 1999).

Volume rewards

Hinterhuber (2004) states that most managers hesitate to associate market share leadership with a high-price strategy. According to the author, the belief is that a premium price strategy is best suited for small, niche markets. High market share and high prices can be achieved only if prices truly reflect high customer value. Reflecting about this statement is possible to ask: What is the influence of premium prices on the share of orders? Aiming to ask a similar question identified that a price increase of 10% led to a volume decrease of less than 3% in a chain of 86 supermarkets (5000 products analyzed). Another study in nine segments of the U.S. pharmaceutical industry found that the most expensive drug was at the same time also the drug with the largest market share. The second most expensive product was a market share leader in eight segments. By contrast, the cheapest product had the largest market share in six, and only 20%, of all segments (National Institute for Health Care Management, 2001).

An analysis of the studies presented earlier shows that what the investigations realized did not address the industrial segment, which suggests a gap in the literature.

RESEARCH PROPOSITIONS

An analysis of the existing gaps in the literature, the research variables derived of those gaps and the propositions that will guide this study are presented in

Table 1. Research variables and propositions.

References' analysis	Research variable	Proposition
The references revised do not mention the existence of any variance in the most required values that a certain company may consider when purchasing different premium products.	Values	P1 - Each buying company has a commom set of values that define a purchasing decision of premium products.
The influence of technical specifications on price and order size is not described in the literature.	Product	P2 - Products with desired technical specifications are rewarded with higher prices and the highest share of the order size.
There is no reference linking the service required by the customer and its rewards in terms of price and order size, no matter the crescent demand verified for this sort of value.	Service	P3 - Providing the desired services allow sellers to charge prices significantly higher and get the highest share of the order size.
There is no reference regarding the rewards that a supplier can get for having a "reliable supply".	Reliable supply	P4 - Reliable supply is rewarded with higher prices and the highest share of the order size.

Table 1.

METHODOLOGY

A case research approach was used to investigate the propositions defined. Case research is an appropriate method when contextual conditions are pertinent to the phenomenon of study and when the research questions include an explanatory, theory-building component (Yin, 1994).

Sample design and selection

Voss et al. (2002) emphasize the importance of control variables in case study research. In order to investigate different buyer's profiles it was defined that the buying plants selected should operate in different industrial sectors, have several plants around the world and be listed among the top 5 best global organizations in their respective industrial sectors.

Considering the differences on buyers' profiles to be investigated and aiming to allow for meaningful comparisons between contexts comparison on values required, prices and share of orders a group of common industrial products was selected. By definition, all products selected should be regularly acquired by the buying companies and sourced by global suppliers with reputable quality. The suppliers selected also should be listed among the top 5 best global organizations in their respective industrial sectors.

Buying companies, suppliers or common products that did not fit in the conditions described were discarded. As a result of that, this study considered 1 mining company, 1 steel mill industry and 1 equipment manufacturer. Once defined the buyers It was selected the products to be investigated. A total of 20 products acquired by these buyers were selected, but only 4 items attended to all conditions defined. These products are: bearings, hydraulics, pneumatics and electronics.

Data collection

A case-study protocol was developed comprising a list of all the research variables to address (variance in most required values, most required values´ influence, product's values influence, service's values Influence, reliable supply's influence and influence on orders), and the respective indicative questions, potential sources of information and field procedures. Data collection focused on the formal research variables complemented with other issues enabling the understanding of the influence of value on prices and order sizes. The case-study protocol involved several data collection methods, including semi-structured interviews, direct observation and documental analysis.

Since the items acquired were managed by different staffs each buying company was visited 2 times on separate days. General purchasing director, purchasing managers and technical buyers were interviewed on each company. Interviews ranged from 30 min to 2.5 h, with an average of 1 h. Each case involved around 10 interviews.

Data analysis

The information gathered through the interviews and documental analysis is presented on Table 2 organized by company.

The data of Table 2 were reorganized and coded following the usual guidelines for qualitative research. Based on the results tabular displays were designed to manage and present qualitative data across the relevant research variables. These displays used a fixed set of items to characterize each variable – thus ensuring consistent and objective comparisons across the several cases.

The resulting displays allowed the examination of the study's propositions, which is presented on the next topic organized by research variables. The discussion will be presented on another chapter.

Value analysis

The result of coding regarding values is presented in Table 3 (data extracted from Table 2). The first value listed on each cell of the table is the "most required value", while the next value listed in the same cell is the "second most required" value.

Table 3 indicates that the buying companies investigated choose suppliers primarily based on application's requirement and product performance (with the exception of hydraulics at steel mill 2). Actually, both values are associated to the product values and are related to the technical specifications of the machines to be

Table 2. Information gathered.

Company	Product	Most required value	Second most required value	Price's difference (%)	Share of order (%)
Beverages	Bearing	Product performance	Product performance	5	10
	Electronic	Product performance	Fast/reliable supply	10	30
	Hydraulic	Product performance	Fast/reliable supply	4	10
	Pneumatic	Product performance	Fast/reliable supply	4	10
Equipment	Bearing	Product performance	Technical support	5	20
	Electronic	Product performance	Technical support	5	10
	Hydraulic	Application's requirement	Fast/reliable supply	5	20
	Pneumatic	Application's requirement	Fast/reliable supply	5	10
Mining	Bearing	Application's requirement	Fast/Reliable supply	10	20
	Electronic	Application's requirement	Product performance	8	10
	Hydraulic	Application's requirement	Product performance	5	10
	Pneumatic	Application's requirement	Product performance	5	10
Steel mill 1	Bearing	Product performance	Product performance	3	10
	Electronic	Product performance	Product performance	3	30
	Hydraulic	Product performance	Fast/reliable supply	3	30
	Pneumatic	Product performance	Fast/reliable supply	3	20
Steel mill 2	Bearing	Product performance	Technical support	5	10
	Electronic	Application's requirement	Product performance	8	10
	Hydraulic	Fast/reliable supply	Technical support	5	10
	Pneumatic	Application's requirement	Technical support	5	5

Table 3. Required values.

	Bearings	Electronics	Hydraulics	Pneumatics
Beverages	Product performance / product performance	Product performance / supply	Product performance / supply	Product performance / supply
Equipments	Product performance / technical support	Product performance / technical support	Application's requirement / Supply	Application's requirement / Supply
Mining	Application's requirement / supply	Application's requirement / product performance	Application's requirement / product performance	Application's requirement / product performance
Steel Mill 1	product performance / product performance	Product performance / product performance	Product performance / supply	Product performance / supply
Steel Mill 2	Product performance / technical support	Application's requirement / Product performance	Supply / technical support	Application's requirement / technical support

repaired (in the case of components for maintenance) or the equipments to be produced (in the equipments manufacturer case). Since the suppliers provide the values desired the buyers start to focus their attention on values related to supply (fast and reliable supply) and service (technical support). As a result of that, the majority of purchases are defined based on an association of values. Figure 1 provides an overview of the association between "most required values" and "second most required values" and their influence on prices and share of orders (B – Bearings, E – Equipments, H – Hydraulics and P – Penumatics).

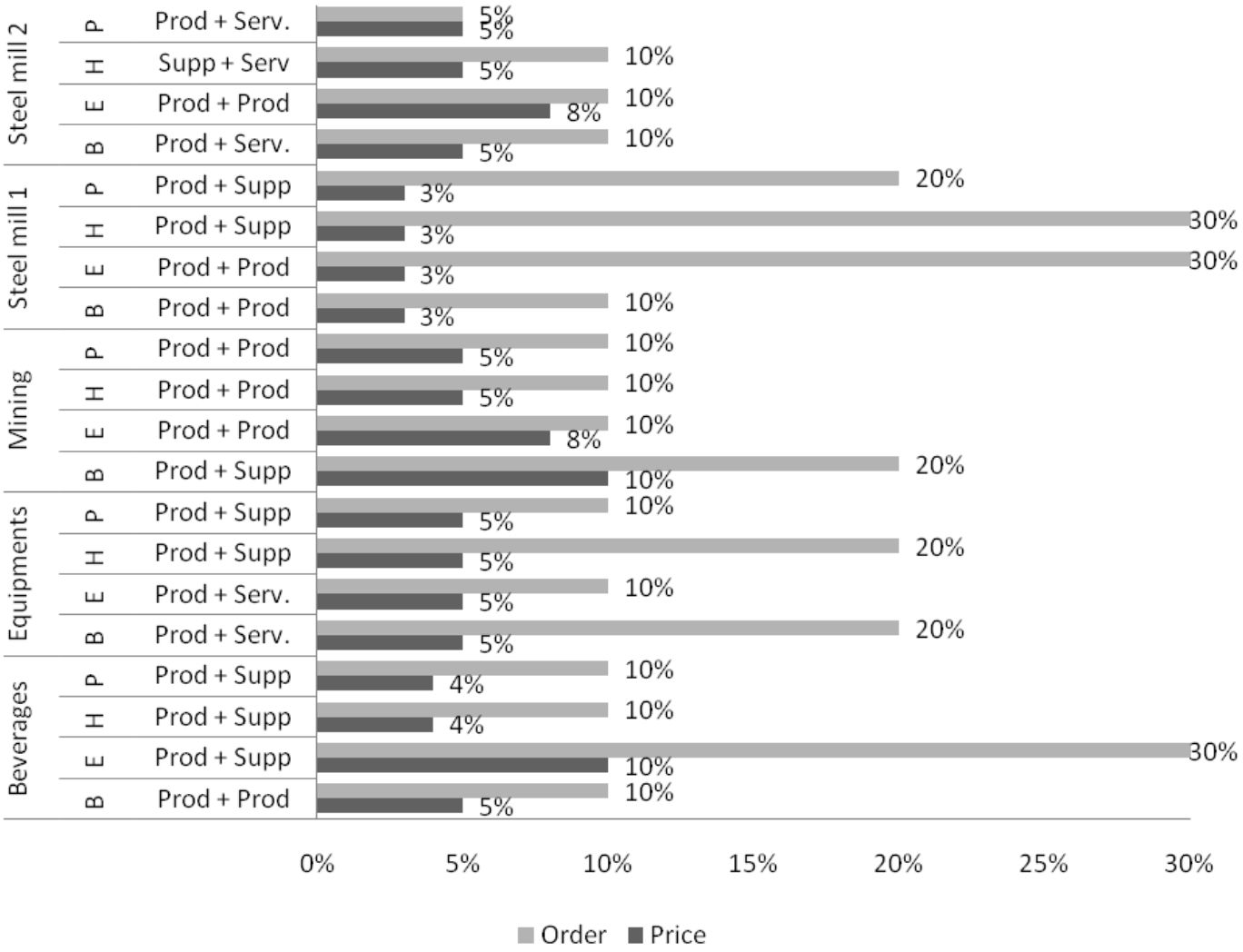

Figure 1. An overview of the association between "most required values" and "second most required values" and their influence on prices and share of orders.

Product and product influence

Figure 2 was generated with the data extracted from Table 2 and presents the influence of product values on price and share of orders. The information showed in the figure is related only to the influences of product values that were simultaneously listed by the buyers as the "most required value" and the "second most required value". With the exception of electronics, the influence of this sort of value on prices and share of orders is almost fixed (3 to 5% in prices and 10% in the share of orders). Hydraulics and pneumatics components seem to have no range in terms of price (5%); no matter the differences among the buyers analyzed. The highest range of prices was identified in electronics (3 to 8%). Electronic suppliers also may get a higher share of order when selling to the companies analyzed (from 10 to 30%), while bearings, hydraulics and pneumatics have no range regarding the share of orders (10%). The total reward (prices + share of order) of electronics suppliers are also higher than the total rewards of bearings, pneumatics and hydraulics components.

Aiming to investigate in depth the influence in focus a second analysis was performed considering the buyer's profile (Figure 3).

With the exception of steel mill 1, all other buyers present a fixed and similar buying policy regarding the product value (mining, steel mill 2 and beverages companies on Figure 3).

The analysis of the proposition P2 indicates that the desired product values allow suppliers to ask only for a slightly increase in prices (3 to 8%), thus refusing P2 regarding prices. With the exception of electronics at steel mill 1, the share of order identified is lower than 10%, which also refuses P2 for the share of orders.

Product and service influence

As presented in Table 2, the association of service with product values (4 mentions out of 20) and service with supply (1 mention out of 20) is an important element that can influence prices and share of orders. According to the buyers interviewed, the technical support is the only branch of service that can justify a certain reward, since complaints handling and other services seem to have no effect on prices and share of orders in the companies investigated. The managers also stated that service does not sell a product, but is an important complement to define a purchasing

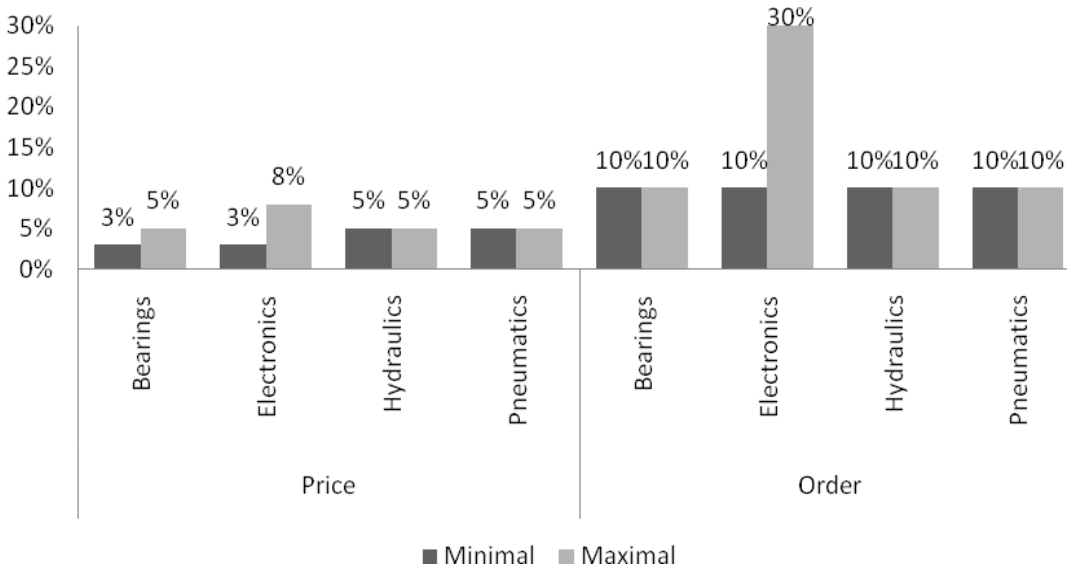

Figure 2. Product and product influence.

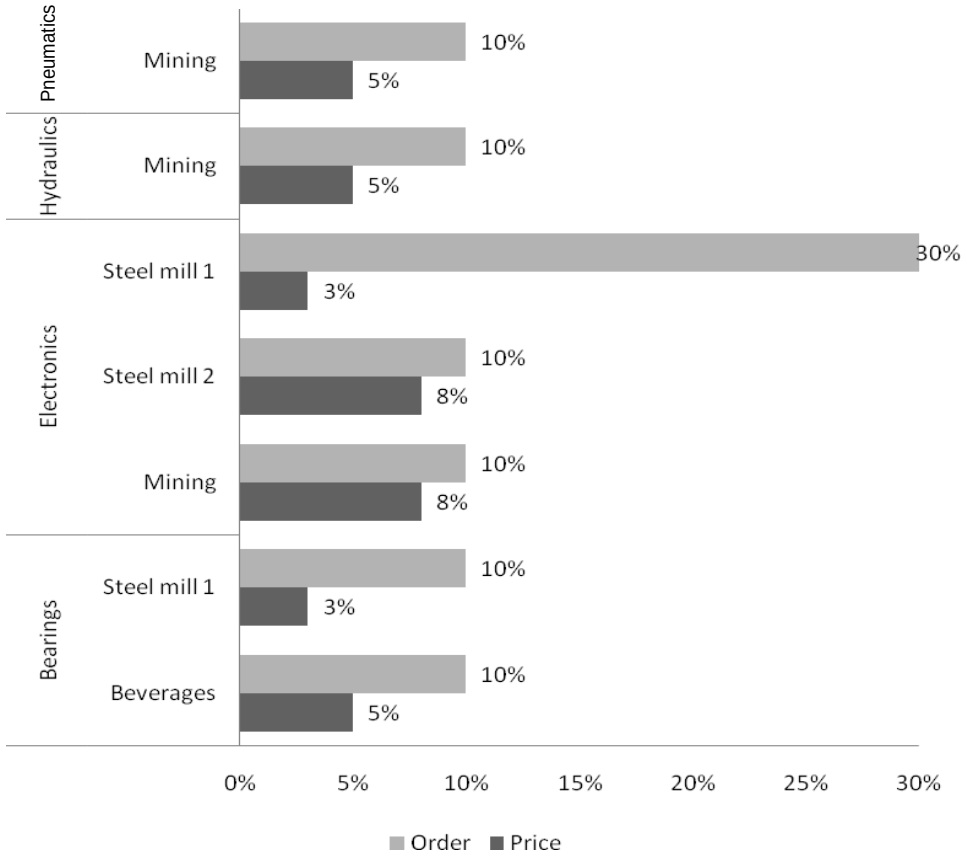

Figure 3. Product x buyer.

decision of products that have a good technical evaluation.

Figure 4 was organized with the information extracted from Table 2 and indicate that only two companies accept to pay more for this sort of value's association (product + service). As showed, these buyers pay prices 5% higher to suppliers that provide this values (bearings, electronics, hydraulics and pneumatics). The share of

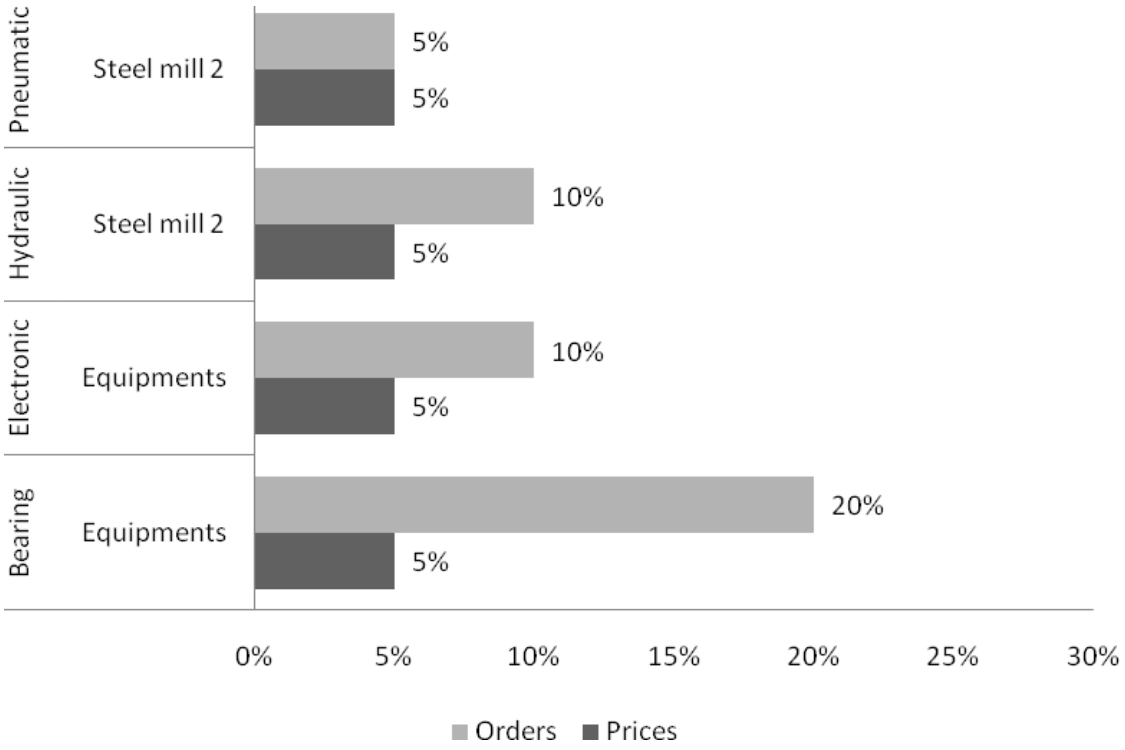

Figure 4. Product and service x buyer.

orders related to the same values ranges from 5% (pneumatics at steel mill 2) to 20% (bearings at the equipment manufacturer). Electronics and pneumatics have a share of orders of 10%.

Considering the total reward (price + order share) is possible to conclude that the equipment manufacturer rewards the suppliers that provide an outstanding service more generously than steel mill 2 company. As identified, this higher reward represents a sort of compensation accepted by the buying company for the actions developed by suppliers to increase the performance of the products produced by the equipment manufacturer, a condition not demanded by the maintenance department of the steel mill 2 companies.

The analysis of proposition P3 shows that the association of product+service does not allow suppliers to practice prices significantly higher, thus refusing P3. The same conclusion can be applied to order size, since the share of orders identified ranges from 5 to 20%.

Product and supply influence

As presented in Table 2, the association of a good product with a fast and reliable supply was identified as an important criterion adopted by buying companies to define a purchasing option (8 mentions out of 20 regarding to the “second most desired value” and 1 mention regarding to the “most required value”).

In spite of that, this value also does not have a good performance in terms of reward (Figure 5). With the exception of bearings (at mining) and electronics (at beverages) the usual buyers´ expenditure regarding this sort of value’s association ranges from 3 to 5%. Figure 5 also shows that this association allows suppliers to get a share of order that ranges from 10 to 30%.

The low reward in terms of price identified in the majority of buyers analyzed seems to be compensated in the share of order of those items. According to the buyers interviewed, this sort of compensations is a result of two main elements, namely: the need to keep low level of stocks of assembling parts (expressed by the equipment manufacturer) and the unforeseen problems that occur on the daily operations (expressed by the companies that acquire the components to repair their equipments).

The analysis of P4 indicates that a reliable supply does not have a generous reward in terms of price, thus refusing P4 regarding prices (prices ranges from 3 to 10%). Regarding the order size the rewards identified do not show a clear pattern, thus refusing P4.

DISCUSSION

Values

As identified, the buying companies have a common set of values that define a purchasing decision regarding the premium products analyzed, thus supporting P1. This conclusion is in line with others achieved by Bennion and Redmond (1994). The information presented on Table 3 regarding premium products confirms that product, supply and service are the key values used by industrial customers to assess the performance capabilities of vendors, as proposed by Dempsey (1978), Dickson (1966), Matthyssens and Faes (1985) and Wilson (1994).

This study also advances the theory by suggesting that some values are more requested than others. This is the case of the product values, which were mentioned several times as the “most required” by almost all buyers

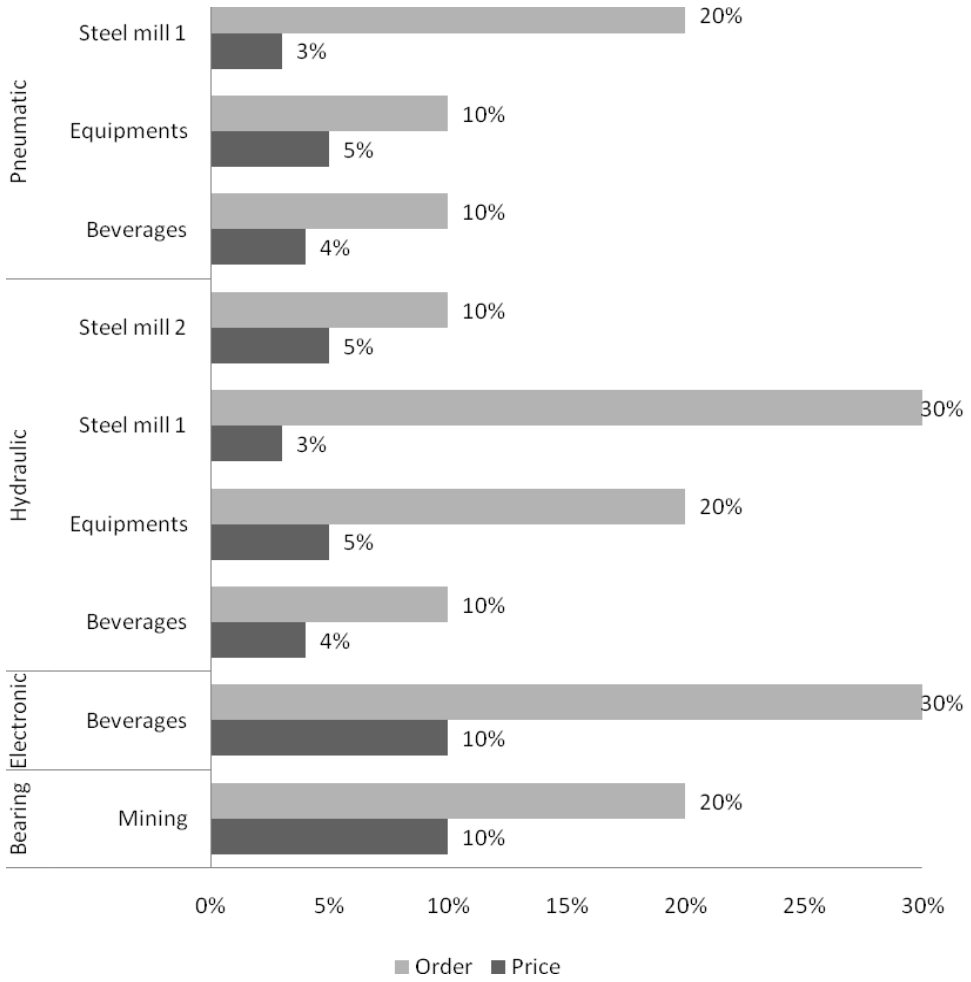

Figure 5. Product and supply x buyer.

and approximately by 1/3 of the buyers as the "second most required". Other values like service and supply (expect in one case) are only considered when associated with other stronger values (product values). This study also shed lights on the quantification of the values´ association in terms of price and share of orders.

Considering the huge difference among the companies studied it would be also interesting to investigate on future studies: What other values than product, supply and service may affect a buying decision in the business markets? Why some global supplier's analyst do not invest to develop a better performance in all values described in order to increase their sales? Is it possible to classify and quantify the buying policies among different industrial sectors or inside an industrial sector? Is it interesting for a company to invest in order to develop the best product values considering the influence of this sort of value on price and share of order?

Product and product influence

The influence of products on prices (3 to 8%) and share of orders (10% in the most of cases and 30% in one case) quantifies the value created by superior products identified by Matthyssens et al. (2006). These ranges do not support P2 regarding prices and share of order. Considering the huge difference among the buyers analyzed is possible to suppose that the numbers identified represent the ranges usually accepted by buying companies regarding the industrial components. However this possibility must be confirmed by future studies. No references were found regarding the quantifications presented or any other in the literature analyzed.

The information gathered also suggests that the influence of the product values varies across product categories, what confirms and quantifies the different perceptions of product value. This conclusion unveils some questions not addressed by the literature analyzed, namely: How customers classify product values? How they do define their acceptable ranges of prices and share of orders? What other elements may be influencing these definitions? Why these companies do not consider the other dimensions of value when defining a purchasing

option? Is this approach related to the type of product or to the customer's profile?

It was also identified that the total rewards (price + share of orders) accepted by industrial customers vary among products, which was not mentioned in the literature analyzed. This conclusion suggests some new questions to be further investigated, namely: Is the 10% share of order's reward a common practice in the industrial business for the product values? What elements lead a company to reward their suppliers in the price payee, in the share of orders or both? Why some products get a higher total reward (price + share of order) than others? What elements must be observed by a supplier in order to maximize its revenue (considering the rewards accepted by the market)? Is it interesting to a supplier to invest in order to develop the best product (considering the rewards accepted by the market)?

The information of cross-buyers rewards presented on Figure 3 shows that steel mill 1 has different buying policies in comparison with the other companies that consider only the product values in their purchasing decisions. As showed, steel mill 1 rewards its suppliers with the lowest price and a medium or higher share of orders (the case of bearings and electronics). In the case of electronic components, this difference is quite interesting, since a global competitor of steel mill 1 has a very different set of policies (steel mill 1). No references that could explain this situation were found in the literature revised. This conclusion may indicate that an analysis focused only on the industrial segment must not lead to a clear picture of the influence of product values on prices and order share. Further studies will be required in order to answer this question.

An analysis of the interviews also suggests that the sellers with recognized product values should keep investing on relationship with engineers and technicians, since this group of professionals can influence higher prices and share of order inside their organizations (Figure 2).

Product and service influence

As proposed by Ulaga and Eggert (2006), service is an important element to the sellers' differentiation in B2B markets. Nevertheless this study also has identified that some services may not interest the industrial companies investigated. As identified, the technical support is the only branch of service that attracts the customers investigated. According to the buyers interviewed, the association of product values with service values allows suppliers to charge prices 5% higher and get a share of order that ranges from 5 to 20%, thus refusing P3. Actually, these conclusions identify the type of service that generates the differentiation proposed by the authors described in the industrial components market and presents the influence of this service on prices and share of orders. No any other mention regarding the type of service demanded by industrial buyers, the association of service with other values or the influence of service values on prices and share of orders was found in the literature analyzed.

Beyond that, the ranges identified suggest that the combination of product and service values does not attract equally the two industrial buyers interested on technical support (Table 2 and Figure 5). Actually, the different attractiveness presented on Figure 5 seem to be related to a combination of all elements described in the literature, namely: service-ability (Vargo and Lusch, 2004), differences among buyers (Bennion and Redmond, 1994) or products (Lindgreen and Wynstra, 2005). Since the majority of companies studied acquire industrial components to repair their existing equipments, a sort of demand that may not require a competent technical support, is reasonable to expect a low evaluation of this sort of value among the companies studied. On the contrary, the good evaluation identified on the equipment manufacturer may be explained by an existing demand of this service. This conclusion suggests that the demand for a certain service and the rewards resulting from this demand vary among industrial customers.

The analysis of Figure 5 also suggests some questions for further investigation: Is the accepted price increase of 5% an usual reward for the association of product and service values in other industrial sectors? Why the reward of the bearing suppliers at the equipment manufacturer is higher that the reward of the electronic supplier at the steel mill company? What other elements may be involved in the rewarding of service values?

Product and supply influence

Several authors analyzed the importance of a reliable supply to the customer's satisfaction (Hsieh et al., 2008). In spite of this valuable work no comments were found in the literature regarding the influence of supply value on prices and share of orders. Aiming to shed some light in this question this study identified that the supply value is an important "second most required value" (with exception of hydraulics at steel mill 2 (Table 3 and Figure 1). The information gathered show that this sort of value is usually rewarded with a range from 3 to 5% in prices and 10 to 30% in the share of orders (no clear pattern), thus refusing P4.

The analysis of total reward (price + share of order) of this value's association suggests that some buyers reward their top suppliers with a mix of a slight increase on prices and a more generous share of orders. As long as we have researched no scientific works have focused on the mixed ways that customers use to reward their best performing suppliers. These conclusions unveiled some questions to be further investigated: Is this compensation designed to compensate the low price payee for the premium products? Is this compensation a

common practice among industrial customers? What other groups of customers demand the association of product and supply values? What elements must be observed by a supplier when defining the profitable limit of a supply value's excellence? How to maximize the supplier's revenue considering the limits identified? How suppliers can identify their customer's policies regarding prices and share of orders without asking them?

The information gathered also suggests a total absence of a clear pattern regarding the amount of reward accepted by the buying companies. This absence can be observed even in the buying policies of a single company. This is the case of the equipment manufacturer (hydraulics and pneumatics in Figure 5) or the beverages company (hydraulics/pneumatics and electronics). Beyond that, this absence of pattern is also observed between competitors (hydraulic component at steel mill 1 and 2). This conclusion suggests that new studies should be developed in order to unveil the elements that lead to this absence of pattern.

Usually associated with "product values" the "supply value" was mentioned by 8 out of 20 managers interviewed as secondary decision criterion adopted by their companies to define a purchase. This conclusion suggests that this sort of value is only considered after the customer technical staff approves the product being offered, thus unveiling a hierarchy of values demanded by the industrial customers. Once a superior level of this hierarchy is satisfied the buyers start to look for new values on the next hierarchical stage.

The conclusions presented earlier were obtained in a sample composed of global customers and suppliers listed among the top companies in their business activity. Considering the huge buying potential of the customers analyzed it would be interesting to investigate in further studies: Why other global suppliers (known as second or third best suppliers) do not invest to provide an outstanding supply and thus expand their markets? Are the supply problems a result of the production system, the logistic system, and the distributor level of service or a mix of all elements described? What elements should be considered on a cost/benefit analysis of a superior supply's performance?

MANAGERIAL IMPLICATIONS

The study showed that marketers of premium industrial products should not only focus on a single value, but on the values' association demanded by their customers. Three groups of associations of values were identified among the global buyers analyzed, namely: product + product, product + service and product + supply.

The product + product values' association suggest that in very specific situations some buyers only care about the product requirements when defining a purchasing decision. This is the case of products specified as a mandatory option by the technical staffs of the buying companies (maintenance or project professionals). This conclusion reinforces the importance of quantified differentials (technical specifications) and of a good relationship among buyers and suppliers. The reward for this sort of value ranges from 3 to 8%, while the share of orders is the 10% (with the exception of electronics at only one company). Based on the rewards identified marketers can have a better base to reposition their products, as well as to evaluate the return on investments of future improvements in the technical specifications.

However, some companies go beyond the product values to define a purchasing decision. These are the cases where the customers have another supplying option that attends the demands the technical requirements specified by the technical staffs (the product specification is not mandatory). Another possibility occurs when companies demand other values than the product's value to define a purchasing decision. One of these cases was observed in the association of product and service values (only technical support). The price reward for this association is only 5% (no range), while the share of order ranges from 5 to 20%. The highest total reward was observed at the equipment manufacturer and only at one company that acquires the components to repair their existing productive equipments. This conclusion suggests that companies must understand the type of service demanded by each buyer before trying to develop their service offers. In fact, some companies simply do not demand any sort of service.

The product + supply association is another association of values detected. By providing this sort of value's association suppliers will be rewarded with a medium price increase ranging from 3 to 5% and a share of orders from 10 to 30%. Regarding the total reward, some buyers seem to accept a mix of a slight increase on prices and a more generous one on the share of orders. However, no clear pattern concerning share of orders was detected. Considering that this values' association was mentioned by 8 out of 20 buyers interviewed is possible to conclude that some sellers are not providing it, which in turn benefits the actual suppliers studied. This conclusion suggests that some suppliers should revise their productive resources, logistic policies and channel partners in order to create more value to their existing or prospective customers.

A final analysis of the information presented suggests that marketers must deep analyze the association of values demanded by each buyer in order to define the value's approaches to be adopted by those buyers. As showed, a single dimension clustering based on the customer profile, industrial sector, product type, service or supply value is not enough to conquer the global buyers studied.

Conclusions

This study contributes to a better understanding of the

influence of values' association on price and share of orders, elements that have a strong connection to the company's profitability. The analysis was based on the industrial value's drivers described in the literature (Dempsey, 1978; Dickson, 1966; Matthyssens and Faes, 1985; Wilson, 1994). These values are product, service and supply. As identified, the buying companies have a common set of values that define a purchasing decision regarding the premium products analyzed. This conclusion is in line with others achieved by Bennion and Redmond (1994). This study advances the theory by suggesting that the product values are more requested than the service and the supply values. Indeed, the later values are only considered when associated with product values (with exception of one case).

Regarding the product + product association (which in fact is not an association), this study identified a price reward ranging from 3 to 8%, while the share of orders is fixed in 10% (with the exception of 30% for electronics at only one company). These numbers contribute to quantify the value created by superior products identified by Matthyssens et al. (2006). The variation of product values across product categories proposed was confirmed, and some numerical references of this variation not described in the literature were also presented. No comments were found in the literature regarding the variation in the total reward identified, what suggests the need for future studies focused on this topic.

The technical support was the only branch of service identified that can create the service differential proposed by Ulaga and Eggert (2006). When associated with the product values this value allows suppliers to charge prices 5% higher and get a share of order that ranges from 5 to 20%. This values' association does not attract all buyers equally, thus suggesting that therefore, there is not a one-size-fits-all service approach that applies uniformly across different industrial buyers. New future studies will be required to deep explore the service-ability (Vargo and Lusch, 2004), the differences among buyers (Bennion and Redmond, 1994) and the products.

The association of product with supply values led to a reward that ranges from 3 to 5% in prices and 10 to 30% in the share of orders (no clear pattern). These conclusions contribute to quantify the importance of a reliable supply to customers (Hsieh et al., 2008). The total reward of top suppliers concerning this association of values is based on a mix of a slight increase in prices and a more generous share of orders. As long as we have researched no scientific works have focused on the mixed ways that industrial customers use to reward their best performing suppliers. However, the information gathered also suggests a total absence of a clear pattern regarding the amount of reward accepted by the buying companies, even inside a single company. This conclusion suggests that new studies must be developed in order to unveil the elements that lead to this absence of pattern.

LIMITATIONS

This research considered only the buyers point of view to identify the influence of values' association on price and share of orders, what is an important limitation. Future studies should collect both seller and buyer side information in order to provide a better understanding of the influence in focus. Inconsistencies in buyer and supplier perceptions may even foster further hypothesis development. Another limitation was the type of products and companies investigated. In order to extend the results presented it would be useful to replicate this study considering a broad range of products and industries.

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