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Strategic benchmarking of service pricing based on the value added

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Abstract

Purpose – The purpose of this paper is to investigate opportunities to move benchmarking studies toward a strategic level. The authors benchmarked how service prices are defined based on the value added for the customer.

Design/methodology/approach – A multi-case research investigated how manufacturers can increase their service revenues; how corporate reputation can be analyzed to enhance financial and market performance; how customer satisfaction and price acceptance are related; and how benchmark studies can move to a more strategic level based on a conjoint analysis of value and price.

Findings – Price's benchmarking studies must combine the customers' value demands; the customer expectations associated to each value demand; the competitor prices; and the revenue alternatives that a supplier can explore (e.g. sale of new goods, services for new goods, services for non-new goods, and repair parts). The combination of these elements reveals several opportunities for revenue generation. This combination may also help to explain the existence of different prices for similar goods and services. The authors referred to this as a flexible pricing policy. Flexible pricing may help manufacturers maximize revenues, and win and maintain customers.

Research limitations/implications – The following research questions are suggested for future studies: What other elements should be considered in strategic benchmarking studies? What other elements can influence a flexible pricing policy for goods, spare parts, and services? In what contexts can a flexible pricing policy be applied? How should flexible pricing practices be benchmarked?

Practical implications – A strategic benchmarking study must first identify the customers' value demands. It is then necessary to analyze customer expectations associated to each value demand. As shown, customers may have different expectations for the same product or service. Similar expectations must be grouped together in order to allow a well-structured benchmark.

Originality/value – The authors' findings suggest interesting points to be observed by the manufacturers who supply integrated solutions with a long life cycle.

Keywords Value, Service operations, Pricing, Market performance, Revenues, Strategic benchmarking
Paper type Case study

1. Introduction

Benchmarking is a tool to compare product attributes, quality attributes, operations, and processes (Panwar *et al.*, 2013; Asrofah *et al.*, 2010). Benchmarking studies have previously focussed on the supply chain, including investigations on: approaches to measure visibility

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in outbound supply chains and ways to implement these measures to evaluate the current degree of visibility that companies in the apparel industry have with regard to their supply chains (Caridi *et al.*, 2013); the in-house capabilities that are transferred from Toyota to suppliers as a way to more deeply understand how the Toyota production system can evolve (Marksberry, 2012); a methodology for the comparison of individual suppliers of marine bunker fuel (Anfindsen *et al.*, 2012); a benchmarking framework for the analysis of a supply network configuration of companies (Moser *et al.*, 2011); and the factors related to effective supply chain partnering across organizations (Rajagopal *et al.*, 2009).

Despite the valuable research work performed, benchmarking has been perceived as being less applicable at the strategic level (Panwar *et al.*, 2013). For increased relevance, benchmarking studies must go beyond the operational level and into a wider range including the strategic, operational, and project levels of the value chain (Hong *et al.*, 2012). Company performance is a strategic topic. Performance can be connected to the value added to the customer if the value added is used in price setting (Austin, 2005). Satisfied customers are willing to accept higher prices, as demonstrated in the electricity business (Rekettye and Pintér, 2006). Benchmarking research on prices have focussed on the hotel industry (Wu *et al.*, 2013), home financing products (Yusof *et al.*, 2011), urban water utilities (Singh *et al.*, 2011), and cross-laboratory benchmarks (France and Francis, 2005).

Manufacturers can increase the value added to their customers by offering integrated solutions (IS). IS combine goods and services. Such solutions can allow manufacturers to increase their prices and revenues (Gebauer *et al.*, 2006; Potts, 1988), company margins (Anderson *et al.*, 1997), and customer dependence (Windahl, 2007). IS can also provide a source of perpetual revenues to manufacturers (Windahl and Lakemond, 2006) and are also attractive to customers due to potential cost reductions and increases in flexibility (Windahl and Lakemond, 2010).

This paper investigates opportunities to move the focus in benchmarking studies to a strategic level. We benchmark how service prices are determined based on the value added to the customer. The following questions that represent gaps in the current literature are investigated: how a manufacturer can increase its service revenues (Gebauer *et al.*, 2006), how corporate reputation can be explored to enhance financial and market performance (Lee and Roh, 2012), how customer satisfaction and price acceptance are related (Rekettye and Pintér, 2006; Goncharuk and Getman, 2014), and how benchmark studies can move to a more strategic level based on a conjoint analysis of value and price (Hong *et al.*, 2012).

The investigation of the abovementioned topics is supported by the following constructs: customers' value demands (Čater and Čater, 2009; Ulaga and Eggert, 2005, 2006), alternatives to revenue generation (Ingenbleek and van der Lans, 2013; Avlonitis and Indounas, 2005; Čater and Čater, 2009), and the price setting process (Indounas and Avlonitis, 2011). Three case studies were conducted with global manufacturers of IS that operate in Brazil. The investigated companies produce equipment with long life cycles (greater than ten years). A deep understanding of the elements that support price setting, based on the value added, can help manufacturers improve their performance (Moriarty and Smallman, 2009; Moriarty, 2011). These findings also increase recognition of the importance of benchmarking studies at the strategic level, thus helping to eliminate some of the perceived weaknesses that were previously identified in the literature (Panwar *et al.*, 2013).

2. Industrial services

2.1 Integrated solutions

Growing market complexity and increasing competitive intensity are forcing manufacturers to seek new business by rendering services associated with their

goods (Vargo and Lusch, 2004). In the B2B scenario, these combinations of services and goods are known as IS (Windahl and Lakemond, 2010). IS require manufacturers to become service-oriented organizations (Windahl and Lakemond, 2010). As such, manufacturers need to enhance supplier-buyer relationships (Oliva and Kallenberg, 2003) to build long-term, trust-based relationships (Brady *et al.*, 2005).

Four categories of offered IS are identified in the literature (Windahl and Lakemond, 2010): rental offers, where the manufacturer leases the equipment to its customers; maintenance offers, where the manufacturer provides services for its customers' equipment; operational offers, where the manufacturer operates its customers' equipment; and performance offers, where the manufacturer assumes its customers' operational processes (Gebauer, 2008). The operational offer constitutes the highest degree of interdependence between the parties. Customers of such offers become dependent on the services provided by the suppliers (Windahl and Lakemond, 2010).

2.2 Value for customers

The creation of customer value is key to the growth and survival of a supplier in the long-term (Slater, 1997; Woodruff, 1997). The satisfaction of the B2B customer is influenced by the following value elements: price (Čater and Čater, 2009; Ulaga and Eggert, 2005; Ulaga and Eggert, 2006), quality, delivery performance, supplier know-how, support services, and personal interaction (Čater and Čater, 2009).

The value adding process is developed in three steps. The first step involves trying to understand the customer's business model and the model of the customer's customers. The second step involves preparing a value proposal that will solve the customer's problems and bring tangible benefits to him. The identification of tangible benefits requires, among other items, simulations, research on the return on investment, and life cycle calculations. The third step comprises communicating the value add to the customer, particularly a demonstration of the supplier's potential contribution to the customer's targets. This demonstration must be supported by convincing evidence (Terho *et al.*, 2012).

Value can also be co-created between customers and suppliers. Such an approach requires the customer to play an active role in the value creation process for goods or services (Gronroos, 2008; Vargo and Lusch, 2004). Three perspectives of value are presented in the literature (Terho *et al.*, 2012): first, the supplier perspective, which comprises the identification of how the company can create, increase, and capture value to maximize the value of its economic activities; second, the customer perspective, which tries to identify the value demanded by the customers; and finally, the dual perspective of value, which integrates the previous two perspectives. A value co-creation effort must include consideration of these three perspectives to be successful.

The use of customer-driven benchmarking would provide clear direction and methods for learning from customers by initiating value-added services that exceed their expectation, and moreover, help to sustain a company's performance and competitiveness in the long-term (Shamma and Hassan, 2013). The adoption of economic value-added income as a benchmark (which was used in place of normal benchmarking mechanisms) for setting and other policies of a monopolistic state-owned enterprise were studied in New Zealand. Findings indicated that the enterprise was successful in avoiding charges of monopolistic pricing and subsequent regulation by linking pricing and other policies to its economic results. This was in a period when similar enterprises were regulated or threatened with regulation (Austin, 2005).

2.3 Revenue management

Revenue management consists of a set of strategies that allow companies with limited capabilities to obtain the most profit possible from their operations (Withiam, 2001). Assuming that customers are price sensitive, the objective of revenue management is to forecast and influence demand. Revenue management seemingly surfaced in 1985 at American Airlines (Cross, 1997; Smith *et al.*, 1992). It rapidly expanded into other segments with characteristics similar to airlines, such as restaurants and hotels (Hanks *et al.*, 2002). The purpose of revenue management is to combine the understandings of demand elasticity, demand variability, and cost adherence (Talluri and van Ryzin, 2005).

Revenue management requires the following requisites to be met (Kimes, 2005): a relatively fixed operational capability (companies cannot rapidly suit capability to demand variations); high fixed costs in relation to variable costs; inventory perishability (typically related to services because the capability to render services cannot be stored for the future); variable or cyclical demand patterns; and ability to forecast demand (companies can segment customers in such a way as to make them differentiated offers). Four elements must be managed to achieve success in managing revenue (Withiam, 2001): the calendar (ability to forecast demand); the clock (ability to meet the demand at the available service times); capability (quantity and configuration); and cost (pricing). Revenue management in businesses with capability constraints requires attention to the length and price of the service (Huefner and Largay, 2008); and to three types of decisions: first, structural decisions, such as the price format, the sales terms and the bundling of products; second, decisions on the variation of prices through time and mark-up strategies; and finally, quantitative decisions, which involve allocating capability across segments, goods, and sales channels and the definition of parameters for accepting or refusing orders (Talluri and van Ryzin, 2005).

2.4 Price management

Several benchmarking studies have focussed on the constructs of price and/or revenue in the service sector. A benchmarking study performed with 80 hotels in Taiwan from 2006 to 2010 identified that these hotels have diverse pricing strategies – extremely expensive vs very inexpensive room rates (Wu *et al.*, 2013). The use of rental rates is a better alternative than the use of lending rates to price Islamic home financing products in Malaya (Yusof *et al.*, 2011). The literature presents a benchmarking framework that encompasses multiple criteria of sustainable water supply services for assessing the performance of select North Indian urban water utilities and also for finding potential input reductions (or more efficient input levels). This framework can be useful for regulators or operators of the facility to rank the utilities, devise performance-linked incentive mechanisms, or regulate price caps (Singh *et al.*, 2011). Performance benchmarking was used by pathology services in New Zealand as a useful service rationalization tool and a realistic price-signaling device, provided that certain safeguards on health service quality were in place (France and Francis, 2005). In the industrial arena, an extensive benchmarking project was conducted with German and Swiss manufacturing companies. The findings identified that changes in a firm's activities, organizational structure, and culture can positively impact growth in service revenue (Gebauer *et al.*, 2006).

Price setting consists of a set of activities designed to determine the price of a product or service (Ingenbleek *et al.*, 2003). It is a creative exercise that involves mathematics and economic behavior, where organizations focus on profit (Kohli and Suri, 2011). Pricing strategies are developed to create conditions for companies to achieve their revenue generation and profit goals (Ingenbleek and van der Lans, 2013).

The main objective of revenue management is to turn price variations into profit (Talluri and van Ryzin, 2005). Despite this, price setting does not receive the attention it deserves from upper management of companies (Richards *et al.*, 2005).

Price setting can be based on product costs, competitor prices, or on the value perceived by the customer (Ingenbleek and van der Lans, 2013). There are three types of prices for goods and services: penetration, competitive, and premium. The offer of a penetration price (lower prices) aims to attract customers to goods or services with little differentiation (Indounas and Avlonitis, 2011; Noble and Gruca, 1999; Ingenbleek and van der Lans, 2013). Competitive prices are offered in cases of intense competition and little differentiation between the bidders (Fill and Fill, 2005; Kasper *et al.*, 2000; Nagle *et al.*, 2010). The offer of premium prices aims to maximize results with short-term customers (Ingenbleek and van der Lans, 2013; Noble and Gruca, 1999; Lovelock and Wirtz, 2001; Monroe, 2003). The pricing strategies hinge on the construction of long-term relationships with customers (Indounas and Avlonitis, 2011).

Three price setting situations are present in the literature (Ingenbleek and van der Lans, 2013): pricing of new goods, pricing in a competitive environment, and pricing of product lines. The pricing of new goods and pricing in a competitive environment are related because they consider the same elements in different situations. Pricing strategies can also consider the following elements: first, complementary pricing, where the company adopts a competitive price for the product and premium pricing for accessories, services, and replacement parts (Guiltinan *et al.*, 1997); second, price bundling, where the sum of prices of each part can be less than the price of all the goods together (Monroe, 2003); and third, customer value pricing, which considers the segmentation of customers, the versions of the same product with slightly different features, and the price levels associated with the type of customer (Monroe, 2003; Nagle *et al.*, 2010). Other authors classify the pricing strategies using three different groups. Table I shows a synthesis of the definitions presented in the literature.

3. Methodology

3.1 Research design

An exploratory investigation of multiple cases was taken. According to Yin, (2005), case studies permit the investigation of a phenomenon in its context through a thorough analysis of one or more objects, which allows a profound insight into the phenomenon studied.

Strategy	Details
Penetration pricing	Sets lower prices, attempting to attract new customers for goods and services with little differentiation (Indounas and Avlonitis, 2011; Noble and Gruca, 1999; Ingenbleek and van der Lans, 2013)
Competitive pricing	Sets prices similar to competitor prices. This pricing strategy is used if there is intense competition between suppliers and little differentiation between them (Fill and Fill, 2005; Kasper *et al.*, 2000; Nagle *et al.*, 2010) This price setting practice is used by companies looking for prices relatively equal to competitor prices (Guiltinan *et al.*, 1997; Ingenbleek and van der Lans, 2013)
Premium pricing	Sets higher prices premium prices). A great deal of attention is required to identify and communicate the value added to the customer (Ingenbleek and van der Lans, 2013). The purpose of premium prices is to maximize the supplier's profits in the short term (Noble and Gruca, 1999; Lovelock and Wirtz, 2001; Monroe, 2003)

Table I.
Pricing strategies

Initially, a review of the literature was performed. This review revealed three groups of constructs: the value added by manufacturers that provide maintenance services, the alternatives for revenue generation, and the pricing strategies adopted for each revenue generation alternative. Table II presents these constructs.

Based on these constructs, we developed a preliminary set of questions. These questions were presented to four academics. Three academics suggested improvements on the questions. All improvements suggested were realized. The final questionnaire was presented to the managers. The validity and reliability of the case study results were strengthened due to the utilization of multiple sources of evidence such as interviews, researchers' observations, and document analysis (Gibbert and Ruigrok, 2010).

3.2 Data collection

The study was carried out between January and June 2013. In all, ten global manufacturers that provide IS for the Brazilian market were contacted. All of them produce equipment with a long life cycle. Of the ten companies solicited, three agreed to participate in the study. For each of these companies, the general manager and service manager were interviewed. The profiles of each investigated company are shown in Table III.

3.3 Data analysis process

Researchers summarized and compared their findings with their partners. This approach was taken to avoid any bias that might have originated from personal views (Yin, 2005; Voss *et al.*, 2002). The report of the interviewers' consensus was analyzed by a focus group composed by researchers and managers. This activity aimed to identify regular standards among each of the cases (Gibbert and Ruigrok, 2010).

4. Findings

4.1 Value demands and revenues

The analysis of customer satisfaction was based on the elements presented in the literature (Čater and Čater, 2009). Findings indicated that delivery performance was the main value demand of all customers investigated. The attention to such demand can increase the manufacturers' revenues. However, this demand is not uniform among the customers. The delivery performance of the IS (product+service) may vary among

Construct	Summary
Value added	The alternatives that add value for customers: price, quality, delivery performance, knowledge, support, and personal interaction (Čater and Čater, 2009)
Revenue generation	The alternatives in revenue generation: services, goods, and goods plus services (Ingenbleek and van der Lans, 2013; Avlonitis and Indounas, 2005; Čater and Čater, 2009; Gebauer *et al.*, 2006)
Pricing strategies	The pricing strategies (how, when, and why): penetration, competitive, and premium (Ingenbleek and van der Lans, 2013; Avlonitis and Indounas, 2005; Čater and Čater, 2009).
	The alternatives in setting new prices or modifying existing prices: versioning, discounting, bundling, and unbundling of goods and services (Huefner and Largay, 2008)
	The exploration of customer satisfaction (Rekettye and Pintér, 2006; Goncharuk and Getman, 2014), price levels (Wu *et al.*, 2013), corporate reputation (Lee and Roh, 2012), and the value added (Austin, 2005)

Table II. Constructs investigated

Case	Profile
Company 1	Case 1 is a global manufacturer of elevators (conventional, commercial, and residential); escalators, conveyor belts, and equipment for airports; and special equipment for people with specific mobility requirements. The company provides installation services (construction of new buildings), maintenance (technical assistance), and retrofitting. The company's service contracts provide for preventive and corrective maintenance 24 hours a day, seven days a week. It is one of the two largest companies in this industry
Company 2	Case 2 is an industry leader that produces equipment for heating, ventilation, and air conditioning. The company provides maintenance and renovation services but no installation services. The company focusses its services on high-value-added equipment. Other services are provided by the company's dealers
Company 3	Case 3 manufactures electricity generators (diesel- and gas-powered). The company holds over two-thirds of the Brazilian market. The company provides services related to the selection and installation of new goods, technical delivery (commissioning), warranty services (for one year), and post-warranty maintenance contracts. The company's inventory of genuine parts ensures replacements within 24 hours

Table III.
Profiles of select manufacturers

the different groups of customers. Three variants of the delivery performance were observed: non-stop, tolerant to small stops (up to one hour), and tolerant to medium interruptions (up to four hours). Non-stop operation of equipment is demanded by hospitals. This demand forces the manufacturer to maintain a service team at the customer's disposal for 24 hours a day. Such demand increases the manufacturer's costs. Shopping malls are examples of customers who tolerate small stops on the product operation (up to one hour). This demand allows manufacturers to share their service teams, thus reducing its cost. Private companies, universities, and condos accept medium interruptions in the product operation (up to four hours). This demand has the lowest service cost for manufacturers. Table IV presents a summary of customer value demands.

For each variant, manufacturers can generate revenues in four different ways: sales of new goods, sales of services for new goods, sales of repair parts, and sales of services for non-new equipment.

4.2 From value demands to prices

The interviewees did not furnish quantitative data about prices, only their rating as either penetration, competitive, or premium. As identified, the manufacturers always start by offering premium prices. Depending on the course of the negotiation, the prices of goods and services are slashed down to a minimum price previously determined by the company. Next, it will be presented in detail how manufacturers determine prices for each value demand.

Value demand	Customers' profile	Revenue generation
Non-stop operation	Hospitals	Sales of new goods, services for new goods, sales of repair parts, and services for non-new goods (including retrofitting)
Small stops (up to 1 hour)	Shopping malls	
Medium stops	Private companies, universities, and condos	

Table IV.
Value demands and opportunities for revenue generation

Despite fewer manufacturers being able to attend to non-stop demand, the prices of the new goods for the hospitals are not always premium. Findings indicate that prices of goods for hospitals range from premium to penetration for Case 1 and from premium to competitive for Cases 2 and 3. The product prices of Company 1 can undergo greater reduction due to qualified competition. The service structure of Company 2 and the large market share dominated by the Company 3 (more than 62 percent) justify their lower discount levels. All companies reduce their prices to win and retain the non-stop customer. This practice is seen as strategic, because hospitals contract maintenance services from equipment manufacturers (Cases 1-3). Price cuts are also strategic due to the long life cycle of the product, which allows for revenue generation up to 20 years from the sale. In all investigated cases the services provided for new and non-new goods have prices ranging from premium to competitive. No penetration prices were identified for this group of customers. The losses from product price cuts must be offset by the future sales of repair parts at premium prices. These items do not suffer from competitive pressures, because these parts are sold exclusively by the manufacturers. The close relationship with the hospital allows the manufacturer to offer retrofitting services at a premium price. Such offers result in higher profits in the short term and new revenue opportunities in the future (repair parts and services).

All investigated manufacturers reduce the prices of their new goods to win and retain the small-stops group of customers (shopping malls). The product prices for customers that accept small stops range from premium to penetration for Case 1 and from premium to competitive for Cases 2 and 3. This difference in product prices charged is a result from the same conditions mentioned for the non-stop group of customers. Shopping malls also tend to contract services provided by the equipment manufacturer for new goods. This tendency induces the manufacturers to offer prices ranging from premium to competitive. No penetration price is offered for these services. After this point, the shopping malls are shown to start considering bids from other manufacturers or independent service providers. As a result, the prices of services provided for non-new goods can be reduced to the penetration level (Company 1). However, Company 2 does not offer penetration prices for services provided to non-new goods. When customers ask for prices lower than the competitive price, Company 2 calls its dealers to action. The dealers offer the service, while the manufacturer generates revenue with the sale of repair parts. The large market share dominated by Company 3 (more than 62 percent) allows the company to only offer premium to competitive prices for these service. In all cases, the losses resulting from the product price cuts must be offset by the future sales of repair parts at premium prices. The close relationship with the shopping mall allows the manufacturer to offer retrofitting services at a premium price. Such offers result in higher profits in the short term and new revenue opportunities in the future (repair parts and services).

Customers that accept medium interruptions constitute the largest group serviced by the companies investigated. These customers have lower bargaining power and almost no expertise regarding the goods or services. This condition could allow manufacturers to only offer goods at premium prices. However, this is not the case, because most of the equipment is actually purchased by building companies, and builders are eager for lower product prices. Thus, negotiations of new goods with builders are always characterized by strong discount demands. In these situations, all manufacturers can easily offer competitive prices, or even penetration prices to close the deal. Once again, the logic is to conquer the customer. After a short period of time the building will be transferred to a buyer. Building buyers tend to buy services for new goods from the manufacturer, which allows manufacturers to sell services for new goods at premium prices. However, this

tendency changes as the equipment get older. At that point, building owners begin to look for cheaper service offers. This change forces Case 1 to reduce the prices of service for non-new goods (in some cases, from premium to penetration). Case 2 does not offer penetration prices for services provided for the non-new goods. As in the case of the small-stop group, when customers ask for prices lower than the competitive price, Company 2 makes use of its dealers to provide the service, while the manufacturer generates revenue with the sale of repair parts. The large market share dominated by Company 3 (more than 62 percent) allows the company to only offer premium to competitive prices for these services. Price reductions on non-new product services aim to retain the customer in order to assure future sales of repair parts and services. The less profitable sales of new goods or service for non-new goods must be offset by future orders of repair parts at premium prices. The manufacturers' exclusivity regarding the supply of repair parts allows them to practice this policy. The close relationship with the building owner also allows the manufacturer to offer retrofitting services at a premium price. Such offers generate good profits in the short term and assure future sales of repair parts and services.

Table V presents the pricing strategies according to the customer's value demands and the manufacturer's sources of revenue.

Revenues	Non-stop	Small steps	Medium stops
Goods	Prices reduced to win the customer. Reductions depend on the competition	Prices reduced to win the customer. Reductions depend on the competition	Prices reduced to win the builder order. Reductions depend on the competition
Services for new goods	Prices range from premium to competitive. No penetration price is offered The tendency of hospitals to contract with the manufacturer to provide these services allows the manufacturer to offer higher prices	Prices range from premium to competitive. No penetration price is offered The tendency of shopping malls to contract with the manufacturer to provide service for new goods allows the manufacturer to offer higher prices	Prices of services for new goods are premium, because building buyers tend to buy services for new goods from the manufacturer
Services for non-new goods	Prices of services for non-new goods range from premium to competitive The tendency of hospitals to continue to contract with the manufacturer to provide this service allows the manufacturer to offer higher prices	After some time, the shopping mall becomes vulnerable to the offers of the other manufacturers or of the independent service providers Prices are then reduced, aiming to keep a close relationship with the customer. Such reductions aim to assure future sales of repair parts and services	After some time, the building owners become vulnerable to the offers of independent service providers Prices of services are then reduced, aiming to keep a close relationship with the customer. Such reductions aim to assure future sales of repair parts and services
Repair parts	Repair parts are only sold by manufacturers at premium prices In the long run, this exclusivity compensates the manufacturer for the price reductions on new goods or service prices	Repair parts are only sold by manufacturers at premium prices In the long run, this exclusivity compensates the manufacturer for the price reductions on new goods or service prices	Repair parts are only sold by manufacturers at premium prices In the long run, this exclusivity compensates the manufacturer for the price reductions on new goods or service prices

Table V.
Pricing strategies

5. Discussion

Strategic benchmarking of industrial services can be performed following a set of steps and conditions (Panwar *et al.*, 2013). First, it is necessary to identify customer value demands. A list of value drivers that may support such an analysis include: price, quality of products and services, delivery performance, knowledge, support and personal interaction (Čater and Čater, 2009). It is also necessary to identify the most important demands, including those that seem to influence pricing. The delivery performance was the most important value demanded by the customers of the manufacturers investigated. As shown, understanding value demands can lead to an increase in sales, prices, and revenues (Gebauer *et al.*, 2006). Understanding these value demands can help build a corporate reputation that leads to a better financial and market performance of the supplier (Lee and Roh, 2012).

The identification of the customer value demands constitutes an important step toward strategic benchmarking. It is then also necessary to rank these value demands. As identified, some customers may have different expectations regarding delivery performance. Similar expectations must be grouped together (segmented). Price expectations may vary among the groups of customers with similar demands (e.g. the case of the hospitals, shopping malls, construction companies, private companies, universities, and condominiums). Beyond that, the benchmarking process must consider the competitor prices and alternatives that a supplier can explore to increase its revenue generation. A preliminary list of such alternatives includes the sale of new goods, service for new goods, service for non-new goods, and repair parts. The combination of these elements presented reveals several opportunities for revenue generation through the equipment life cycle (up to 20 years in the companies studied). Such findings suggest how to achieve high service revenues in a manufacturing company (Gebauer *et al.*, 2006); how to profit on the customers' demands (Lee and Roh, 2012); how to connect customer satisfaction and prices (Rekettye and Pintér, 2006; Goncharuk and Getman, 2014); and how to use benchmark studies at a more strategic level (Hong *et al.*, 2012; Panwar *et al.*, 2013).

Different value demands may be explored through different prices (even for similar goods and services). The flexible pricing of industrial services is still an underexplored topic. Flexible pricing may help manufacturers maximize revenues and win and maintain customers. As shown in the findings section, the long life cycles of the equipment seem to justify the manufacturers' concern with winning and retaining customers. In some cases, it may be more profitable to sell new goods at lower prices, accounting for future potential revenue. Losses derived from these initial price cuts can be offset by future sales of repair parts at premium prices and/or services at prices ranging from penetration to premium. The manufacturer's exclusivity regarding the supply of repair parts allows it to sell such items at premium prices. This exclusivity increases the manufacturer's revenues and profits along the product life cycle (Rekettye and Pintér, 2006; Goncharuk and Getman, 2014; Hong *et al.*, 2012).

6. Conclusion

This paper investigated opportunities to move benchmarking studies toward a strategic level. We benchmarked how service prices are defined based on the value added for the customer. The following gaps in the literature were investigated: how manufacturers can increase their service revenues (Gebauer *et al.*, 2006); how corporate reputation can be analyzed to enhance financial and market performance (Lee and Roh, 2012); how customer satisfaction and price acceptance are related (Rekettye and Pintér, 2006;

Goncharuk and Getman, 2014); and how benchmark studies can move to a more strategic level based on a conjoint analysis of value and price (Hong *et al.*, 2012). The services provided by three manufacturers were deeply analyzed.

Findings indicated that a strategic benchmarking study must first identify the customers' value demands. It is then necessary to analyze customer expectations associated to each value demand. As shown, customers may have different expectations for the same product or service. Similar expectations must be grouped together.

A price's benchmarking study must combine the customers' value demands; the customer expectations associated to each value demand; the competitor prices; and the revenue alternatives that a supplier can explore (e.g. sale of new goods, sale of services for new goods, sale of services for non-new goods, and sale of repair parts). The combination of these elements reveals several opportunities for revenue generation through the equipment life cycle (up to 20 years for the companies studied). This combination may also help to explain the existence of different prices for similar goods and services. We referred to this as a flexible pricing policy.

Flexible pricing may help manufacturers maximize revenues, and win and maintain customers. In this context, benchmarking studies must go beyond price analysis in order to help manufacturers better define their marketing policies. As shown in some cases, a manufacturer can cut the price of the new product by accounting for future sales of repair parts or services for the product. Such compensation may increase the manufacturer's revenues and profits along the product life cycle.

This paper is limited by a number of factors. The first limitation is the Brazilian socio-cultural and economic reality, which can influence the competitive positioning of the global companies investigated. Further, the findings presented are only valid for the studied companies. The following research questions are suggested for future studies:

RQ1. What other elements should be considered in strategic benchmarking studies?

RQ2. What other elements can influence a flexible pricing policy for goods, spare parts, and services?

RQ3. What contexts can a flexible pricing policy be applied?

RQ4. How should flexible pricing practices be benchmarked?

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