



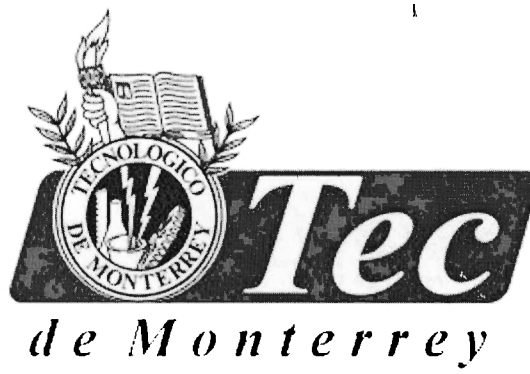
**INSTITUTO TECNOLÓGICO DE ESTUDIOS SUPERIORES DE
MONTERREY
CAMPUS ESTADO DE MÉXICO**

**A PROPOSAL OF A MARKETING STRATEGY AND PRICING
STRATEGY FOR THE SUSTAINABLE SALES OF CUMMINS ISX
PARTS**

FIELD PROJECT PRESENTED BY

ARTURO ROBLES GUTIÉRREZ

JULY 2011



23 AGO 2016



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AUTHOR: ARTURO ROBLES GUTIÉRREZ

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Some of the data contained in this field project that is considered sensitive for Cummins S. de R. L. de C. V. was modified to maintain the confidentiality and for academic purposes.

EXECUTIVE SUMMARY

The work carried out for the elaboration of this project was very useful in a better understanding of the different marketing and price strategies through the research of the theoretical framework. With this theoretical research, it is easy to understand why the company is worried about a change in the strategy, the difficulties that this represents, and the importance that all the regional initiatives are aligned with the same strategy. It was also understood how to properly document and present the diagnosis and results of the marketing activities through a formal marketing plan.

With the analysis of the market environment for the product, we could realize that we have more aggressive competitors, in more products, than we thought at the beginning of this work. It is important to consider more products in the market research, using a customer-driving marketing strategy. This will be useful to get more accuracy in the market-share calculation, and to have a more reliable Parts Consumption Model. Also it is important to have a more thorough investigation of the competitors, looking for more accurate data about their transactional prices, and values offered to the customers. It is recommendable too, to do quality tests to the competition parts in order to draw a comparison with the genuine Cummins parts.

At least, it is necessary to review the product positioning of 40 ISX part numbers that represents the 80% of the total ISX parts sales. With the work carried so far, we can realize that we have room in the ISX parts price structure to apply a market-based strategy when necessary. This will give us an opportunity to protect the ISX parts against loss of sales and market-share in the next years. The Cummins brand prestige will be better because the customers will appreciate that their needs are taken into account in the Cummins business decisions.

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1. CHALLENGE DESCRIPTION

The cost-plus pricing is a pricing method used by several companies. The use of this strategy is used because it is easy to calculate and requires little information. The common use of this strategy is that the companies first calculate the cost of the product, then includes an additional amount that represents the profit. This strategy can assure good profitability to the company. The drawback of this strategy is that tends to ignore the role of the consumers and the role of competitors. Some companies are changing to a market-oriented marketing strategy. The general objective of this strategy is to sell the different products according to their values, at different prices to different customers, according to how much they are willing to pay for it.

This is the case of the current marketing and pricing strategy at Cummins. Cummins is currently working in revamping its global pricing and marketing strategy. At the moment, Cummins pricing strategy is primarily based on costs. In other words, the product managers and the pricing team in the US headquarters adjust the price for the entire world, this is done considering the parts cost and a profit margin for the company. This could sometimes result in very high prices for our products to the end customers as to compare for instance with our competitors. This is particularly relevant in those countries in which customers are price sensitive like the case of Mexico and Central America. As a consequence, Cummins is creating an image of expensive genuine parts.

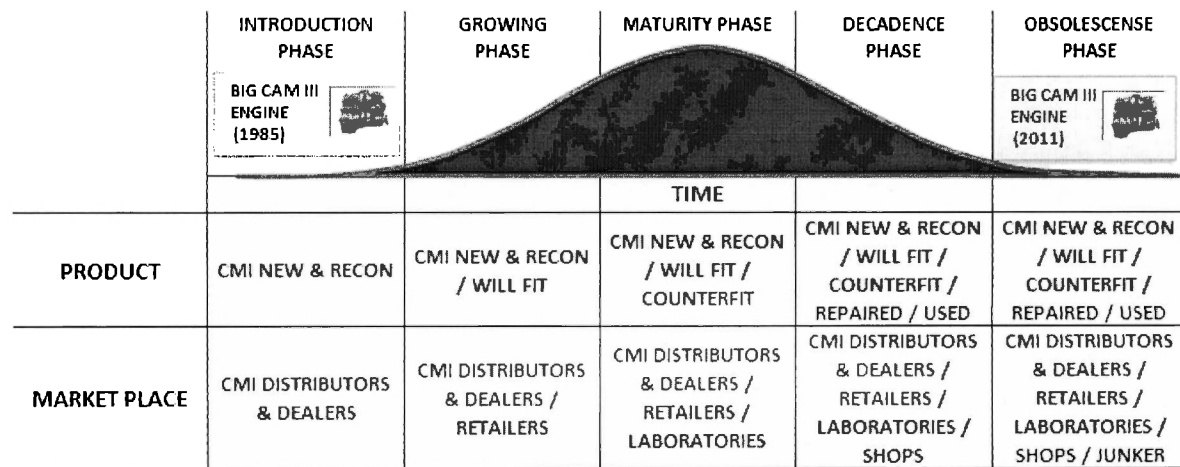
1.1. Justification of the challenge

Cummins is always at the forefront of technology in order to meet with the US Environmental Protection Agency (EPA). The company releases modern engines through the years in order to reduce considerably contaminant emissions.

The engines spare parts typically go through a "Product Life Cycle" described in FIGURE 1-1. As the engine models are improving in technology or superseded, the parts move through the life cycle diagram, starting at the "Introduction Phase" and ending at the "Obsolescence Phase". In the Introduction and Growing phase the sales increase rapidly with growing market share and growing profits. In the Maturity Phase the revenues grows slower and in the Decadence Phase the products sales and profits decrease at an increasing rate. For example, The Big Cam III engine that was replaced by the N14 STC engine in 1992 was in the introduction phase in the year 1985, and in this year 2011, the parts are in the obsolescence phase. The obsolescence phase comes because in this phase, for Cummins, the cost of manufacturing or purchasing some parts are very high, the marketing agreements with the suppliers are expired, so they can offer the spare parts

direct to the market, the competition found ways to copy the Cummins technology delivering a market flooded with counterfeit and will fit retailers who offers the product at lower price to the customers.

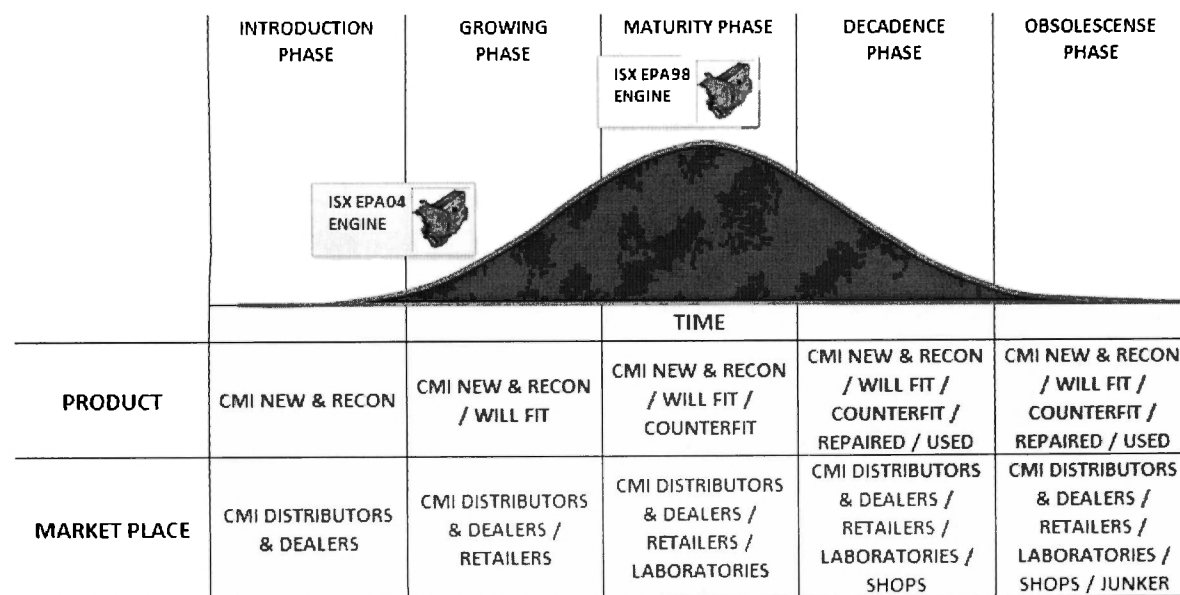
FIGURE 1-1: PRODUCT LIFE CYCLE



2. OBJECTIVE

The objective of this project is to define an adequate price and pricing strategy, and establish a marketing strategy for the ISX parts, in order to prevent that the competition gain the most of the market share, in base of offering imitations, reconstructed or repaired parts. This strategy shall help to sustain and increase the market share of the Cummins ISX parts when they reached the maturity phase as you can see on FIGURE 2-2. The ISXEPA98 engine was launched in 2000 and was traded until 2008 in Mexico.

FIGURE 2-2: ISX PRODUCT LIFE CYCLE



3. THEORETICAL FRAMEWORK

3.1. Identify current marketing strategy

Marketing must be understood not in the sense of making a sale, but in the sense of satisfying customer needs. If the marketer understands customer needs, develops products that provides superior values to the customer, and prices, distributes, and promotes them effectively; the products will sell easily. *Marketing is a social and managerial process by which individuals and organizations obtain what they need and want through creating and exchanging value with others.* Marketing is the process by which companies create value to customers and build strong customer relationship in order to capture value from customers in return (Kotler & Armstrong, 2010).

Sainz de Vicuña (2011, page 56), propose the following tool in order to determine if is necessary to evaluate the current marketing strategy. The table explains also the symptoms of the limits of the current marketing strategy.

Statements	This is true	This is not true
1. We are losing opportunities to generate revenues		
2. Our long-term planning is nothing but a bunch of meaningless numbers		
3. When looked from an objective and rational point of view, our marketing goals are illogical		
4. We are lack of useful and practical marketing information		
5. managers are frustrated by conflict and rivalry between different departments or functions		
6. Is producing a growing proliferation of competing products		
7. We are not taking advantage of our promotion and communication budget		
8. In the company there is a lot of confusion about the product pricing		
9. We are becoming increasingly vulnerable to changes that occur in our environment		
10. we are not controlling the company, but on the contrary, environmental forces are controlling us		

TABLE 3-1: Symptoms of lack of marketing planning (Sainz, 2011, page 56)

If the trends of the answers are at the right side of the scale, there is not big problems because the lack of update of the marketing strategy.

But, if the trends of the answers are at the left side of the scale, is necessary to consider the need of setting a new marketing strategy (Sainz, 2011).

Another tool to evaluate the current marketing strategy is the analysis of the three potentially generic strategies to beat other companies in the industry. These strategies are suggested by porter (Porter, 2008).

1. Overall cost leadership
2. Differentiation
3. Focus

3.1.1. The Overall Cost Leadership

The first strategy is to overall cost leadership in an industry through a set of functional policies. Cost leadership needs aggressive construction of efficient scale facilities, an aggressive hunt of cost reductions from experience, tight cost and overhead control, avoidance of marginal customer accounts, and cost minimization in areas like R&D, service, sales force, advertising, and so on. A special attention to cost control is necessary to achieve these purposes. Its cost position gives the company a defense against competitors, because a lower cost mean that is possible to earn returns after its competitors have competed away their profits (Porter, 2008).

3.1.2. The Differentiation Strategy

The second generic strategy is one of differentiating the products offered, creating something that could be perceived as unique. The differentiation in the products can take different forms: brand differentiation, high technology, features, customer service, dealer *network*, and so on. If the differentiation is achieved, is a viable strategy for good returns in an industry because it creates a defensible position for managing the five competitive forces. Differentiation provides insulation against competitors because of brand loyalty by customers and resulting lower sensitive to price. Achieving differentiation sometimes helps to gain a high market share (Porter, 2008).

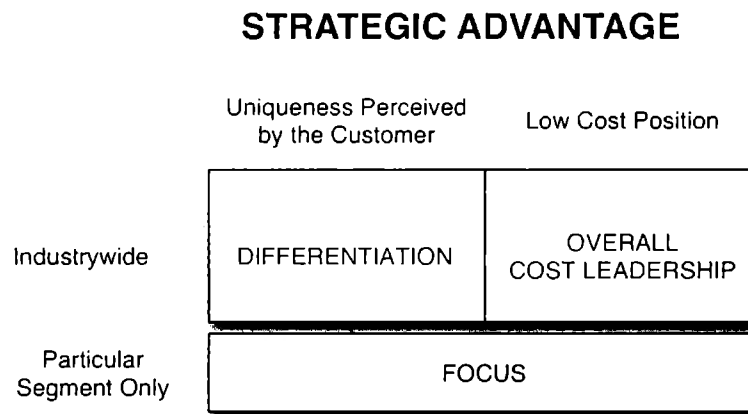
3.1.3. The focus Strategy

The final generic strategy is focusing on a particular buyer group, segment of the product line, or geographic market. The focus strategy objective is to serve a particular target very well. The strategy rests on the premise that the company is able to serve a narrow

strategic target more effectively or efficiently than competitors who are competing more broadly. As a result, the company gains differentiation because meets better the needs of a particular target, or lower costs in serving this target, or both. Focus may be used to select targets least vulnerable to substitutes or where competitors are weaker (Porter, 2008).

The difference among the three generic strategies are illustrated in the FIGURE: 3-3

FIGURE 3-1: The three generic strategies (Porter, 1998, Kindle Location 1112)



3.1.4. Customer-Driven Marketing Strategy

To succeed in today's competitive market place, is convenient that companies be customer centered. The companies must win customers from competitors, then keep and grow them by delivering greater value. Before satisfy customers, a company must first understand their need and wants. Thus, is necessary a careful customer analysis.

Guided by the marketing strategy, the company needs to design an integrated marketing mix made up the four Ps (Product, Price, Place, and Promotion) or the four marketing mix's elements. This marketing mix is made trough a Marketing Plan (Kotler & Armstrong, 2010).

3.2. Customer-Driven as a Chosen Marketing Strategy

The marketing strategy outlines which customers the company will serve and how it can create value for these customers. Then, the product manager develops an integrated marketing program that will actually deliver the value to target customers.

Figure 3-2: presents a simple five-step model of the marketing process suggested by Kotler. In the first four steps, the companies must work in understand customers, create customer values, and build strong customer relationships. In the final step, companies capture the rewards of creating superior customer value. By creating value for customers, the companies in turn capture value from customers in the form of sales, profits and long-term customer equity (Kotler & Armstrong, 2010).

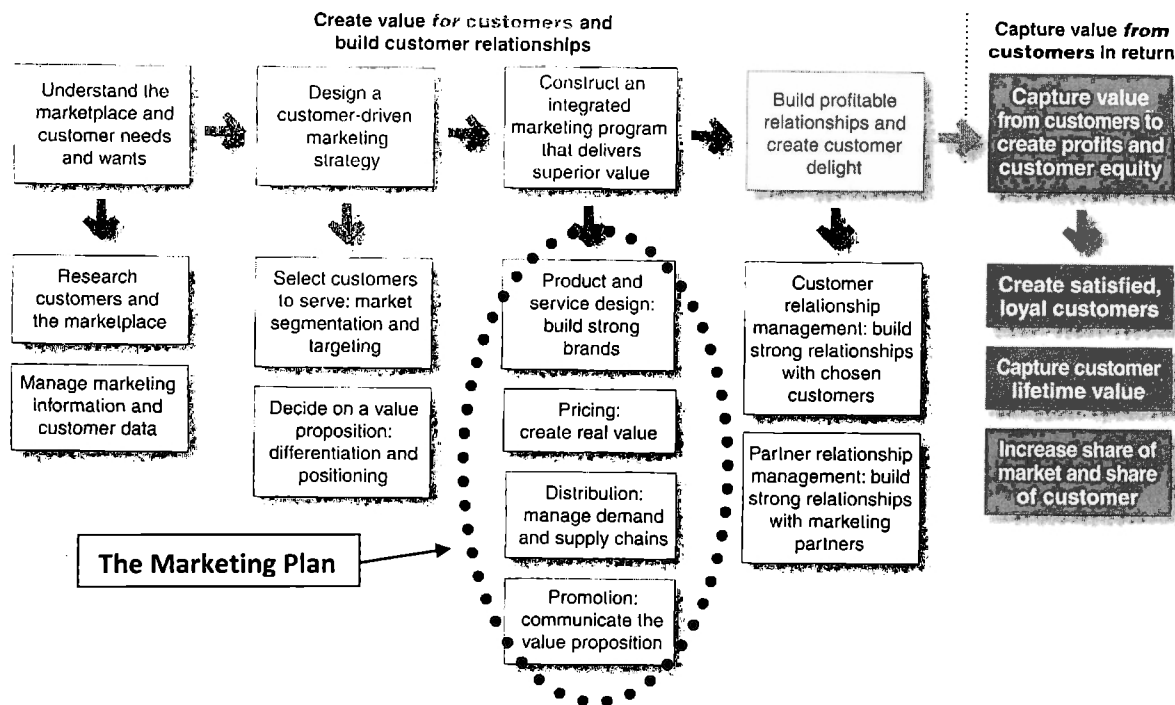


FIGURE 3-2: Model of the Marketing Process (Kotler & Armstrong, 2010, page 29)

The marketing program builds customers relationships by transforming the marketing strategy into actions. This is known as the marketing mix, the set of tools the company uses to implement its marketing strategy.

The main marketing mix tools are commonly classified in four groups, which are known as the 4 P's of marketing: product, price, place, and promotion. The company has first to create the product as a need satisfactory, then must have to decide how much it will charge for the product and how it will make the offering available to the customers, and finally, it must to be communicated the product to the target customers and persuade them of its merits.

The company must combine the marketing tools into an extensive integrated marketing plan that communicates and delivers the intended value to the customers.

3.2.1. The Marketing Plan as a part of the Customer-Driven Strategy

The company's marketing strategy sketches the target customers that the company wants to serve and how the company will create a value in the product for these customers. Then, the marketing team develops an integrated marketing plan that must deliver the intended value to the target customers. The marketing plan will be useful to create customers relationships by transforming the marketing strategy into action. It consists of the company's marketing mix, which is the set of marketing tools necessities to implement the marketing strategy.

Foundational elements for the Marketing Plan are set within the strategy that has to be developed for the product as a business. Whether it is been formulated for a single product or a product portfolio, strategy is the starting point. The marketing plan is a contribution toward the future business of the product is focused on elements of the marketing mix. Strategies formulated by a product manager propose the execution parameters for a product or for the portfolio of products. Good-formulated strategies will help to have a robust, planning and decision making during the "product life cycle" (Haines, 2009).

These are the main advantages that all marketing plan involves:

- I. Ensures business and marketing decisions with a systematic approach.
- II. Helps to program consistent actions focused in commercial and marketing activities.
- III. Trough the commercial and marketing actions execution, take out the misunderstanding respect the activities necessary to do, and permits indirectly the full cooperation among company functional departments involved.
- IV. Because there are specific goals and objectives defined, the company has all the necessary elements to perform the follow up of the commercial activities, and also helps to measure the progress and performance of the organization in the market. The marketing plan ensures to the company a profitable growth.
- V. It is necessary to update the marketing plan every year, in order to have a historical data of the marketing plan information.
- VI. If in the company there is not a strategic planning, the marketing plan could cover the lack of the strategic plan and will give to the managers a useful strategic guidance to take decisions in time (Sainz, 2011).

The strategic plan defines the company's overall mission and objectives. Marketing's role and activities are shown in FIGURE 3-3, whit the main activities related in the customer

management strategy and the marketing mix. Customers stand in the center, the objective is to create value for customers and build profitable customer relationships. Next is the marketing strategy, which is the marketing logic of the company that is designed to create profitable relationships. The company decides the customers to serve (segmentation and targeting) and how (differentiation and positioning). It identifies the total market, then is divided into smaller segments, selects the most valuable segments, and focus on serving and satisfying the customers in these segments (Kotler & Armstrong, 2010).

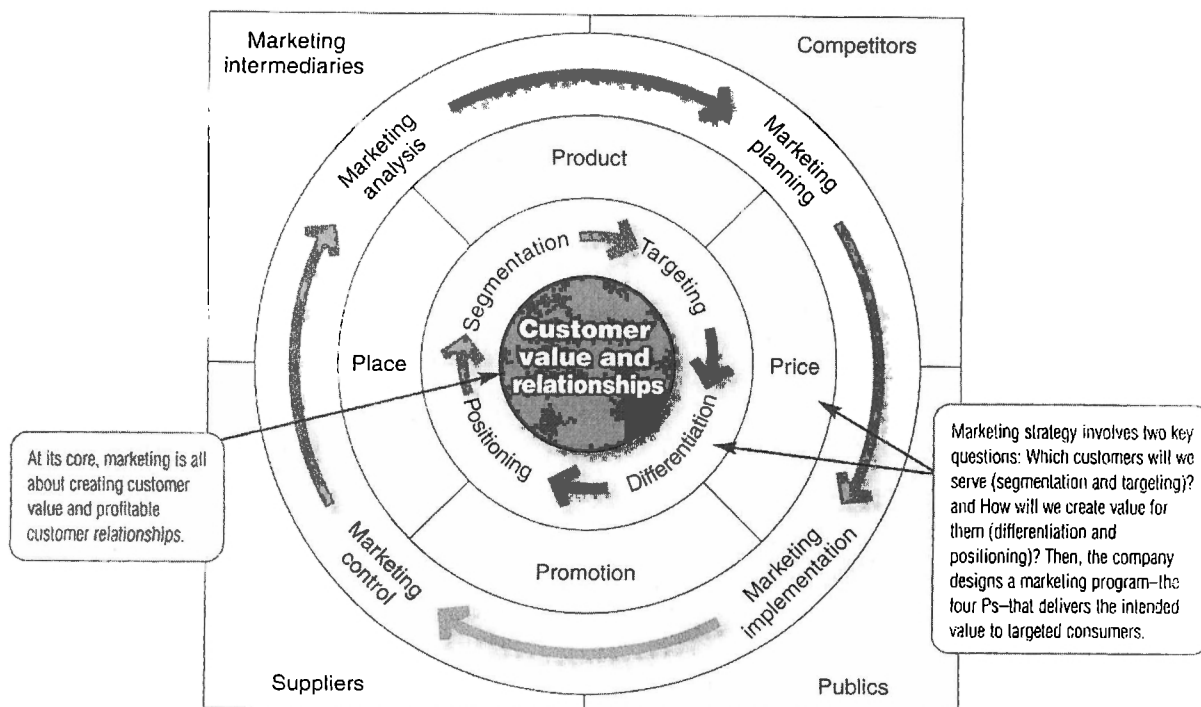


FIGURE 3-3: Managing Marketing Strategies and the Marketing Mix (Kotler & Armstrong, 2010, page 49)

The marketing responsibility is to know the customer needs, the company potential knowledge, and the competition. This is in order to get a competitive advantage sustainable and defensible against the competitors (Sainz, 2011).

The Marketing Plan made from a Customer-Driven Marketing Strategy is the chosen for the challenge described in this project. According to Haines, the Marketing Plan is nothing more than a Functional Support Plan, from marketing, for the product. The most important is that the Marketing Plan for the product sets up an outline for marketing activities along the product's life cycle. The Marketing Plan is used to map the product's pathway into the market. It describes a variety of investments that need to be made and

defines the marketing budget for the product, as well as metrics that can be used to compare actual performance in the most important areas of the plan (Haines, 2009).

3.3. Identify current pricing strategy

The difference between conventional pricing and strategic pricing, is determined by respond to the market conditions and proactively managing them. Finance orders that products must achieve minimum contribution margins causing company to pass up low margin/high volume opportunities that can increase the revenues. Marketing sometimes fails to design and enforce effective pricing policies resulting in high prices to the customers (Nagle & Hogan 2006).

On the other hand, strategic pricing require the coordination of interrelated marketing, competitive, and financial decisions to set prices profitably. Strategic pricing requires more than a change in attitude; it requires a change in when, how, and who makes pricing decisions. Strategic pricing requires anticipating price levels during the product development process to better understand which concepts can create and capture an adequate value to justify their cost. It requires policies, process and discipline to establish adequate long term profitability. Strategic pricing requires too a new relationship among the functional areas in the company such as marketing, sales, service, and finance (Nagle & Hogan, 2006).

Instead of attempt to cover costs, finance must strategically focus on incremental profitability, learn how costs change with changes in sales, and use the knowledge to develop appropriate incentives and guidelines for marketing and sales teams to reach the objectives in profitability (Nagle & Hogan, 2006).

3.3.1. The Cost-Plus Illusion

Cost-Plus pricing is, historically, the most common practice in the pricing procedures because it gives the sensation of security to finance. This is achieved by pricing the products with a fair return over the costs. In theory, it is a simple guide to profitability.

The problem with cost-driven pricing is because in most is impossible to determine a product's unit cost before determining the price, that is because unit costs change with volume. The cost change occurs because a significant part of the costs are fixed and must somehow be allocated to determine the full unit cost. Unfortunately, because these allocations depend on volume, which changes with changes in price, unit cost is a moving target.

To “solve” the problem of determining unit cost, cost-based users are forced to make the absurd assumption that they can set the price without affecting the volume. This could be dangerous, because, the new products could grow rapidly and domain the market. However, as the competition grows and increase slower, the company’s cost-driven pricing will begin to kill its market advantage. As sales volume decline, unit costs will be repeatedly recalculated and price will rise to reflect the rising overhead allocation. As a result, sales will decline even further because the customers will look for cheaper alternatives. This is known as the “death spiral” of cost-based pricing in which fixed costs is spread over continuously declining unit volume as prices escalate ever higher. On the other hand, if a price cut adjust causes an increase in sales, fixed costs will spread over more units, making units’ costs decline, resulting in increased profit. Instead of pricing reactively to cover costs and profit objective, managers need to price proactively, they need to acknowledge that pricing affects sales volume, and that volume affects costs (Nagle & Hogan, 2006).

The danger of cost-based pricing is not limited to the products that are facing a declining volume and a fierce competition. In fact, cost-based pricing is even more dangerous when applied to strong products because there are not signals (such as declining market share) to warn of the potential damage (Nagle & Hogan, 2006).

When managers realize that sales volume depends on the price, the unperfected circularity of cost-based pricing is obvious. The only way to ensure profitable pricing is to let anticipated pricing determine the cost incurred. Value based pricing must begin before investments are made.

The Figure 3-4 shows progression of cots-based pricing and the necessary progression of the value-based pricing. In the Cost-based pricing when the prices to the customers are determined, the marketing area is in the tough task of demonstrate the value of the products to justify the high prices to customers. If cost-based prices are unjustifiable, manager may try to fix the process by allowing “flexibility” in the markups. Although this tactic could minimize the damage, it is not a solution because the financial return of the product remains inadequate. Finance blames marketing for cutting the prices, and marketing blames finance for excessive costs.

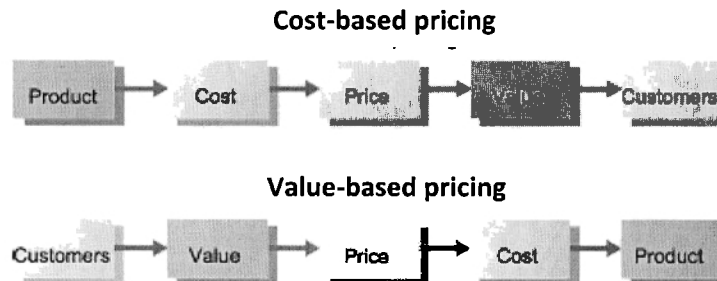


Figure 3-4: Cost-Based Versus Value-Based Pricing (Nagle & Hogan, 2006, page 4).

3.3.2. Customer-Driven Pricing

To solve the problem of cost-based pricing is necessary to reverse all the process, is necessary to start with customers, targeting the price in based on estimates of value and the portion that the firm can expect to capture given the competitive alternatives, establishing a price that the customers are convinced to pay.

If the companies want to price in base of the market conditions, is necessary to take the price authority away from financial managers and give it to sales or product managers. Two problems could be present when the companies want to price reflecting the amount buyers seem willing to pay. First, some buyers are rarely honest about how much they want to pay for a product, and second, the companies could under price truly innovative products because they ask potential customers, who are ignorant of the real product value (Nagle & Hogan, 2006).

3.3.3. Competition-Driven Pricing

Another tactic is to consider the option of the pricing according the competitive conditions. In this option, pricing could be a tool to achieve sales objectives or simply to gain market share. However is necessary to consider that price should be lowered only when they are no longer justified by the value offered in comparison to the value offered by the competition.

Although price reduction is probably the quickest, most effective way to achieve sales objectives, it is usually a poor financial decision. Because a price cut can be so easily matched, and it will offer only a short term market advantage at the expense of permanent lower margins. Is important to consider, that although product differentiation, advertising, training, and an excellent distribution do not increase sales as quickly as price reductions, their benefits is more sustainable and usually more cost effective.

BIBLIOTECA



The objective of pricing should be to find a good balance of margin and market share that maximize the profitability over the long term. Frequently, the most profitable price is the one that substantially restricts market share relative to the competitors (Nagle & Hogan, 2006).

3.3.4. Market-Oriented Pricing

In practice, the companies must be market-oriented, taking care of both their customers and their competitors. But being careful in not let competitor watching blind them to customer focus. The FIGURE 3-5 shows how the companies move through four orientations over the years. The first step is when the companies are product oriented, paying only a little attention to customers and competition, in the second stage, the companies are more customer oriented, in the third stage, they start to pay attention to competitors, becoming competitor oriented. In recent years, it is important for the companies to be market oriented, paying balanced attention to both customers and competitors. Instead of only watching the competitors' movements and trying to beat them on current ways of doing business, the companies need to pay more attention to deliver more value to the customers than the competitors do. In this strategy, marketing begins with a good understanding of customers and the market place (Kotler & Armstrong 2010).

		Customer-centered	
		No	Yes
Competitor-centered	No	Product orientation	Customer orientation
	Yes	Competitor orientation	Market orientation

FIGURE 3-5: Evolving company orientations (Kotler & Armstrong, 2010, page 546)

Market-oriented companies understand both customers and competitors. They build profitable customer relationships by delivering more customer value than competitors do (Kotler & Armstrong 2010, p 546).

The considerations by the financial area of the companies and the external market considerations are, at the most of companies, opposing forces in pricing decisions. Financial managers are looking to determine high prices that achieve profit objectives. And the marketing and sales managers are looking in low prices to achieve sales objectives. Sometimes the pricing decisions are politically defined instead over coherent

strategies. Effective pricing decisions should involve a mix of internal financial constraints and external market conditions.

It is important in the companies to have a strategic balance between the traditional cost-based strategy and the customer-driven strategy. Many marketers argue that costs should not have an important role in market-based pricing. This is clearly wrong. Without a good customer segmentation, prices could make trade-offs between charging higher margins to fewer customers and lower margins to the most of the customers. Once the true cost and sales contribution are understood, managers can integrate costs accurately into what is known as market-driven strategy.

To have an adequate procedure to evaluate the potential profitability of a price change, first, the managers have to develop a baseline, or standard comparison, in order to measure the effects of the price change, for example, is necessary to compare the effects of a price change with the products level of profitability, or with a budgeted level of profitability, or with a hypothetical scenario that the product manager is interested in exploring. Second, it is necessary to calculate an incremental “breakeven” for the product that will change price in order to determine under what market conditions the change will be profitable (Nagle & Hogan, 2006).

3.4. Market-Oriented pricing as a chosen price strategy

In setting their prices, many companies add a “markup” to their estimated costs. That is known as cost-based pricing. Alternatively, some companies practice *value-based pricing*. These companies estimate the most that the customer would pay for the product. They do not charge that price, because the customer may resist to buying. They charge something less -the value price- to leave the customer with some “consumer surplus”. The seller expects that its costs are much lower than the value price; in this case the company will have a good profit. If the company costs are close to, or exceed the value price, is probably that the company would never success with the offer (Kotler on Marketing, 1999).

Market-oriented pricing strategies must be revisited across the product’s life cycle. Market pricing strategies are the antithesis to traditional, inefficient, cost-plus models. Cost-plus pricing is invariably dangerous because it overlook the most important variable of all-that of volume or quantity. Other deficient pricing model is when the strategy goes in reaction to the competition, especially when that pricing yields little or no profit. If the products are produced in a high-cost country and are sold at a heavy discount to win the

business, then the company may be doing some downsizing very soon-unless the product has a tremendous incremental benefit over the competition. The companies that pursue contract manufacturing and assembly should be able to do a better job of facing lower-cost competitors (Haines, 2009).

Market-oriented pricing can result in better returns to the business. This means that is necessary that the product managers and marketing counterparts continue evaluating industry trends and competitive actions. For this, is critical for an effective updates to pricing models that the product managers understand the customers and their ever changing need states, motivations, the challenge they face, and preferences. Without that, there is nothing to do to build flexible segmentation models and value propositions (Haines, 2009).

The price of the products reflects the customer's willingness to buy the benefit. The pricing strategy represents a tremendous challenge because is necessary to be defined properly according to the value proposition. Even if the value proposition seems to be correct, there could be other factors that the customer could not accept (Haines, 2009).

Pricing strategies are very important during the "product life cycle". Pricing strategy must change as products and markets mature. The pricing is the way that customers can validate the product value and benefit. The pricing sets in the customer a series of post-purchase analysis. After they purchase a product, customers have to own and operate it. Customers begin to ask if the price paid was fair.

As the products goes through the "product life cycle", is necessary to choose the appropriate strategic pricing option. There will be times when the price will be calculated based on a one time bid, in which case costs could be related to the price. There may also be times when the price will be the drive to migrate the customers to another product, and other pricing strategies might include those that are adjusted to build or to defend the market share. (Haines, 2009)

According to Steven Haines, the prices strategies for a Marketing Plan, needs to be in the following ways:

- The list prices for the product.
- The linkage of the pricing rationale to the value proposition.
- The linkage of the pricing model to the unit volume and revenue forecast for the product. This is critical because price and volume are inextricably linked. Any discounting programs could be acceptable. This means that is necessary to

establish a “floor pricing”, in this way, the sales people will know how much they can discount in a competitive situation.

The price is an important element of the marketing mix and will have an impact on the results. The pricing could have the following objectives: to increase unit sales, profits, or market share; to weaken a competitors; or to maintain away the competitors. Successful companies design their new products with specific targets in mind (Harvard Business School, creating a marketing plan, 2006).

Sometimes in the companies, the products prices are defined too high to produce any demand or too low to produce profits. Customer perceptions of the product's value set the ceiling for the prices, if the customers perception is that the product value is lower than the price, they will not buy the products. Product costs set the floor for prices, if the products are priced below the companies costs, the profits will suffer. To setting the price between these two extremes, the company must consider the internal and external factors, as the marketing strategy and marketing mix, the nature of the market and demand, and competitors' strategies and prices (Kotler & Armstrong 2010).

Good pricing practices begin with a complete understanding of the value that the product creates for the customers. Value-based pricing uses buyers' perception of value, not the seller's cost, as the key to pricing (Kotler & Armstrong 2010, p 291). According to these authors', price must be considered along with the other marketing mix variables before the marketing is set.

The proposal of this project is that Cummins in Mexico must implement a Market-oriented pricing strategy. This will provide the company with a better understanding of the local market environment, the competitors' tactics and behavior and the customers' needs.

3.5. Market research

Product managers are not responsible for all the market research efforts. It is suggested to rely the program on the personnel from the marketing department or in the market research department. The research must include a constant scanning of business literature, frequent customers visits, analysis of customer satisfaction data, and so on. Customer research must always focus on end results that yield what is necessary to learn, why was looked for that data, and how will be used the information (Haines, 2009).

3.5.1. Market Segmentation

Market segmentation is one of the most important tasks in marketing. It is important to identify and to describe market subgroups, so they can guide the marketing and sales teams to permit a pricing process more efficient and effective. For example, customers who are relatively less price sensitive, costly to attend, and poorly served by the competitors can be charged more than customers who are more price sensitive, less costly to serve, and are well attended by the competitors. It is important to consider avoiding a segmentation focused on customer attributes that are not useful for pricing decisions, creating customers groups that will not describe adequately purchases motivations or classifying them in a way that will not be useful to take pricing decisions (Nagle, 2006).

The reason product managers need to know about each of the market segments is because that can define to which customers is necessary to focus on. This will help too to know that the different customer's types gives different value to the business. Segmentation models will help to tailor the marketing mix to specific market segments or target customer types; this will help to the company to satisfy the need of that specific group. (Haines, 2009)

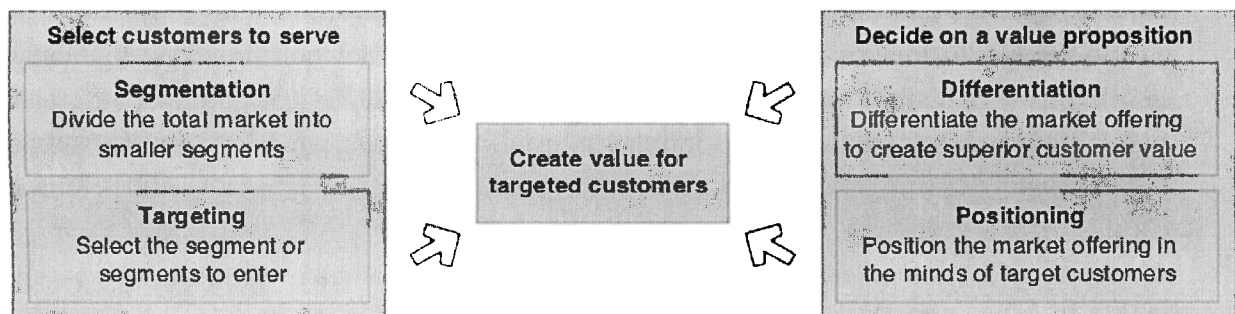


FIGURE: 3-6: Steps in market segmentation, targeting, and positioning (Kotler & Armstrong, 2010, page 192)

3.5.2. Market research design

Marketing research is the systematic design, collection, analysis, and reporting of relevant information about specific marketing situation that face the organization. Companies use marketing research in a wide variety of situations. For example, marketing research gives to the company insights about customer motivations, purchase behavior, and customer satisfaction. And it is useful to asses market potential and market share or to evaluate the effectiveness of pricing, distribution, and promotion activities (Kotler & Armstrong, 2010).

When a product manager prepares the product strategies, it is necessary to describe why a specific segment is chosen. These particular segments represent the target market. Market attractiveness is selected based on several factors:

1. The growth degree of the segment.
2. The number of competitors fighting for the space.
3. The manner in which a segment is accessible by the actual distribution channels.
4. The profit to be obtained by bringing products to those segments. (Haines, 2009)

The reason product managers have to know about the market segments is to find which customers they focus on, and, to know that different customer types could bring different value for the company. Market segmentation divides customers into groups with similar characteristics. Thus, the company can formulate different marketing mix for each type of customers.

A marketing mix strategy should focus too on the customers of segments who have enough purchasing power to have a profitable business with them. The customer types in a specific segment should favor a specific product, be inspired by an adequate advertising, and is important to consider that prices must reflect the value delivered by the product. Also is important to choose the most convenient distribution channel.

3.5.3. Customer analysis definition

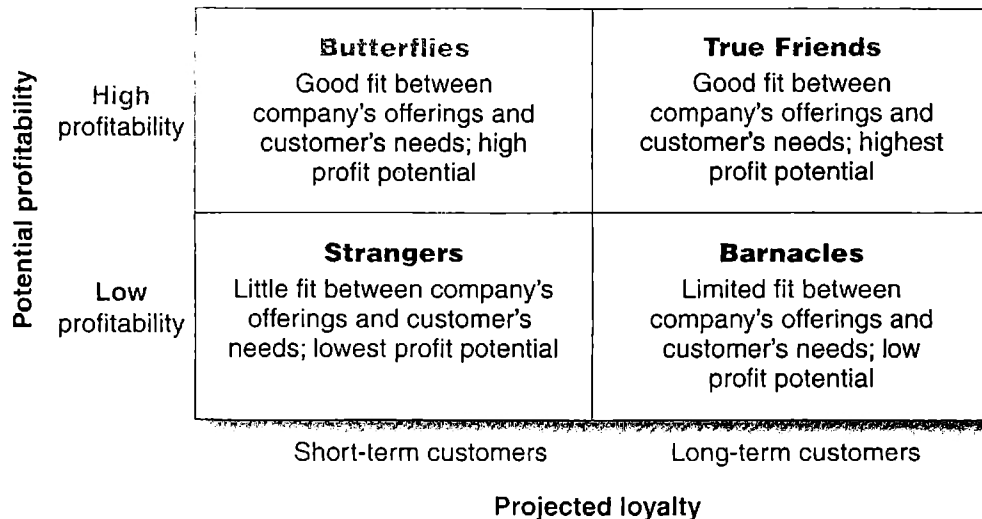
The strategy will define what is going to be done and how is going to be done. All customers go through a selection process when deciding to buy any product. Some make impulse decisions and other goes through a complex buying decision process with many influencers and users. The job of a product manager is to highlight and characterize the key market segments and customers types in order to understand their needs.

It is important to know where the product is situated in the “product life cycle”. That is the only way to understand the appropriate product investment considered for the future (Haines, 2009).

Companies should manage customers carefully. Is necessary to view customers as assets to be managed and maximized. But not all the customers are loyal customers or good investments. It is possible that some loyal customers could be unprofitable, and some disloyal customers can de profitable.

The company can classify customers according to their potential profitability and manage its relationships with them accordingly. The FIGURE 3-7 classifies customers into a group of four, according to their profitability and loyalty (Kotler & Armstrong, 2010).

Figure 3-7: Customer Relationship Groups (Kotler & Armstrong, 2010, page 24)



Companies must know that is difficult to serve all customers with a good profitability in a given market, or at least not all the customers have to be served in the same way. There are too many different kinds of customers with too many different kinds of needs. And the most of the companies are in position to serve some segments better than others. Thus, each company must divide the total market, choose the best segments, and design the best strategies to serve the different segments in a profitably way. This process involves market segmentation, market targeting, differentiation, and positioning (Kotler & Armstrong, 2010).

3.5.4. Voice of Customer (VOC)

It is important to really understand how customers operate. That's why is necessary to get into the field. The correct documentation for the market research is a visit plan. The reason for a customer visits are to learn more about customer needs. Customer visits and field research allow product managers and their teams to search for the customer's voice.

Capturing the customer's voice is not a once-and-done visit and report. It is an ongoing part of the market research process and is an important part of the "market radar" used by the cross-functional product team.

Another reason for customer visits is to learn more about their needs. Customer visits and field research permits to product managers and their teams to search for the customer voice (VOC) (Haines, 2009).

The most widely used method for data collection is by gathering descriptive information. A company can ask directly to the customers that they want to know, as, knowledge, attitudes, preferences, buying behavior. The advantage of the survey research is the flexibility. This is because it can be used to get many different kinds of information in many different situations. The surveys can be conducted by phone, by mail, in person or online. Survey research also could present some problems. Sometimes the people don't answer right the questions because they cannot remember or they have never thought about the questions. Another problem is that may be the customers do not want to respond to unknown people or about things that make them feel uncomfortably. Or maybe people want to look smarter answering in a dishonest way. Or they may try to help the interviewer by giving pleasing answers. Finally, the people could be busy at the moment of the interview or they don't want and intrusion in their privacy (Kotler & Armstrong, 2010).

	Mail	Telephone	Personal	Online
Flexibility	Poor	Good	Excellent	Good
Quantity of data that can be collected	Good	Fair	Excellent	Good
Control of interviewer effects	Excellent	Fair	Poor	Fair
Control of sample	Fair	Excellent	Good	Excellent
Speed of data collection	Poor	Excellent	Good	Excellent
Response rate	Poor	Poor	Good	Good
Cost	Good	Fair	Poor	Excellent

TABLE 3-2: Strengths and Weaknesses of Contact Methods (Kotler & Armstrong, 2010, page 111)

3.5.5. Sample size definition

A sample is a segment of the population selected for the marketing research to represent the population as a whole. Ideally, the sample should be representative in order to make accurate estimates of the thoughts and behaviors of the larger population.

To design the sample, is necessary to think in three decisions. First, who will be surveyed, second, how many customers should be surveyed. It is important to consider that large samples give more reliable results than small samples. And the third, how the people in

the sample must be chosen. The TABLE 3-2 describes the different kinds of samples (Kotler & Armstrong, 2010, page 117).

Probability Sample	
Simple random sample	Every member of the population has a known and equal chance of selection.
Stratified random sample	The population is divided into mutually exclusive groups, and random samples are drawn from each group.
Cluster (area) sample	The population is divided into mutually exclusive groups, and the researcher draws a sample of the groups to interview.
Nonprobability Sample	
Convenience sample	The researcher select the easist population members from which to obtain informaiton.
Judgment sample	The researcher uses his judgment to select population members who are good prospects. for accurate information.
Quota sample	The researcher finds and interviews a prescribed number of people in each of several categories

TABLE 3-3: Types of Samples

3.5.6. Competitive Intelligence

The starting point of competitive analysis is the identification of the competitors. A competitor is any company that is looking to satisfy the same customer needs that Cummins do.

Is important to consider the following at the moment of identifying the competitors:

- The players that are offering similar products
- Companies that make substitute for the products (Counterfeit)
- The own suppliers (Will Fit)

Once they are indentified, is necessary to analyze them in terms of their ability to capture part of the market (Harvard Business School, creating a marketing plan, 2006).

Many companies have a Competitive Intelligence group. If not, is helpful to have this activity in the company to carrying out competitor research. The idea is to gain the best perspective about the competition and their products, past and present. Is helpful to know thing about the customers as:

- Data of the products taken from their Web sites.
- Actual products –could be more convenient to purchase their products, which will help to know how they look, feel, how they are designed, and so on.
- Competitor’s advertising and promotional programs. (Haines, 2009)

Product Managers must develop highly sensitive radar to be ready in a constantly changing industry. The continuing monitoring provides important information that can be used in potential opportunities and action plans for the product. It is vital to the company to get this information on a timely and ongoing basis (Haines, 2009).

Marketing intelligence is the systematic collection and analysis of information available about consumers, competitors, and developments in the market place. The objective of marketing intelligence is to improve strategic decision making by understanding the environment where the products are offered, monitoring and tracking what the competitors are doing, and providing early warning of opportunities and threats.

A good marketing intelligence can help product managers to get insight about the customers and competitors thinking. It is necessary to the companies to have active monitor competitor's activities. The information could be used to gain early warnings about competitor's moves and strategies, new-product launches, new or changing markets, and potential competitive strengths and weaknesses. A recent analysis by consulting firm PricewaterhouseCoopers found that companies employing competitive analysis as a critical element in their strategic thinking grow 20% faster than those that do not.

Much competitive intelligence can be obtained from people inside the company, as executives, engineers, or the sales force. The information can be obtained also from suppliers, resellers, and key customers. Or it can get good information by observing competitors and monitoring their published information. It is possible too to buy and analyze competitor's products, monitor their sales, and examine various types of physical evidence.

Competitors often reveal intelligence information through a business publications, trade shows exhibits, advertisements, and Web pages. The Web has become an invaluable source of competitive intelligence, now is common that the companies place a lot of information about their product on their Web sites, providing details to attract customers. This can provide a lot of useful information about competitor's strategies, markets, products, and other happenings (Kotler & Armstrong, 2010).

3.5.7. Competitive Intelligence results

The industries in which the products are competing, and the competitors faced, represent the playing field for the products managed. Thus is important the analysis of the industry

and competitive profile and, it is necessary also to have this information stored in the product strategy documents, business cases, and marketing plans. In order to have the information available each time is necessary to create a document.

The information about the industry and the competition is recommended to be created with the following structure:

- A historical perspective of the industry that could describe what are happening in each market area where the products are offered.
- A discussion about the analysis of which the competitors are, what are they doing with their products, and more important, some type of comparative description about the company products against the competition.
- Finally, a summary about the overall behavior of the company in the playing field.

The collection of data and its analysis provides the basis to determine the industry and competitive intelligence. And this will provide the necessary information to make strategies and to take decisions (Haines, 2009).

3.6. SWOT analysis

It is important to the company the study of the market and the market environment through a SWOT analysis to find attractive opportunities and identify environmental threats. It should analyze company strengths and weaknesses as well as current and possible marketing actions to determine the opportunities. The objective is to match the company's strengths to attractive opportunities in the environment, while eliminate or overcome the weaknesses and minimizing the threats. Marketing analysis provides inputs to each of the other marketing management functions (Kotler & Armstrong, 2010).

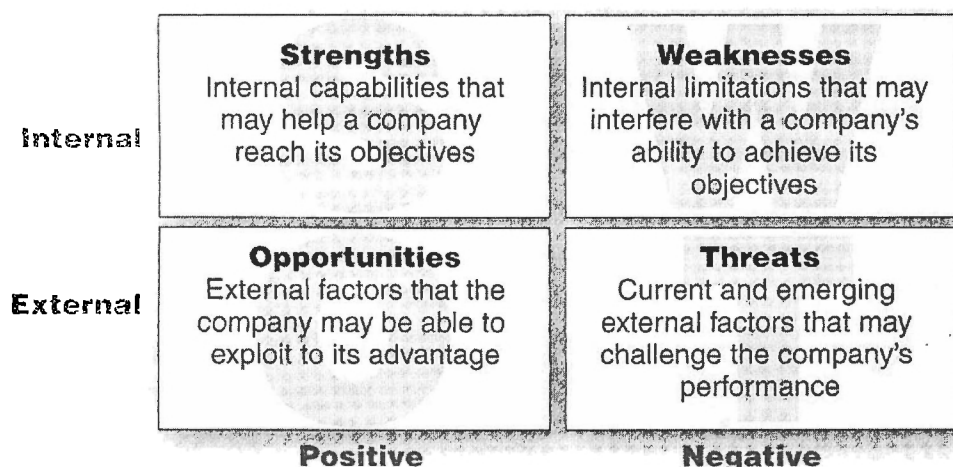


FIGURE 3-8: SWOT Analysis (Kotler & Armstrong, 2010, page 54)

3.7. Proposal

The marketing strategy and the pricing strategy are the tools to fulfill the company's objectives. At the business or product level, the pricing strategy and the marketing strategy are focused to transform a product or service concept into a successful offering that meets the customer needs and fulfills the company's expectations for sales, market share, and so on.

The pricing strategy and the marketing strategy begin with the customer targeting definition, and then develop the marketing mix. The marketing mix includes product, price, place and promotion (see the FIGURE 3-9). These are the necessary tools to reach the objectives in the target market.

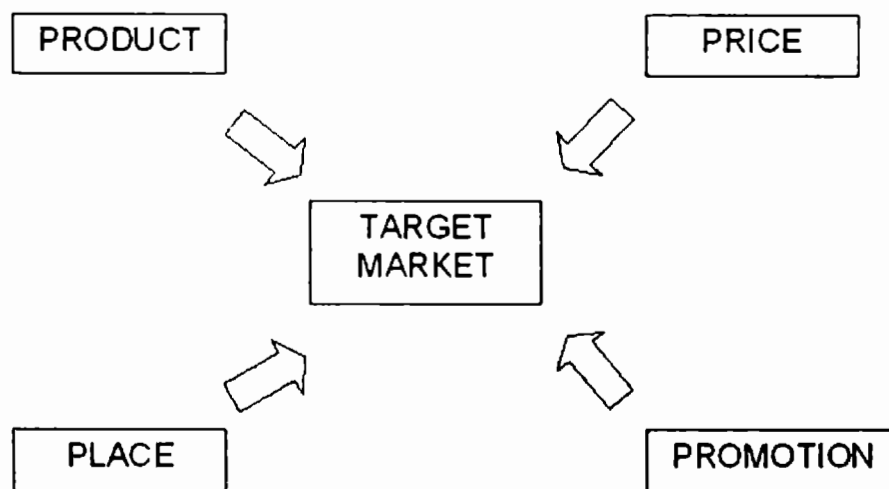


FIGURE 3-9: Applying the marketing mix to a target market (Harvard Business School, Creating a Marketing Plan, 2006, kindle location 53)

3.7.1. Definition of objectives and metrics

If a product is being introduced or the market offers are reinforced, the performance of the pricing and marketing strategies should be evaluated. Many companies call these metrics Key Performance Indicators (KPIs). It is necessary to establish product-specific performance goals and the requirements by the performance will be tracked.

It is important to setting up the mechanism such as product scorecards that can ensure an adequate performance-monitoring. The following list represents some indicators that can help the company to follow up the performance of the product as a business (Haines, 2009):

- Unit Volumes
- Pricing
- Discounting
- Customer Satisfaction
- Inventory levels
- Sales by Channel
- Sales cycle

Another alternative of KPIs are financial goals and marketing goals. These metrics are usually expressed as growing revenues and expected profits at the end of the planning period. Marketing goals can be expressed as additional unit sales or increase in the market share (Harvard Business School, 2006).

3.7.2. Definition of the marketing mix *tactics*

The marketing mix manages the general strategy adopted by the company (i.e. strategy based on cost leadership, differentiation, focus and customer driven). The marketing mix indicates the correct timing of its sales and promotional activities, pricing intentions, and distribution efforts (Harvard Business School, 2006).

To manage the strategies, the company must first create a product to satisfy the market (i.e. product), and then is necessary to decide how much will be charged for the product (i.e. price) and how it will be offered to the customers (i.e. place). Finally, how will be communicated the value of the product to the customers and persuade them to the buy (i.e. promotion). The company must blend all of these marketing mix tools into a comprehensive marketing program that communicates and delivers the intended value to the customers.

3.7.2.1. Description, value propositions and positioning of product

In the development of the promotions, it is necessary to focus all the marketing effort on the product. The dimensions that need to be defined in the products are:

- A comprehensive description of the product, the major elements, features and functionality should be called out to reinforce the benefits that are to be delivered to the chosen market segments and associated customer targets.
- Financial projections for the product are very important. Is necessary to define the channel through the product will be offered, the estimated volume and revenues projections.

- The value proposition for the product for each market segment must be clear. There may be a series of unique selling points as a product positioning statement. This information has to be used in promotional literature and in training material for the sales people. Products that are perceived with unique values have a better chance to be offered with a more competitive price (Haines, 2009).

3.7.2.2. Price

The price of the product must reflect the targeted customer's willingness to buy the benefit offered. Even if the value proposition seems to be adequate, could exist other factors that customers simply will not accept. For the Marketing Plan, the pricing strategies have to be called out in the following ways:

- The list price(s) for the product.
- The linkage of the pricing according to the value proposition.
- The linkage of the pricing model to the unit volumes sales and revenues forecasted for the product. This is a critical factor because price and volume are always linked.
- Discounting programs could be acceptable. This means that is necessary to establish a "floor pricing", so that, the salespeople can know the maximum discount to give in a competitive situation (Haines, 2009)

3.7.2.3. Promotion

Promotional strategies consist of a variety of tools used to communicate to the market. These tools could be advertising, direct marketing, personal sales activities, and public relations. The objective is to be sure that the customers are persuaded to contact the company to get more information, or to buy the product. Promotion is also important because is necessary to have the products value information available to the customers.

The promotional programs are an integrated mix of tactical activities that can be divided into individual campaigns. A campaign is a mini program that directs the promotional marketing investments to achieve defined goals. Each campaign must be focused on a particular market segment with a specific objective, call to action, budget and metrics. The

TABLE 3-4 shows how campaign plans might be organized (Haines, 2009).

Name of Campaign	Potential Date	Targeted Group	Goal of Campaign	Call to Action	Budget	Campaing Metrics

TABLE 3-4: Promotional Campaign Plan Matrix (Haines, 2009, page 404)

3.7.2.4. Place

Once the companies has defined and review the channel alternatives and decided the best one, is necessary to implement and manage the chosen channel. Marketing channel management means the selecting, managing, and motivating individual channel members and the evaluating performance over time.

When selecting intermediaries, the companies must define the characteristics that differentiate the best ones. It is necessary to evaluate trough the time the performance of the channel members in business, growth and profit record, cooperativeness, inventory levels, sales quotas, customer delivery time, promotion and training programs and reputation. It is recommendable too to evaluate the store's customers, location, and future growth potential. The company must recognize and reward dealers with a good performing. If the Dealer has a poor performance, should be assisted, or replaced as a last resort.

Once selected, channel members must be managed and motivated to do their best. The company must sell not only trough the dealers but to and with them. The companies must see their intermediaries as first-line customers and parents. In managing its channels, a company must convince distributors and dealers that they can succeed better by working together as a part of a value deliver system (Kotler & Armstrong, 2010).

3.7.3. Other functional dependencies

Additional research funding may be needed during the plan development. Furthermore, other departments may need to be involved. Marketing might provide deliverables to sales department or customer service in the form of training or supporting marketing documentation. In return, those functions should provide adequate timing for the training (Haines, 2009).

The purpose of a cross-functional product team is to manage all the elements needed to reach the financial, market, and strategic objectives of the product, as a business. The cross-functional product team is designed to delegate to the representatives from their perspective business functions. The team is the primary mechanism through the organizations stars product strategies and plans. The team is responsible for making sure that plans are executed in time. Finally, the product team is responsible for the profitability of the product in the marketplace.

The integrated supply chain management is designed to harmonize all the company's decisions, and to promote close working relationship among departments.

The product manager usually leads a cross-functional team, but is not capable to see everything about the product. Every product manager needs the help of many people, who can help with their expertise in different areas. Each people will see different things when they look at the product, and those varied points of view are critical to product success (Haines, 2009).

3.7.3.1. Sales training programs

The sales people are dependent on product managers and marketing people for support and training. The training programs usually are focused in how to sell a product. However, is necessary to do training about the industry, the competition, and the trends in customers' preferences. This kind of training will be very appreciated by the sales force and will help to create more consultatively people. It is necessary to create sales guides, sales kits, sales brochures, and other useful documents that can support the sales teams. It is important to maintain available right compensation packages to encourage salespeople to be motivated to sell the company's product (Haines, 2009).

3.7.3.2. Future market research needed

The researcher next must to put the marketing research plan into action. The research functions as collecting, processing, and analyzing information must be a continue activity. The data collection could be made by the company's marketing staff or by outsourcing companies. The data collection phase of the marketing research process is generally the most expensive and the most subject to error. Researchers must be sure that the plan is implemented correctly. They must be sure to be ready against problems with contacting respondents, with respondents who refuses to cooperate or with respondents that give

bad answers, and with interviewers who make mistakes or don't do well the interview taking short cuts.

Researchers must also process and analyze the collected data to apart the most important information and findings. It is necessary to check the information for accuracy and completeness and to process is for analysis. Then, it is necessary to tabulate the results and to run statistical measures (Kotler & Armstrong, 2010).

4. RESEARCH METHODOLOGY

This paper uses case study as conduct an exploratory investigation. Case study method permits investigators to hold the holistic and meaningful characteristics of different events. The events that could be studied by the case study method are life cycles, small group behavior, organizational and managerial processes, and the maturation of industries. In general, case studies are useful when "how" or "why" questions are made. Another good reason to use the case study method is when the investigator has a little control over events (Yin, 2009).

Regarding to a work as a "case study" must mean that: its method is qualitative, the research is holistic, includes the examination of a phenomenon, it is based on a particular type of evidence (e.g. ethnographic, non experimental, observation, historical or field research), it is a method of "real-life context" evidence, and investigates the properties of a single phenomenon (Gerring, 2007).

To design the case study it is necessary to have a plan or research design. The development of this research design is a difficult part of the case studies. An exhaustive catalog of research designs for the case study must be developed. Every type of empirical research has an implicit design. In the most elementary sense, the design is the logical sequence that connects the empirical data to an initial research questions and, ultimately, to its conclusions. A research design is a logical plan for getting from "here" to "there", where "here" is defined as the initial questions to be answered, and "there" is the set of conclusions about these questions. Between "here and "there" may be found other steps, including the collection and analysis of relevant data (Yin, 2009).

4.1. Data Collection

The sources of evidence most commonly used in doing case studies are: documentation, archival records, interviews, direct observations, and physical evidence. In a good case study are used multiple sources of evidence.

Documentary information is very relevant to every case study. The information can take many forms and must be the object of explicit data collection plans. The information and documents are more and more available through Internet searches. The documents are useful even though are not accurate. The information must be carefully used. For case studies, the most important use of documents is to verify and to increment evidence from other resources. Systematic searches for relevant documents are important in any data collection plans.

One of the most important sources of information of case study is the interview. It is recommendable that the interviews be guided conversations rather than structured questions. In other words, the stream of questions in a case study interview is likely to be fluid than rigid. The interview process must follow the inquiry line of the case study protocol, and making questions that will serve the needs of the inquiry line. Overall, interviews are an essential source of case study evidence because most case studies are about human behaviors. Well-informed interviews can provide important insights about different events (Yin, 2009).

4.2. Data analysis for the case study

No matter the strategies or techniques that were chosen for the case study, it is important to be sure that the analysis is of the highest quality. The analysis should show that all the evidence was attended. The analysis must show also that was used as much evidence as was available and the interpretation should account for all this evidence and leave no loose end. Without these considerations, the analysis may be vulnerable to alternative interpretations based on the evidence that was inadvertently ignored. That's why it is important that the analysis address, if it is possible, all the different interpretations. Another important consideration is that the analysis must address the most significant aspect of the case study. The case study should reflect that the author used his expert knowledge (Yin, 2009).

4.3 Company description

Cummins is the biggest independent diesel engine producer in the world, with more than 40,000 employees that design, manufacture, distribute and service engines in more than 190 countries and approximately 500 distributors and more than 5,000 authorized Dealers. The Headquarters are located in Columbus Indiana (USA); the company was founded in 1919. Cummins revenues in 2009 were \$10.8 billion.

Cummins is organized into four distinct but complementary business units that are specified as follows:

- **Cummins Engine Business.-** This unit manufacture a complete line of diesel and natural gas engines, for on highway and off highway markets. It includes heavy duty, mid range trucks, light duty automotive, commercial and recreational marine applications, industrial, mining, agricultural, oil and gas and other specialized applications. This unit also provides new and remanufactured parts and engines trough the distribution network.
- **Cummins Power Generation Business.-** Is the company unit in charge of provide power generation trough the Diesel generator sets from 2.5 to 2700 kW. Cummins Power Generation also provides a wide option of services, like long term operation and maintenance contracts.
- **Cummins Components Business.-** Consists in the development and manufacturing of filtration components, Turbochargers and related products, catalytic exhaust systems and related products, and new fuel systems and electronic control modules.
- **Cummins Distribution Business.-** This unit is in charge on the development of the distribution strategy and channel management in the world. Trough the parts and service, well trained personnel and customized integrated products this unit provides the support to our customers (Cummins web site 2011).

5. DIAGNOSIS

The challenge diagnosis is focused to identify the current price and marketing strategy in the company, considering that recently the company is working in the redesign of the strategy. The diagnosis includes an analysis of the advantages and backwards of the different strategies and an analysis of the market environment for the ISX parts and information about the activities of the actual market research.

The following test was applied to the marketing team members in order to determine the need for an ISX parts marketing plan.

TABLE 5-1: Test to determine the need of a marketing strategy

Statements	This is true	This is not true
1. We are losing opportunities to generate revenues	XXXX	
2. Our long-term planning is nothing but a bunch of meaningless numbers	XXXX	X
3. When we look our objectives from a rational point of view, our marketing goals are illogical		XXXX
4. We are limited of useful and practical marketing information	X	XXX
5. Managers are frustrated by conflicts and rivalry between different departments or functions	XX	XX
6. We are noticing and increase in the proliferation of competing products	XXXX	X
7. We are not taking advantage of our promotion and communication budget	XXXX	X
8. In the company there is a lot of confusion about the product pricing	XX	XX
9. We are becoming more and more vulnerable to changes that occur in our environment	XXXX	X
10. we are not controlling the company, but on the contrary, environmental forces are controlling us	X	XXX
TOTAL	26	18

The trends of the answers are at the left side of the table, this means that it is necessary to consider the need for a marketing plan or we should consider review the current processes of marketing planning.

5.1. Identify current marketing strategy

After the analysis, it is detected that the company is working in an overall-cost leadership strategy which can provide high margins. This is a strategy that permits in the most of the cases above average returns. However, this strategy ignores the different market

segments and the customer needs, and this can allow a dangerous loss of market-share versus the competitors.

The Mexican market is competitive because of our customers' price sensitivity. Our competitors have employed an aggressive market strategy based on customer. The competitors basically offer cheaper versions of Cummins parts. These parts can be counterfeit products, will fit products, repaired parts and junkyard parts. As a result, our day-to-day operations must have a well-defined marketing strategy and processes to differentiate our company from its competitors.

5.2. Advantages & disadvantages of the Customer-Driven Marketing Strategy

The TABLE 5-2 located in the appendix, shows the analysis of the different marketing strategies and how can be applied to the Cummins Mexican Market.

The customer-driven strategy helps the company become closer to the customers. This strategy also helps the company closely monitor its competitors to understand their actions and strategies. Cummins chose this strategy to increase the products' sales and enhance the brand's value.

5.3. The Market environment for the product

The market environment for the product includes an analysis about actual positioning of the ISX key parts in the market. The most of the analysis is done over the 6 parts that were selected at the beginning of this project.

5.3.1. Product Position Analysis

The FIGURE 5-1 shows the top 40 Cummins parts sold every month in average over the past 36 months. The red section identifies the parts that will be the focus of this proposal. The 40 parts depicted in the graph represent 80% of the total number of Cummins parts sold in Mexico. The six parts that we selected represent 35% of the total number of Cummins parts sold in Mexico. That is, the six parts highlighted in red are representative of all Cummins parts and will be analyzed in this paper.

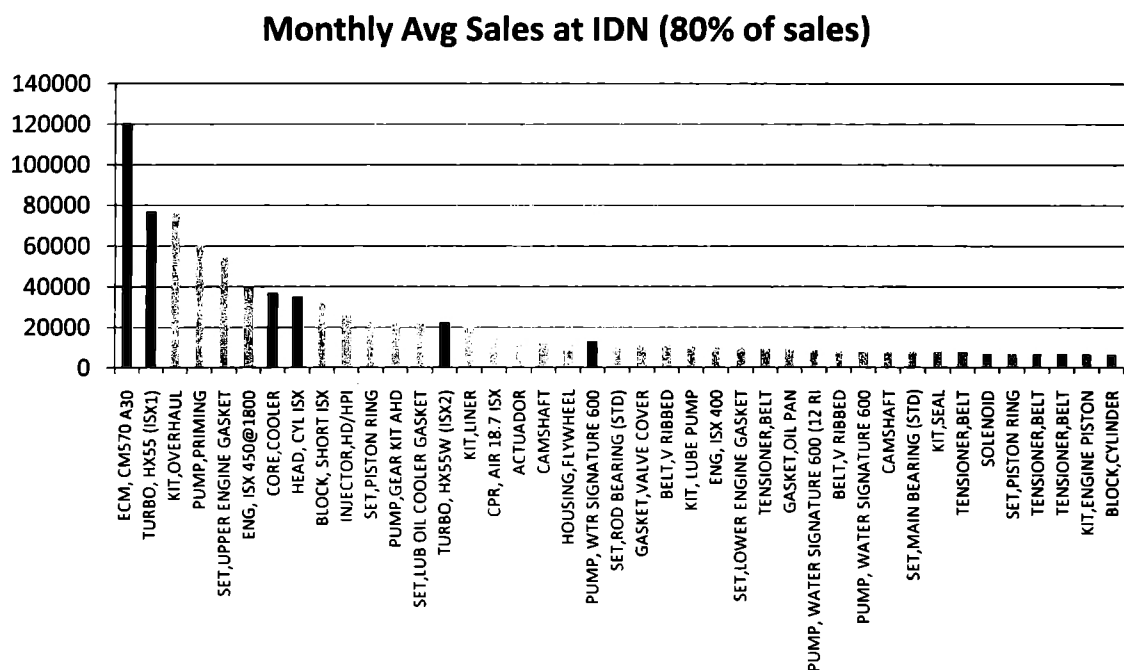


FIGURE 5-1: 36 Months average sales at IDN

Currently, there is a market study being conducted with the help of the main Cummins distributors in Mexico. TABLE 5-3 shows (located in the appendix) the information derived from this study with regard to the competition's products that are among the top 20 parts being sold every month. To date, this information has been confirmed with hard evidence. In accordance with these data, the first efforts to analyze the Cummins parts will be highlighted in green. The criteria are based on the classification of the parts and the sales rank of the parts over the past 3 years.

As shown in FIGURES 5-2 and 5-3, the analysis shows that the components selected for our study have declined in sales since 2008. These parts include the cylinder head, the water pump and the turbocharger. This effect is partly due to the economic crisis that affected Mexico from October 2008 to the end of 2009. This crisis caused some customers who usually buy genuine parts to repair their products by cannibalizing their "non in use" engines, buying non-genuine parts or buying used parts. The competition took advantage of this situation by selling their parts to some of Cummins's customers.

We did not select the Oil Cooler because we do not have hard evidence about the competition yet.

FIGURE 5-2: Weighted sales trend since 2005 to April 2011

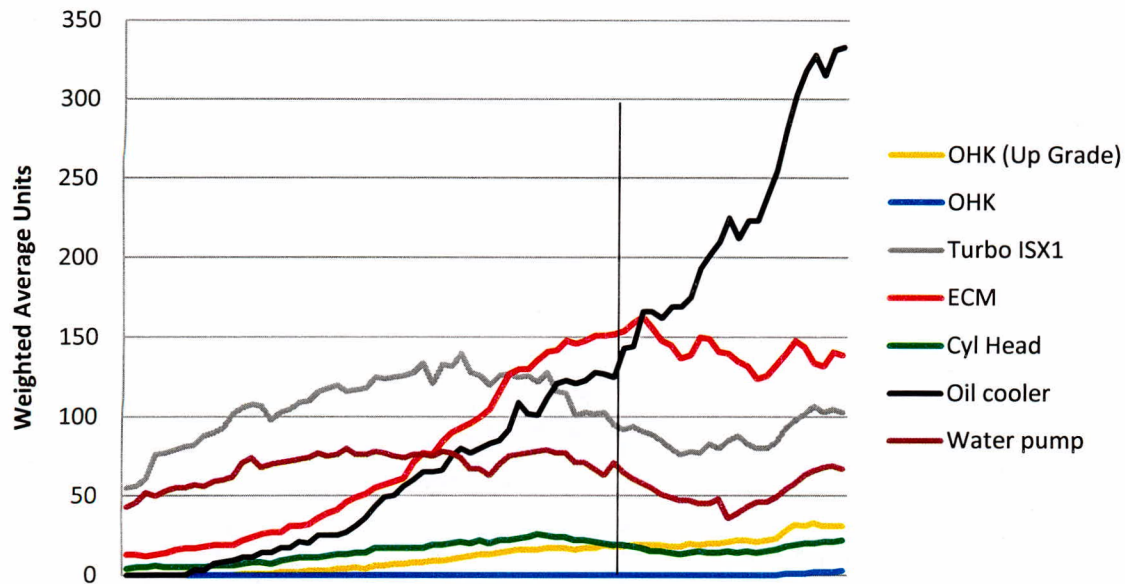
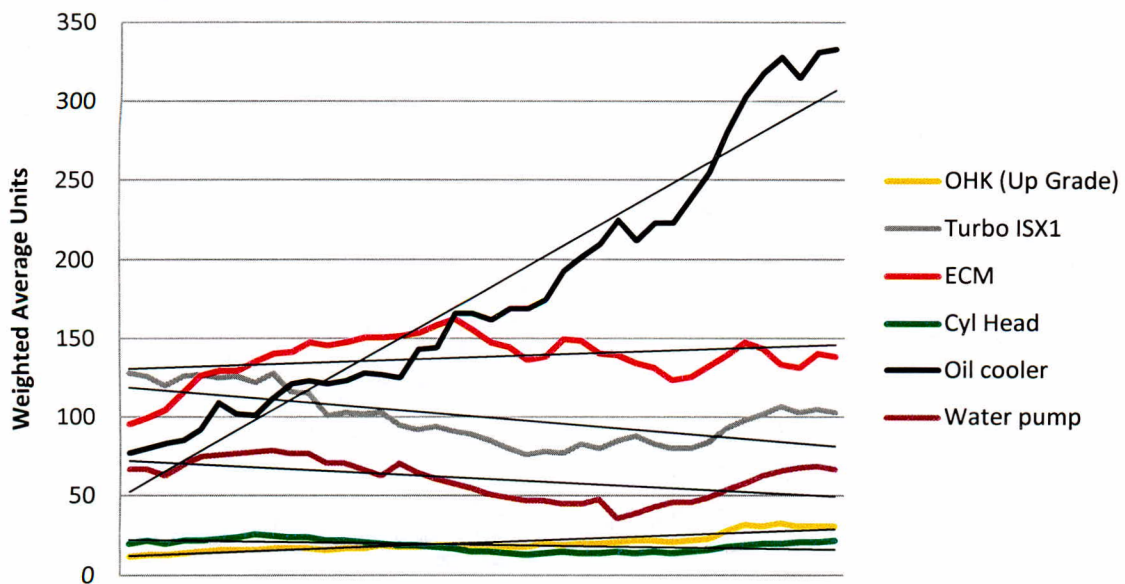


FIGURE 5-3: Weighted sales trend since 2008 to April 2011



5.3.2. Parts consumption model

To obtain the estimated market share for the selected parts, we must define a parts consumption model (**PCM**). To develop the PCM, we must define some assumptions based on the market research. We obtain the data through customer surveys, and by conducting interviews with distributors and Cummins plant personnel.

5.3.2.1. Parts durability assumption

We had a meeting to define an estimated PCM in the Cummins Plant in San Luis Potosi. In the meeting, the engine sales executives, the parts sales executives, the Cummins DFSE, the service personnel and the field engineers from the distributors were present. This multifunctional group agreed to determine an estimated mileage according to which the customers would need to replace the different ISX parts. The group also estimated the average mileage per year of the units with ISX engines.

For this project, the parts team developed a survey to elicit customer feedback about the durability of the parts, the location of the competition and the prices. TABLE 5.4 provides a summary of the results.

TABLE 5-4: Estimated replacement mileage of the overhaul kit (OHK), electronic control module (ECM), turbocharger, water pump and cylinder head

	Cummins team Assumption	Customer Surveys Data (Average)	Results Average
Average Annual Miles	118,750	Not questioned	120,000
PARTS	Miles	Miles	Miles
OVERHAUL	500,000	578,000	539,000
ECM	250,000	261,250	255,625
TURBOCHARGERS	187,500	365,000	276,250
WATER PUMP	312,500	281,250	296,875
CYLINDER HEAD	500,000	541,667	520,833
OIL COOLER	Not estimated	277,344	277,344

With respect to the durability of the parts, we found that the mileage assumed by the Cummins team is close to the average customers' feedback. Because the question about average annual miles was not included in the preliminary surveys, we must include this question for future surveys.

5.3.2.2. Engine population assumption

To calculate the real engine population, we had to estimate a mortality curve for the ISX engines. FIGURE 5-4 shows the total number of ISX engine sales in the Mexican market. We used this information to calculate the real population based on the mortality curve of the engines.

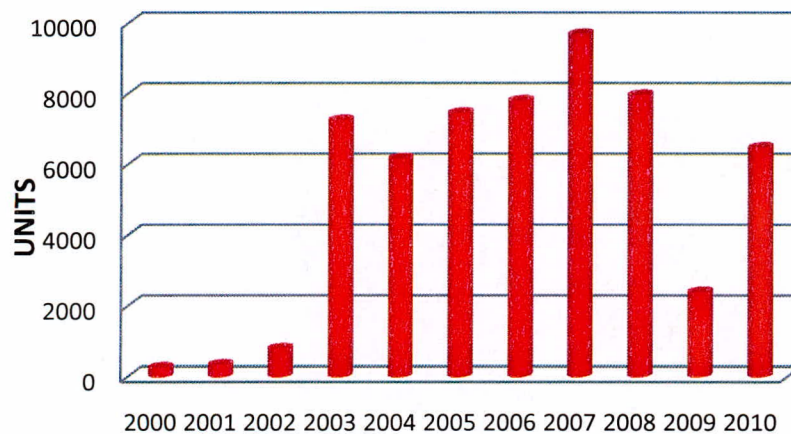


FIGURE 5-4: Mexico ISX engine sales (Source ANPACT, 2011)

Fernando Zavala, Parts Regional Manager of the Cummins plant in San Luis Potosi, designed a model to estimate the ISX engine population based on the annual engine sales and the feedback provided by the distributors' service engineers with regard to the engines' durability. We used this model to obtain FIGURE 5-5. This figure shows the different mortality curves of the ISX engine. These curves are defined by the main distributors according to the regions in which they operated over a 10-year period. The black line depicts the average of the different curves.

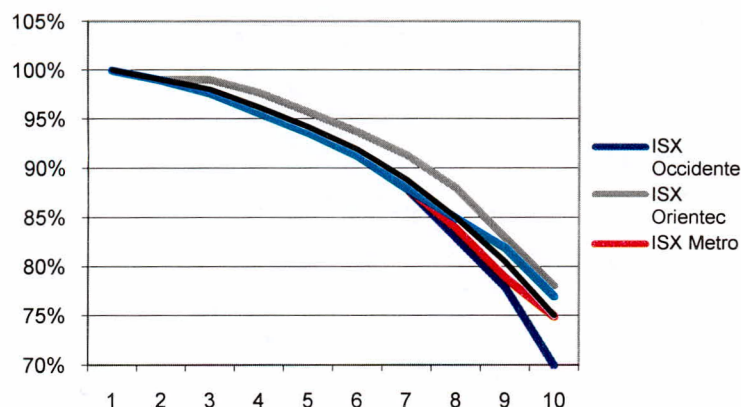


FIGURE 5-5: Mortality curves of the ISX engines over a 10-year period (Author: Fernando Zavala)

With the previous information is possible to define a more realistic engine population for the next 20 years.

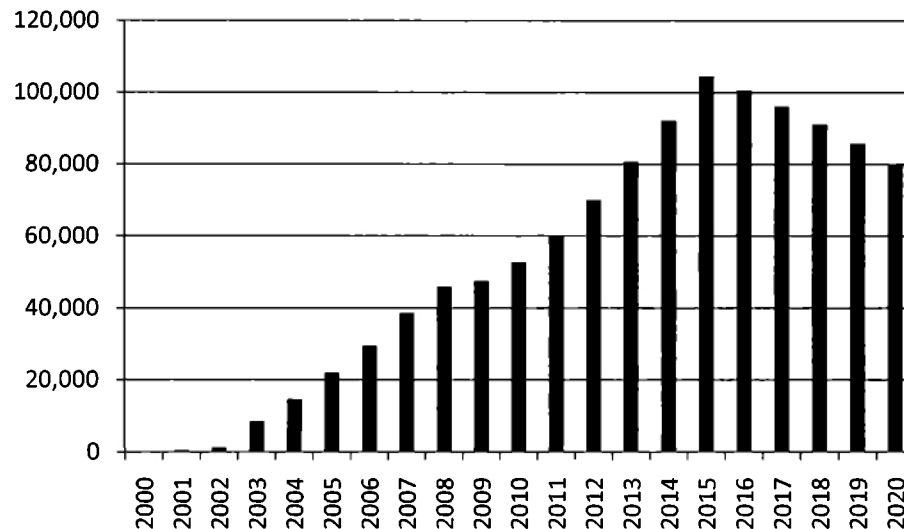


FIGURE 5-6: Mexico ISX population with mortality effect consideration

5.3.2.3. Estimated market-share

Based on the before mentioned assumptions, we determined the approximate number of times the selected parts would be replaced in yearly intervals. We calculated the data by dividing the estimated annual mileage by the parts' durability over the estimated mileage. We rounded the results to facilitate future calculations.

TABLE 5-5: Definition of the yearly interval of the parts' replacement rates

PART	Estimated mileage durability	Engines estimated miles of use by year	Replacement Factor by year	Years Interval of parts replacement
Turbocharger	365,000	120000	0.33	3
OHK	578,125		0.21	5
ECM	261,250		0.46	2
Oil Cooler	277,344		0.43	2
Water Pump	281,250		0.43	2
Cylinder Head	541,667		0.22	5

The following tables display our calculations of the engine parts that are likely to be replaced by in each year. We made the calculations based on the yearly rate at which the parts are replaced (TABLE 5-5), the total sales of engine parts by year, and the engine parts' predefined mortality curves.

TABLE 5-6: Projected ISX Engines Vulnerable to OHK and Cylinder Head Replacement

YEAR	ISX	Projected ISX Engines Vulnerable to Overhaul and Cylinder Head replacement (With Mortality Effect)				
		2006	2007	2008	2009	2010
2000	265					182
2001	344	316				
2002	801		736			
2003	7247			6,661		
2004	6159				5,661	
2005	7454					6,851
2006	7803					
2007	9688					
2008	7959					
2009	2388					
2010	6472					
TOTAL	56580	316	736	6661	5661	7034

TABLE 5-7: Projected ISX Engines Vulnerable to Turbocharger Replacement

YEAR	ISX	Projected ISX Engines Vulnerable to Turbocharger replacement (With Mortality Effect)				
		2006	2007	2008	2009	2010
2000	265	235			199	
2001	344		306			258
2002	801			712		
2003	7247	6,969			6,438	
2004	6159		5,923			5,471
2005	7454			7,168		
2006	7803				7,504	
2007	9688					9,317
2008	7959					
2009	2388					
2010	6472					
TOTAL	56580	7205	6228	7880	14140	15046

TABLE 5-8: Projected ISX Engines Vulnerable to ECM, Water Pump and Oil Cooler Replacement

YEAR	ISX	Projected ISX Engines Vulnerable to ECM, Water Pump and Oil Cooler replacement (With Mortality Effect)				
		2006	2007	2008	2009	2010
2000	265	235		213		182
2001	344		306		277	
2002	801	754		712		645
2003	7247		6,824		6,438	
2004	6159	6,036		5,800		5,471
2005	7454		7,305		7,019	
2006	7803			7,647		7,348
2007	9688				9,494	
2008	7959					7,800
2009	2388					
2010	6472					
TOTAL	56580	7026	14435	14372	23228	21446

By defining the vulnerable engine parts, we can utilize these data to calculate the market-size in Mexico. Based on the sales volume for each part per year, we can calculate the estimated market-share of the parts.

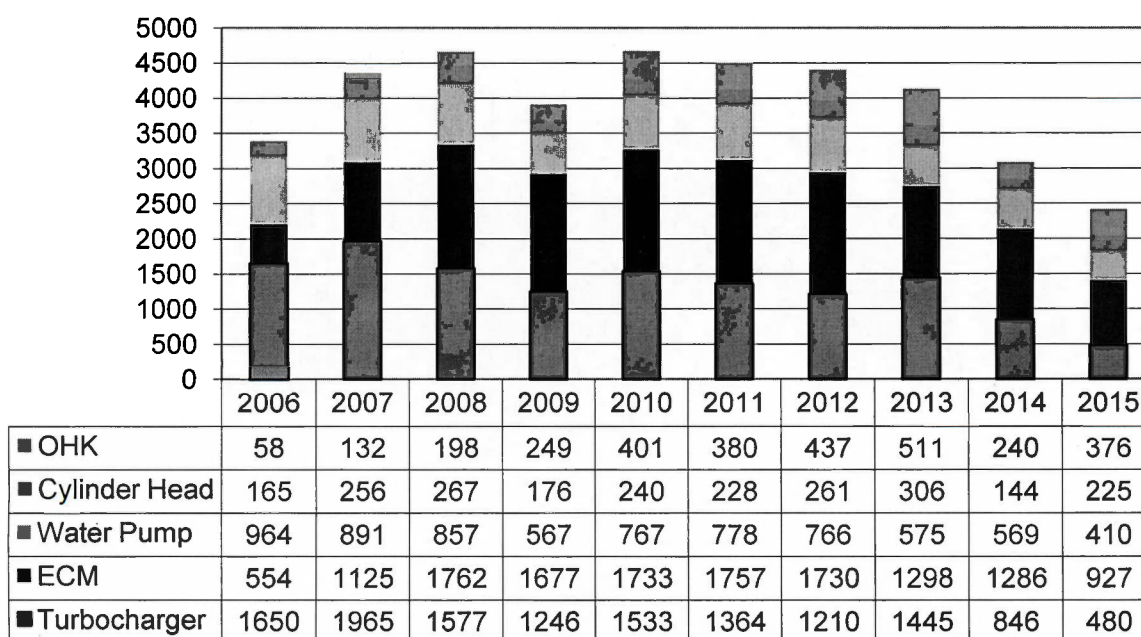
The TABLE 5-9 located in the appendix shows the estimated market-share calculated in this exercise.

As a result, we find that most of the selected products have a low market share and that all of the parts with the exception of the oil cooler declined in their market share over the last two or three years.

However, before we finalize these data, we may have to conduct detailed research on the parts' life span before being replaced. This research will adjust the market share of the products. Regardless of the results, the Cummins genuine parts have room in the market to grow.

The FIGURE 5-7 shows the estimation of sales to 2015 considering a reduction of 10% of the current percentage of market share by year. The Oil Cooler was not considered because will be necessary further analysis to detect the competitors.

FIGURE 5-7: Sales trend if nothing is done to protect the market-share



The graph shows that the sales will be reduced to the 50% in 2015 if nothing is done to protect the market-share. This is considering a market share reduction of less of 1% per year.

5.4. Current pricing strategy

In recent years, Cummins primarily defined the prices of its products by utilizing a cost-based strategy. The product managers at the US headquarters manually determined these prices in accordance with the products' lifecycles and with limited visibility of the market.

According to the theoretical analysis, the company used a cost-based strategy (i.e., The Cost-Plus Illusion) because its static, global pricing does not consider the local price variations necessary to defend the product from the company's local competitors. The cost-plus pricing scheme caused the prices of the product's to increase every year. Combined with the lack of regional price flexibility to meet market requirements, these annual price increases resulted in a loss of market share and a brand image that was associated with high prices. This effect is particularly relevant in countries such as Mexico, where customers are sensitive to price.

In a cost-plus strategy, the price variations are limited to straight markups from a single reference price. At one point in the product life cycle, this strategy causes the product's

parts to be irrationally priced in comparison with the age of the engines and vehicles (See FIGURE 5-8).

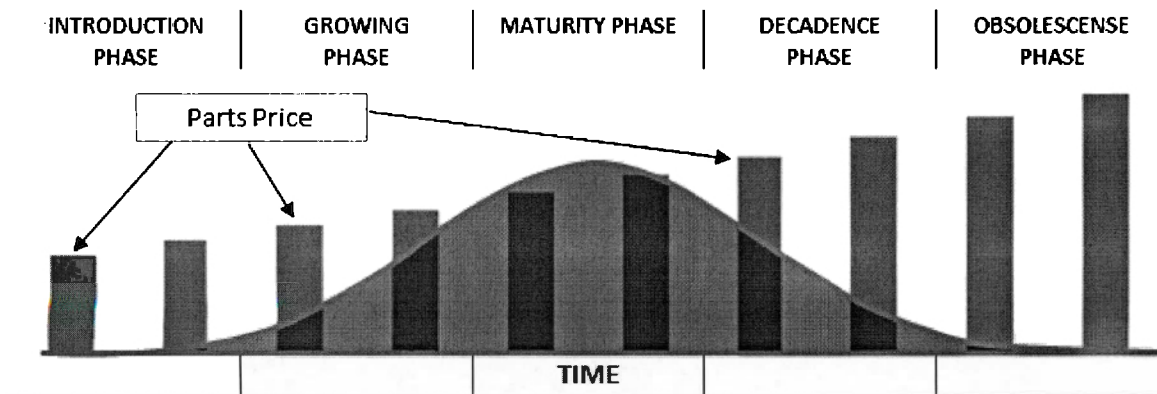


FIGURE 5-8 Parts price increments compared with the product life-cycle

5.4.1. Advantages and disadvantages of the pricing strategies

In the following table, the advantages and disadvantages of the prices strategy in the Cummins parts market are determined. The table shows that despite the disadvantages illustrated of the market-based pricing, the market-based pricing is a better option at the moment for the Mexican Market. By employing this strategy, the company will be better positioned against competition implementing a rational price of the Cummins ISX parts.

The TABLE 5-10 located in the appendix, shows the advantages and drawbacks of the cost-based pricing and market-based pricing schemes.

5.4.2. Market research

The market research for this project is based on our understanding of the customers' habits, the parts' replacement rates in the market, and intelligence on the competition. We must conduct a deep investigation of the company's competitors because we must be aware of the new products that are being introduced to the market, the prices offered for these products, the distribution channels and the quality of the parts. Only by attaining this information can we determine the competitive advantages of Cummins's genuine parts.

5.4.2.1. Market Segmentation

This project targets customers who own ISX engines (EPA98 and EPA04), whether they are primary or secondary users or have a small or large number of units. The survey results

clearly show that even the big fleets buy repaired or non-genuine parts. The big fleets usually have their own repair shops or send their units to Cummins-authorized service centers, whereas the small fleets and secondary users tend to repair their engines in independent garages.

Segment	Fleet Size	Engines	Place where they usually buy the parts	Place where they usually repair
ISX owners	Big Fleets	ISXEPA98, ISXEPA04	Dealer, rebuilder	Dealer, self-owned shop
	Small Fleets	ISXEPA98	Dealer, rebuilder, retailer, junkyard	Dealer, self-owned shop, independent garage
	Truck Owners	ISXEPA98	Dealer, rebuilder, retailer, junkyard	Dealer, self-owned shop, independent garage

TABLE 5-11: Characteristic of the targeted segment

5.4.2.2. Survey and interviews

We designed the survey to elicit information about the customers' habits while shopping for parts. Specifically, we sought to determine whether the customers usually buy repaired parts, non-genuine parts, or genuine parts. The survey also provided information about the locations from which the customers bought their parts, which can be utilized in future investigations. We also obtained information about the mileage of the parts being replaced and the average number of miles driven per year. These data will be useful for calculating a more accurate market share for each product. In turn, this information will be useful for determining how much additional money the customers are willing to pay for a genuine part than for a non-genuine part.

In the appendix we show the survey designed for this project.

5.4.2.2.1. Report of surveys

To realize our objective, we selected a non-probability sample to conduct the surveys. Because the "key fleets" are well identified, we can utilize a convenience and judgment sampling procedure by using our judgment to select the customers who are good prospects for providing accurate information. To date, we have conducted seven surveys with face-to-face interviews. We utilized the face-to-face interview method to obtain a good sample control and a good response rate. The results that we have obtained to date are shown in Table 6-12. According to this table, we have determined the competitors'

prices for most of the parts. The cylinder head and the ECM have more competitors than the other components.

TABLE 5-12: Surveys Preliminary results

	Cylinder Head	Turbocharger	Overhaul Kit	ECM's	Oil Cooler	Water Pump
Miles for Replacement (AVG)	541,667	365,000	578,125	261,250	277,344	281,250
Competitor Price 1 (USD)	\$ 2,500	\$ 700		\$ 1,350		\$ 2,850
Competitor Price 2 (USD)	\$ 1,200			\$ 750		
Competitor Price 3 (USD)	\$ 1,700			\$ 800		
Competitor Price 4 (USD)	\$ 1,300					

Moreover, the customers that responded to the question about what could be a rational gap between the genuine and non-genuine parts on average answered 40%.

This response is a preliminary result. We must conduct more surveys to gather more information about the competitors and to obtain high-quality data about the mileages for the parts being replaced. In addition, we must acquire more customer feedback regarding the gap that they believe exists between the genuine and non-genuine parts.

5.4.2.3. Competitors analysis of pricing and marketing strategies

The analysis in Table 5-13 (located in the appendix) shows the competitors' analysis. This analysis was based on the actual information that Cummins Mexico has gathered from its distributors. Part of the competitors' analysis was collected by buying some of the competitors' parts. These parts were bought by key contacts to determine the real transaction price. To date, we have physical evidence from the competitors of the overhaul kit and the water pump.

TABLE 5-14 shows the results based on the prices obtained in the surveys and the names of the retailers from whom we can find these competitors' parts. As shown in the table, the competitors are taking advantage of the higher prices associated with Cummins ReCon parts.

TABLE 5-14: The results of the research on the competitors

Competitor Retailer	Location	Part Offered	Competitor Brand	Transaction local currency	Transaction (USD)*	Cummins Fleet Price (USD)	Notes
Sistemas Técnicos de Reconstrucción Automotriz Diesel	Mexico City	ECM	Repaired	\$ 10,000	\$ 833	\$ 1,476	
	Mexico City	Cylinder Heads				\$ 3,236	
Automatech	Guadalajara	ECM	Repaired	\$ 9,500	\$ 792	\$ 1,476	Competitor exchange price
	Guadalajara	ECM	Repaired	\$ 12,000	\$ 1,000	\$ 1,476	Competitor outright price
Turbos y Refacciones de Guadalajara	Guadalajara	Turbochargers	Repaired	\$ 8,500	\$ 708	\$ 1,408	
IMAGEN	Mexico City	Cylinder Heads	Repaired	\$ 30,000	\$ 2,500	\$ 3,236	
IPD	Guadalajara	OHK	IPD		\$ 3,088	\$ 5,296	
Servicio Diesel de Cuautitlan	Mexico City	Water Pumps	Repaired			\$ 380	
Rectificadora Manuel Ibarra	Mexico City	Cylinder Heads	Repaired	\$ 14,000	\$ 1,167	\$ 3,236	
	Mexico City	Cylinder Heads	Used	\$ 20,000	\$ 1,667	\$ 3,236	Competitor doesnt require Core
Tractomotriz Diesel Leal	Guadalajara	Water Pumps	PAI	\$ 2,850	\$ 238	\$ 380	Competitor part is new
	Guadalajara	OHK	PAI	\$ 14,600	\$ 1,217	\$ 5,296	Competitor kit without pistons
ECM Diesel	Monterrey	ECM	Repaired	-	\$ 1,350	\$ 1,476	Price competitor Outright
	Monterrey	ECM	Repaired	-	\$ 800	\$ 1,476	Price of competitor for repair the damaged ECM

This analysis indicates that the company must take care of its customers to prevent erosion in the market share of the ReCon parts. We can locate the rebuilders and the laboratories that are offering the cheaper version of ReCon cylinder heads, ECMs, water pumps and turbochargers.

Among the cylinder heads, the repaired cylinder heads are offered at half the price of a genuine ReCon cylinder head. In some cases, the customers need not exchange a core to obtain the repaired cylinder head. Another problem with the genuine ReCon cylinder heads is that most of the failures reported by the customers stem from the dealers' and distributors' rejection of the core of the cylinder head. The combined costs of the genuine ReCon cylinder head and the core is more expensive than a genuine new cylinder head.

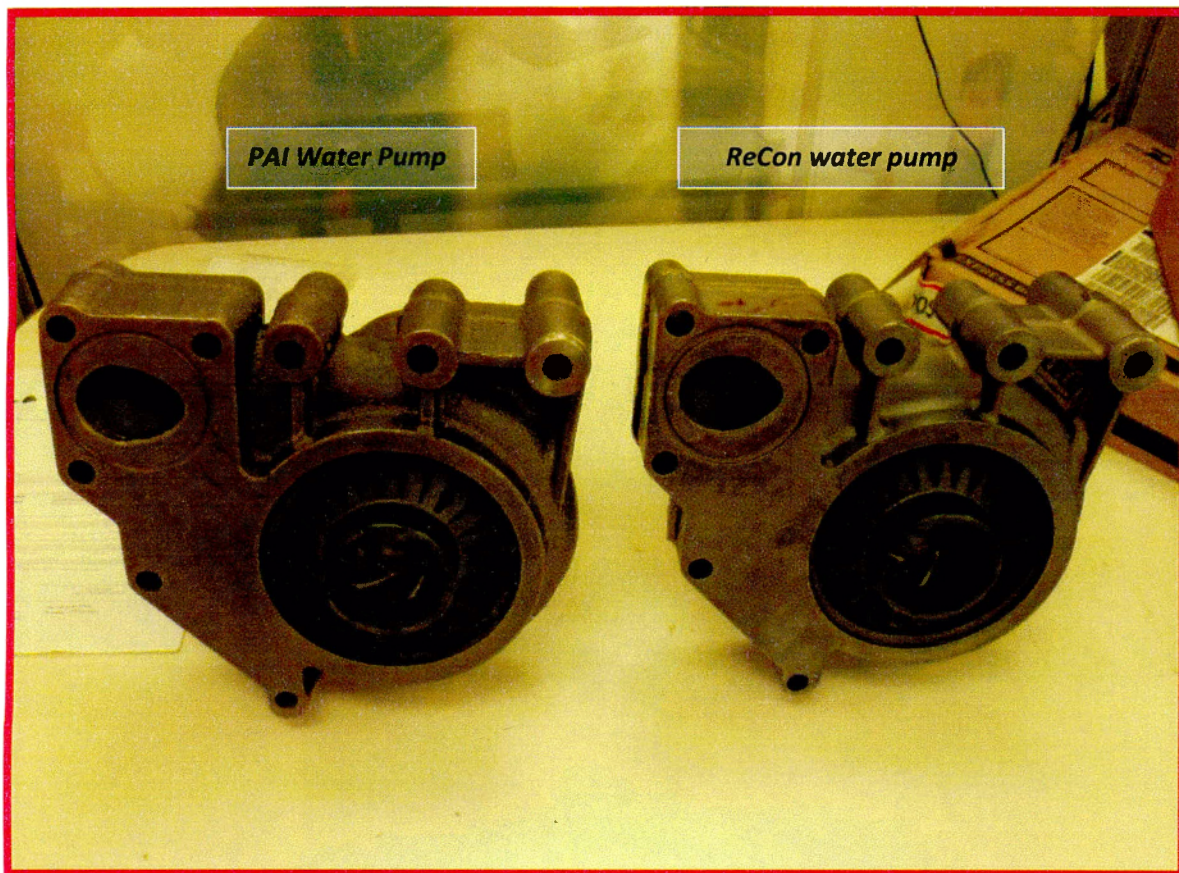
We find that a similar result with the ECMs. The price of the repaired ECMs in the market is on average 60% cheaper than that of the genuine ReCon ECM. Scholars must perform detailed research on the quality and the durability of these repaired products to compare the value of the genuine parts with that of the repaired parts.

We must elicit customer feedback regarding the durability of the non-genuine and genuine parts. Additionally, we must perform quality tests on the parts that we are buying from the competitors. With this information, we may be able to compare the position of the genuine parts with that of the non-genuine parts.

5.4.2.4. Preliminary competition parts quality analysis

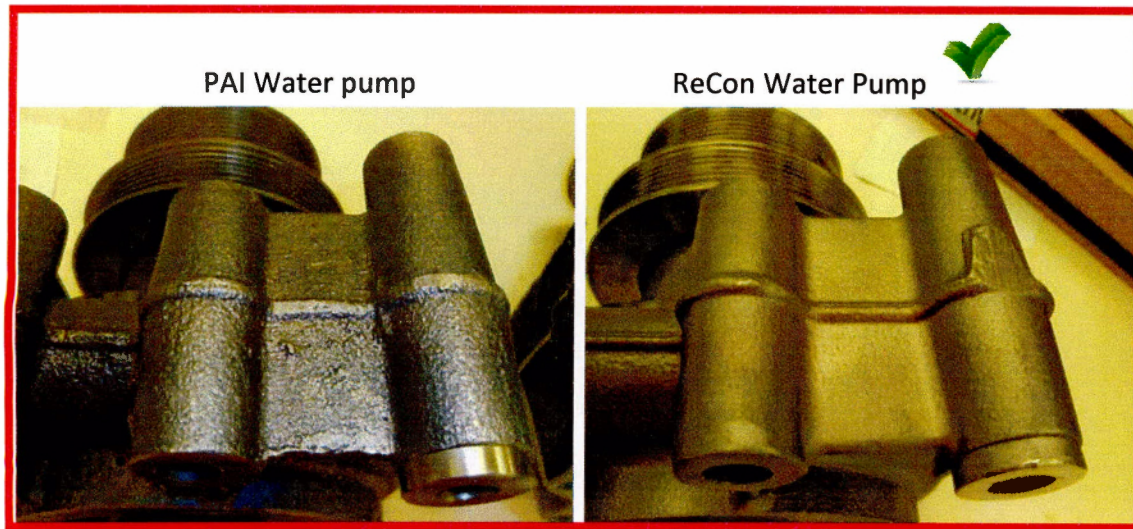
In the following figures, it is illustrated with photos the main differences found in the ISX water pump PAI brand and the genuine Cummins ReCon ISX water pump. With a check are identified the pumps that looks better in appearance.

FIGURE 5-9: Genuine ISX water pump and PAI water pump



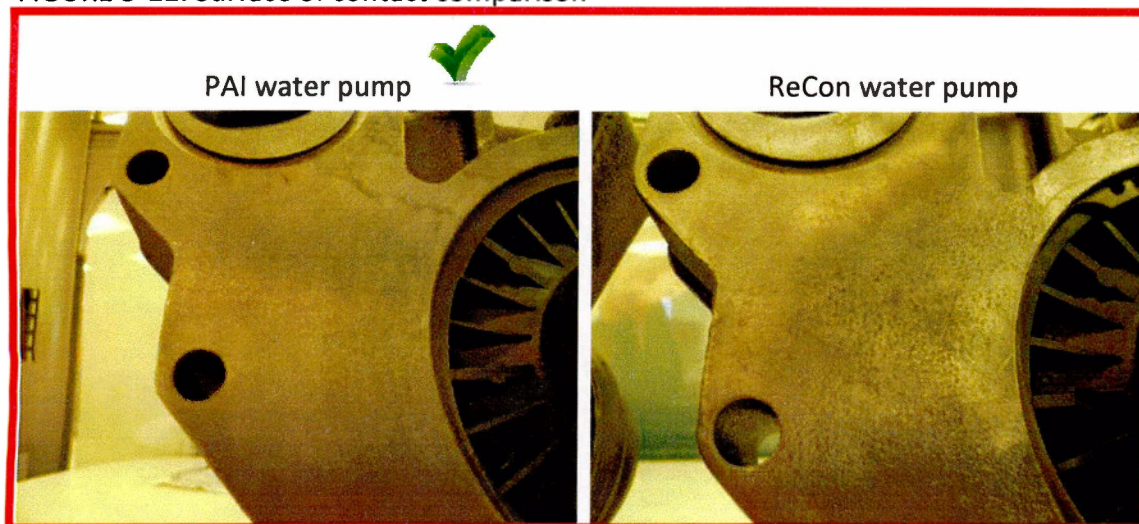
At first glance, the differences are not remarkable between the two pumps.

FIGURE 5-10: Details in the cast iron



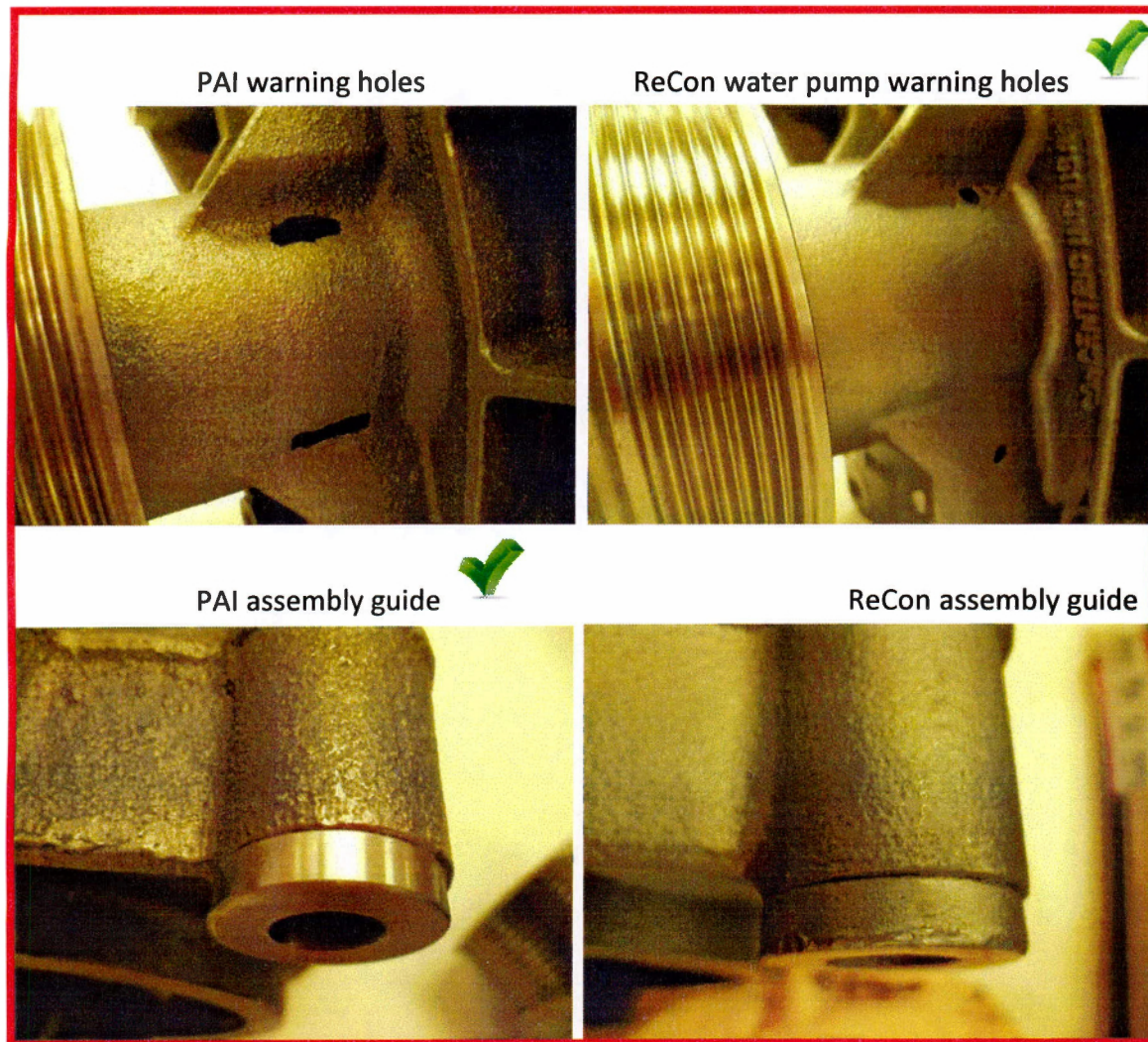
Looking closely, we can see a better surface finish in the ReCon cast iron of the water pump.

FIGURE 5-11: Surface of contact comparison



In the surface that contact with the block, we can see that the surface finish is better in the PAI part.

FIGURE 5-12: Other no significant details



In the PAI water pump, the warning holes look not good in the finish. The genuine water pump shows a better shape in the warning holes. Regarding the assembly guide, the PAI water pump shows a better finish in the surface.

These two details apparently does not affect the general performance of the water pump, however, will be necessary to be sure about the customer thinking regarding the appearances of the parts.

FIGURE 5-13: Packing



Cummins ReCon packing



PAI packing



The packing of the genuine Cummins ReCon water pump is better than the PAI water pump. The packing design for the Genuine Cummins part prevents handle damage and rusting.

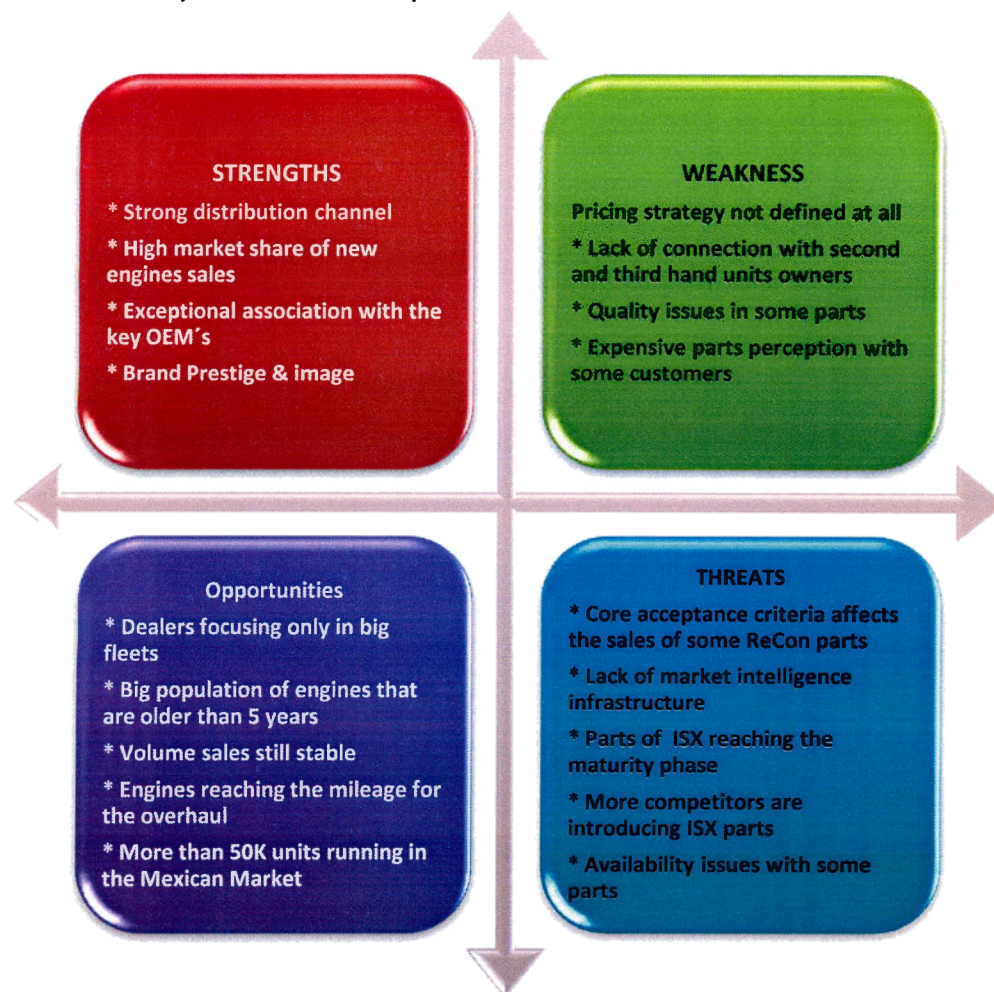
In general, with this comparison we can identify the differences at esthetical level. It is clear that in some details the PAI water pump look better than the genuine water pump, even if the difference does not affect the water pump performance or durability, for most of the customers is important the parts appearance, they want the best quality for the gap in price between a genuine part and a non genuine part.

It is important to test the non genuine pump to determine the quality and durability. This will help to have a complete scenario and to promote the value of the genuine part.

5.5. SWOT Analysis

To develop a broader picture of the company's position in the Mexican parts market, we performed a SWOT analysis. The SWOT analysis is based on the ISX parts and the company's customers.

FIGURE 5-14: SWOT analysis about the ISX parts market in Mexico



This SWOT analysis suggests that a strategy can be leveraged through the distribution channels with the OEM partners who sell the engines in their vehicles. The objective of Cummins Mexico is to protect the ISX parts to prevent further decline of market share this year. The company selected this strategy because an increasing number of competitors are offering new substitutes for the ISX parts. Although the company made some effort to develop formal market intelligence resources, this practice is uncommon amongst its distributors and dealers. These groups are reactive and only report formal information if the information is requested by the Cummins Plant.

6. SOLUTION

To prevent a fall in the market share of the ISX parts, the company must implement a strategy that accounts for the fact that these parts are in the maturity phase of the life cycle, that the customers with the oldest engines are more price sensitive, and that the competitors are aggressive. To take advantage of the customers whose engines are nearing the point at which a complete overhaul is required, the company must enact a pricing and marketing strategy for the ISX engine parts.

This project is aligned with the Cummins global initiative of market-oriented pricing. This initiative is focused on the development of highly competitive products and defines the products' prices based on well-defined market strategies.

The proposal contains many different global initiatives, as shown by the following:

- Increase the total sales of Cummins products and enhance the company's brand
- Add value to the sales activities of Cummins's dealers
- Ensure a world-class support system for the company's customers
- Manage the technical knowledge of the products and thereby strengthen the company's competitive advantages
- Implement a market-oriented pricing scheme
- Elicit customer feedback to identify their needs and their decision factors
- Maintain a parts and service relationship in accordance with the value of the vehicles
- Differentiate high-tech products from generic products to reduce the former's vulnerability to imitations
- Identify and understand the competition
- Understand the nature of the competitors and the values they offer to Cummins's customers
- Identify the competitive advantages of Cummins's products and their life cycle

- Understand the competitors' strategies and their sales pitches

6.1. Definition of the marketing strategy

The proposal for the challenge solution will be supported by the development of a marketing plan for these products.

6.1.1. Product

As mentioned previously, the purpose of the proposal is to identify better product positions for the company's top 40 best-selling parts. These 40 parts represent 80% of the total number of ISX parts sales in Mexico. This research must be performed for the Q4 of 2011. TABLE 6-1 (located in the appendix) shows the details of these 40 parts. Specifically, it shows the number and the units sold on average over the past 36 months.

In the short term, we will work with the 6 parts selected at the beginning of the study. These parts are important and represent Cummins's presence in the Mexican market. TABLE 6-2 shows the estimated number of additional sales that will result if the market share grows 15% more than the actual sales.

TABLE 6-2: Estimated additional sales with a 15% increase in market share

PART	Estimated Market Size (2010)	Estimated Market Share (2010)	IDN Price (USD)	Actual 2010 Sales (USD)	Market Share growth in 15%	Estimated Additional Sales
Turbocharger	15046	10%	\$ 815	\$ 1,248,920	25%	\$ 1,815,537
OHK	7034	6%	\$ 3,234	\$ 1,296,750	21%	\$ 3,479,777
ECM	21446	8%	\$ 854	\$ 1,479,202	23%	\$ 2,731,002
Oil Cooler	21446	18%	\$ 198	\$ 755,960	33%	\$ 643,482
Water Pump	21446	4%	\$ 220	\$ 168,533	19%	\$ 726,810
Cylinder Head	7034	3%	\$ 1,872	\$ 449,323	18%	\$ 1,920,965

6.1.2. Price

The TABLE 6-3 shows the current price structure for the parts with clear competition in the market. The price GAP between the competitor price and the Cummins fleet price is from 51% to 100%. The corporate gross margins in the most of the parts are good, and it is possible to do something to reduce the price.

TABLE 6-3: Current price conditions for the selected parts

Part Number	Description	Corp Cost	IDN	Local DN	CMI Gross Margin	Dealer Price	Fleet Price	Core Price	Competitor Price (Avg)	Competitor Core Price	Price Gap
2881871	OHK (Up grade)	\$1,133	\$3,234	\$3,344	66%	\$4,333	\$5,296	N/A	N/A	N/A	N/A
2881872	OHK	\$841	\$2,846	\$2,943	71%	\$3,814	\$4,662	N/A	\$3,088	N/A	51%
4089754RX	Turbocharger	\$549	\$815	\$842	35%	\$1,152	\$1,408	\$222	\$700	N/A	101%
3408501RX	ECM	\$491	\$854	\$883	44%	\$1,207	\$1,476	\$694	\$800	\$450	84%
4962732RX	Cylinder Head	\$1,663	\$1,872	\$1,936	14%	\$2,648	\$3,237	\$489	\$2,000	N/A	62%
4025097RX	Water Pump	\$119	\$220	\$227	47%	\$311	\$380	\$56	\$238	N/A	60%

In the following, we show the prices that we propose to reduce the gap between the competitors' prices and Cummins's parts. This reduction will help the company achieve a 15% increase in its market share. Because we have not yet identified the competitors' equivalents to the overhaul kit, it is not included in the price gap. The company must reduce the gross margin on some level in all the distribution channels.

TABLE 6-4: Proposal of price change to reduce the price gap

Part Number	Description	Corp Cost	IDN	Local DN	CMI Gross Margin	Dealer Price	Fleet Price	Core Price	Competitor Price (Avg)	Competitor Core Price	Price Gap
2881871	OHK (Up grade)	\$1,133	\$3,234	\$2,576	56%	\$3,345	\$4,080	N/A	N/A	N/A	N/A
2881872	OHK	\$841	\$2,846	\$2,403	65%	\$3,121	\$3,806	N/A	\$3,088	N/A	23%
4089754RX	Turbocharger	\$549	\$815	\$807	32%	\$1,035	\$1,262	\$222	\$700	N/A	80%
3408501RX	ECM	\$491	\$854	\$755	35%	\$969	\$1,181	\$694	\$800	\$450	48%
4962732RX	Cylinder Head	\$1,663	\$1,872	\$1,934	14%	\$2,275	\$2,677	\$489	\$2,000	N/A	34%
4025097RX	Water Pump	\$119	\$220	\$176	32%	\$225	\$274	\$56	\$238	N/A	15%

TABLE 6-5 shows the change in margin that must occur for the company to obtain the proposed price. This margin must not be less than 15% for the dealer and distributors.

TABLE 6-5: Impact in the margin for the proposed prices

CURRENT									
Part Number	Description	Corp Cost	IDN	Local DN	CMI Gross Margin	Dealer Price	Distributor Gross Margin	Fleet Price	Dealer Gross Margin
2881871	OHK (Up grade)	\$1,133	\$3,234	\$3,344	66%	\$4,343	23%	\$5,296	18%
2881872	OHK	\$841	\$2,846	\$2,943	71%	\$3,822	23%	\$4,661	18%
4089754RX	Turbocharger	\$549	\$815	\$842	35%	\$1,154	27%	\$1,407	18%
3408501RX	ECM	\$491	\$854	\$883	44%	\$1,209	27%	\$1,474	18%
4962732RX	Cylinder Head	\$1,663	\$1,872	\$1,936	14%	\$2,652	27%	\$3,234	18%
4025097RX	Water Pump	\$119	\$220	\$227	47%	\$311	27%	\$380	18%
PROPOSAL									
2881871	OHK (Up grade)	\$1,133	\$3,234	\$2,576	56%	\$3,345	23%	\$4,080	18%
2881872	OHK	\$841	\$2,846	\$2,403	65%	\$3,121	23%	\$3,806	18%
4089754RX	Turbocharger	\$549	\$815	\$807	32%	\$1,035	22%	\$1,262	18%
3408501RX	ECM	\$491	\$854	\$755	35%	\$969	22%	\$1,181	18%
4962732RX	Cylinder Head	\$1,663	\$1,872	\$1,934	14%	\$2,275	15%	\$2,677	15%
4025097RX	Water Pump	\$119	\$220	\$176	32%	\$225	22%	\$274	18%

To reach the breakeven with the new margins established, the necessary volume for each member in the distribution channel would be according to the data in the TABLE 6-6.

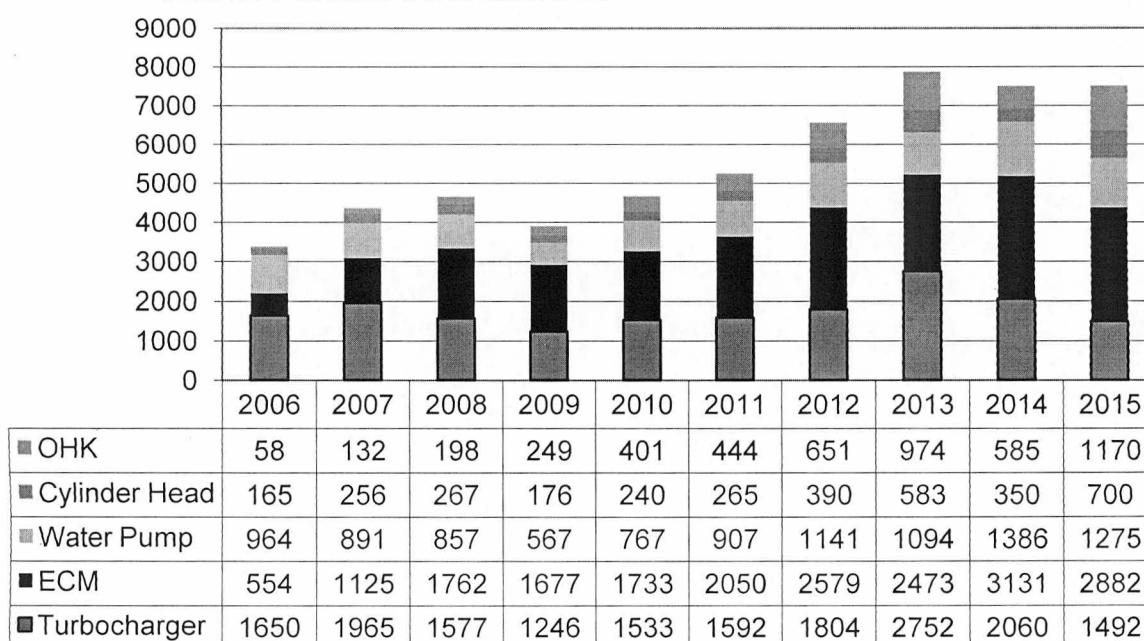
TABLE 6-6: Breakeven calculation for each member in the distribution channel according to the new margins

		BREAKEVEN CALCULATION						
Part Number	Description	2012 Total Estimated volume	Necessary volume to breakeven (For each member in the distribution channel)			Incremental Sales		
			Factory	Distributor	Dealer	Factory	Distributor	Dealer
2881871	OHK (Up grade)	375	575	482	492	200	107	117
2881872	OHK	62	83	75	77	21	13	15
4089754RX	Turbocharger	1210	1374	1647	1364	164	437	154
3408501RX	ECM	1730	2562	2637	2183	832	907	453
4962732RX	Cylinder Head	261	263	545	383	2	284	122
4025097RX	Water Pump	766	1470	1293	1071	704	527	305

The result is that the breakeven point for each member in the distribution channel for these products is not difficult to reach.

The FIGURE 7-1 shows the sales recovered considering a 15% of increment in the percentage of current market-share per year.

FIGURE 7-1: Sales trend recovered



With these assumptions, the necessary sales to the end user to reach the breakeven for these ISX parts would be reached as follows:

OHK: 4 years

Cylinder Head: 2 years

Water Pump: 5 years

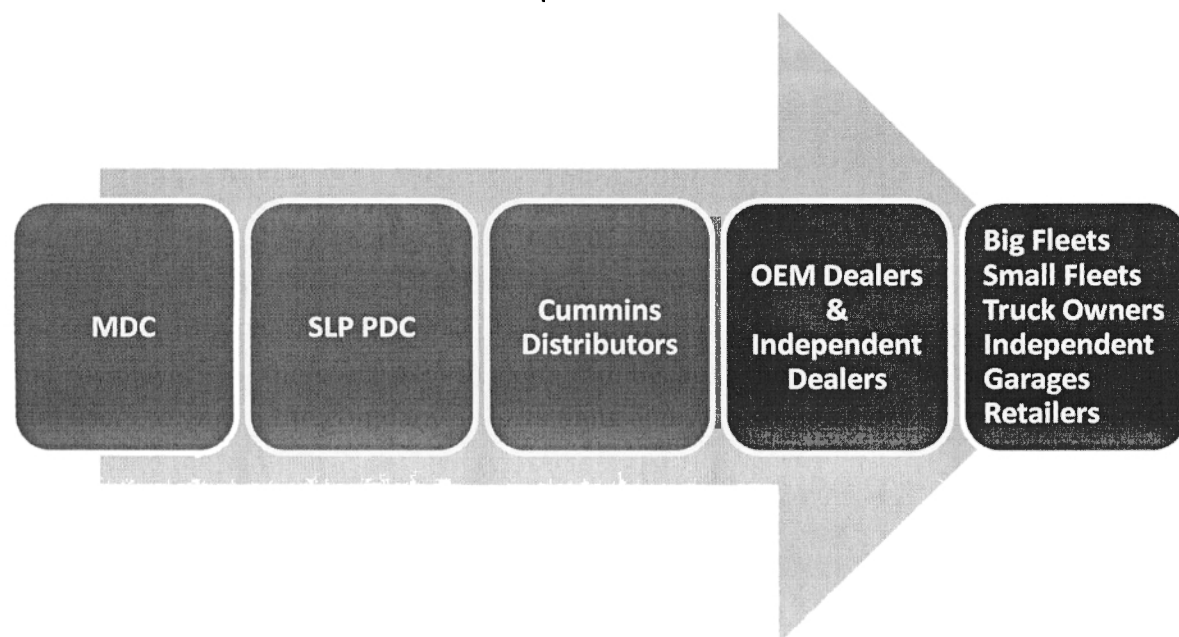
ECM: 5 years

Turbocharger: 2 years

6.1.3. Place

These parts must be mainly distributed through the OEM dealers. The OEM dealers are the key players for the success of this program because they are the first contact with the end users to whom the company sells its units and with some of the big retailers that sell the parts to the company's secondary users.

FIGURE 6-1: Distribution flow for the ISX parts in Mexico



6.1.4. Promotion

The promotional efforts must be done mainly through the dealers' salesmen. They have to boost the product's sales by using the product's value as a tool. That is, they must explain to the customers the difference between the genuine parts and the non-genuine parts as well as the convenience offered by the superior durability of the products and the total

cost ownership. To accomplish this task, the company must buy some parts from the competition and perform a deep analysis of the parts' quality with the help of engineering department and the support of the DFSE. The company must consider the experience of the distributor's service personnel as well and bring these people together to review the competitors' parts. After doing so, the company must prepare a training material describing the disadvantages of the non-genuine parts. The distributors' parts department will be in charge of imparting the training to the dealers' salesmen.

In addition to the training, the promotional material will include brochures, posters, and pocket guides. In addition, the company must include these promotional materials in the different magazines that the dealers publish in their respective regions. The company should also consider using radio spots that were used in previous promotional efforts. With regard to the market segment targeted by this project, Cummins has an email address database. Thus, direct mailing will be another good marketing option.

6.2. Action plan

The following action plan is intended to work on a marketing strategy and pricing strategy for the top 40 ISX part numbers that represents the 80% of the total ISX parts sales. These actions are planned to start immediately and to be concluded in the Q1 of 2012.

The FIGURE 6-2: Action plan is located in the next page 65.

Strategy	Action Plan		In Charge	Deliverables	Deadline	Budget (USD)	Notes from budget
Market-based Marketing	Deep research of the market to have a high understanding of the customer needs and the competitor's offerings	1.- Accomplish a complete competition research	Outsourcing	> Competition Transactional prices > Warranty offered > Core conditions > Non genuine parts brands in the market > Retailer's identification	Quarter 4, 2011	\$15,000	Professional Fees
		2.- Buy the key parts from the competition to make an analysis	Parts Team	> Transactional prices > Competition physical evidence	Quarter 3, 11	\$15,000	Buying of representative parts from competition
		3.- Make analysis of competition parts quality and durability	Engineering Department	> Technical description about competition parts attributes > Value comparison of the genuine parts vs non genuine parts	Quarter 4, 2011	\$3,000	Quality Tests, trips expenses of service representatives
		4.- Complete customer surveys with a bigger population in order to get more representative information	Outsourcing	> Voice of customer > Customer needs > Regular parts replacement mileage > Prices that customers are willing to pay > Retailers and rebuilders information > Upgrade the replacement intervals for the parts > Adjust the market-size & market-share > Forecast improved for the next years	Quarter 4, 2011	\$15,000	Professional Fees
Market-based pricing	Establish a price rational, consistent and justifiable to the customers according to the product life cycle, using correctly the information obtained by Market Intelligence.	1.- Complete sales trend analysis of the 40 top sales parts	Parts Team	> 40 top parts sales historical information	Quarter 3, 11	\$0	
		2.- Analyze the price structure and profits of these parts	Parts Team	> Parts Price structure > Profits through all the distribution channel	Quarter 3, 11	\$0	
		3.- Analyze the margins through the channel	Parts Team	> Opportunities to adjust margins where possible > Adjusted prices closer to the competitors	Quarter 3, 11	\$0	
		4.- Calculate the breakeven point with the new prices	Parts Team	> Forecasted period to recover the profits	Quarter 4, 2011	\$0	
		5.- Decide in which part numbers is feasible to go	Parts Team	> Parts list to launch in the promotion > Purchasing quotas for the Distributors and Dealers	Quarter 4, 2011	\$0	
		6.- Revision of LTA conflicts	Parts Team	> Authorization to go with the promotion	Quarter 4, 2011	\$0	
Promotion Launch	Prevent a fall in market-share of the ISX parts increasing the Cummins brand value and boost the sales through the OEM Dealers	1.- Prepare the marketing campaign and training material	Marketing	> Art and message design > Strategy to reach the customers	Quarter 1, 2012	\$70,000	Includes: brochures, posters, flyers, magazines,
		2.- Publicize the promotion and the Distirbutor's quotas	Parts Team	> Dealer and Distributors awared about the promotion to adjust their inventories	Quarter 1, 2012	\$0	
		3.- Aware the SLP PDC to be ready with enough inventory	Parts Team	> Adjusts in the PDC inventory	Quarter 1, 2012	\$0	
		4.- Review the inventories in the distribution chain	Parts Team	> Possible impact for rollback credits	Quarter 1, 2012	\$40,000	Estimated rollback credits
		5.- Aware our OEM's partners about the promotion	Marketing	> Adjusts in Paccar inventory	Quarter 1, 2012	\$0	
		6.- Sales people training	Marketing	> Sales people prepared to present the genuine parts value to the customers	Quarter 1, 2012	\$5,000	Training courses support
		7.- Update the parts sales club reward program	Marketing	> Include defined parts in the program points and their value	Quarter 1, 2012	\$2,500	Professional Fees
		8.- Promotion launch	Parts Team	> Growth sales	Quarter 2, 2012	\$0	
		TOTAL					

6.3. Analysis of diagnosis and solution

As follow are described some risks and opportunities indetified so far in the proposed marketing and pricing strategies.

- ✓ At the moment of adjusting the price of the products, some of they could not reach the breakeven at the defined time.
- ✓ The defined price and marketing strategies could not be well accepted by the customers.
- ✓ If is necessary to adjust the profit margin this could not be well accepted by the Distributors and Dealers.
- ✓ The cost-profit of the marketing promotions could not be right.
- ✓ The transactional prices get through the competitive analysis could be wrong.
- ✓ The manufacturing parts costs could be large and will be difficult to adjust the prices.
- ✓ If a regional prices adjust is done, a grey market could happen with the neighbor countries.
- ✓ The different long term agreements with the different OEM's could be an impediment to carry out the marketing plan.
- ✓ The quality of the competition parts detected with the quality tests could be rational according to their prices
- ✓ The quality and durability of the non genuine parts could be better than the genuine parts

7. CONCLUSIONS

During the investigation of this field project, we have the opportunity of studying the marketing and pricing strategies suggested by different authors. Among the authors studied in this research are Michael Porter, Phillip Kotler and Thomas Nagle. In the personal opinion of the author of this field project, the Porter's theory is a good proposal but should be updated according to the modern market environment. Kotler is always looking to be updated in his books, which are very easy to understand because the use of graphics and examples based on companies strategies. The book of Steven Haines is practical and shows orderly the methodology necessary to accomplish with success a marketing plan. Haines's book is a reference necessary to be a good product manager, nevertheless, I think it would be nice to include a chapter about pricing.

Regarding the diagnosis of the challenge, it is necessary time to obtain more data from the market, in order to have reliable information. This information is vital to take accurate decisions to avoid profit loss. It is necessary too, to carry conviction and to involve the

different functional dependencies to have success in this project. The staff of managers in the company and directors of the distributors are necessary to remove some barriers. It is very important too, to implement a formal process and to consider an annual budget for continuous competitive intelligence activities in Cummins plant and with the Distributors.

8. BIBLIOGRAPHY

Haines, Steven, "The Product Manager's Desk Reference", 2009

Nagle, T, Thomas and Hogan, John E, "The Strategy and Tactics of Pricing", 2006, pp 1-6, 45, 175

Kotler, Philip and Armstrong, Gary, "Principles of Marketing", 2010, pp 5, 12, 24-29, 48, 54, 103-105, 110-120, 291, 546

Sainz de Vicuña, A, José María, "El plan de Marketing en la Práctica", pp 38-42, 55-56, 79-81

Kotler, Philip, "Kotler on Marketing", 1999, kindle location 1528, 1850, 2103

Porter, Michael E, "Competitive Strategy", 1998, kindle location 477-484, 726, 948, 1030-1127 1042, 1094

Harvard Business School, "Competitor Analysis: Understand your Opponents", 2006, kindle location 42-94

Harvard Business School, "Creating a Marketing Plan: An Overview", 2006, kindle location 20-128

Harvard Colleague, Rehnartz, Werner and Kumar, V, "Mismanagement of Customer Loyalty", 2002, p 93

K, Yin, Robert, "Case Study Research, Design and Methods", 2009, kindle location 321-369, 309, 310, 758-811, 2134-2302, 3243-3269

Gerring, John, "Case Study Research, Principles and Practices", 2007, kindle location 186-257

APPENDIX

SURVEY ABOUT ISX PARTS

COMPANY:

NAME:

POSITION:

NUMBER OF UNITS IN THE FLEET:

ISXEPA98: ISXEPA04:

AVERAGE NUMBER OF MILES DRIVEN PER YEAR:

CYLINDER HEAD SECTION

1. What is the approximate mileage of the cylinder heads that have failed?
2. Do you repair or replace the cylinder head? (If you repair, go to question 3, If you replace, go to question 5.)
3. Where do you repair the cylinder heads?
4. What is the cost of the repair?
5. Where do you buy the cylinder heads?
6. What is the approximate cost of the cylinder heads?
7. Do you buy genuine cylinder heads? (If not, go to question 8.)
8. If you do not buy genuine cylinder heads, why do you refuse to do so?

ECMs Section

9. How many ECMs have you replaced?
 - a. ISXEPA98: ISXEPA04
10. What is the approximate mileage of ECMs that have failed?
 - a. ISXEPA98: ISXEPA04
11. Where do you buy the ECMs? (If do not buy a genuine ECM or if you buy a repaired/used ECM, go to question 13.)
12. What is the approximate cost of the ECMs? (Genuine or repaired)
 - a. ISXEPA98: ISXEPA04:
13. If you do not buy genuine ECMs, then please explain why.

OIL COOLERS SECTION

14. How many oil coolers have you replaced?
 - a. ISXEPA98: ISXEPA04:
15. What is the approximate mileage of oil coolers that have failed?
 - a. ISXEPA98: ISXEPA04:
16. Where do you buy the oil coolers? (If you do not buy genuine oil coolers or if you buy repaired/used oil coolers, go to question 18)
17. What is the approximate cost of the oil coolers? (Genuine or repaired)
 - a. ISXEPA98: ISXEPA04
18. If you do not buy genuine oil coolers, then please explain why.

TURBOCHARGERS SECTION

19. How many turbochargers have you replaced?
 - a. ISXEPA98: ISXEPA04:
20. What is the approximate mileage of turbochargers that have failed?
 - a. ISXEPA98: ISXEPA04:
21. Do you repair or replace the turbocharger? (If you repair, go to question 23; If you replace, go to question 22.)
 - a. ISXEPA98: ISXEPA04
22. What is the approximate cost of a turbocharger?
23. Where do you repair the turbochargers?
24. What is the cost of the repair?
 - a. ISXEPA98: ISXEPA04

WATER PUMPS SECTION

25. How many water pumps have you replaced?
 - a. ISXEPA98: ISXEPA04:
26. What is the approximate mileage of water pumps that have failed?
 - a. ISXEPA98: ISXEPA04:
27. Where do you buy the water pumps? (If you do not buy genuine water pumps or if you buy repaired/used water pumps, then go to question 29)
28. What is the approximate cost of the water pumps?
 - a. ISXEPA98: ISXEPA04
29. If you do not buy genuine water pumps, then please explain why.

OVERHAUL SECTION

30. How many overhauls have you done?
 - a. ISXEPA98: ISXEPA04
31. What is the approximate mileage of the overhauls?
 - a. ISXEPA98: ISXEPA04
32. In which shops do you perform the overhauls?
 - a. Self-owned shop b. Cummins Authorized Dealer/Distributor c. Independent garage
33. Where do you buy the overhauls? (If you do not buy genuine Overhauls, then go to question 35)
34. What is the approximate cost of the overhauls?
 - a. ISXEPA98: ISXEPA04
35. If you do not buy genuine water pumps, then please clarify why.
36. If you do buy non-genuine parts, then which of the following choices represents a reasonable ratio of genuine to non-genuine parts?
 - a. 10% to 20%
 - b. 20% to 30%
 - c. 30% to 40%
 - d. 40% to 50%
 - e. More than 50%

TABLE 5-2: The advantages and disadvantages of the different marketing strategies

Marketing Strategy	Advantages	Disadvantages
Overall Cost Leadership Strategy (Wal-Mart, Dell, McDonald's)	<ul style="list-style-type: none"> * Increases efficiency and lowers costs * Above average profits returns * Defends the company against powerful buyers and suppliers * Provides high margins 	<ul style="list-style-type: none"> * The cost reduction could affect key departments performance as R&D, aftermarket or sales * Has a low level of differentiation * Ignores the different market segments * Ignores the customers' needs * Requires a high market share * Results in reduced customer loyalty
Differentiation Strategy (Amazon, Caterpillar, Cirque du Soleil)	<ul style="list-style-type: none"> * Creates leading products that are copied by others * Increases brand loyalty 	<ul style="list-style-type: none"> * Hard to apply in a market with price-sensitive customers * Differentiation implies a trade-off with cost position * Needs strong marketing abilities and cooperation from other channels
Focus Strategy (PepsiCo, GM, Disney)	<ul style="list-style-type: none"> * Better meets the needs of particular targets * Easier to differentiate products * Cost Leadership 	<ul style="list-style-type: none"> * Narrow market targets * More suited for small companies * Limitations on the overall market share that is attainable * Trade-off between profitability and sales volume
Customer-Driven Strategy (AT&T, Southwest Airlines, GE)	<ul style="list-style-type: none"> * High understanding of customer needs * Outlines the product's pathway into the market * Programs are consistently focused on commercial and marketing activities * The progress and performance of the organization in the market is measurable * Provides a good follow-up performance of the commercial activities * The products are created based on the customers' needs 	<ul style="list-style-type: none"> * The market price cannot provide an adequate profit margin * Requires investment in resources designed to continuously track the market * The process for determining price can be more complex because the strategy uses market data in addition to "hard" data * Can distract companies by forcing them to spend time trying to analyze the customers' needs

TABLE 5-3: Preliminary classification of the top 20 parts

Part Number	Component	Sales 36 Months Average			Competitors					Classification
		@ units	@IDN (USD)	Rank	Supplier (a)	Will Fit (b)	Counterfeit (c)	Rebuilder (d)	Used Parts (f)	
3408501RX	ECM, CMS70 A30	282	\$ 190,154	1	(N/I)	(N/I)	(N/I)	ECM Diesel, Optimus Brain, Automatech	Automatech	Competitive
4089754RX	TURBO, HX55 (ISX1)	189	\$ 121,927	2	Holset	Not Identified (N/I)	(N/I)	Sistemas Técnicos de Reconstrucción Diesel / Turbos de Guadalajara	(N/I)	Competitive
2881871	KIT, OVERHAUL	48	\$ 121,916	3	(N/I)	IPD / PAI	(N/I)	(N/I)	(N/I)	Competitive
4935094	PUMP, PRIMING	672	\$ 96,833	4	(N/I)	(N/I)	(N/I)	Sistemas Técnicos de Reconstrucción Diesel	(N/I)	Captive
4955595	SET, UPPER ENGINE GASKET	319	\$ 87,719	5	(N/I)	(N/I)	(N/I)	(N/I)	(N/I)	Competitive
DR6255RX	ENG, ISX 450@1800	5	\$ 62,542	6	(N/I)	(N/I)	(N/I)	Ref Diesel del N	Ref Diesel del N	Captive
4965870	CORE, COOLER	489	\$ 58,481	7	(N/I)	(N/I)	(N/I)	(N/I)	(N/I)	Captive
4962792RX	HEAD, CYL ISX	38	\$ 55,628	8	(N/I)	(N/I)	(N/I)	IMAGEN / Rect M Ibarra	Ref Diesel del N	High Competitive
4018175RX	BLOCK, SHORT ISX	11	\$ 52,667	9	(N/I)	(N/I)	(N/I)	IMAGEN	(N/I)	Captive
4088327PX	INJECTOR, HD/HPI	147	\$ 43,171	10	(N/I)	(N/I)	(N/I)	Sis Téc de Recons Diesel	(N/I)	Captive
2881682	SET, PISTON RING	690	\$ 40,504	11	(N/I)	PAI	(N/I)	(N/I)	(N/I)	Competitive
4089431RX	PUMP, GEAR KIT AHD	153	\$ 37,630	12	(N/I)	(N/I)	(N/I)	(N/I)	(N/I)	Captive
4955592	SET, LUB OIL COOLER GASKET	1019	\$ 36,342	13	(N/I)	(N/I)	(N/I)	(N/I)	(N/I)	Captive
4090042RX	TURBO, HX55W (ISX2)	53	\$ 35,478	14	Holset	(N/I)	(N/I)	Sis Téc de Recons Diesel / Turbos y Ref de Guad	(N/I)	Competitive
4089153	KIT, LINER	624	\$ 32,848	15	(N/I)	Mc Bee / PAI	(N/I)	(N/I)	(N/I)	Competitive
3104216RX	CPR, AIR 18.7 ISX	59	\$ 26,396	16	(N/I)	(N/I)	(N/I)	(N/I)	(N/I)	Captive
4089981RX	ACTUADOR	107	\$ 23,156	17	(N/I)	(N/I)	(N/I)	(N/I)	(N/I)	Captive
4059333	CAMSHAFT	32	\$ 21,534	18	(N/I)	(N/I)	(N/I)	(N/I)	(N/I)	Captive
3103584	HOUSING, FLYWHEEL	19	\$ 20,432	19	(N/I)	(N/I)	(N/I)	(N/I)	(N/I)	Captive
4025097RX	PUMP, WTR SIGNATURE 600	117	\$ 20,310	20	Brümmner / PAI	(N/I)	(N/I)	Sis Téc de Recons Diesel	(N/I)	High Competitive

TABLE 5-9: Estimated market-share of the selected parts

YEAR	2006	2007	2008	2009	2010	
Turbocharger	7205	6228	7880	14140	15046	Estimated Market-Size
OHK	316	736	6661	5661	7034	
ECM	7026	14435	14372	23228	21446	
Oil Cooler	7026	14435	14372	23228	21446	
Water Pump	7026	14435	14372	23228	21446	
Cylinder Head	316	736	6661	5661	7034	
Turbocharger	1650	1965	1577	1246	1533	Sales Volume
OHK	58	132	198	249	401	
ECM	554	1125	1762	1677	1733	
Oil Cooler	334	963	1454	2106	3823	
Water Pump	964	891	857	567	767	
Cylinder Head	165	256	267	176	240	
Turbocharger	23%	32%	20%	9%	10%	Estimated Market-Share
OHK	18%	18%	3%	4%	6%	
ECM	8%	8%	12%	7%	8%	
Oil Cooler	5%	7%	10%	9%	18%	
Water Pump	14%	6%	6%	2%	4%	
Cylinder Head	52%	35%	4%	3%	3%	

TABLE 5-10: Advantages and drawbacks of the cost-based pricing and market-based pricing schemes

Price Strategy	Advantages	Disadvantages
Cost-Based Pricing	<ul style="list-style-type: none"> * Simple to calculate using historical data * Easy to administer * Supply and demand have minimal impact on the pricing * Price protection versus unexpected cost increases * Regions are protected from the gray market 	<ul style="list-style-type: none"> * Lack of competitive pricing when the parts reach the maturity phase * Voice of the customer is ignored * Access to information derived from regional market intelligence is limited * Prices are set with limited visibility * Lack of regional price flexibility
Market-Based Pricing	<ul style="list-style-type: none"> * Price are rational, consistent, and justifiable to customers * Faster response to competitors' actions and threats * Appropriate use of information obtained through market intelligence * Regional adaptation * Rational pricing over the parts' lifecycles * Regionally differentiated prices 	<ul style="list-style-type: none"> * If the manufacturing costs increase, then the profits will be reduced * Risks of a gray market * Investments and resources to perform market research are required * With regard to ISX parts, the Long-Term Agreement with Paccar did not permit a regional pricing scheme

TABLE 5-13: ISX Aftermarket competitors map

GROUP	Cylinder Heads	ECM	OHK	Bearings	Turbos	Water Pumps	Gaskets
PARTS	Bushings Exhaust Valves Cylinder Heads Intake Valves Injector Sleeves Valve Guides Seals Inserts		OHK w/monotherm pistons Piston Kits Piston Pin Piston Rings Liner Kits Retaining Rings Colling Nozzles	Main Bearings Conneting Rod Bearings Crankshafts Bearings			Oil Pan Gaskets Upper Gasket Kits Cylinder Head Gasket Valve Cover
COMPETITORS	McBee Moresa IPD Rebuilders	Laboratories	McBee IPD Moresa	McBee IPD Moresa	Holset Rebuilders	PAI Brummer	McBee IPD Moresa

TABLE 6-1: Top 40 best-selling ISX parts

	SLP CDP NUMBER	DESCRIPTION	MONTHLY AVG (36 MONTHS UNITS)
1	3408501RX	ECM, CM570 A30	141
2	4089754RX	TURBO, HX55 (ISX1)	95
3	2881871	KIT, OVERHAUL	24
4	4935094	PUMP, PRIMING	336
5	4955595	SET, UPPER ENGINE GASKET	159
6	DR6255RX	ENG, ISX 450@1800	3
7	4965870	CORE, COOLER	245
8	4962732RX	HEAD, CYL ISX	19
9	4018175RX	BLOCK, SHORT ISX	6
10	4088327PX	INJECTOR, HD/HPI	74
11	2881682	SET, PISTON RING	345
12	4089431RX	PUMP, GEAR KIT AHD	77
13	4955592	SET, LUB OIL COOLER GASKET	509
14	4090042RX	TURBO, HX55W (ISX2)	26
15	4089153	KIT, LINER	312
16	3104216RX	CPR, AIR 18.7 ISX	30
17	4089981RX	ACTUADOR	54
18	4059333	CAMSHAFT	16
19	3103584	HOUSING, FLYWHEEL	9
20	4025097RX	PUMP, WTR SIGNATURE 600	59
21	4089405	SET, ROD BEARING (STD)	357
22	4026507	GASKET, VALVE COVER	162
23	3681817	BELT, V RIBBED	321
24	2881757NX	KIT, LUBE PUMP	45
26	4955590	SET, LOWER ENGINE GASKET	31
27	4059201	TENSIONER, BELT	66
28	4026684	GASKET, OIL PAN	95
29	4089911NX	PUMP, WATER SIGNATURE 600 (12 RI	47
30	3681812	BELT, V RIBBED	477
31	4089908NX	PUMP, WATER SIGNATURE 600	42
32	4101476	CAMSHAFT	10
33	3800298	SET, MAIN BEARING (STD)	64
34	4965569	KIT, SEAL	196
35	4059202	TENSIONER, BELT	52
36	4026538	SOLENOID	140
37	4089154	SET, PISTON RING	78
38	2871292	TENSIONER, BELT	56
39	4089896	KIT, ENGINE PISTON	23
40	2881765NX	BLOCK, CYLINDER	2