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**CUSTOMER SATISFACTION AS A STRATEGIC INPUT**  
An Approach to Using Measures of Supply and Demand Heterogeneity  
in Analyzing Industry Attractiveness

by  
Brendan Buescher & Jim Townsend

A Report Submitted in Partial Fulfillment of an MBA Independent Research Project

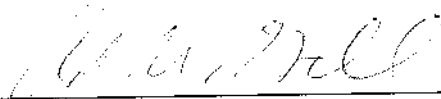
Faculty Supervisor: Professor Andy McGill

February 9, 1997

Faculty Comments

This paper provocatively develops a business rationale for moving beyond traditional approaches to success in the automotive industry, arguing that manufacturers must develop a broader view of the automotive value chain -- not remain satisfied with their historic focus on design, supply management, and manufacturing. As such, the suggestion is that manufacturers must develop closer relationships with their customers -- and participate in a value chain that extends to post-purchase to insure repeated opportunities for contact control. It is suggested that such relationships provide the opportunity to enhance customer loyalty and retention -- especially as the manufacturer-customer relationship extends deep into the customer aftermarket. While such potential affords strong market enhancement opportunities, it is important to note what the recommendations fall short of: They do not suggest automakers practice direct sales -- and, as such -- they suggest only marginal changes in the automotive acquisition/ownership stream. While underscoring the out-moded nature of the dealer relationship, there is little suggested to alter that fundamental practice. The authors' discussion of market fragmentation and homogeneity, however, suggests a model for the future -- built in efficient niches that manufacturers can well serve. In sum, the paper underscores the economic value of long-term customer relationships/loyalty and the resulting impact on needed profitability recovery within the industry.

The paper does an excellent job of developing a new model for extending the customer value chain and serving customers accordingly. It falls short of revolutionary change, but does begin to develop the importance of building enhanced customer loyalty.



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Signature of Faculty Supervisor

Visiting Associate Professor of CB&D

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Title

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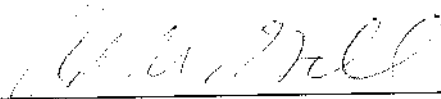
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## **Abstract**

*This paper examines how customer satisfaction measures might be incorporated into a broader financial and strategic evaluation of an investment opportunity. From the perspective of an automotive manufacturer, we consider the attractiveness of expanding the OEM's participation in automotive aftermarket industries. Even if financial and strategic factors strongly favor direct participation in these markets it is just as important to consider how this new bundle of services will impact customer perceptions of the core brand and overall customer satisfaction. By combining widely used financial and strategic tools of analysis with information about customer satisfaction, this paper will explore the potential value of customer satisfaction data as a strategic input and suggest the kinds of customer satisfaction questions which are most likely to enhance a strategic decision. In particular, we focus on the fit between the heterogeneity of supply and demand as a driver of customer satisfaction and as a key input into a strategic analysis.*

## Introduction

In the midst of ever increasing competition and a saturated domestic market, U.S. automobile manufacturers are considering options for enhancing the economic value of their customer base. Two areas of focus are automotive distribution and aftermarket sales and service activities. Expanded participation in these sectors offers several potential benefits, most importantly:

- Greater control over the distribution system which enhances OEM capacity for building brand loyalty; and,
- Increased access to the revenue streams associated with vehicle sales, finance, insurance, service and parts as well as used-car sales.

Expanded participation in these sectors also carries with it a series of challenges and risks. In the highly competitive U.S. market, automobile manufacturers are under continuous pressure to improve their core processes - vehicle design, supply chain management and manufacturing and the like. Any significant entry into vehicle sales or aftermarket ventures would divert critical resources away from the core business.

Moreover, automotive manufacturers are relatively inexperienced with a number of the industries involved in its extended value chain. Operating a large network of parts/service providers, for example, differs in many important respects from industrial manufacturing. Finally, a subpar automotive service or insurance offering could damage customer perceptions of the core vehicle brand.

The Big Three would in all likelihood employ a series of financial and strategic measures<sup>1</sup> to determine the attractiveness of expanding their participation in automotive aftermarket business. This paper proposes that, in addition to these measures, it is vital

for car makers to consider the impact of such a business extension on customer satisfaction and brand image. In a saturated, highly competitive market, the key to enhancing the value of customer relationships is improved customer satisfaction and loyalty. Yet most manufacturing companies delay examination of customer satisfaction until after they have already entered a market. We examine how customer satisfaction measures might be incorporated into a broader financial and strategic evaluation of an investment opportunity.

Assuming the perspective of an automotive manufacturer, we consider the attractiveness of expanding the OEM's participation in automotive aftermarket industries. By combining widely used financial and strategic tools of analysis with information about customer satisfaction, we explore the potential value of customer satisfaction data as a strategic input and suggest the kinds of customer satisfaction questions which are most likely to enhance a strategic decision.

Our analysis is arranged as follows:

- . The competitive environment of the automotive industry, focusing on issues that affect the decision to enter, or expand participation in, aftermarket industries;
- . The auto industry's extended value chain, including insurance, service/repair, parts, and vehicle finance;
- . Literature on customer satisfaction and loyalty, emphasizing methods for measuring customer satisfaction and the financial implications of improved customer loyalty;
- and,
- Strategic implications for automobile manufacturers.

## **Review of Automotive Industry Competitive Environment**

The industry is undergoing a series of important changes -

<sup>1</sup> For example, profitability, ROE, strategic intent, industry forces.

- Already intense competition is growing more so as a result of a saturated U.S. market and entry by foreign competitors.
- The industry's 75 year-old model for distribution is finally undergoing the consolidation that swept other durable consumer product industries more than a generation ago.
- Rising costs and stagnant consumer purchasing power are making new vehicle affordability a serious concern.

### *Profitability*

Beginning in the early 1970s, the U.S. automotive market was transformed from an oligopoly among the major domestic manufacturers to the most hotly contested motor vehicle market in the world. After enjoying double-digit profit margins in the 1950s and '60s, U.S. manufacturers' profitability declined sharply in the late '70s and early '80s, due in part to potent competition from Japanese OEMs. In 1980 Chrysler Corporation avoided bankruptcy only by securing loan guarantees from the federal government; less than a decade later General Motors generated record losses.

Since the mid-1980s, average Big Three profit margins have ranged from a high of 4.8% in 1987 to zero during the recession years of 1990-92. Profits during the 1994-96 period have been 2.3%, 4.2% and 3.5%, respectively.<sup>2</sup> Industry observers acknowledge that U.S. OEMs have made significant progress in reducing the gap between them and their Japanese competitors in vehicle durability, vehicle styling, and efficiency in the areas of new product development and manufacturing. The recent return to modest profitability figures, however, does not appear to signal a trend toward higher margins for

<sup>2</sup> Data collated by authors from several sources including ~ Standard & Poor's *Industry Surveys: Autos-Auto Parts*, June 13, 1996, p. A107; *Extel Examiner*, January 28, 1997, and Japan Economic Newswire, January 29, 1996.

car makers. Overall, analysts predict that the U.S. automotive market will become even more competitive as the number of foreign OEMs selling in the market grows.

### Key Drivers that Squeeze OEM Profits

#### **More Competitors and Vehicle Types**

The U.S. automobile market is perhaps the most open to foreign competition of any car market in the world. During the last two decades the number of OEMs and brands competing for the attention of U.S. consumers has risen to the point where there are over forty mass-produced nameplates available in the U.S.<sup>3</sup> Furious competition and rising customer expectations have combined to fuel a proliferation of product categories, as OEMs scramble to be the first to tap emerging customer tastes. Witness the recent development of the performance luxury car, minivan and full-size pickup truck vehicle categories.

#### **Rising Costs**

The growth of vehicle categories raises per unit costs because manufacturers must now produce vehicles in smaller lots, diminishing economies of scale. In addition, the race to define and meet customer needs requires larger and more frequent investments in new product development. Gone are the days when OEMs could ride the success of a popular model. The business requires a continuous reinvestment in new designs and more efficient processes for bringing products to market.

<sup>3</sup> J.D. Power & Associates' *The Revolution in Automotive Retailing: A Perspective of the New Millennium*, February 1996.

Competition has also ratcheted up consumer expectations regarding vehicle quality and standard equipment. Consistent quality is rapidly becoming the price of entry for manufacturers. The list of standard features now often includes anti-lock brakes and automatic locks, items which just a few years ago were counted as options used by dealers and OEMs to pad margins. Finally, government requirements, particularly in the areas of air quality and safety, continue to add a significant layer of cost.

### **Price Pressure**

Over the past 15 years rising production and distribution costs have driven up vehicle prices to the point where product affordability has become a concern in the industry. The average American in 1995 needed 53.8 weeks of wages to pay for a new car, up from approximately 46 weeks in 1980.<sup>4</sup> Manufacturers have held prices down and resorted to leasing and price promotions to encourage sales, keeping per-vehicle profits low even in good years.

### ***Increasing Focus on Distribution and Aftermarket Activities***

#### **The Emancipated Consumer's New Goals**

Analysts predict that the convergence of product quality and the fragmentation of the market is changing consumer shopping goals from quality/reliability to product/content and non-vehicle services.<sup>5</sup> Whereas consumers previously were information poor and highly uncertain about the reliability of vehicles in the market,

<sup>4</sup> Standard & Poor's *Industry Surveys: Autos-Auto Parts*, June 13, 1996, p. A93.

today many consumers know almost as much as the dealer about vehicles on the lot and are much more able to narrow their search to reliable models. Vehicle rating publications and price-buying services, now accessible via the Internet, give the consumer even greater ability to drive the shopping process.

Today's vehicle shopper is much more free to focus on product features and product-related services. The question for manufacturers is how best to respond to the needs of these consumers. This shifting consumer orientation makes it imperative that a decision about changing distribution or bundling autos with aftermarket services be based on a careful analysis of customer preferences, along with the customary financial and strategic considerations.

#### Distribution Seen as the Next Frontier of Innovation

A 1995 McKinsey & Co. study estimates that distribution costs comprise 30% of vehicle retail price.<sup>7</sup> Industry observers point out that while distribution costs may not be rising faster than product development or manufacturing, vehicle distribution is viewed as the sector of the industry least penetrated by efforts to cut costs. Until recently, U.S. manufacturers have done little to alter the fundamental dealer-based model of vehicle distribution. Now, automobile retailing appears finally to be approaching a long-overdue consolidation that is expected to change the way cars are marketed in the United States.

<sup>5</sup> See CS First Boston's investor report entitled, *Used Car Superstores: The CarMax Model- The Medium is the Message*, April 8, 1996; and Montgomery Securities' report, *Auto Dealerships: The Next Retail Superstores*, April 25, 1996.

<sup>6</sup> Merrill Lynch's *United States Automotive Retailing*, September 3, 1996. . Also see "The Virtual Car-Buyer," *Kiplinger's Personal Finance*, September 1995; and "How to Buy a Car on the Internet..." *Fortune*, March 4, 1996.

<sup>7</sup> McKinsey & Company's *Thoughtstarters on Automotive Retailing and Distribution Trends*, 1995.

Several non-automotive corporations are investing heavily in acquiring new and used car dealerships with the aim of setting up networks of new and used car superstores. CarMax used car superstores, owned by the consumer electronics giant, Circuit City, is the most well-known of these ventures and has already opened 6 locations in the U.S. Officials at CarMax plan on setting up 50 to 80 locations within the next 5-10 years. Groups of franchised dealers have responded by pooling their resources to set up similar new and used car superstores; and there are signs that Wall Street may begin investing in automotive distribution.

The next section of this paper will examine the automotive industry's extended value chain. Our purpose is (1) to describe economic conditions within the industries that comprise the extended automotive value chain, and (2) to provide an analysis of the relative financial and strategic attractiveness of these businesses to automotive OEMs.

### **The Auto Industry's Extended Value Chain<sup>9</sup>**

Automotive OEM's traditional value chain is composed of those manufacturing and service products undertaken by the OEM to create and deliver an automobile to the dealer or customer. In this context, the "value chain" is defined from the OEM's perspective of the value it creates for the consumer. Typical components of this value chain include: engineering design, materials, labor, marketing, overhead, freight and other distribution related *costs* among other inputs. We encourage a new way of visualizing the

<sup>8</sup> "Revolution in the Showroom," *Business Week*, February 19, 1996; "Auto Dealers Likely to Fall in Number as Aging Boomers Pull Back Spending," *The Wall Street Journal*, July 18, 1996.

<sup>9</sup> Data concerning ROE, ROA, margins, industry dynamics and competitive forces for the Insurance, Service, Parts and Finance industries was developed by the authors through extensive literature searches and data analysis.



automotive value chain by removing the paradigm of auto production as the end product: that is, view the process from the eyes of the automobile consumer rather than the OEM.

From the consumer's point of view, purchasing a new automobile is just a step in her overall value (or cost) chain. Acquiring a new car generally entails other automotive related products which we include in the "extended automotive value chain." This includes: finance, insurance, service, autoparts, tax, fuel, and used car sales. Surprisingly, for a \$20,000 automobile, the extended value chain (also referred to as the automotive aftermarket) costs the consumer slightly more than the actual automobile.<sup>10</sup> Because of the magnitude of these other auto related products, OEM's are naturally examining entry into these follow-on and complementary industries.

Though essentially a means of diversification and forward integration, expansion into the aftermarket may allow OEM's the ability to capture additional value from their products through bundling services, without expanding too far beyond their core industry activities. We confine the scope of our study to the automotive aftermarkets of finance, insurance, service, and autoparts because these industries are the most likely targets for OEM involvement. Vehicle financing, for instance is already a core profit generator for most OEMs.

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*Insurance Aftermarket*

Automobile insurance accounts for over 35% of total automobile aftermarket costs to the consumer.<sup>11</sup> Estimates for 1996 profit margin, ROA, and ROE are summarized as follows:

Industry ROA:	2.64%
Industry ROE:	12.47%
Industry Profit:	9.42%

**Table 1: Insurance Industry ROA, ROE, and Margins**

While the profit margin is subject to overstatement if insurance reserves are inadequately estimated (and they are currently estimated to be too low), margins in the business are strong while ROE is on the high end of historical industry ROEs of 10-14%.

The insurance industry is characterized by eight years of strong competition and attempts to expand the revenue base. Deregulation is lowering barriers and financial services firms are entering the industry in an attempt to gain economies of scale in information technology (IT) and to expand product offerings. Still, the regulatory environment keeps premiums constrained. Thus, the last eight years have seen, not surprisingly, weak premium growth. Rising cost within the industry have been attributed to increased investments in information technology. In this sense, information technology is becoming a barrier to entry. Market demand has moderate growth prospects as population increases or new insurance services are provided. Of significance to automotive OEMs, customer retention in the insurance industry is high and therefore valued. Among smaller firms there is increasing specialization for niche services.

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<sup>11</sup> Interview data from an internal OEM source.

Buyer behavior in the industry is characterized by basic economics. Demand is low at high price, and high priced insurance can drive automobile purchase decisions, or at the least, acts as a strong input into other purchase decisions. The large diversified base of buyers are able to shop around, and while switching cost are very low, convenience, service, and price are critical buying attributes.

The number of insurance suppliers has grown to over 1100, and insurers compete mainly on the basis of price, service, and support. Since price or insurance premiums are regulated on the upside, insurers have moderate power to drive revenues through changes in price. The existing customer base is important for referrals and retention, and new customer costs are significantly higher than retaining old ones (higher overhead for initial policy pricing and lack of customer history affects profitability in addition to basic customer acquisition costs). In this regard, high customer retention in insurance is critical.

Aside from abstinence, few substitutes currently exist for insurance since it is used as hedge against risk of loss. Presently most individuals have one insurance company which offers an array of services, and most individuals purchase more than one type of service.

From an automotive OEM perspective, a brief strategic and financial analysis indicates that the insurance industry is fairly attractive for the following reasons:

- Insurance represents 37.5% of extended value chain
- Strong profitability = 9.2% and ROE = 12.47%
- Insurance niche markets like auto may be more profitable
- Big insurance losses from natural disasters and asbestos are less likely to occur with automobiles

Additional strategic and customer satisfaction considerations include the following:

- Auto companies have a competitive advantage because of access to customer
- Increase customer convenience and support
- Major step in overall process of total service to customer
- Insurance may be critical step to developing a comprehensive customer database
- Insurance may be bundled with other services like financing

### **Service Aftermarket**

Automobile service accounts for over 16% of total automobile aftermarket costs to the consumer. Estimates for 1996 profit margin, ROA, and ROE are summarized as follows:

Industry ROA:	5.80%
Industry ROE:	9.84%
Industry Profit:	7.61%

**Table 2: Service Industry ROA, ROE, and Margins**

Despite strong competition in the automotive service industry all major participants have posted strong earnings. Margins appear solid especially for firms with developing economies of scale and reduced cost structures. Companies in this area include: Jiffy Lube, Penske Auto Center, Midas, and PEP Boys. Alliances are proving important to expand the customer base and to encourage growth. For example, Penske has teamed with Kmart to provide auto service centers. Exclusive rights to autoparts suppliers also create barriers to entry in the service industry. To follow the Penske example, it has developed exclusive partner relationships with Goodyear Tires, Mobil Oil, and NAPA Auto Parts. Auto service providers compete directly against service stations and auto dealerships, but dealerships and station numbers are decreasing.

From an automotive OEM perspective, capital costs are high for auto service providers because of extensive IT systems, costs of integrating these systems with the

OEM, and basic property, plant and equipment requirements to provide service.

Information technology is becoming an important barrier to entry as id market penetration strategies employed effectively by companies like WalMart and Home Depot. Market demand has only moderate growth potential and is dependent on a number of factors directly related to the OEMs, such as the average age of autos on the road and the quality of automobiles produced. As in the insurance industry, customer retention appears to be relatively high but is strongly driven by customer service and trust.

Buyer behavior is characterized by a large diversified base with relatively low switching costs. Convenience is a critical buying attribute, particularly proximity to ones residence. Service and price are critical buying attributes for the customer as well. There are only a few national brand name suppliers to automotive services firms. These mainly include firms in autoparts, tires and lubricants groups. Typically, suppliers gain scale through exclusive rights. Competition among suppliers is depend on price, service, and support. Switching cost are moderate.

Alternatives to service/maintenance of automobiles depend on prolonging purchases or intervals between car care. Presently, there are offsetting trends between increasing vehicle quality (less service/maintenance required) and decreasing new vehicle affordability (more service/maintenance required).

From an automotive OEM perspective, financial and strategic analysis reveals that the auto service industry is not very attractive for the following reasons:

- Service represents 16.9% of extended value chain
- Good profitability = 7.6%, but relatively low ROE
- The industry is highly competitive with few growth prospects

- Entering the service industry would require managing and maintaining extensive relations with new suppliers

Additional strategic and customer satisfaction considerations include the following:

- Despite competition, there exists competitive advantage with access to the customer
- Opportunity to increase customer convenience, support, and retention
- Major step in overall process of total service to the customer
- Providing service to OEM customer's maintains the relationship and may instill stronger brand identification
- Providing service can be used to monitor quality, customer expectations and customer satisfaction
- Service package could be included in bundling of services at vehicle purchase

### ***Autoparts Aftermarket***

Automobile autoparts account for roughly 4% of total automobile aftermarket costs to the consumer. Estimates for 1996 profit margin, ROA, and ROE are summarized as follows:

Industry ROA:	9.05%
Industry ROE:	9.86%
Industry Profit:	4.02%

**Table 3: Parts Industry ROA, ROE, and Margins**

The parts industry is fragmented with thousands of competitors, the largest of which accounts for only 7% of industry revenues. The strong competition has encouraged consolidation for scale and scope economies. Participants compete in OEM, aftermarket and non-automotive industries to adjust for the cyclicality of all three businesses. New car sales is generally negatively correlated to growth in aftermarket auto parts purchases. The Big Three continually press parts suppliers for increased efficiency and quality. Overall margins in the industry are low and ROE remains slightly depressed compared to overall industry averages.

Several market pressures are capping demand for parts, namely: higher quality cars; extension in the average car life; and, increased foreign market penetration. The leasing trend may also decrease parts consumption on a total unit basis. Overall the market is characterized by only moderate growth.

Given high competition, manufacturers are specializing on core products. Buyers' ability to shop around helps cap prices and increase overall competition. The large diversified buyer base only reinforces competition in the industry. Additionally, switching costs for the buyer are very low; quality is assumed, and convenience and price are the critical buying attributes.

Supplier issues also drive the competitive parts industry. The supplier base is expansive with raw materials serving as the basic inputs. Stocking tens of thousands of parts requires efficient distribution and sophisticated information technology solutions. Aftermarket parts are relatively standardized, and thus competition among suppliers is keen and on the basis of price, service, and support. Compounding the industry's competitive forces are increasing availability of substitutes in the form of electronic parts. In summary, the industry has a large number of suppliers, but is consolidating. Buyers are fragmented and difficult to service and purchase decisions are driven mostly by price and convenience.

While the parts business requires strong manufacturing skills and the ability to manage supplier relationships, from an automotive OEM perspective, strategic and financial analysis suggest that the autoparts industry is unattractive for the following reasons:

- 
- The industry is characterized by weak margins = 4.97% and relatively depressed ROE
  - Autoparts aftermarket is highly competitive with slow growth prospects
  - Parts aftermarket accounts for only 3.8% of extended value chain

Additionally:

- No real advantage exists to improve customer service or access to the customer
- No real ability to leverage current or proposed resources
- Entering the parts aftermarket would require competition with current suppliers
- Does not afford an OEM the opportunity to bundle services or gain product synergy's

### ***Vehicle Financing Aftermarket***

Automobile financing accounts for over 16% of total automobile aftermarket costs to the consumer. Estimates for 1996 profit margin, ROA, and ROE are summarized as follows:

Industry ROA:	1.10%
Industry ROE:	12.50%
Industry Profit:	8.80%

**Table 4: Finance Industry ROA, ROE, and Margins**

Industry profit margins are very strong with some players gaining in excess of 15%. ROEs are also impressive and the highest among the four aftermarket industries we are considering. Demand for auto financing is growing as vehicle prices rise faster than wages. It is not surprising given these figures that nearly all OEMs have entered the vehicle financing aftermarket.

Optimism for the industry is tempered, however, by increasing customer sophistication, greater price shopping as customers have access to information regarding credit options, and low switching costs at vehicle purchase. Dealers are growing less dependent on OEM captive finance companies and shopping for better retail and



wholesale credit offers to stimulate higher sales though lower monthly. Growth of new car-shopping channels (e.g. superstores) provides more financing choices as well

Critical suppliers to the finance aftermarket include capital markets and information technology companies (suppliers of technology used in managing customer information.) IT providers compete on price and service while the capital markets are highly competitive and afford limited supplier power. Costs for switching IT providers are relatively high while capital market switching costs are low.

Bank deregulation has enabled entry by insurance companies and diversified industry players. The advantage of "unregulated" OEM captives is eroding as a result of these changes. Market demand is strong and growing, but customer loyalty is low, offering opportunities to entrants with new, cheaper, or better marketed products and services. Technology is enabling non-OEM affiliated companies to access automotive customer databases to target and directly market to current OEM customers (e.g. price-buying services, websites, kiosks, dealerships, superstores.)

Technology is a critical variable in the finance aftermarket. Finance companies which effectively manage consumer information and offer customers user-friendly access to their services (web sites, kiosks, etc.) have a distinct edge over competition which does not.

From an automotive OEM perspective, strategic and financial analysis illustrates that the finance aftermarket industry is attractive, but facing strong competitive threats for the following reasons:

- Strong ROE and profit margins
- Financing/leasing increasingly vital to vehicle sales

- Growth potential justifies staying in or entering the market
- Vehicle financing is a vital part of strategy and can drive vehicle purchase
- Returns on finance business exceed automotive
- Vehicle price/wage disparity continues to grow
- Lease:sale ratio for new cars is up 125% since 1984

Additional considerations include:

- Key feature of transportation services "bundle"
- The ability to leverage customer data, life-cycle marketing
- The additive affect on customer convenience and management of customer perceptions of the OEM by providing one-stop shopping for auto related products and services

In summary, cursory strategic and financial analysis indicate the relative attractiveness of each of the four aftermarket industries analyzed. Table 5 consolidates our findings:

<b>Strategic and Financial Analysis</b>		
	<b>Attractive</b>	<b>Unattractive</b>
<b>Insurance</b>	x	
<b>Service</b>		x
<b>Parts</b>		x
<b>Finance</b>	x	

**Table 5: Attractiveness of Aftermarket Industries**

We suggest that our strategic and financial analysis neglects the growing importance of customer satisfaction on industry attractiveness. Additionally, it fails to account for two meaningful considerations:

- Drivers of customer retention, loyalty and profitability; and,
- Uncertain impacts on customer satisfaction/customer loyalty when companies bundle services from diverse industries with varying levels of customer satisfaction.

In a saturated, highly competitive domestic market, growth and enhanced profitability depend on improving the value generated by interactions with the customer.

At the same time, customers are growing ever more demanding. They see best-in-class service provided by a computer software manufacturer, hotel chain or retail outlet and demand the same from every other vender with which they do business. Moreover, information technology is making it easier for consumers to take control over the shopping and service experience.

In this environment, automotive manufacturers are considering strategies for increasing the value of their customer interactions, primarily by strengthening customer retention. The problems facing automobile manufacturers are shared by many U.S. companies operating in "mature" industries. The prevalence of this issue has given rise to a significant body of academic, trade and popular literature on the subject of how companies can improve the loyalty of their customers. The next section describes some key elements of that literature and relates those insights to the decisions likely to confront the automotive companies.

## **Literature Review: Customer Satisfaction/Corporate Strategy**

### ***What is Customer Satisfaction and How is it Measured***

Before discussing approaches to the measurement of customer satisfaction, it is worthwhile to clarify which definition of customer satisfaction we will use. The academic literature generally conceives of customer satisfaction in three ways:

- "Transaction Specific Satisfaction" immediately following a purchase;
- "Cumulative Satisfaction" with a single product over the course of its useful life; and

- "Relationship Satisfaction" with a product over its useful life and with an array of complementary products and services.

Our discussion will focus on both cumulative and relationship satisfaction, which are thought to be more predictive of repurchase intent than impressions formed by the customers shortly after the purchase. It should be noted, however, that all measures of customer satisfaction are vulnerable to question, because customers frequently change their views of a product throughout the ownership cycle and because customer satisfaction in some industries can be unreliable.

Frederick Reichheld discusses the significant gap between customer satisfaction scores in many industries and repurchase performance. The U.S. automotive industry, for example, typically achieves relatively high customer satisfaction scores, while average customer retention figures remained mired in the 40% range.<sup>13</sup> In other words, high customer satisfaction does not necessarily drive high customer retention. Part of this disparity may be the result of survey manipulation by dealers attempting to raise their customer satisfaction scores. Other reasons may include changing customer expectations and perceptions.

### Customer Satisfaction Stakes are Typically Quite High

While the perceptions of individuals may change dramatically during the ownership period, market perceptions of product quality tend to be resistant to change. Studies reveal that customer ratings of product performance change slowly over time,

<sup>12</sup> Eugene W. Anderson, Claes Fornell & Donald R. Lehman, "Working Paper: Economic Consequences of Providing Quality and Customer Satisfaction", *Marketing Science Institute*, (Report Number 93-112, 1993), p. 9.

<sup>13</sup> Frederick Reichheld, *The Loyalty Effect* (1996, pp. 237-38)

suggesting that firms have difficulty restoring their quality image once it is tarnished in the public's mind. Given a choice of two identical products, for example, customers will give higher quality ratings to the product carrying a brand name with a stronger reputation for quality.

### Specifying the Benefits of Customer Satisfaction

In the past several years, empirical studies comparing customer satisfaction ratings and the financial performance of firms have yielded a number of models depicting the economic benefits of customer satisfaction. For example, Claes Fornell in 1992 summarized the results of his study of customer satisfaction and firm performance by asserting that improving customer satisfaction would extend the life expectancy of the customer relationship, reduce customer price sensitivity, lower the cost of repeat transactions and desensitize customers to the promotions of competing firms.<sup>16</sup>

More recently, Fornell et al and Frederick Reichheld have summarized the value of improved customer satisfaction and loyalty by calculating the net present value of the lifetime customer relationship. In many industries, the authors note, the value of a customer relationship increases dramatically as time passes. The great majority of supplier costs occur in the initial acquisition of the customer. Thus, on repeat purchases, the contribution margin of each sale rises. In addition, customers tend to make larger purchases as they become more acquainted with the supplier's full product line.

<sup>14</sup> Anderson, Fornell, Lehman, pp. 25-26.

<sup>15</sup> Owners of identical automobiles, the Mercury Tracer and the Mazda 323, nonetheless awarded higher customer satisfaction ratings to the Mazda vehicle, presumably because of Mazda's superior reputation for quality products. See Eugene W. Anderson and Mary Sullivan, "The Antecedents and Consequences of Customer Satisfaction for Firms," *Marketing Science*, Spring 1993, pp. 125-143.

Reichheld summarizes the key driver behind the enhanced value of long-term customer relationships by relating it to the value of having experienced employees -- experienced customers, like well-seasoned employees, he writes, are more productive primarily because of what they learn from each other. Customers learn to value a wider range of the firm's offerings (typically higher margin items), while employees accrue knowledge about the customer/client's needs. This reduces the time (and money) needed to serve them. Also, outlets selling/servicing mainly loyal customers do not have to stock as wide a variety of inventory because they are better able to predict customer demand. Stronger relationships with customers can be helpful in new product development, capacity forecasting, product mix and logistics.<sup>17</sup>

Reichheld and Fornell et al adopt relatively similar approaches to measuring the financial impact of improving customer retention. Fornell and his colleagues, for example specify a general model that includes gross margin per customer, length of repurchase cycle and repurchase probability:

$$NPV = \sum_{t=1}^T [\text{Gross margin} * \text{Length of Repurchase Cycle} * \text{Repurchase Probability}] / (1+r)^t$$

The critical repurchase probability term is based on the work of Anderson and Sullivan whose empirical analysis found that a 1 point increase in customer satisfaction resulted in a 0.58% increase in repurchase probability.<sup>18</sup> Reichheld, on the other hand collapses Length of Repurchase Cycle and Repurchase Probability into a single term based on a firm's average customer retention rates.

<sup>16</sup> Claes Fornell, "A National Customer Satisfaction Barometer: The Swedish Experience," *Journal of Marketing*, January 1992, pp. 6-18. Also see Frederick Reichheld, *The Loyalty Effect*.

<sup>17</sup> Frederick F. Reichheld, *The Loyalty Effect*, Harvard Business School Press, 1996, pp. 47-48.

This method, while simpler for firms to apply, underplays the relationship between customer satisfaction and repurchase probability. Reichheld addresses this issue by devoting a chapter to "picking the right customers," in other words, to focusing customer satisfaction effort on customers who are likely to respond with greater loyalty. He provides, however, no generalizable model for estimating the impact of improving customer satisfaction on repurchase probability.

### **Gap in the Literature: CS and Bundled Products/Cross-Industry Influences**

Recent scholarship relating to customer satisfaction has shed light on the factors that influence customer satisfaction and on the economic benefits of improving customer satisfaction. These studies, however, have tended to focus on individual products and may not be as useful for studying the dynamics of multiple products and services bundled with, or offered in support of, a single core product.<sup>19</sup> In light of this limitation, we have focused on a key driver of customer satisfaction that can be observed in the market and used as a tool for strategic analysis: analysis of supply and demand heterogeneity.

### ***Matching Heterogeneous Products to Heterogeneous Customers***

Improving customer satisfaction, according to Fornell, requires that firms offer products that suit the target market's demand for customization. Customer satisfaction is primarily a function of how well a product meets the needs of individual customers. The

<sup>18</sup> Eugene W. Anderson and Mary Sullivan, *Marketing Science* (1993).

Literature on relationship marketing tends to focus on product management and organizational strategies but does not directly address how customer satisfaction outcomes on an individual product impacts perceptions of other products bundled with it. For examples see: Tony Cram, *The Power of Relationship Marketing: How to Keep Customers for Life*, Pitman Publishing, 1996, *Advances in Relationship Marketing*, Payne, ed 1995

more similar those needs across members of a target market, the easier it is for firms to

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satisfy those needs with a homogeneous product.

This finding has significant implications for corporate strategy. As a firm's market share grows, so too does the heterogeneity of the customer base, particularly in markets with a wide variety of product types. Thus, firms with large market shares would be expected to have relatively lower customer satisfaction ratings. This proposition has been supported in two empirical studies in which a negative relationship between customer satisfaction and market share was found<sup>21</sup>. Niche players, such as Lexus and Saturn in the automotive industry, appear to achieve such high customer satisfaction ratings in part because they focus their attention on the needs of a relatively small

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segment of the market.

For automotive OEMs considering whether to bundle their cars with an array of auto-related services, Fornell's findings sound a note of caution: car companies may find it difficult to recognize and fulfill the heterogeneous demands of their own customers in the areas of insurance, service, parts, and financing. Offering a bundle of homogeneous auto-related services to a heterogeneous, increasingly sophisticated market could undermine the brand image of the core product. Faced with heterogeneous demand, the auto companies may do better to offer these services via an alliance with an existing provider which would be better equipped to meet a fragmented market's needs. What the car maker gives up in control and brand clarity it may gain in customer loyalty. Given the

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<sup>20</sup> Fornell. Also see Anderson, Fornell and Lehman.

<sup>21</sup> Ibid.

<sup>22</sup> "Lexus, Saturn Tie in Satisfaction Survey, *The Reuter Business Report*, June 13, 1996.



fragmentation of customer tastes and their rising overall expectations, it seems that OEMs have little choice but to pursue strategies for meeting these demands.

### *Estimating Demand Heterogeneity*

It would be useful for auto OEMs to have a measure of the level of demand heterogeneity in the various markets in which it is considering entry or expansion. Neither Fornell nor his colleagues offer a formal method for measuring demand heterogeneity. However, assuming that Fornell's thesis holds true - namely that customer satisfaction is largely a function how closely supply heterogeneity is matched with demand heterogeneity<sup>23</sup> - it should be possible to take data concerning customer satisfaction and product differentiation (i.e. supply) and infer demand heterogeneity.

If, for example, consumer satisfaction with automotive service companies ranks considerably below the national average and the market is dominated by firms offering a relatively undifferentiated set of services, we may infer that demand is relatively heterogeneous. The term "relatively" obviously raises questions about how objective and generalizable this mode of analysis is. But even the most well accepted frameworks of industry analysis, including Michael Porter's "five forces" and Hamel/Prahalad's "core competencies," rely on subjective judgments. With this in mind, we suggest that industry analysis could be improved by focusing on customer satisfaction and the quality of the fit between supplier and buyer heterogeneity. The final section of this paper will examine how an automotive manufacturer might incorporate such an analysis into a broader

<sup>23</sup> Formally, this relationship might be stated as  $S = f(H_s, H_d)$ : customer satisfaction ( $S$ ) is a function of heterogeneity of supply ( $H_s$ ) and the heterogeneity of demand ( $H_d$ ).

evaluation of business opportunities in its downstream markets. We have recast our aftermarket industry attractiveness diagram from the OEM's perspective.

## **Implications for Automotive OEMs**

The following set of questions attempts to summarize the fundamental customer satisfaction issues confronting an automotive OEM considering entry into one of the "aftermarket" industries:

- How do customers value bundled automobile-related services? (i.e. can one-stop stopping significantly enhance customer satisfaction/loyalty?)
- How difficult will the car makers (and, possibly, their allies) find the challenge of servicing a heterogeneous customer base with a set of bundled services?
- What are the benefits/costs related to linking the vehicle brand name with the target industries? What are the risks of failing to proceed?
- How do current customer satisfaction levels in the target industries affect the customer acquisition prospects of a new entrant?

Empirical answers to these questions lie beyond the scope of this paper. Our purpose is to use insights contained in the customer satisfaction literature to improve strategic decision-making (presumably once some empirical data has been gathered). What we hope to provide is a template for factoring issues of customer satisfaction into strategy formation.

It is assumed based on the findings of Fornell and others, that the better the fit between levels of supply and demand heterogeneity the higher will be customer satisfaction. Thus scenarios High/High and Low/Low would predict high customer satisfaction. Where levels of supply and demand heterogeneity are mismatched (High/Low & Low/High), we would expect customer satisfaction to be relatively low.

Heterogeneity of Product/Service Supply	High	HL <b>CS (-)</b> <i>Fragmented supply;                      customers want standard,                      efficient product/service</i>	HH <b>CS (+)</b> <i>Heterogeneous supply &amp;                      demand</i>
	Low	LL <b>CS (+)</b> <i>Relatively homogeneous supply &amp;                      demand</i>	LH <b>CS (-)</b> <i>Limited variety of                      products/services; wide variety                      of consumer needs</i>
		Heterogeneity of Customer Needs	

**Table 6: Supply/Demand Heterogeneity and Customer Satisfaction**

How should a firm factor supply/demand heterogeneity into strategic decision? Table 7 [next page] depicts the strategic implications of the four possible supply/demand heterogeneity scenarios. These implications are grouped as either "pro" or "con" depending on whether market conditions in that scenario favor entry. We have identified three market variables related to supply/demand heterogeneity which may impact the attractiveness of a market:

- Brand image impact;
- Ease of conquest; and,
- Ease of service

For example, entering an industry with high customer satisfaction (scenarios High/High and Low/Low) would have a positive impact on brand image. Hence, positive impact on brand image (denoted as "Brand +") is listed as a "pro". On the other hand, highly

differentiated customers (scenarios High/High and Low/High) are more difficult to serve.

Thus, "harder to serve" is included as a "con" for these two scenarios.

<u>Heterogeneity Supplier/Customer</u>	<u>Customer Satisfaction (High)</u>		<u>Customer Satisfaction (Low)</u>	
	H/H	L/L √	H/L V	L/H
Pros	Brand Image (+)	Brand Image (+) Easier to Serve	Easier to Conquest Easier to Serve	Easier to Conquest
Cons	Harder to Serve Harder to Conquest	Harder to Conquest	Brand Image (-)	Brand Image (-) Harder to Serve

**Table 7: Supply/Demand Heterogeneity Scenarios (V= Preferred)**

In general, the scenarios with greatest number of "pros" would be the most attractive environments for entry. Table 7 shows that scenarios Low/Low and High/Low offer two pros and one con, whereas the opposite is true of the other two scenarios. The Low/Low scenario, with its relatively satisfied customers would be expected to improve brand image. Moreover, this less heterogeneous customer base would be easier to serve than, say, customers in the High/High scenario. The main challenge to entering a Low/Low market is that its satisfied customers may be fairly loyal. The High/Low scenario's pros and cons show a similar set of trade-offs. Where levels of supply and demand heterogeneity are mismatched (High/Low & Low/High), we would expect customer satisfaction to be relatively low.

Next, we will discuss the attractiveness of the automotive aftermarket in the context of supply/demand heterogeneity. Using the framework suggested in tables 6 and 7, table 8 combines strategic, financial, and customer satisfaction considerations for an OEM's analysis of aftermarket industries:

Strategic, Financial, and Customer  
Satisfaction Analysis

	Attractive	Unattractive
Insurance	X	
Service	X	
Parts		X
Finance	X	

**Table 8: Strategic, Financial and Customer Satisfaction Analysis**

Table 8 illustrates several changes from table 5 which depicted the attractiveness of these industries for OEMs from a financial and strategic perspective. We will take each industry in turn and discuss the impact of including customer satisfaction as a major input to our analysis, specifically, the impact supply/demand heterogeneity.

**Insurance**

Insurance has become less attractive because of the heterogeneity of both the services offered and the customer base in the industry. These forces may make it difficult for an OEM to match customer expectations and perceived performance. Nevertheless, because of the opportunity to bundle insurance with other services and to introduce new offerings for the customer at the point of purchase, insurance remains a relatively attractive industry for OEMs to consider.

**Service**

Service, which appeared unattractive before our introduction of supply and demand heterogeneity and their effects on customer satisfaction, now appears much more attractive. Its benefits appear to exceed those of the insurance industry mainly due to the homogeneity among national service providers and product homogeneity as well.

Additionally, this industry allows an OEM to monitor and manage its relationship with the customer over time and thus serve the customer's needs throughout the life of the product and potentially into the next product life cycle. These factors boost the industry's lower financial performance and its higher competitive characteristics.

### **Auto parts**

Autoparts appear even more unattractive now that product and demand heterogeneity have been introduced. Both product and demand heterogeneity are high, and therefore we predict OEMs will find it difficult to meet customer's expectations. Additionally, the industry provides no additional contact with the customer or ability to monitor and affect the customer's satisfaction.

### **Finance**

Finance is perhaps slightly less attractive because of the proliferation of products due to new entrants and increased industry competition. Despite this, demand heterogeneity is relatively low and customers are easier to please. Additionally, the finance industry helps maintain contact with the customer throughout the product life cycle which provides the OEM the ability to monitor and manage the relationship to some degree.

### **Conclusion**

In a saturated, highly competitive market, a key to profit growth is enhancing the value of customer relationships through improved customer satisfaction and customer loyalty. Many OEMs are looking to invest downstream in complementary product lines in order to differentiate themselves in the marketplace. Typically, companies examine the

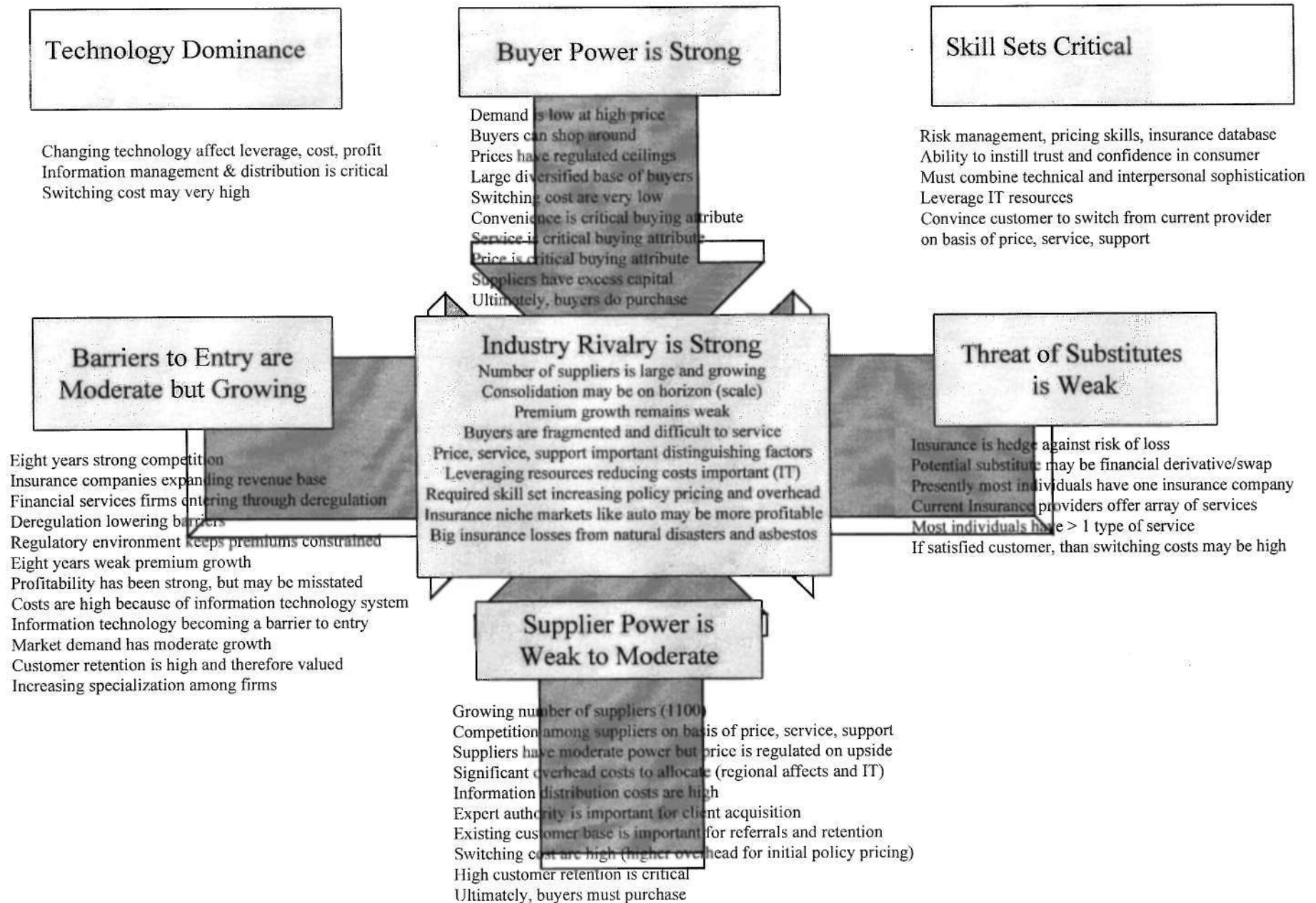
customer satisfaction impact of such moves only after entering these markets. Current measures of customer satisfaction, such as Fornell et al's customer satisfaction index, provide valuable performance information to market participants. Our analysis suggests, however, that companies would be better served by considering customer satisfaction as a strategic input into their market entry decision. Current measures of customer satisfaction are less useful in this regard.

In this paper we have proposed a method for combining customer satisfaction, financial and strategic factors in single analysis of the automotive aftermarket that highlights important strategic trade-offs. In the absence of customer satisfaction measurements, particularly supply/demand heterogeneity, financial and strategic analysis suggests that automotive OEMs should favor insurance and finance over other aftermarket industries. If customer satisfaction impacts are considered, however, the strategic value of the vehicle service industry appears to increase, while the attractiveness of vehicle insurance appears to diminish.

Companies considering whether to re-bundle their products by entering downstream businesses must weigh a myriad of strategic and financial factors. Information about supply/demand heterogeneity may be more difficult to obtain than objective measures of financial performance or industry views on competitive factors. This should not, however, deter companies from gathering and using the information concerning the closeness of fit between producer and consumer heterogeneity. Doing so, we believe, can provide management with useful insights into a market's bottom-line potential.

## Appendix A: Insurance Industry Forces Analysis

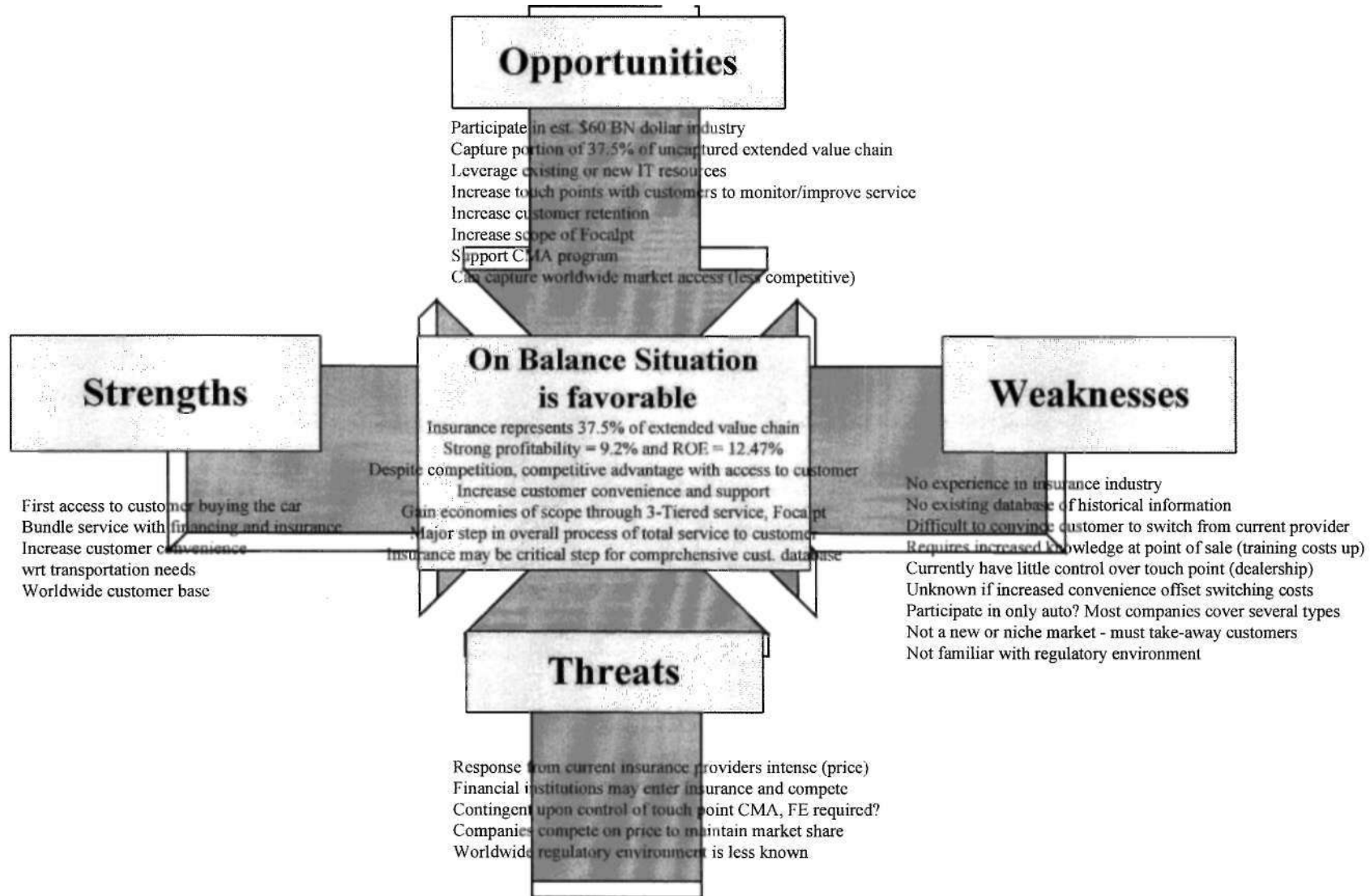
# Insurance Industry Forces Analysis





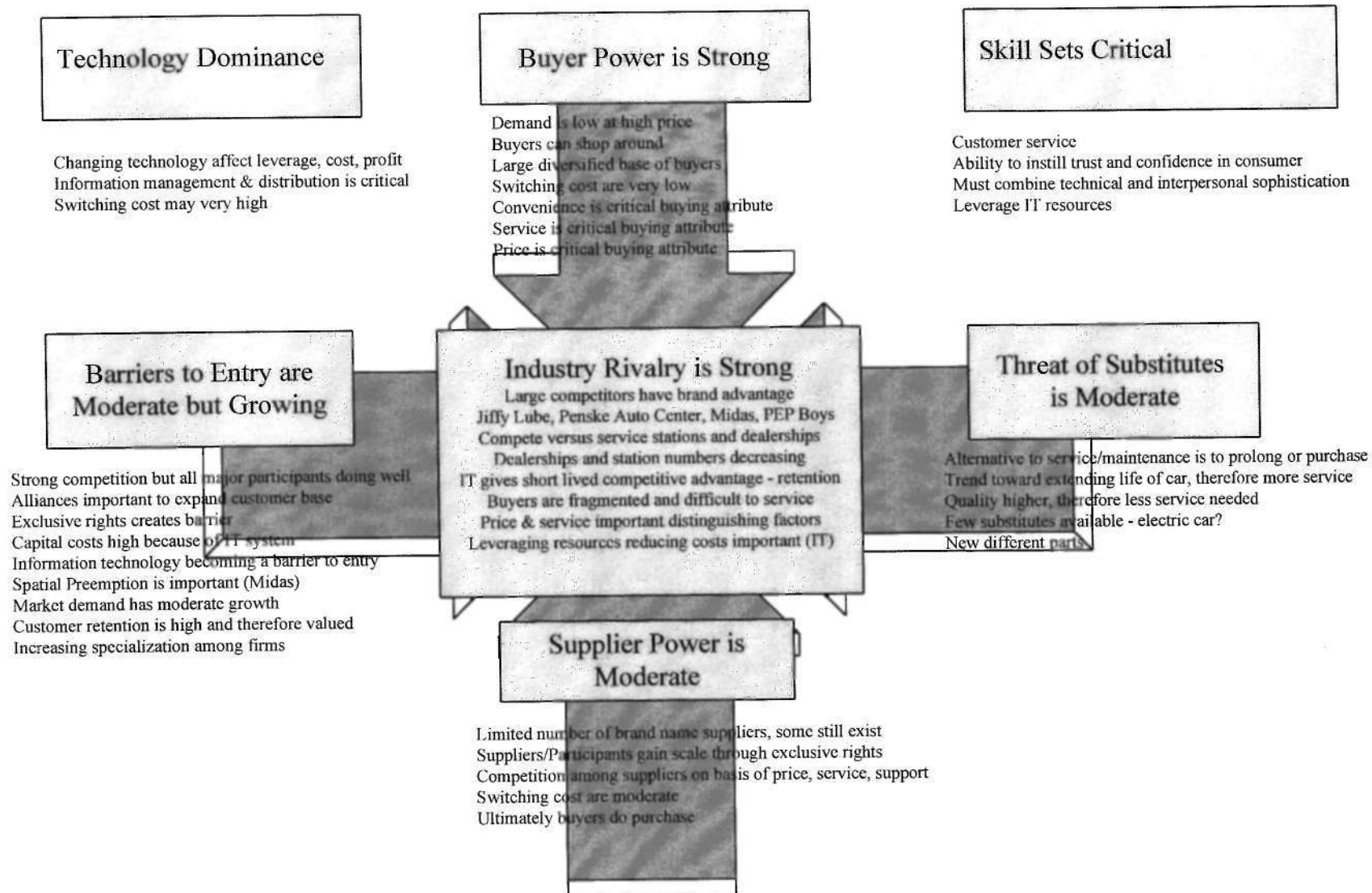
## Appendix B: Insurance Industry SWOT Analysis

# Insurance Industry SWOT Analysis



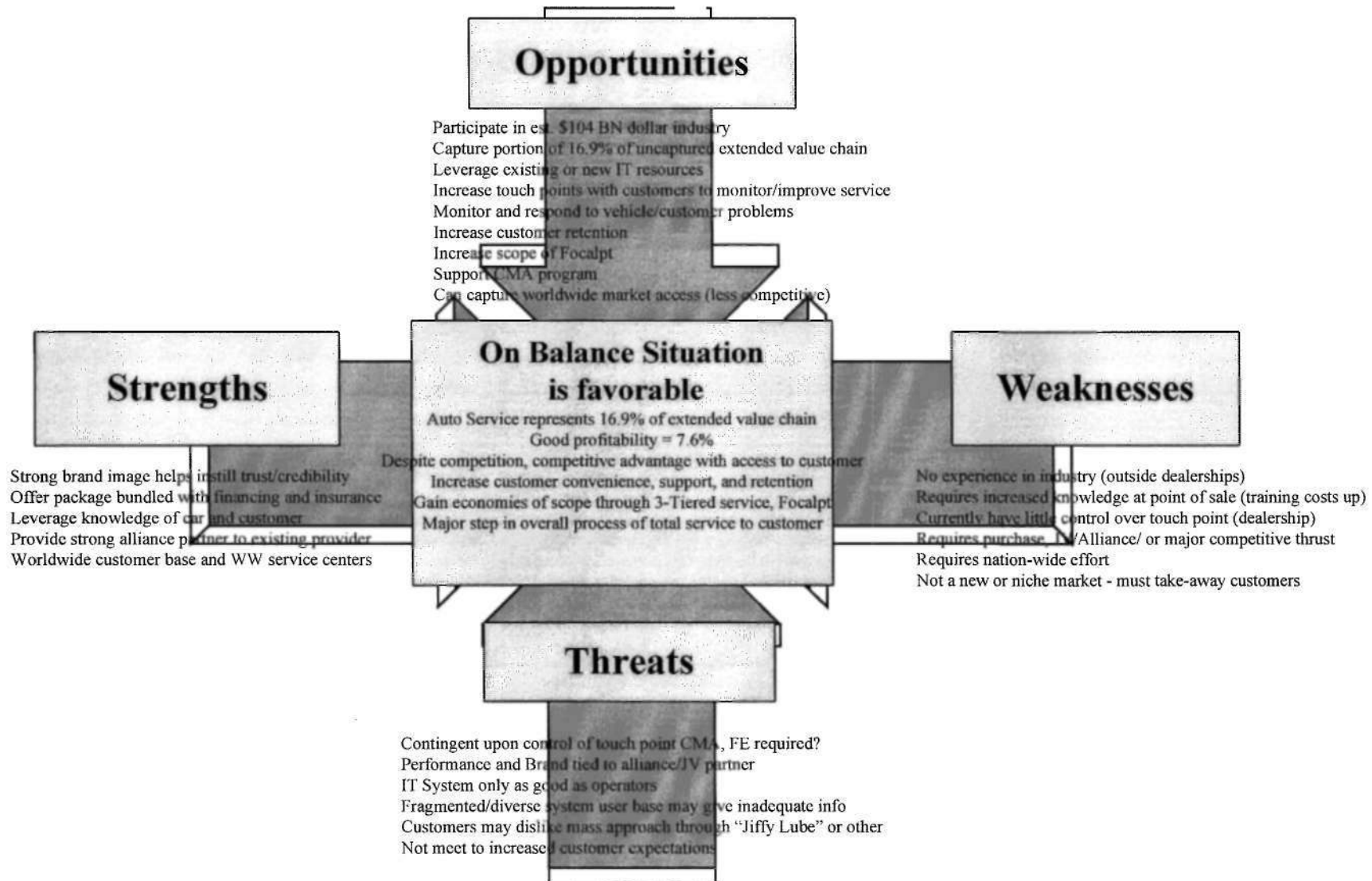
Appendix C: Auto Service Industry Forces Analysis

# Auto Service Industry Forces Analysis



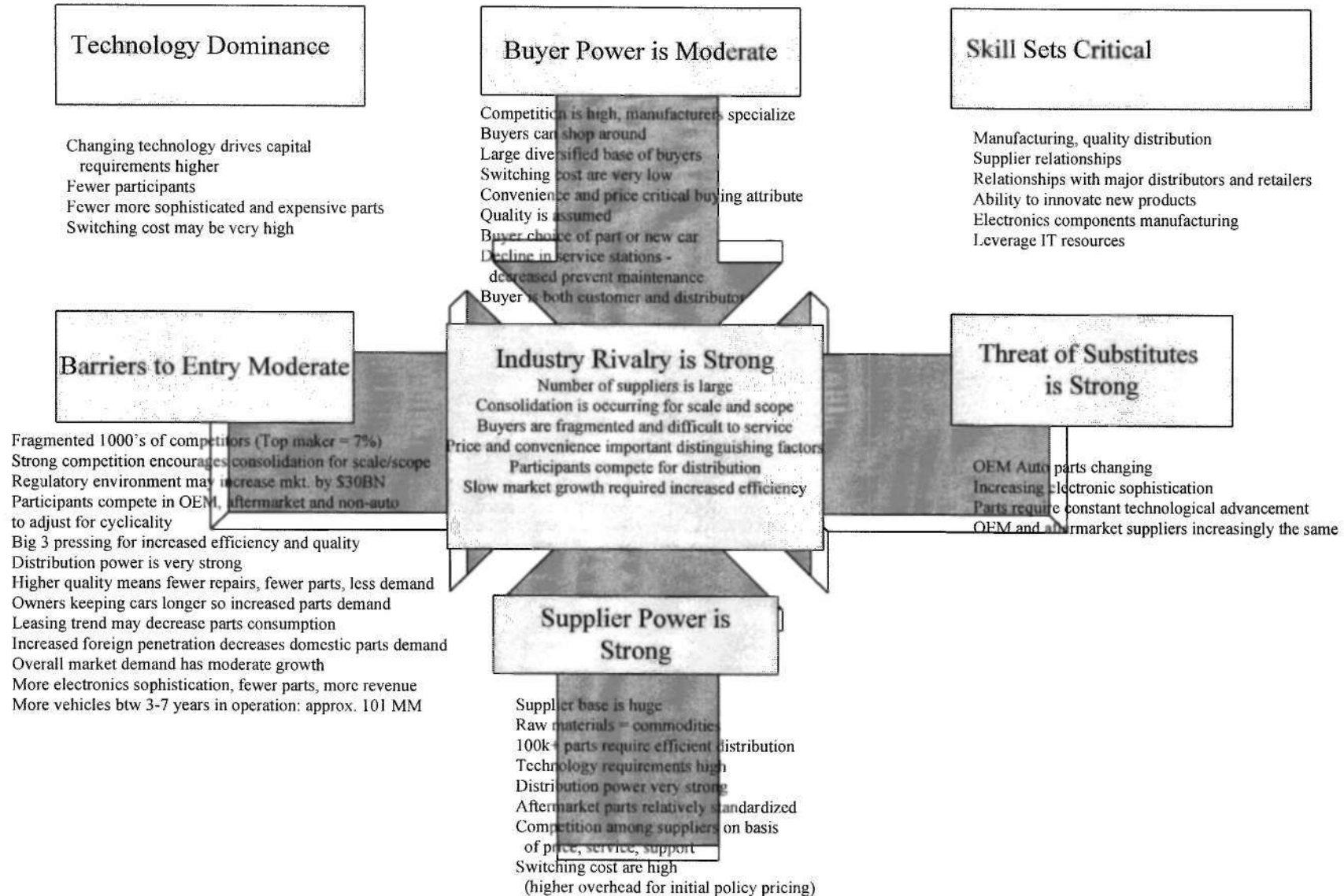
Appendix D: Auto Service Industry SWOT Analysis

# Auto Service Industry SWOT Analysis



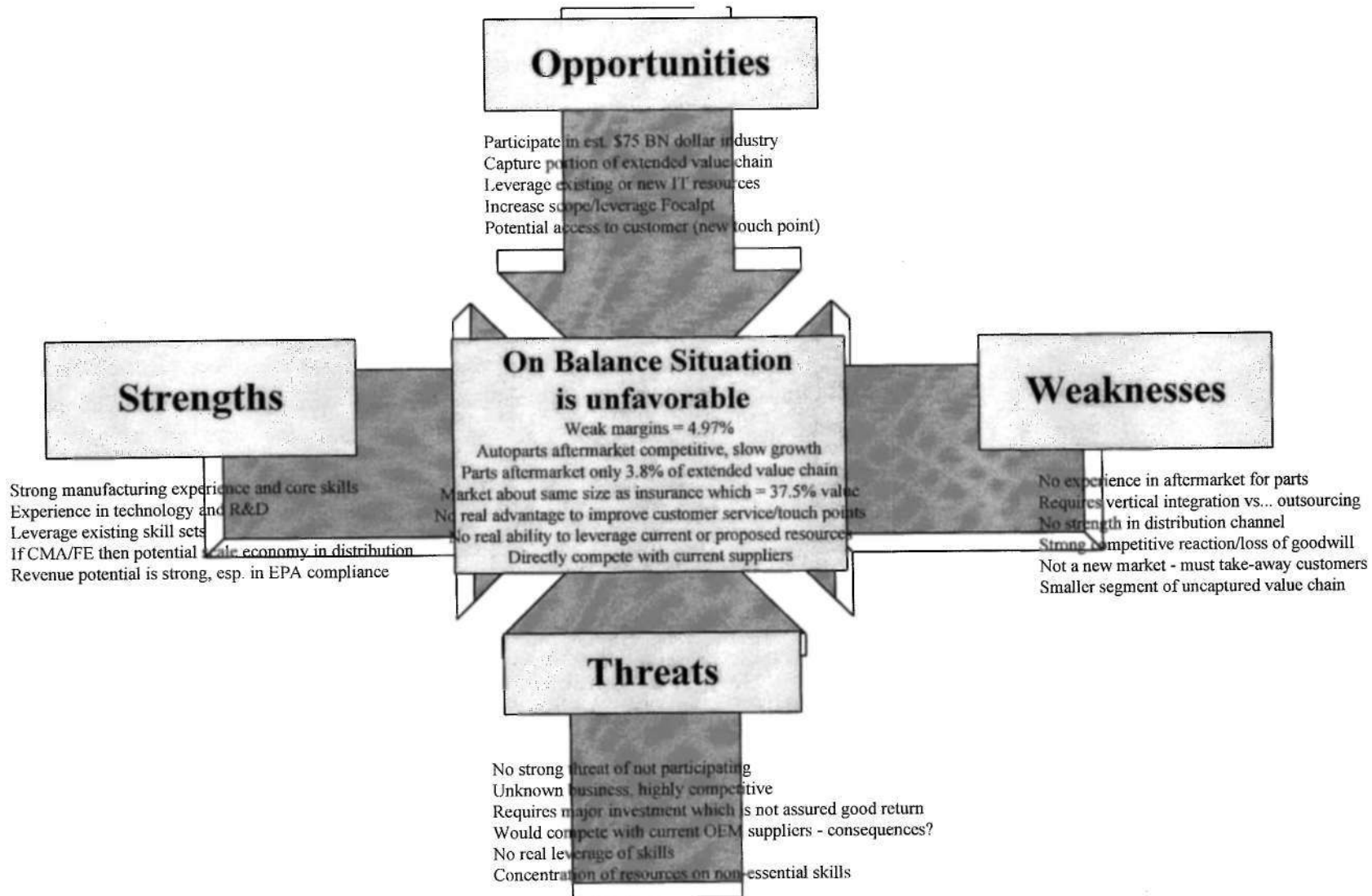
## Appendix E: Auto Parts Industry Analysis

# Auto Parts Aftermarket Industry Forces Analysis



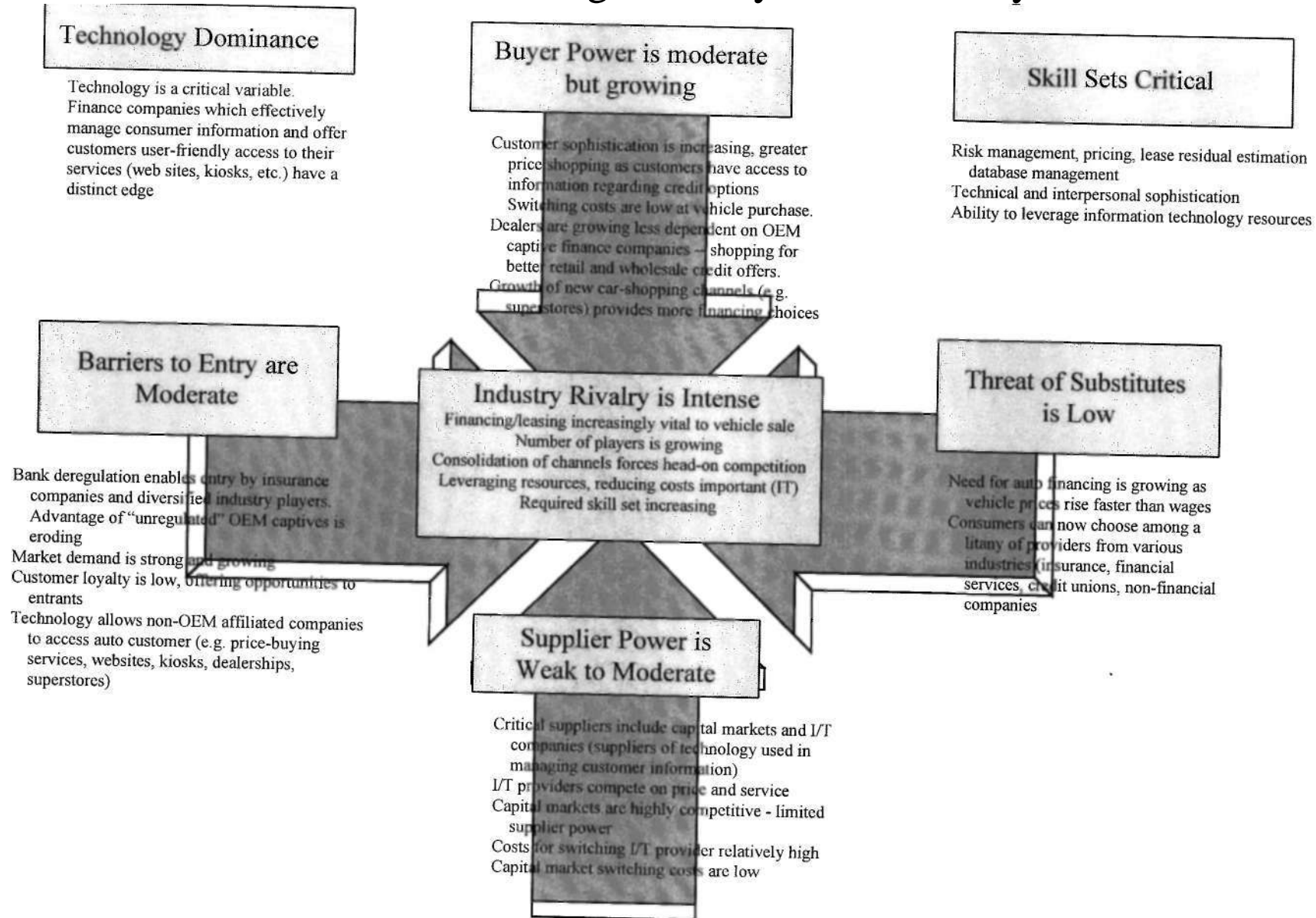
Appendix F: Auto Parts SWOT Analysis

# Parts Aftermarket SWOT Analysis



Appendix G: Vehicle Financing Industry Forces Analysis

# Vehicle Financing Industry Forces Analysis



Appendix H: Vehicle Financing SWOT Analysis

# Vehicle Financing SWOT Analysis

