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## iMotors: New Competition in Used Cars (A)

This case was written by Ron Adner, Assistant Professor of Strategy and Management at INSEAD, and Charles Nunn, INSEAD MBA'99. It is intended to be used as the basis for class discussion rather than to illustrate either effective or ineffective handling of an administrative situation.

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iMotors was founded in September 1999 by Adam Simms and Eli Halliwell with the goal of transforming the used car industry. iMotors offered used car consumers unprecedented flexibility and selection at below-industry prices. It hoped to couple a unique approach to sourcing cars with economies of scale to deliver these benefits at above-industry profitability. After 18 months of operation, a central question confronting management was whether the iMotors model would be able to create sufficient value to win consumers, while appropriating enough of this value to achieve profitability.

Underlying this concern was the changing competitive landscape in used car retailing. As existing dealerships moved online and established internet firms like CarPoint and eBay moved into the used car market, and given the constant threat of imitators entering the market, the question of iMotors's competitive advantage and what steps could be taken to sustain the advantage, were key to setting management's next move.

## The iMotors Business Model

iMotors was the first online venture to sell used cars directly to consumers. Unlike other online automotive companies, iMotors was a retailer (as opposed to a referral or matching service) and as such, took full responsibility for the quality of its product. iMotors's value proposition was to allow customers to specify the exact make, model, year, color, options and mileage of the 1-5 year old used car they desired, and deliver it below the Kelley Blue Book retail price.<sup>1</sup> On the basis of a refundable \$250 deposit, iMotors would find, acquire, refurbish, and deliver the car to the customer within fourteen days at which point the customer would decide whether to purchase the vehicle. With this offer, iMotors hoped to eliminate for consumers the problems of limited selection, confusing pricing and uncertain quality which they felt characterized traditional used car sales.

The key steps taken by the customer in the process are as follows:

First, the customer would obtain a quote by specifying the details of the 1-5 year old used car that he was looking for on the iMotors web page. Using a proprietary pricing model which took into account the availability of cars on the market, their historical auction prices and their average condition levels, iMotors would then guarantee the price for which they would deliver the car in a 'like-new' condition.

If the customer accepted the quote, he would pay a fully refundable deposit of \$250, at which point iMotors began the search/acquisition process. At this stage iMotors also conducted a real-time credit check to make sure the customer could afford the car in question, and proposed potential financing solutions if they could be of value. iMotors used its national network of buyers to search off-lease, wholesale, and auction suppliers for a vehicle that would meet the customer's specifications. iMotors would then purchase the car and take it to one of its Vehicle Certification Centers (VCCs) where technicians tested and certified the vehicle according to a 269 point inspection. iMotors made needed repairs,

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<sup>1</sup> Kelly Blue Book is the standard pricing guide for used vehicles in America. It is a well accepted reference for fair market prices. Depending on the model and specifications, prices at iMotors ranged from hundreds to several thousands of dollars below Blue Book suggested prices.

replaced parts and performed preventive maintenance, bringing the vehicle back up to like-new standards both mechanically and cosmetically.

Finally, the vehicle was delivered to a local delivery center to be picked up by the customer. After reviewing the vehicle and taking a test drive, the customer still had the option to reject the vehicle.

If the customer approved the vehicle, all remaining paperwork was signed and the customer took possession. iMotors backed every vehicle with a 7-day/700-mile money-back guarantee. If the customer wished to keep the car after the 7-day trial period, iMotors supported the vehicle with a 3-month/3,000-mile comprehensive warranty. If the customer had a car to trade-in, iMotors would accept it on delivery of the purchased car and deduct the value of the trade-in at the time of delivery.

To offer these benefits iMotors had developed a business model that was a radical departure from the rest of the industry. While the traditional industry model can be characterized as operating under a 'push' logic, whereby dealers make intelligent guesses as to which cars will sell, acquire those cars and then try to sell them to consumers who visit their dealerships, the iMotors business model was based on a 'pull' logic, in which no action is taken towards acquiring a vehicle until a buyer has been found for it. As a result, iMotors managed its relationship with customers at the front-end of the business and the suppliers of used cars at the back-end. In between, iMotors searched for, tested, enhanced and delivered the vehicles to meet customer specifications. Exhibit 1 illustrates iMotors's business model.

iMotors invested in significant physical infrastructure. The business model relied on four key physical assets: the call center, Vehicle Certification Centers, the buyer network, and delivery centers.

- Call center. A single facility based in Sacramento, California supporting 60 staff (both call center and administration) with call center hardware.
- Three Vehicle Certification Centers (VCCs) in Elk Grove California, Cincinnati Ohio and Atlanta Georgia. A VCC is a state-of-the-art, high-production, used car factory where iMotors tests, inspects and certifies used cars to guarantee like-new condition. Certified mechanics and technicians, working in specialized teams, conduct a comprehensive 269 point inspection and certification of each car's mechanical and cosmetic condition. Upon delivery, the customer received an iMotors AutoBiography, offering unprecedented details of the car's history and work performed at the VCC. The process took an average of 4-5 days. The VCCs were built in low cost areas.<sup>2</sup>

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<sup>2</sup> Sites costs \$1 per square foot per month and average labor cost is \$15, both of which are low by industry standards.

Two of the VCCs were 180,000 square foot sites covering 20 acres and included a vehicle inspection area, body repair shop, NAPA parts store<sup>3</sup>, mechanical repair shop and vehicle testing area (including race track). These facilities were capable of processing 4,000 vehicles per month. A single such VCC at capacity had the throughput of approximately 48 dealerships. The third facility was capable of processing 2,500 vehicles per month. Each VCC could achieve break-even at 400 cars processed per month.

- National network of vehicle buyers. In January 2001 there were approximately 40 vehicle buyers equipped with wireless hand-held devices that relayed real time customer orders. These buyers had access to wholesale auctions, internet-based cyberlots and car sales conducted by private individuals as well as other dealers.
- Delivery centers. These are located throughout the iMotors sales areas and are 1000 – 2000 square foot retail stores. iMotors had 29 delivery centers in January of 2001.

(Exhibit 2 offers a more detailed description of the iMotors functional units)

In addition to its core offer, focused on consumers who know the specifications of the car they want to purchase, iMotors also offered an “iMotors express” service targeted at consumers who prefer to search by segment or price and are less concerned with finding a specific vehicle. iMotors Express tapped into the temporary imbalances between wholesale supply and consumer demand for specific used car models that occur when leasing companies and rental fleets turn over their stock of cars. The Express service monitored expected imbalances, pre-selected specific vehicles on a weekly basis and made them available for consumers to order. Like the custom-ordered cars it sold, iMotors only purchased Express vehicles after a customer placed an order. Finally, iMotors also positioned itself within the wholesale B2B used car market, using the spare capacity of its VCCs to offer vehicle certification and reconditioning to leasing, rental and commercial fleet companies.

## The Used Car Market

The used car market in the United States was large and growing at approximately 1% per annum. In 1999, the value of used car sales was \$360 billion, representing 41 million vehicles sold (see Exhibit 3). Of this amount, cars in the 1-5 year old age bracket accounted for \$167 billion of sales. The value of used cars sold had been larger than new car sales throughout the 1990s. In 2000, the number of used cars sold was almost triple the number of new vehicles sold. The market was unevenly distributed across the United States, with California alone representing 11% of total US sales and the top 10 states in the US accounting for 60% of total US sales.

<sup>3</sup> NAPA is one of the world's leading sources of automotive parts, tools, and service. NAPA comprises more than 6,200 Napa Auto Parts stores and more than 9,000 affiliated NAPA AutoCare repair facilities throughout North America. Because of its high processing volumes iMotors has been able to partner with NAPA to have NAPA open a parts store within each of the VCCs, effectively outsourcing the parts inventory function to NAPA. Additionally, NAPA's Autocare centers service iMotors's 3 month/3000 mile warranty.

The used car market had moved online rapidly, although very few sales were actually completed using the internet alone. The sales of used cars influenced by the net had increased from 10% (4.2 million cars) of total sales in 1998 to 14% in 1999 and was projected to rise to 40% by 2003. The number of used cars listed for sale on the internet in 1998 was 4 million. This was expected to rise to 22 million by 2003. Additionally, used car sales initiated using the internet (i.e. dealers receiving customers either through a referral internet site or their own web site but concluding deals in the traditional way) accounted for 3% of total used car sales in 1999.

While used vehicle buyers remain somewhat younger and less affluent than new vehicle buyers, recently there has been a shift upward in the age and income distribution of the used vehicle buyer. As general automobile reliability increased, market studies showed that used vehicles were becoming more appealing to buyers between the ages of 35 and 49 with annual household incomes ranging between \$50,000 and \$75,000.

### **Traditional Used Car Industry Structure**

The used vehicle industry in the United States was characterized by large pools of liquid suppliers channeling used vehicles through the dealership networks and by private individuals selling both to dealers and directly to the end customer (see Exhibit 4). Auction houses played an important part in the industry, helping suppliers and dealers to remarket their vehicles to sell on to other dealers. The largest and most fragmented pool of suppliers in the United States was the private individual, who accounted for three-quarters of all used vehicles put up for sale annually. Rental, lease and commercial vehicle fleets supplied the remaining 10 million vehicles to the market. Auction houses turned approximately 10 million vehicles per annum. Independent and franchised dealers sold 17 million and 15 million vehicles per annum respectively.

Dealers purchased used vehicles from auction houses, leasing companies and private individuals, and received trade-ins on other vehicles sold. They then checked and enhanced the vehicles before trying to sell them on to private individuals. If a dealer was unsuccessful in selling a car to the end consumer first time around, he would sell it on to another dealer or back to the auction houses.

The used vehicle industry in the United States was highly competitive and, as a result, had tended to provide limited returns – dealers traditionally made profits of 1-3%. Franchised dealers in the US had tended to make low net profits on new and used cars (even negative profits in 1995 – see Exhibit 5). This resulted from the high costs incurred in selling used vehicles. Dealers made the bulk of their profits selling complementary products and services such as insurance, financing, and dealer installed options. (The broad market for complements for new and used cars was itself worth \$300 billion annually).

Although the supply of used vehicles in the US was liquid and fragmented, traditional dealers were unable to take advantage of it for three key reasons. First, there was significant buyer power in the industry, as consumers faced little or no switching costs. Additionally, consumers could easily purchase vehicles directly from other private individuals or consider buying a new car. Second, rivalry between dealers was high. In 2000, there were 22,600 franchised dealers and 59,000 independent dealers in the US, organized predominantly on a

local or regional basis. Industry analysts agreed that there was a significant oversupply of dealers and were predicting some form of industry consolidation in response. Third, the barriers to entry and exit from the industry were low with new entrants able to begin operations rapidly if desired.

As a result, traditional dealers attempted to compete more on cost leadership than differentiation. In recent years, some used car dealers had attempted to remove what were perceived to be customer unfriendly practices: offering “no-haggle” prices on all their vehicles, providing electronic kiosks with information about the cars, and vehicle certification and warranties to ensure vehicle quality. During the 1990s, new entrants tested a number of differentiation strategies. However, these businesses had failed to make significantly different returns from the traditional dealer models. The most significant innovation that had been tested was the “Used Vehicle Superstore” of the sort that CarMax launched in 1993. These superstores attempted to achieve economies of scale by setting up groups of large sales facilities to sell a broad selection of vehicles at discount prices. However, they faced challenges in achieving significant per unit cost reductions and attracting customers to their large low cost sales sites. Specifically, these companies experienced dis-economies of scale as the large expensive car lots were unable to turn over the cars fast enough to keep the inventory fresh. Additionally the large vehicle reconditioning centers they created did not save enough money to cover their costs. In 2000, one of the largest superstore dealers, AutoChoice, sold-off the majority of its stores and exited the business.<sup>4</sup>

The regulatory environment in the US had heavily affected industry structure. There were laws in most states preventing car manufacturers from retailing directly to the end consumer. This applied both to new and used vehicles and continued to be challenged in the courts by the manufacturers. As a result, car manufacturers had had no role in the direct sale of used cars to end consumers in the US to date other than through their influence on franchised dealers. In addition, there were a number of state laws governing the operation of used car dealerships requiring dealers to have a physical location that customers could visit and at which tangible records of all vehicle transactions be kept..

## **Traditional Dealer Operating Model**

Traditionally, automobiles are purchased by the dealers or received in partial exchange for another sale, at which time the dealer prepared the vehicle for sale and promoted it in his showrooms. Given the low margins available to dealers on each car and the consistency in the supply price of cars, the key success factors for these businesses were: the ability of the salespeople to obtain above market prices for vehicles and promote high margin related products such as financing and insurance; the ability of professional buyers to identify cars that would sell rapidly and be cheap to improve for sale; and the capacity to minimize the cost of holding, improving and selling the vehicles.

There were three major cost categories to be covered by the gross margin received on vehicles. First, commissions for the sales people, which account for the majority of their compensation. Second, the cost of the building and land used for selling, improving and

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<sup>4</sup> Indeed, iMotors acquired some of AutoChoice’s repair infrastructure, which it then transformed into the VCCs.

storing the vehicles (industry average lot costs were \$20 per square foot per year; a lot capable of holding 40 cars would cost approximately \$100,000 per year). Third, the inventory holding cost, driven by the length of time a car remains unsold.

### Competing Approaches to the Used Car Market

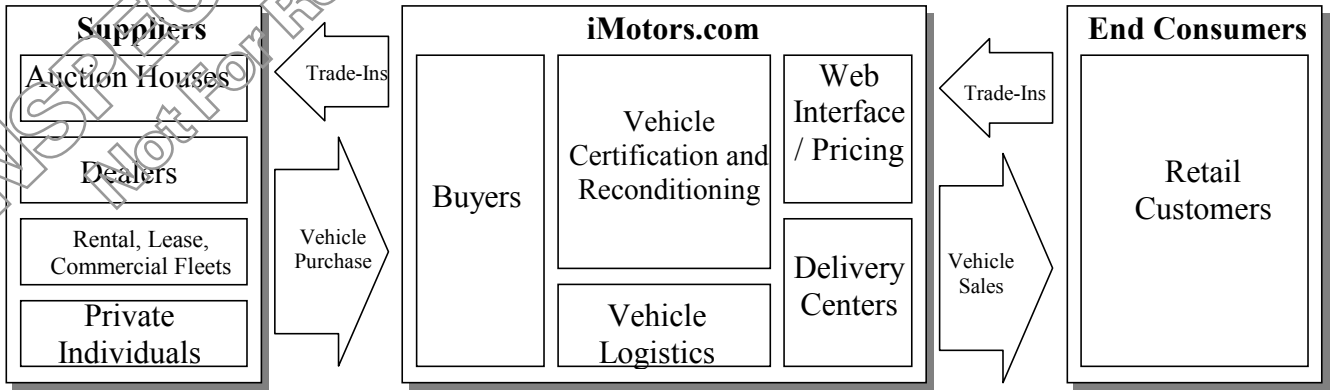
There were a number of direct used car dealer competitors for iMotors, and also some very close substitutes that needed to be considered. The direct used car competitors included the traditional used car dealers and other online used car sellers. The close substitutes were new car dealers and sales of used cars direct from one private individual to another without the use of an intermediary. Within the direct traditional dealer and online used car seller segments there were five broad groups of competitors. Their value propositions are detailed in the table below:

Type	Description	Examples
Franchised Dealers	<ul style="list-style-type: none"> <li>• Sell both new and used cars using a traditional push model</li> <li>• Tied to the car manufacturers via franchises</li> <li>• Rapidly moving online and providing inventory lists to customers both independently and through manufacturers</li> </ul>	<ul style="list-style-type: none"> <li>• J M Lexus</li> <li>• Carman Ford</li> <li>• Fordpreowned.com</li> </ul>
Independent Dealers	<ul style="list-style-type: none"> <li>• Sell only used cars using a traditional push driven dealer model</li> <li>• Number of different approaches to used car selling including used car Super and Mega stores</li> <li>• Some dealers have online listing of vehicle inventories</li> </ul>	<ul style="list-style-type: none"> <li>• John Elway</li> <li>• AutoNation</li> <li>• CarMax</li> </ul>
Online Referral Sites	<ul style="list-style-type: none"> <li>• Provide information on vehicles and pricing</li> <li>• Act as hub to help consumers scour inventory lists of dealers and private individuals but do not actually sell vehicles themselves</li> <li>• Revenues from advertising, transaction fees for partners such as financing, and dealer payment for listing services</li> </ul>	<ul style="list-style-type: none"> <li>• AutoTrader</li> <li>• Autobytel</li> <li>• CarPoint</li> <li>• Cars.com</li> </ul>
Online Auctions / Intermediaries	<ul style="list-style-type: none"> <li>• Provide listings of used-cars</li> <li>• Facilitate bidding process for the vehicles</li> <li>• Provide some quality control and transfer of title and payment services</li> </ul>	<ul style="list-style-type: none"> <li>• BestOffer</li> <li>• eBay</li> </ul>
Online Dealers	<ul style="list-style-type: none"> <li>• At least two different startups with roughly similar business models to iMotors are raising funds to enter the market</li> </ul>	<ul style="list-style-type: none"> <li>• iMotors</li> </ul>

Within these broad rival categories, iMotors faces “best of breed” rivals whose offers are increasingly competitive with its own. Some of the competition provide similar no-haggle low prices and aggregation of supply pools. Additionally, the best franchised dealers provide high levels of vehicle reconditioning, warranties and ongoing service. Exhibit 6 details “Best of Breed” competitor’s value propositions.

Confronting these rivals, and the possibility of direct imitators entering the market, iMotors’ management faced the decision of where to focus their energies – how to prioritize the competitive threats and opportunities, how to address the possibility of direct imitators, and, more broadly, how to manage iMotors’ growth strategy for national, and potentially international, expansion.

**Exhibit 1**  
*The iMotors Business Model*



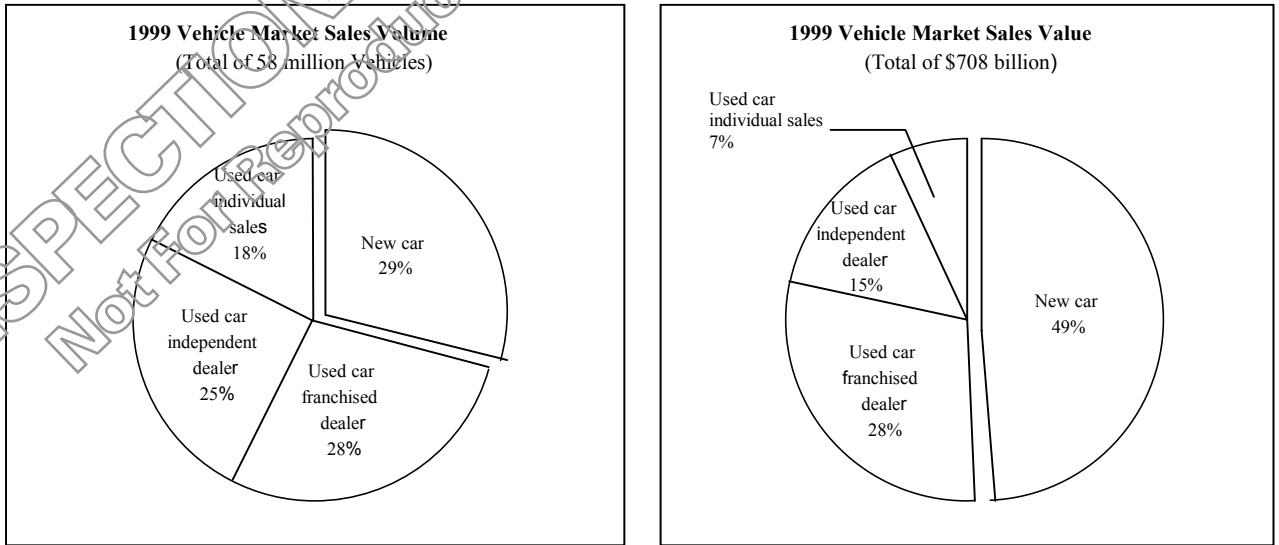
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**Exhibit 2**  
*Functional Units at iMotors*

FUNCTION	DESCRIPTION
VCC (Vehicle Certification Center)	<ul style="list-style-type: none"> <li>• Vehicle inspection experts, body repair staff, mechanics.</li> <li>• Logistics management for vehicle delivery/receipt and process management.</li> <li>• 3 facilities capable of processing 2,500 to 4,000 vehicles each per month.</li> <li>• Cost approximately \$10 million each to build</li> </ul>
Call center	<ul style="list-style-type: none"> <li>• Assistance with iMotors web page, advice on vehicles, advice about and sales of finance and insurance products.</li> <li>• Located in a single facility in Sacramento.</li> </ul>
Vehicle purchasing	<p>Five key functions including:</p> <ul style="list-style-type: none"> <li>• Internal Search function responsible for searching cyberlots, other online dealer sites and classified sites to find vehicles to match orders.</li> <li>• Home service buyers which review and check vehicles at customers homes both for trade-ins and purchasing vehicles from private individuals.</li> <li>• Insider buyers that actually purchase vehicles through the online used car sales sites, specifically leased vehicles.</li> <li>• Auction buyers that purchase vehicles from the auctions.</li> <li>• Buyer advocates that are responsible for interacting with customers to ensure the other buyers purchase the optimal car for the customer at the best price (effectively acts as a trader).</li> </ul>
Delivery Center	<ul style="list-style-type: none"> <li>• Manages receipt of trade-ins from customer and used cars for delivery from the VCCs.</li> <li>• Customer delivery and hand-over at time of sale.</li> <li>• In December, 2000, iMotors had 29 delivery centers.</li> </ul>
Web Content Development	<ul style="list-style-type: none"> <li>• Development and maintenance of the statistical pricing model.</li> <li>• Development and maintenance of other web content.</li> </ul>
Marketing	<ul style="list-style-type: none"> <li>• Local and national marketing.</li> </ul>
IT	<ul style="list-style-type: none"> <li>• Development of online capabilities.</li> <li>• Support and maintenance of IT.</li> </ul>
Finance	<ul style="list-style-type: none"> <li>• Financial and management accounting and management of payments and receipts.</li> </ul>
Management	<ul style="list-style-type: none"> <li>• General management of the operation.</li> <li>• Business development, partnership management and strategy development.</li> <li>• Raising finance and investor relations.</li> </ul>

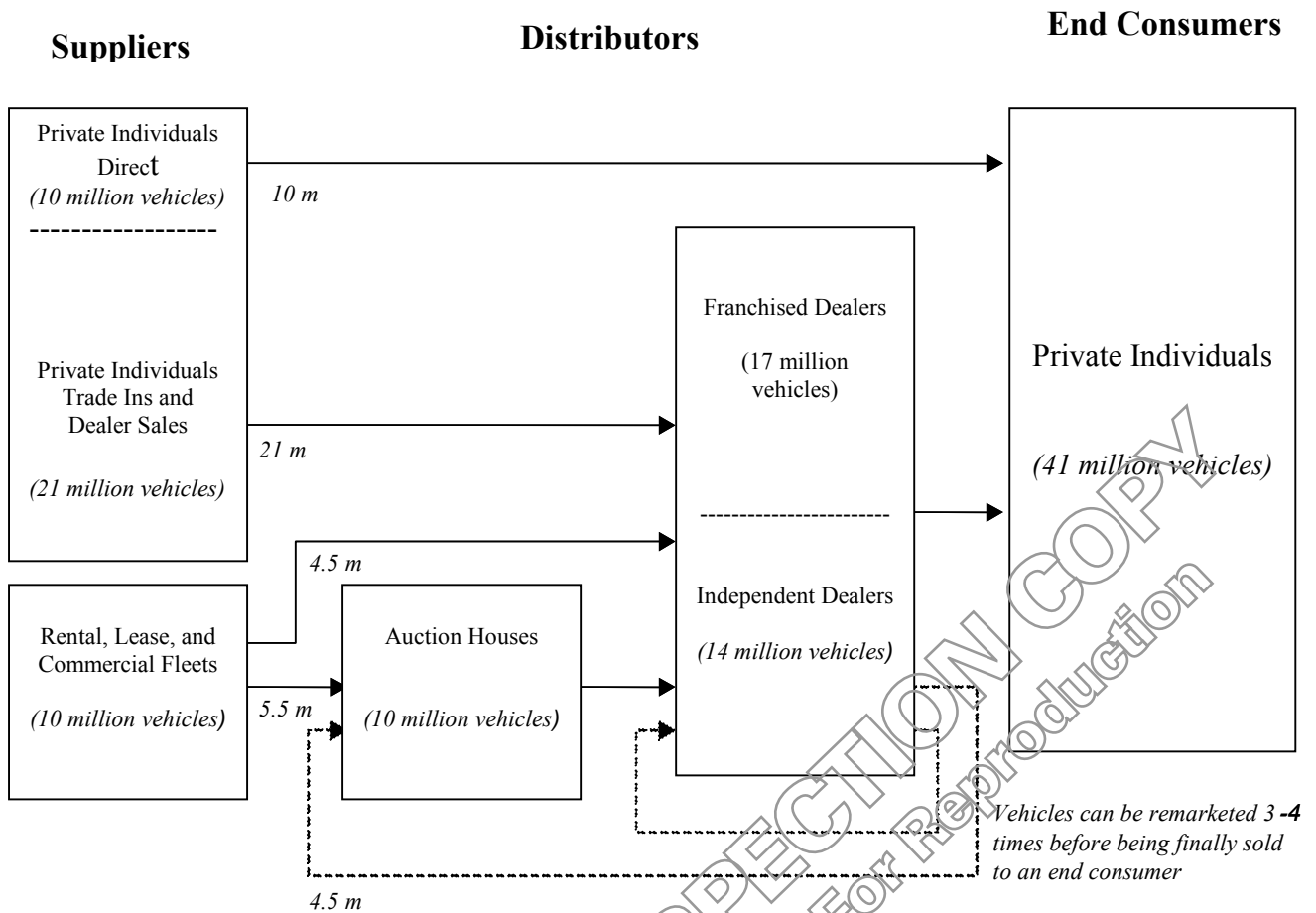
Source: Casewriter research.

**Exhibit 3**  
*Sales Volumes and Values in the U.S. Car Market*



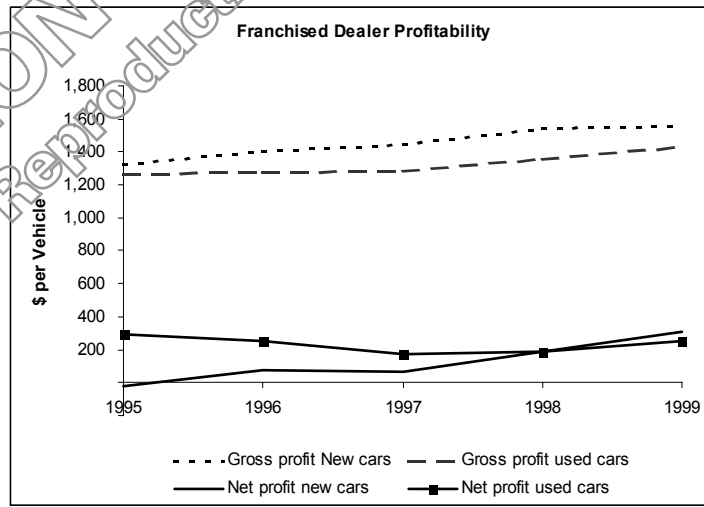
Source: ADT Automotive Market Report

**Exhibit 4**  
*U.S. Used Car Market Structure*



Source: ADT Automotive Market Report 2000

**Exhibit 5**  
Franchised Dealer Gross and Net Profit Per Vehicle



Source: ADT Automotive Market Report 2000.

**Exhibit 6**  
Best of Breed Competitor Value Propositions

	FORDPREOWNED.COM	JOHN ELWAY AUTONATION	AUTOBYTE	EBAY	iMOTORS
TYPE OF COMPETITOR	FRANCHISED DEALER	INDEPENDENT DEALER	ONLINE REFERRAL SITE	ONLINE AUCTION SITE	ONLINE DEMAND DRIVEN SITE
PRICE	"Competitive"	"Low price"	Dealer/individual sales based prices	Market price	"Guaranteed below Kelley Blue Book"
NEGOTIATION OVER PRICE	None - fixed price	None - fixed price	None - fixed price	Upward price auction over the internet	None - fixed price
CERTIFICATION	100 point inspection	Yes - no details about inspection	135 point inspection from dealers/un-certified cars	None	269 point inspection
RECONDITIONING	Completed by dealer	As good as new	Completed by dealer	None	As good as new
MARKET COVERAGE	Limited to specific areas	Limited to Colorado	National	National	Limited to specific areas
SPEED OF DELIVERY	Immediate (or 2-3 days if car needs to be moved)	Immediate	Immediate at dealer	Immediate or once car transported	2 weeks
SELECTION AVAILABLE	All participating Ford dealers' inventory	All existing inventory	All participating dealers existing inventory	All participating private individuals listed	All 1-5 year-old vehicles (less than 85,000 miles)
RETURN POLICY	3-day/300-mile no risk	3-day/150-mile no risk	72-hour return policy	None	7-day/700 mile
WARRANTY OFFERED	1-year/12,000 mile	99-day/3,300 mile	3-month/3,000 mile	None	3-month/3,000 mile
CUSTOMER INTERFACE	Person to person through dealership	Person to person through dealership	Internet and then person to person through dealership	None	0800 call center
OTHER	1 year 24 hour road assistance	None	None	None	None

Source: Casewriter research.

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