



MEMA INFORMATION SERVICES COUNCIL



# Special Report Special Report Special Report Special Report

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## Automotive Aftermarket Reverse Logistics Opportunities

by Inmar CLS Reverse Logistics



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**MEMA MIS Council**

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# Overview

**T**he economy continues to put pressure on many industries and the automotive aftermarket industry is no exception. Faced with challenges that include cost containment, anti-counterfeiting, and inventory management, the industry continues to seek ways to streamline operations, cut costs and improve profitability and at the same time apply green sustainability practices.

While important opportunities to achieve these goals exist within the reverse supply chain, they are most often overlooked. “Reverse logistics is especially critical to the aftermarket. Transporting, handling, and returning used products present significant challenges, as well as potential profitability, for distributors.”<sup>1</sup> The opportunity for potential profitability actually is not limited to distributors, however; manufacturers also can experience significant gains by implementing a reverse logistics program. With return rates that range from 5 percent to 25 percent, just a 1 percentage point reduction can mean significant savings to a company’s bottom line.

This two-part paper provides information that will help you assess reverse logistics opportunities within your organization.

- Part I: Identifies known challenges within the physical, financial, and information automotive aftermarket reverse supply chain flows.
- Part II: Provides benchmarking information that includes results from a survey conducted by the Automotive Aftermarket Suppliers Association (AASA) in 2009 and case study success stories from industries with mature reverse logistics programs.

Application of the information to your specific business objectives provides a framework for building a program or enhancing an existing returns program for improved profitability and sustainability.

# Challenges in the Automotive Aftermarket Reverse Supply Chain

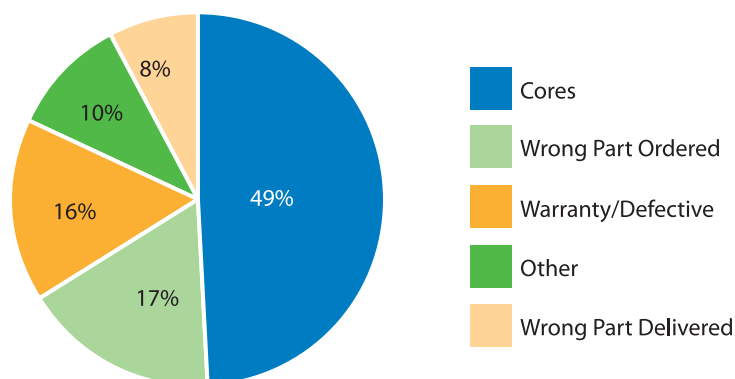
The automotive aftermarket is not the simplest of industries. With an explosion of SKUs and a multi-step supply chain, the physical, financial and information flows within this supply chain are extremely complex and intense. This complexity is compounded when considering the reverse supply chain.

In a recent AASA survey, members were asked their company's overall return rate as a percentage of sales. The average return rate was 5.9 percent based on responses from 40 manufacturer members. This number is somewhat lower than another published report of 9.7 percent from a study conducted by Counterman Magazine in which 90 percent of the respondents were jobbers.<sup>1</sup> Both numbers were significantly lower than the 25 percent quoted in previous years. Based on these return rates, the value of returns in the automotive aftermarket conservatively totals somewhere between \$3.5 billion and \$5.7 billion. A number of factors contribute to returns:

- Poor information flow
- Multiple networks that poorly interface with one another
- Different numbering schemes for the same replacement parts
- Data entry order errors
- Incorrect shipments
- Mis-diagnosis
- Over ordering
- Warranty/Defective parts

To provide perspective from the viewpoint of jobbers, the study conducted by Counterman Magazine, indicated that their reasons for returns were as follows:<sup>2</sup>

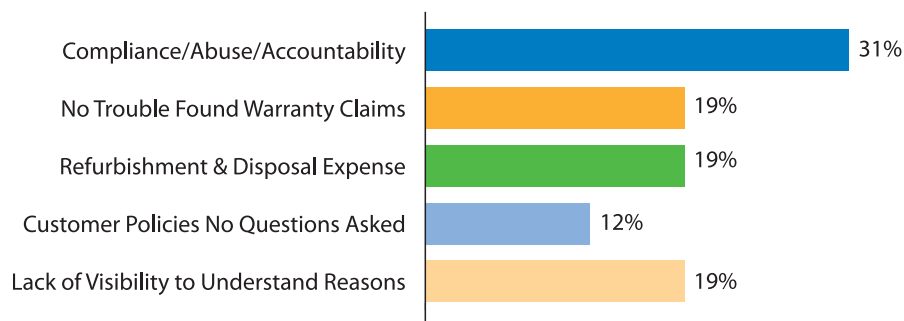
## Jobbers Reasons for Returns



Source: Counterman Magazine 3/12/09

Yet, when AASA members were asked to name their greatest challenge associated with returns, 31 percent cited compliance/accountability/abuse, which includes not following return authorization details or returns policy, getting customers to redeploy inventory within their system, or ruining new parts because of improper repair procedures. Manufacturers expressed concern that a leading cause of returns is mis-diagnosis, which leads to use of the wrong part. Rather than being placed back into inventory, that wrong part often becomes a return. No trouble found (NTF) represents as much as 75 percent of returns for some manufacturers and is a huge sore spot among all parties involved.

## Biggest Challenges with Returns



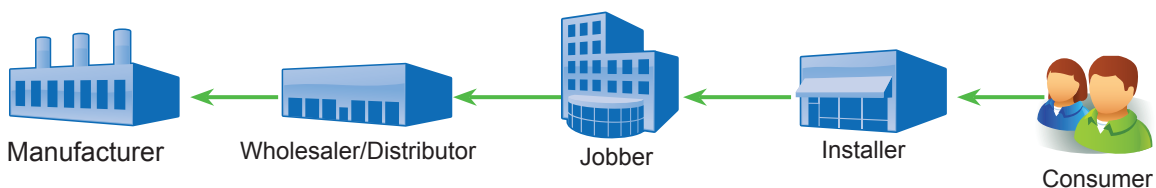
Source: AASA & Inmar Survey 2009

## The Physical Flows

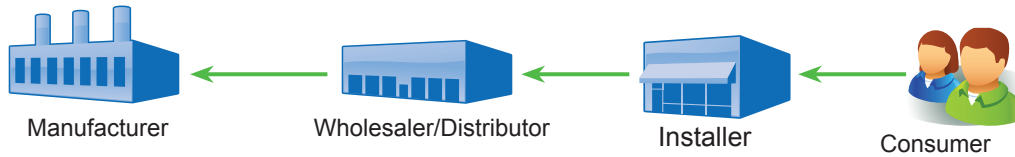
Two types of returns physically flow through the automotive industry's reverse supply chain – Cores and Warranty/Defectives. Cores are those used products that can potentially be restored to a useful life. Warranty/Defectives are products that cannot be restored and typically are scrapped or harvested for parts. AASA members indicated 25 percent of their returns are under warranty, which would indicate that 75 percent of returns are cores.

To understand the opportunity, one must first understand the reverse supply chain network. With approximately 80,000 jobbers and 200,000 service centers, the automotive aftermarket is extremely complex.<sup>3</sup> The complexity increases because there is not a single, consistent flow of product.

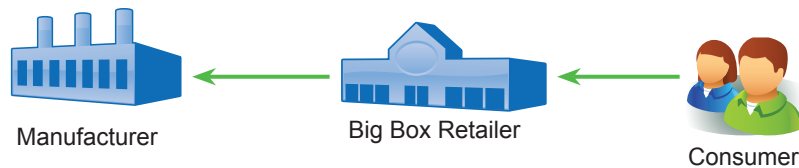
### Automotive Aftermarket Reverse Flow 1



### Automotive Aftermarket Reverse Flow 2



### Automotive Aftermarket Reverse Flow 3

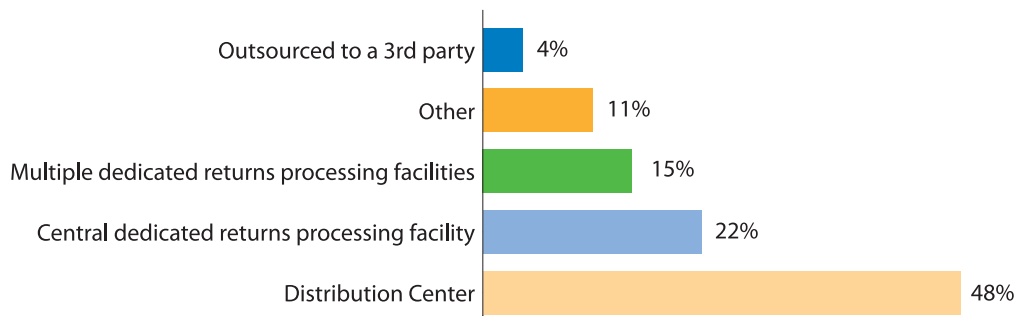


Manufacturers may choose to physically handle returns in one or a combination of the following options:

- Have a Sales Representative Review Returns at the Wholesaler/Distributor Location
- Return to Manufacturer Distribution Center
- Ship to Third Party Processor Returns Center
- Do not Accept Physical Returns

According to the AASA survey, members process their returns at the following locations.

## Locations for Returns Processing



Source: AASA & Inmar Survey 2009

According to the 2008 Third Party Logistics Automotive Industry Findings report, automotive respondents overwhelmingly agree that a “green” supply chain is becoming increasingly important. The automotive industry has made some progress in this area by improving transportation efficiency through effective shipment consolidation, routing and mode consolidation. The study also revealed that automotive respondents had not significantly leveraged reverse logistics processes to recover otherwise wasted materials and provide effective inventory management to reduce the need for small expedited shipments.<sup>3</sup> This is where important opportunities lie for companies to make reverse logistics a high priority in order to improve sustainability.<sup>4</sup>

A returns process that consolidates returns for shipment to a centralized location for processing and disposition establishes a framework and foundation for recovering assets through remanufacturing, recycling, or refurbishing. Numerous studies have confirmed that remanufacturing or “reman” is profitable for manufacturers.<sup>5</sup> And, while a primary obstacle to reman is the difficulty of obtaining cores from the core brokers and the collision shops in order to put a reman program in place, a good reverse logistics network can remove that obstacle. A good reverse logistics network has a positive impact on the decision to reman an aftermarket/service part.<sup>6</sup>

The remanufacturing of cores and the harvesting of parts for defectives are positive and profitable sustainability programs to green the reverse supply chain.

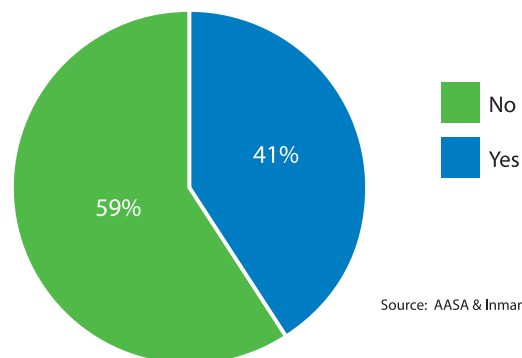
## The Financial Flows

The financial flow associated with returns involves the credits for core and warranty product returns. A returns policy is the starting point that facilitates decision-making for credits. However, manufacturers struggle with their customers’ policies that many times are viewed as “no questions asked” or “never say no” approaches. At the same time, retailers, wholesalers/distributors and jobbers struggle to strike a balance between policies that are too rigid or too lenient because return policies are seen as a competitive advantage for building consumer and installer loyalty.

Manufacturers miss capturing important information when they do not take back returns but instead simply take the deduction, resulting in no data available to push back on the return if necessary.

For those that accept returns in order to initiate credit, the returns processing time impacts the credit cycle time. In the AASA survey, 41 percent of responding members indicated they experienced a processing backlog.

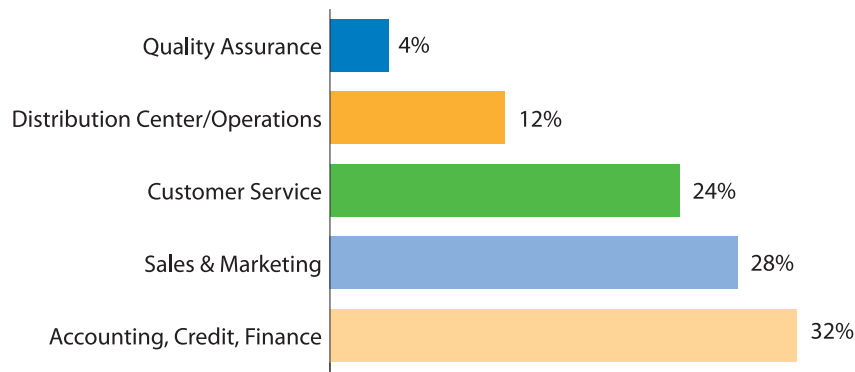
### Return Processing Backlog



Source: AASA & Inmar Survey 2009

When asked what their return-to-credit cycle time was for the returns process, the average was 42 days. Thirty-two percent of the responding members indicated that the accounting/finance group was responsible for applying the credit adjustment for returns, while 28 percent indicated sales/marketing was responsible for any adjustments. Sales, however, tends to “let the adjustment go” if they fear that pursuing it could jeopardize the relationship with their customer.

## Function Responsible for Applying Returns Adjustments



Source: AASA & Inmar Survey 2009

As stated previously, those surveyed indicated that 25 percent of their company's returns fall under warranty. Seventy-seven percent responded that their company systematically validates warranty claims and 85 percent responded that they are able to track to the item level. This is good news from a warranty management perspective. However, feedback shared in the survey raised the issue of warranty fraud and its relation to returns. (Accenture reports that it finds that between 10 percent to 15 percent of of warranty-related payments are either fraudulent or invalid claims.<sup>7</sup>) Fraud occurs through a number of methods. Examples include:

- Handwritten invoices are submitted for the warranty claim creating suspicion when multiple identical claims are submitted. Furthermore, the manufacturer has no way to verify that product was actually installed.
- Customer is told they need a new part. However, the new part is not installed, but the manufacturer is billed as if it was defective
- Customer does not know that the product is under warranty; so, they pay for the product. The installer then returns a warranty claim, basically double-dipping.
- Repair shops submit a “padded” estimate to insurance company and obtain approval for repair. Rather than using new product, they install used product or straighten the damaged part. The new part is then returned for credit.

These scenarios along with concern regarding an increase in counterfeit product begs for better processes that enable increased controls and scrutiny.

## Information Flows

Most everyone would agree that returns visibility improves inventory management, compliance monitoring, fraud detection and reduces returns. This includes visibility to the warranties, return authorizations, customer reason for return and physical return quantities. With visibility to the data, below are just a few examples of what can be accomplished.

- Inventory is better managed eliminating excessive scrap from over-buying.
- Customer compliance is monitored and returns are factored into customer's P&L statement.
- Returns are reduced by identifying defective reasons.

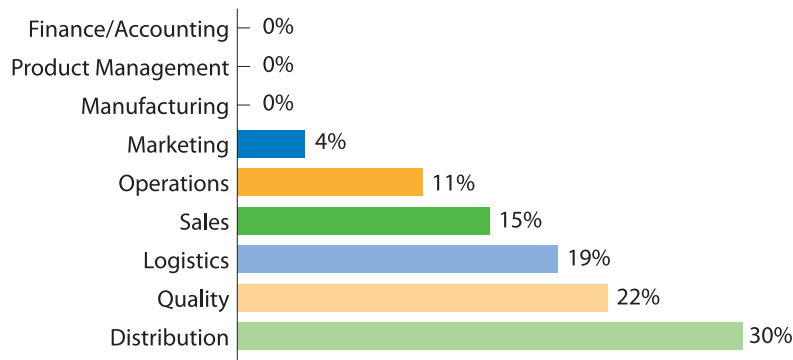
Many companies are beginning to use dashboards to quickly identify and monitor against key performance indicators (KPI) or to establish alerts or exception monitoring that enable quick action. Real time data for returns processing and integration with other data is a reality in many industries today, providing them with a holistic detailed view of their supply chain.

## Successes in Other Industries

According to an article by Larry Lapide, a Researcher at the MIT Center for Transportation & Logistics, every industry has some good supply chains from which to learn. This is not about learning about a company's so-called "best practices." Rather, it concerns learning from things done well as a matter of course in an industry, not necessarily done for competitive differentiation. These practices are industry "competencies."<sup>6</sup>

The data collected from the survey is a starting point for benchmarking analysis with other industries. The following charts share the responses to the questions who has responsibility for returns and what return benchmarks are established within the company.

### Function Responsible for Returns



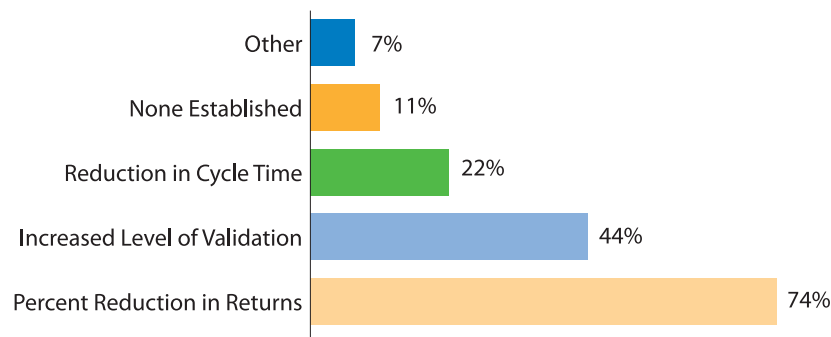
Source: AASA & Inmar Survey 2009

Based on survey responses, it appears that automotive industry returns are the responsibility of each distribution center. This approach is different from other industries such as grocery, drug, pharmaceutical, sporting goods and footwear in which responsibility for returns is most often centralized within a corporate supply chain function. The grocery industry by far is the most mature with respect to reverse logistic practices. In this industry, a position and sometimes even an entire department have been created to focus solely on reverse logistics. The organizations that have made reverse logistics a priority in terms of resources and top management support have achieved reductions in their return rates as a percent of sales. The chart below illustrates the organization of some of the most successful companies.

Best Practice Example	Process Owner Department	Entire Business or By Bus Unit	Full Time or Part Time	# of People Dedicated to RL	Executive Sponsorship Title
Client A	Director Distribution	Across Entire Business	Full Time	1	VP Supply Chain
Client B	Senior Manager Customer Logistics	Across Entire Business	Full Time	2	Director Supply Chain & Customer Logistics
Client C	Director, Returns Management & Remarketing	Across Entire Business	Full Time	5	VP, Cross Channel Operations
Client D	Director Quality	Across Entire Business	Full Time	3	VP Quality Assurance
Client E	Director Reverse Supply Chain	Across Entire Business	Full Time	4	Senior VP Inventory Management

The benchmarks shared by the survey respondents were consistent with the performance indicators in other industries. Percent reduction in returns appears to be the universal measurement.

## Benchmarks for Returns Management



Source: AASA & Inmar Survey 2009

The following three case studies share the stories of companies in other industries that have been successful in achieving the benchmarks and performance indicators in the areas of:

- Percent Reduction in Returns
- Increased Level of Validation
- Reduction in Cycle Time

While these examples are by no means exhaustive, they demonstrate that there are a wide variety of competencies across industries from which to learn.

## Returns as a Percentage of Sales Reduction

### The Challenge

A leading producer of convenience foods experienced a damage rate for a particular product line of .8 percent of sales, as measured at the customer pick slots. The manufacturer engaged Inmar Reverse Logistics as its third-party returns supplier to conduct failure analysis on returned product. Working with the manufacturer, Inmar developed a plan to collect relevant data throughout the client's supply chain, including at the customer warehouse, retail stores and reclamation centers. The plan detailed what data were to be collected, the process for collection and defined measurement standards. In this case, Inmar collected data for two years in order to establish a baseline prior to the implementation of any significant changes. This approach became a key component within the client's Closed-Loop Returns Management System in which the goal was increased profitability rather than simply to reduce unsaleables. Within this system, all departments are accountable for reducing unsaleables.

### The Solution Overview

During the two-year period, Inmar analysts evaluated product condition at various locations as called for in the plan. Key analysis tools were developed that allowed the data to be sorted and analyzed in infinite combinations to convert the data into actionable information. As data were converted into information and knowledge, opportunities to put measurements in place in key areas were identified. A scorecard system was implemented that measured and ranked manufacturing plants and distribution centers on an ongoing basis. The scorecard showed the issues that were driving defects by measuring the ability to produce, build and deliver defect free shipments to customers. As a result, all parties knew where to focus their improvement efforts. Numerous causes of damage were identified and resolved. The causes ranged from adhesive failure to the use of slip sheets, which were found to result in a 160 percent increase in damage.

### The Results and Client Benefits

Implementation of Inmar Reverse Logistics study findings resulted in the 75 percent decrease in the damage rate for this product line. Findings also resulted in improved process efficiencies, improved customer and consumer satisfaction, and reduced costs for both the Inmar client and its customers.

## Increased Level of Validation

### **The Challenge**

An industry-leading auto parts retailer handled returns in-house for more than 7,000 U.S. store locations. Returns practices were inconsistent among its independent stores and 65 DCs. The company sought to outsource returns management in order to gain the ability to invoice vendors and issue store credits, as well as more closely monitor independent store returns practices. The company required a partner who could also manage Warranty Validation. Additionally, outsourcing returns management would enable this retailer's DCs to focus on forward logistics—an objective common among a growing number of retailers and manufacturers.

### **The Solution Overview**

Applying LEAN Principles, Inmar Reverse Logistics reengineered its facility process flow, which significantly enhanced the efficiency of the company's returns management function and positioned it to better accommodate this client's service needs. Client returns were centralized into two Inmar facilities. Store credits are now issued daily via EDI and forwarded to the organization's headquarters. Inmar provides monthly reporting on both the vendor and store sides and conducts warranty as well as causal analysis.

### **The Results and Client Benefits**

Redesign of its returns management process has enabled Inmar to improve service for this client by significantly reducing cycle time for returns processing. Inmar has achieved a 40 percent improvement in daily capacity. The client has visibility to store level returns and compliance through Inmar's extensive reporting capabilities. Clear and consistent management of warranty issues has improved vendor relationships, with automated warranty reporting available for certain vendors. Finally, labor resources and DC space have been reallocated to forward distribution activities.

## Cycle Time Reduction

### **The Challenge**

A premier retailer with stores located throughout the U.S. and in Canada received store returns in its distribution center. While items were scanned into the system at the store level, the processes for handling the returns and determining disposition at the central Returns Facility were manual and inconsistent. Appropriate staffing levels and resource allocation were difficult to maintain and manage due to fluctuations in returns volume, especially those experienced during peak seasons. The resulting backlog slowed the company's ability to recover returns revenue from vendors, reconcile valuable store inventory, and distracted from forward distribution activities (in terms of the labor and space required).

### **The Solution Overview**

Client returns are now received and processed at a central Inmar facility. Store processed transfer information is consolidated and transmitted each night in file format to the Inmar warehouse management system for immediate reconciliation when Inmar physically processes each store's returns. Transfer variance files, which are generated as a result of this matching process, are sent nightly to the client, creating an electronic audit file. Inmar also developed and automated the process to determine product disposition based upon the policies of the client and its vendors. Additionally, product determined appropriate for "disposition" through the client's outlet stores is re-priced, bar coded and tagged, as well as defaced at the Inmar facility.

### **The Results and Client Benefits**

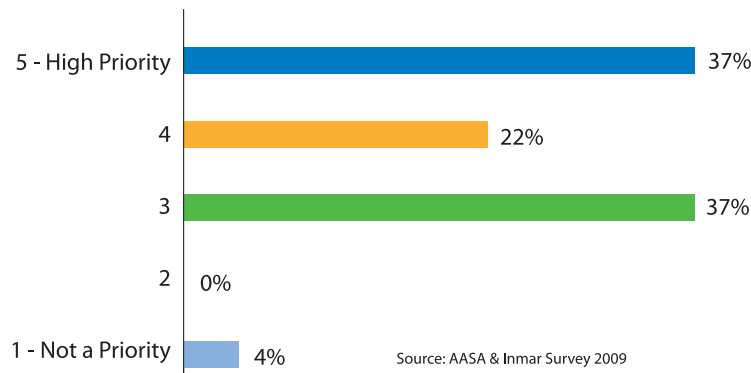
The Inmar solution has tripled this client's returns throughput and significantly increased its billable amount and processing accuracy. Inmar also delivered a scalable solution for returns management that can accommodate its growth plans and sizeable seasonal fluctuations in volume. The retailer's entire backlog of returns was processed within 30 days of implementation. And, lastly, with valuable labor and space free to focus on forward distribution activities, this client considers itself "officially out of the returns business."

## Summary

While the automotive aftermarket industry faces many challenges related to reverse logistics, there are even more opportunities to implement new processes all the way to the shop that can help streamline operations, cut costs and improve profitability and at the same time apply green sustainability practices. With new environmental regulations and sustainability pressures, more companies are focusing on reverse logistics. Those that implement sooner rather than later will have a competitive advantage.

Based on the results of the survey, many of the members are ready to take action. Fifty-nine percent of the respondents indicated that returns are of high priority within their companies. Prioritization is the first step to success.

### Priority of Returns



If more back-up and support are needed to make the case internally, the following are some key quotes from industry research professionals.

- According to Gartner, Inc., improperly handled returns reduce net profit by 35 percent. The solution to making the process pay: Automate the reverse logistics process.<sup>8</sup>
- Managers strongly agree that effective returns management helps brand equity, environmentally responsible activities enhance brand equity, and shorter cycle time helps bottom lines.<sup>9</sup>
- Things may get worse before they get better to the extent the aftermarket does not address the very real challenges it faces in the areas of inventory management, reverse logistics, supply chain integration and electronic cataloging.<sup>10</sup>

The 2008 Third Party Logistics Automotive Industry Findings reported that 73 percent of the automotive users agree that 3PLs have had a positive impact on business process efficiencies for their forward business. With only 32 percent of Auto respondents indicating that they currently outsource Reverse Logistics<sup>11</sup>, there is an opportunity for an even greater positive impact on your business. By outsourcing your non-core business competency of reverse logistics, your organization can shorten the learning curve as well as the speed toward streamlined operations, reduced costs, improved profitability and a greener supply chain.

## References and End Notes

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- <sup>11</sup> The State of Logistics Outsourcing 2008 Third Party Logistics Automotive Industry Findings. 23 September 2009, <[http://www.us.capgemini.com/DownloadLibrary/files/factsheets/Capgemini\\_3PL\\_study\\_Automotive\\_FS0209.pdf](http://www.us.capgemini.com/DownloadLibrary/files/factsheets/Capgemini_3PL_study_Automotive_FS0209.pdf)>

## About the MIS Council

The MEMA Information Services Council, a peer group of the Motor and Equipment Manufacturers Association (MEMA), serves as a medium for industry interaction, education and idea exchange regarding matters of common interest to information technology (IT) and e-commerce professionals in the automotive aftermarket industry. It provides industry leadership and information through semi-annual conferences, committee activities, monthly newsletters and IT education.

## About MEMA

Suppliers manufacture the parts and technology used in the domestic production of millions of new cars and trucks produced each year, and the aftermarket products necessary to repair and maintain more than 247 million vehicles on the road today. MEMA supports its members through its three affiliate associations, Automotive Aftermarket Suppliers Association (AASA), Heavy Duty Manufacturers Association (HDMA), and Original Equipment Suppliers Association (OESA). For more information on the motor vehicle parts supplier industry, please visit [www.mema.org](http://www.mema.org).

## About Inmar

Inmar is a leading provider of technology-driven logistics and promotions management solutions to many of the world's largest retailers, wholesalers, and manufacturers in the consumer goods and healthcare markets. Founded in 1980, Inmar serves over 1,700 business clients, manages over 3 million square feet of warehouse space at over 40 facilities throughout North America and employs over 3,700 associates.

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