## Looking for Cash: Warranty Management Is a Good Place To Start

Thursday, August 28, 2003

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The Bottom Line: Invest in automation and integration for the warranty management process to free up cash and start creating new business opportunities

Warranty management offers the opportunity to turn costs into profits

Companies look at the warranty management process as an opportunity to reduce costs, protect market share, free up cash, and increase earnings to generate a proven return. Best practices in warranty management reduce the process cost, emphasize supplier recovery, and create new warranty products, thereby returning millions of dollars to the business. The most advanced companies also reduce product development risk by integrating warranty data into the product development process to serve as an early warning capability.

Figure 1: Process improvement emphasis

Source: AMR Research, 2003
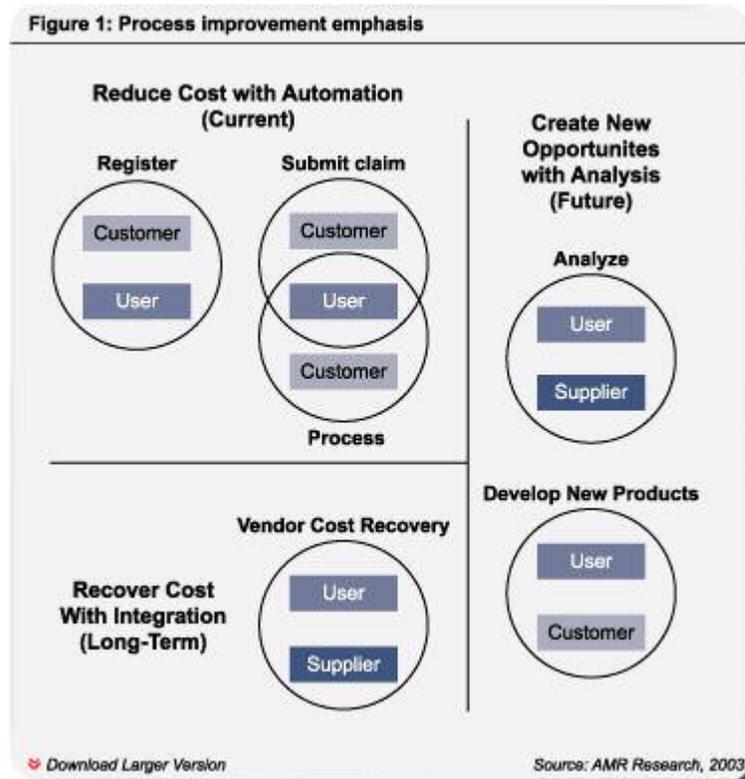
Shift warranty emphasis from claim processing to cost recovery and revenue generation

FASB rules add risk but generate opportunities through process improvement

Financial Accounting Standards Board (FASB) rules require organizations to manage warranty reserves, but a recent interpretation—FASB Interpretation No. 45 (FIN 45)—now requires an explanation of accounting methods and policies. FIN 45 requirements will expose poor warranty management processes, which will increase warranty reserve requirements and reduce earnings. However, the effect of FIN 45 should be the opposite, resulting in more cash from the warranty process in the following two areas:

- Managing the warranty chain backwards rather than forwards improves yields on vendor recovery programs and

reduces exposure and reserve requirements.

- Aggressively using the data generated in the warranty process fends off potential product issues, thus capturing more market share by integrating the customer experience into the product development process.

Investment starts with internal automation

Warranty claims are paid at a rate of more than 90%, thereby minimizing the value of companies' manual efforts to review claims. Therefore, the potential for payback from automating the claims handling process is immediate. The goal is to reduce the amount of touches required to process a warranty beyond those that meet exception criteria.

- The return will vary, depending on the volume of warranty claims, complexity of the claims, ability to identify red flags for fraud, and ability to reduce head count.

- Most savings are tied to the head count reduction; however, expediency and accuracy have soft benefits associated with market share growth through improved customer service.

The second step is to generate more return through the supply chain

The biggest ROI will come from vendor recovery programs, but these require supply chain data integration. Visibility into return data facilitates taking inventory out of the supply chain and reduces the need to make new purchases resulting from the recovery of components.

- Most companies in a recent survey were paying warranty claims at greater than 90%. However, when asked about vendor recovery, responses such as "we need to improve" were not encouraging, nor were the estimates of less than 20% of recovery from the supply chain.

- Automating claims processing allows for the redeployment of head count to drive the vendor recovery process.

- Best-in-class companies streamline the supply chain by allowing companies to stock balance spares and assemblies via a portal.

Table 1: ROI focus on supplier recovery

Generating Return	Large Company	Midsize Company
Sales	$1B	$100M
Warranty costs—3%	$30M	$3M
Percentage of claims because of supplier issues—20%	$6M in cost recovery potenial	$600K in cost recovery potential
Potential recovered—15%	$900K	$90K
Capital or Margin Lost	**$5,100,000**	**$510,000**

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Figure 2: Inventory in warranty supply chain
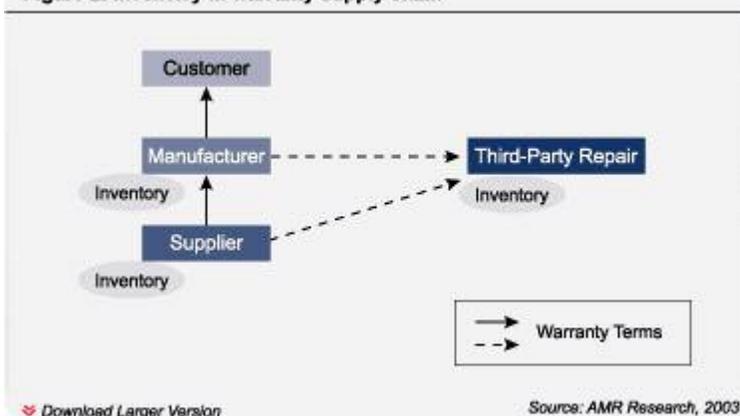
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Turning warranty from a liability into an asset

After the opportunity is exploited in tightening up the claims process and vendor recovery, the next step is the generation of revenue. Creating new revenue streams through the development of extended service programs is the area where most of the companies surveyed move to when they have the processes under control. Companies change the angle on warranty from the traditional "cost of doing business" to a profitable annuity made up of multiple products.

● The installed or legacy warranty applications are difficult to manage and require dedicated resources to build new warranty programs, thus magnifying the problems with new warranty product development.

● Newly developed, rules-based applications with a more flexible user interface allow business analysts to quickly build warranty programs or associate programs to products, making a more manageable product development platform.

Use warranty data to support product development

A final area for return is through improved product development and market share protection. Even though data generated in the warranty process provides a more realistic view of product performance, we found that companies often forgo the direct link between warranty issues and product improvement.

● The use of analytical applications applied to a combination of unstructured and structured data is a mechanism for promoting the concept of early warning on product recalls or product performance issues.

● More than 50% of the respondents did not have a direct link into the product development process for warranty data.

● The companies that successfully use warranty data as part of their development process have invested more in complex data analysis of structured and unstructured data. Applications from **Attensity** and **SAS** have documented early warning success stories that have saved manufacturers millions of dollars.

There are some investment requirements

The cost of license and implementation for warranty process management applications ranges from $150K to $1M; the trend shows companies migrating toward the $1M mark. Costs vary based on scope and depth of process integration. Payback should be seen in less than a year, depending on the state of the warranty process.

● The costs are typically split 50-50, license to services, for a base application that addresses claims handling, registration automation, new warranty products handling, and workflow management.

● The deployment of more sophisticated tools that enable text, structured and unstructured mining, and analytics runs from $250K and up, depending on the depth of analysis required. This also calls for deep analytical skills in the organization.

Best practices start at the point of order or sale

Warranty management is a continuous process of data association that starts when the customer takes ownership and requires constant reconciliation throughout the customer relationship. Processes that capture customer and product information from the beginning avoid process-handling costs and magnify the benefits of automation through quicker cash generation and return.

● Best-in-class companies capture the product serial number along with the shipping date to calculate the warranty expiration date.

● One company started to reduce payment costs by close to $500K by managing the warranty expiration date tied to the serial number.

● Another company had automatic adjudication on 80% to 85% of claims, with a manual process to manage exceptions only kicking off when the time and material guide is exceeded. Process savings were not disclosed, but we were told that it more than paid for the automation.

- Another company that is implementing an automated claims system expects to reduce fraud by 97% or save $500K because of automated screening; previously, manual operation precluded fraud validation.

- Still another company has moved away from a "no questions asked" support policy by introducing customer training and stricter terms of enforcement. The result has been a significant reduction in warranty issues.

- One manufacturer began tracking products and components by serial number to increase its vendor recovery from 50% to 78%.

Applications are still managed in-house, but data services suggests hosting opportunities

While companies are moving away from in-house warranty applications, most will not move to hosted or active server page applications in the B2B arena, particularly for Fortune 1000 companies. Hosting makes sense to companies that offer only a basic warranty or that deal with intermediaries from which information is often difficult to obtain. Companies that are developing multiple products and managing the customer relationship directly will want to keep the modeling capability and warranty data in-house.

- Smaller automotive companies look toward hosted applications to meet industry-specific issues, such as TREAD Act compliance.

- On the retail-to-manufacturer link, one manufacturer was able to reduce payments by 10% by using its funded and hosted application from **SiRAS**, which captures the purchase date and serial number of products at the Point of Sale (POS) for the manufacturer.

Measuring warranty as a percentage of sales stymies competitive advantage

Warranty as a percentage of sales is a good benchmark, but as a measurement it is debilitating to the development of a competitive, rather than cost-focused environment. Companies need to treat warranty as a product and accurately calculate the profitability of the various offerings. Best practices and trends point toward a direction where warranty is measured by its profitability, requiring the ability to develop and sell multiple warranty products.

Incremental value of best of breed still beats out suite offerings

Warranty management applications focus on reducing the risk of fraud and increasing the potential to generate revenue. These applications are built to support the development of tailored warranty programs to promote earnings growth.

- The best-of-breed vendors provide leading-edge capability. Suite vendors do offer the opportunity to integrate across the organization, but their products would be overkill for basic warranty-only companies or just claims processing.

- Analytics applications are generally separate from the transaction application. However, best-in-class analytics combine structured and unstructured data with an emphasis on early warning.

Results from the study indicate that there is no one application that solves the warranty management equation. Most commonly there are three classes of applications deployed: one that handles claims process and registration, another for supply chain, and another for analytics. There are also myriad application deployment strategies with no common theme. The application providers are broken down between suite vendors, niche vendors, integration vendors, and analytics vendors, with an emphasis on early warning functionality.

ERP applications have some capability, but ERP vendors have not made a substantial effort to innovate the warranty process. AMR Research has recently participated in a number of warranty selections that emphasized the continued split between analytics and transaction processing, but with no interest in ERP as the solution. The experience is consistent with the results of our best practices study, where only two companies used their ERP application (from **SAP**) in addition to an analytics system.

- SAP is making the effort to take a leadership role with the release of *SAP CRM 4.0*, where warranty becomes a separate and distinct product rather than burying it in the contract module. However, the integration across business processes is untested in this environment.

- The balance of the ERP vendors did not show up in the best practice response, with the exception of one user integrating **Oracle** and **Clarify**. Oracle manages supply chain recovery.

- **PeopleSoft** declined to participate in the study and was not represented in the responses to our survey. With the acquisition of **J.D. Edwards**, PeopleSoft inherits more emphasis on the warranty process support.

- Suite vendors offer the most potential for global support and deployment.

The best applications that we looked at recently were from niche vendors **Entigo** and **Active Web Services** (AWS). Both have been very aggressive in their pursuit of Automotive and the TREAD Act, with AWS more successful in the non-automotive sector (mainly in the RV and trailer businesses).

- AWS's advantage is the integration of the **SPSS** analytic product and a graphically based rules engine in its latest release. AWS does lack significant integration experience and it has yet to have a global deployment, but its development skills should overcome many of those issues.

- Entigo's *Release 4.0* adds **ILOG**'s rules engine to promote business processes. Entigo has also yet to have a global deployment. It has had some integration history, but the relationship with **IBM** is its best choice for moving forward.

Siebel, the CRM vendor leader, has the advantages of proven integration and a quality management focus. Siebel's quality management application is impressive in its ability to manage product quality issues across the organization; one user has more than 10,000 people on the system. However, warranty is not an emphasis of the Siebel suite, and users should look at Siebel only if they have broader Service Lifecycle Management (SLM) suite requirements.

When channel management is a consideration, application vendors including Siebel, **Comergent**, and **Click Commerce** support warranty, but their capabilities are best suited to handling basic claims processing and registration. Comergent chose not to participate in the research, as it did not view the warranty process as a core competency. The quote-to-order workflows for these vendors is impressive. When fully deployed, they connect the dots for warranty registration.

- All have rules-based warranty support available in their warranty management applications, with Siebel delivering it the most.

- Click Commerce and Comergent also have this capability in their configuration. However, applying it to warranty management requires custom integration.

- Click Commerce is the best at handling **Microsoft** platform-related integration; Comergent is best at SAP and Oracle; and Siebel is best at integrating to its own applications, with adequate coverage of Oracle and SAP integration.

Table 2: Warranty management vendor ranking

Vendors	Bus. Rules Admin.	Registration Mgmt.	Claim Processing	Recall or Program Mgmt.	Payment Handling	Fraud Prevention	Returns Mgmt.	Supplier Warranty Mgmt.	Warranty Contract Renewal	Analytics Support	Total
Active Web Services	5	4	5	4	3	5	5	3	3	5	42
Entigo	5	4	5	4	3	5	5	3	3	4	41
Siebel	4	4	3	3	3	3	3	3	5	5	36
SAP	3	3	3	3	4	3	3	3	4	3	32
Click Commerce	4	4	4	3	3	3	3	2	2	2	30
J.D. Edwards	3	3	3	3	4	3	3	2	3	2	29
IFS	2	3	3	3	4	3	3	3	3	2	29
Astea	3	4	3	3	3	0	3	2	5	2	28
Intentia	2	2	3	3	4	3	2	2	3	2	26
Comergent	3	3	4	2	2	2	3	2	2	2	25
Metrix	2	2	3	2	2	0	1	1	2	0	15

Source: AMR Research, 2003

0—No Capablity
1—Weak
2—Good
3—Average
4—Better
5—Best-In-Class

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Figure 3: Role of IT in warranty management
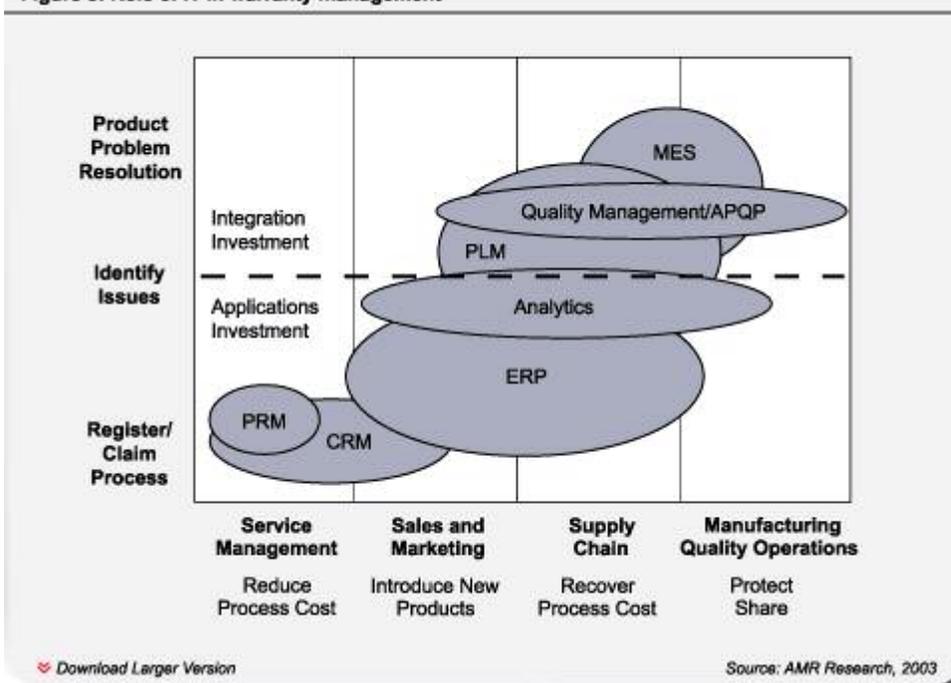
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Source: AMR Research, 2003

Best practice success requires hands-on participation and some consulting

Companies can get by through using the services provided by the application vendors if they just want to implement a warranty claims processing application. However, attainment of best-practice levels of performance will require the services of Systems Integrators (SIs), such as IBM, **Accenture**, and **Cap Gemini Ernst & Young**. The SIs will go deep into adjacent business process improvement, develop metrics as incentives for cross-functional changes in

the business, and provide toolkits for integration points. Typically, the application vendors are just interested in the automation of the process, so they don't focus as much on the process improvement aspect, which ultimately is where the success and return will be realized.

Figure 4: When to use consultants

Source: AMR Research, 2003
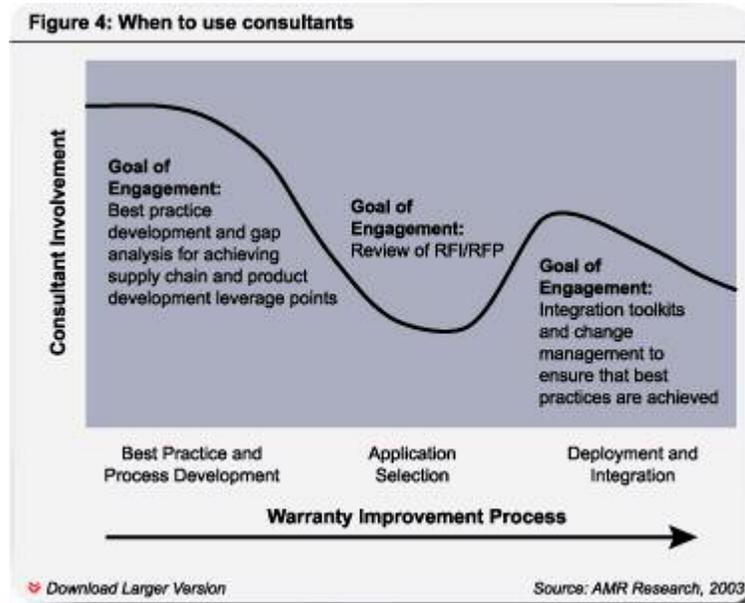
Closing Comments

Companies must get a handle on their overall warranty process and reduce the amount of work required to manage the process and verify entitlements. By tightly integrating the process at the point of creation and pushing the validation logic closer to the interaction point, organizations can eliminate much of the waste in the back end of the process. Once the process is automated, the integration must also include a connection to any vendor-related warranty and product development process.

When reviewing the best practice survey responses, we came across the following comment: "Quality, R&D, supply chain, and design engineering use warranty data. R&D reviews determine effectiveness of development and lessons learned. Design engineering uses the information to improve design for serviceability. Supply chain uses the information to improve manufacturing process. *None use the data to the full extent possible*."

Another way to understand the last statement is "We do what we have to but we do not look for an advantage." Warranty can be a competitive weapon, and its data can be about cash and share management, but most ignore the potential. Treat warranty data right, and it will yield gold; treat it wrong, and it will require gold reserves with no earning power.