

The GMA 2005 Logistics Survey

Supply chain performance in food, grocery and consumer products



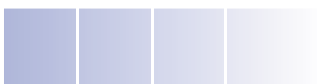
An IBM Institute for Business Value executive brief



IBM Business Consulting Services, through the IBM Institute for Business Value, develops fact-based strategic insights for senior business executives around critical industry-specific and cross-industry issues. This executive brief is based on an in-depth study by the Institute's research team. It is part of an ongoing commitment by IBM Business Consulting Services to provide analysis and viewpoints that help companies realize business value. You may contact the authors or send an e-mail to iibv@us.ibm.com for more information.

Contents

- 1 Introduction
- 1 Respondents profile
- 3 Acknowledgments
- 4 Executive summary
- 5 The balance between cost and service is a major challenge
- 10 Transportation management: Anything but "business as usual"
- 13 Customer demands for specialization are becoming increasingly complex
- 16 Companies are satisfied and continue to outsource logistics
- 19 Demand visibility improves forecast accuracy
- 21 Compliance and information management initiatives: Helping CP firms achieve business objectives
- 26 Conclusion
- 28 About the author
- 28 About GMA
- 28 About IBM Business Consulting Services
- 29 References



Introduction

IBM Business Consulting Services conducted the GMA 2005 Logistics Survey in January 2005, in conjunction with the Grocery Manufacturers Association. This survey identifies current practices, captures significant trends and establishes operational performance benchmarks in key areas of supply chain logistics: strategic objectives, distribution and transportation practices, benchmarks, trends, outsourcing, alliances, information technology, forecasting and inventory management.

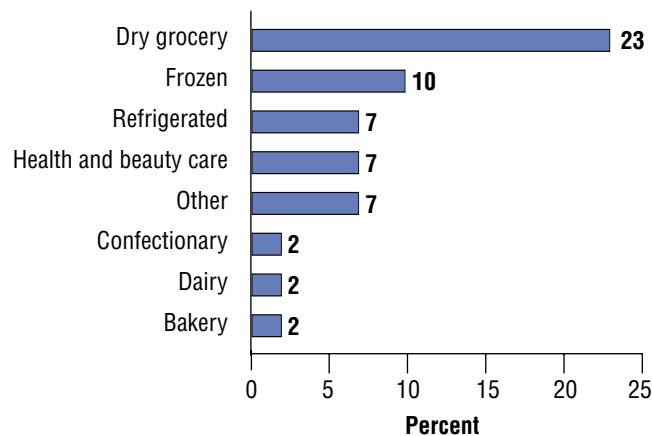
The GMA committee has sponsored the logistics survey every two to three years, for the past two decades. In this year's survey, several additional management practices and benchmarking questions were included. The team conducted 12 interviews with GMA committee executives to gain further insights into current issues and survey responses. External data was also incorporated to compare supply chain performance with other industry segments.

The GMA 2005 Logistics Survey was performed to better understand where supply chain logistics is today and how it is evolving. The survey provides insight into the adoption of leading practices. By capturing significant trends and operational performance benchmarks, it also places the research findings into an overall context and provides perspective on the continuing evolution of supply chain management principles and trends.

Respondents profile

The GMA 2005 Logistics Survey was distributed to logistics executives within GMA's membership. As shown below in Figure 1, a cross section of companies participated, predominantly in the dry grocery sector. In total, 32 companies responded to the survey this year.

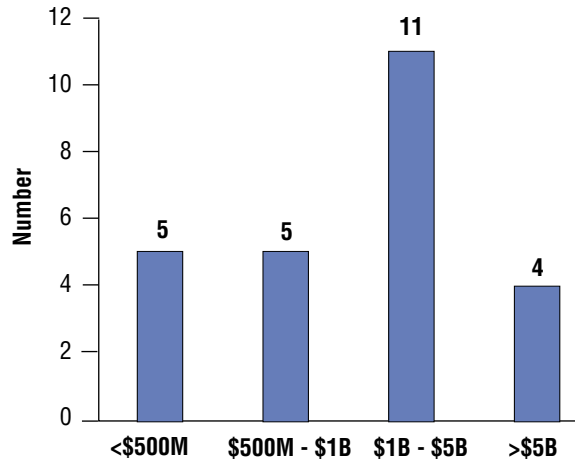
Figure 1. What are the major product categories in your company or division?



Source: GMA 2005 Logistics Survey.

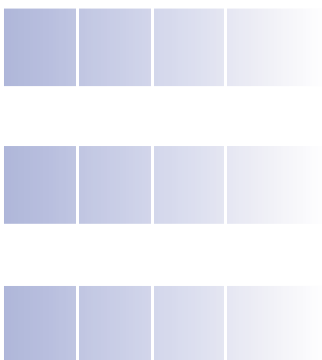
Companies responding to the survey ranged in size from less than US\$200 million to over US\$20 billion in annual revenues. Figure 2 shows that the largest number of respondents represent companies in the US\$1 to 5 billion range. Average annual revenue, among all respondents was US\$3 billion.

Figure 2. Number of companies by annual revenues.



*Note: Not all companies reported revenue.
Source: GMA 2005 Logistics Survey.*

Responses were used to compare current supply chain logistics practices and performance measurements to the results of similar surveys conducted in 1993, 1996, 1999 and 2002.



Acknowledgments

We wish to thank the members of the GMA Logistics Committee, who were involved in survey design and review of the results.

A special thanks to the 32 consumer products manufacturing companies who completed the extensive survey:

Alberto-Culver Company	Marine Harvest USA, Inc.
Bush Brothers & Company	McIlhenny Company
Carvel Corporation	Nestlé Purina PetCare Company
Chicken of the Sea International	Nestlé Brands & Prepared Foods
Church & Dwight Company, Inc.	PepsiCo Beverages & Foods
ConAgra Foods, Inc.	Pfizer Consumer Healthcare
Del Pharmaceuticals, Inc.	The Procter & Gamble Company
Diamond of California	Reckitt Benckiser, Inc.
General Mills, Inc.	Reily Foods Company
Gerber Products Company	Rich Products Corporation
H. J. Heinz Company	S. C. Johnson & Son, Inc.
The Hershey Company	The Dial Corporation
H.P. Hood, Inc.	The Gillette Company
Kellogg Company	The J.M. Smucker Company
Koch & Associates	Unilever United States, Inc.
Land O'Lakes, Inc.	Welch Foods, Inc.



Executive summary

Competing in today's tough market environment is quite a challenge – especially in the consumer products (CP) marketplace. This past year has seen sharply rising transportation costs, carrier capacity shortages and the continued push by customers for higher levels of service. All of this typically leads to logistics uncertainty, increased cycle time, a deterioration in customer service, excess inventory and lost profits.

The 2005 GMA Logistics Survey revealed that supply chain executives are concentrating on operational excellence while meeting profitability and other business performance objectives. Key insights into the logistics operations of today's food, grocery and CP supply chain include the following:

Transportation is driving overall cost increases

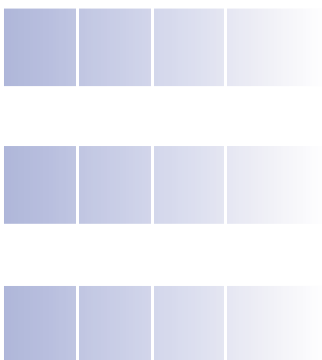
Companies in the CP industry, like other industries, are battling the spike in transportation costs that have continued since 2004. Cost increases, driven primarily by fuel prices and combined with a capacity shortfall, have led to a significant rise in transportation costs. Transportation costs per mile have gone up 23 percent in the past three years, to an average of US\$1.69 per mile. Shippers are responding by shifting modes where possible, as evidenced by increased volume in *truckload* and *intermodal* with a decrease in *less-than-truckload* moves. Many are utilizing more continuous moves, improving trailer utilization, increasing the use of drop trailers and partnering with carriers to secure capacity.

Distribution/warehousing costs are stable, although customers continue to demand additional services

Distribution costs are relatively stable, and in some instances are declining slightly. The primary driver of increased cost in distribution operations is the continuing trend for retailers to push value-added services upstream to the manufacturers and request customized products and services, such as floor-ready displays, pallet programs and promotional packaging. CP companies have managed these distribution costs by increasing outsourcing (both usage and satisfaction levels are trending upward), providing incentives for customers to buy standard product configurations and adjusting pricing to include compensation for additional services.

Customer service levels for delivery and overall satisfaction have improved

Service is a major focus area: 78 percent of the companies report improvement of customer service as one of their top three objectives. Primary measures of service continue to be *on-time delivery* and *percentage shipped complete*. There was a significant increase in on-time delivery performance from 89.6 percent in



2002 to 90.5 percent in 2004. Most respondents are reducing *order-to-delivery* cycle times to less than four days on average and are targeting even shorter cycle times of three days. These outstanding service performance levels are even more significant when considering the impacts of both carrier capacity constraints and tougher customer targets.

Optimizing supply chain performance, productivity and responsiveness are increasingly important to achieve cost containment and service level objectives. Key recommendations derived from this survey include:

- *Integrate planning and forecasting with suppliers and logistics service providers* to provide differentiated customer segment product and service bundles and superior customer service levels
- *Continue to outsource non-differentiating transportation, distribution and information technology functions* to better manage end-to-end logistics costs, while providing greater levels of on-time delivery, fill rate and other customer performance levels
- *"Condition" demand through planning and forecasting* to better serve customers' specific requirements for promotions, special packaging and other value-added services
- *Continue to rationalize distribution networks* with regionalization for specific customer requirements; increase the use of flow-through or cross-docking and direct-to-store strategies by various product and customer categories
- *Implement advanced collaborative planning and forecasting with customers*, including continuous replenishment programs and shared management of inventory
- *Optimize product pricing* based upon profitability of segments.

The insights presented in this report provide a framework for CP companies to begin redefining strategies and fine-tuning performance objectives to position themselves to deliver superior performance and increased profitability.

The balance between cost and service is a major challenge

CP companies are squeezed between two requirements: to cut costs and to provide superior levels of customer service. Margin pressures and competition have kept the focus on logistics costs as a means of managing the bottom line. At the same time, retailers reacting to evolving consumer buying habits and battling for position in a highly competitive marketplace are raising the bar for service. CP companies must deliver products faster and provide a variety of expanded services to retail

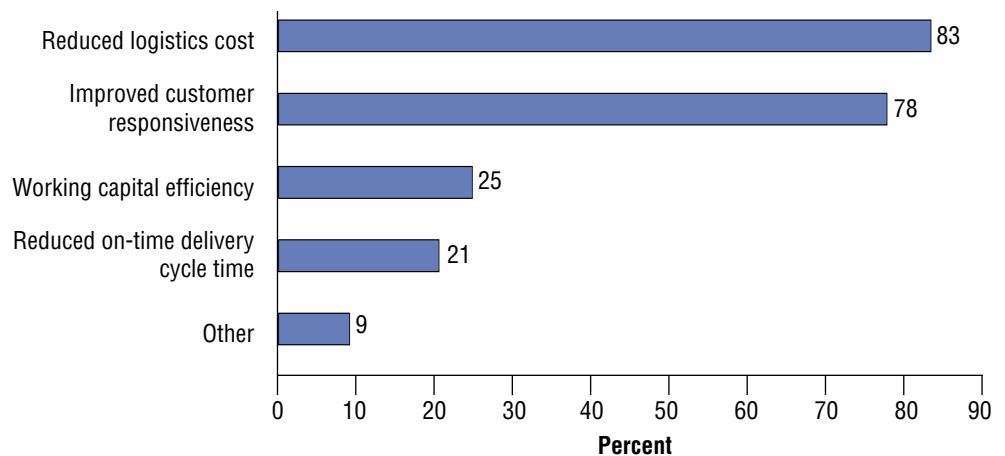
"Customer's expectations have become increasingly difficult to manage as they continue to shift challenges within the supply chain to their suppliers."

– VP, Logistics

customers. To meet these often opposing objectives, more creative approaches are required. Many companies are reducing the fixed costs and capital requirements of supply chain operations and moving to a more variable cost structure that can be managed in direct relationship to customer demand and service requirements.

Overwhelmingly, survey participants agree that their primary objectives are to reduce logistics costs and improve customer responsiveness (see Figure 3). Given the high response rates for these objectives and the relatively low response for any other objectives, it is clear that supply chain and logistics managers believe that their primary goal is to balance the need for cost control with the need to improve service levels.

Figure 3. What are your company's top three logistics objectives?

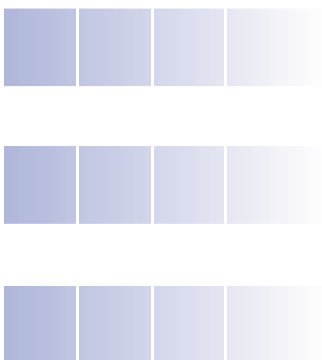


Source: GMA 2005 Logistics Survey.

Almost all respondents report reducing costs and improving customer responsiveness as key goals of logistics, but relatively few track, and therefore monitor, profitability and associated costs at the customer-level. This is an opportunity that should help many CP companies gain a better perspective on the value of customer initiatives.

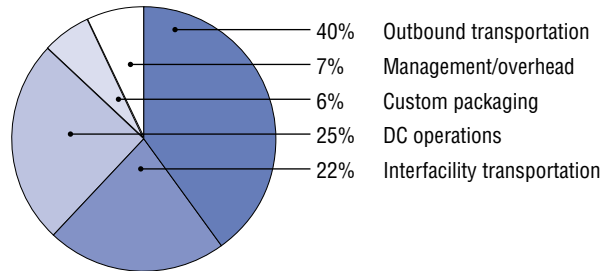
Cost

Among GMA member companies surveyed, *total logistics costs as a percentage of sales* averaged 6.9 percent. While this number is down from the 7.4 percent reported in the 2002 GMA survey, there is some question about the comparability of the data. In direct interviews, most respondents report that increases in transportation cost are driving overall costs up. This view is supported by other data such as the GCI survey that showed costs up significantly from 2003 to 2004.¹



As shown in Figure 4, the largest component of logistics cost is transportation (40 percent). Outbound and interfacility transport combined account for 62 percent of total logistics cost. Distribution center operations at 25 percent, is the next most significant cost category.

Figure 4. What is the percentage of logistics costs for each of the following major functions?



Source: GMA 2005 Logistics Survey.

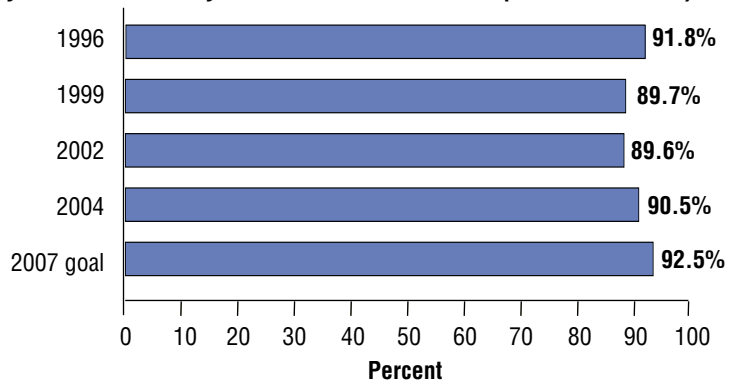
Service

Respondents report that customer service levels have improved over previous years. *On-time delivery* and *complete shipments* continue to be the primary customer satisfaction measurements. Relative to customer expectations, most respondents have experienced an increase in on-time performance.

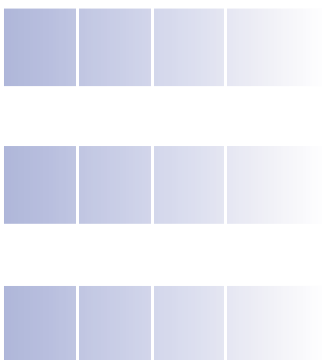
The *on-time delivery rate to the receiving location's requested appointment date/time* has improved to over 90 percent, reaching levels experienced a decade ago (see top of Figure 5). However, *on-time delivery to buyer's requested delivery date performance*, averaging 79 percent, has room for improvement to reach goals of 92 percent (see bottom of Figure 5). By contrast, when benchmarked with cross-industry companies, the average for this measurement was 91 percent.

Figure 5. On-time delivery rates.

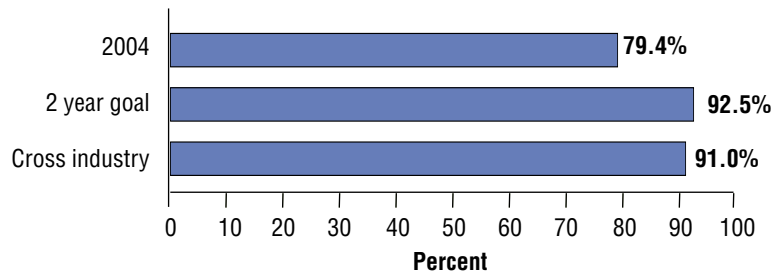
What is your on-time delivery rate to warehouse schedule (within 30 minutes)?



Source: GMA 2005 Logistics Survey.



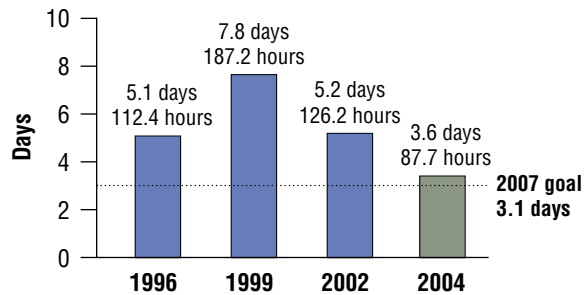
What is your on-time delivery rate to buyer requested delivery date?



Source: GMA 2005 Logistics Survey.

Order-to-delivery cycle time has decreased 31 percent (from 5.2 days to 3.6 days) in the past two years. This achievement not only reduces cycle inventory for the CP companies, it also allows retailers to decrease safety stock inventory levels (see Figure 6).

Figure 6. What is your order-to-delivery cycle time average for all customers?



Sources: GMA 2002 Logistics Survey, GMA 2005 Logistics Survey.

Similarly, *order-to-ship* cycle times are also decreasing, averaging slightly over two days for most respondents. For vendor-managed inventory (VMI) and collaborative planning, forecasting and replenishment (CPFR) customers, most are achieving two days, on average.

Another key performance indicator is *case fill rate*. Case fill rates have remained relatively flat, hovering at approximately 98 percent since 1999 (see Figure 7). The 2007 goal is to reach a much higher fill percentage of 99.1 percent. On average, CP companies are leading the cross-industry benchmark.

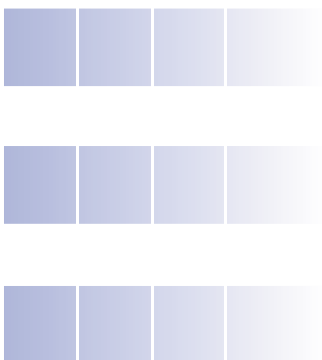
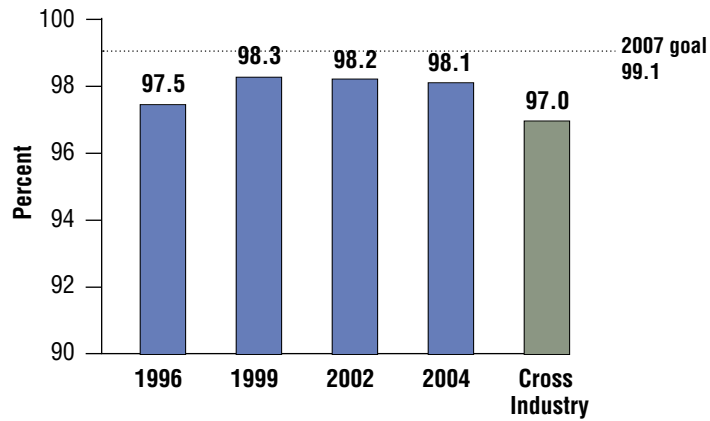


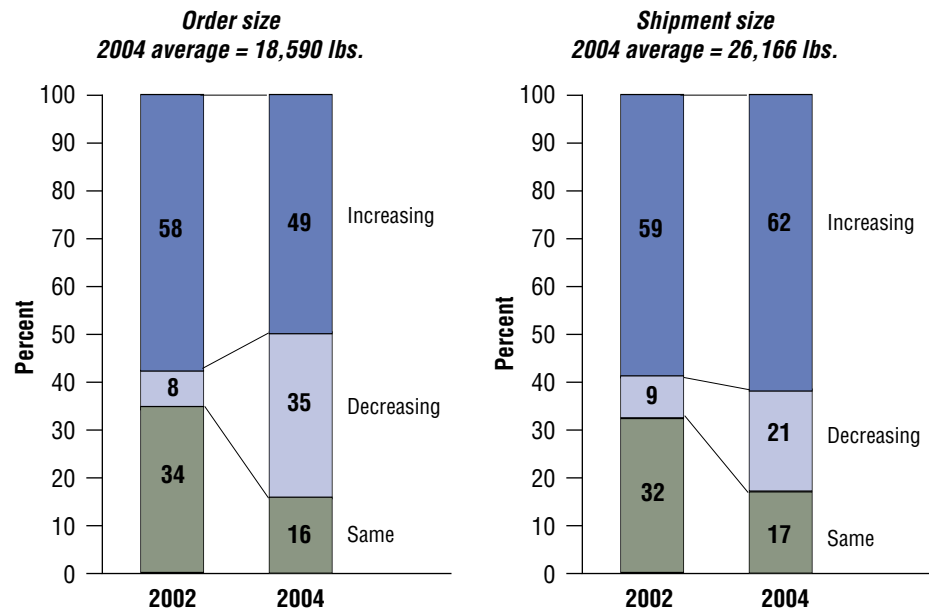
Figure 7. What is your case/unit fill rate?



Sources: GMA 2002 Logistics Survey, GMA 2005 Logistics Survey, 2004 IBM Value Chain Study.

The supply management efforts of some specific customers are driving smaller, more frequent replenishment orders (see Figure 8). With the need to process customer orders faster to meet customer VMI and CPFR requirements, the trend toward smaller order sizes continues. More respondents saw order sizes decrease, but CP companies have aggressively managed shipments to maintain or increase load sizes and limit the impact of this shift on the outbound shipment profile.

Figure 8. What is your average order/shipment size? And is it increasing, decreasing or the same?



Source: GMA 2005 Logistics Survey.

"In the last 2 years, we have had to deal with more changes in the transportation industry than we had in the previous decade."

– Director of Transportation

Increased profitability, cost reduction, customer responsiveness and quality improvement are top drivers of logistics performance. There is renewed attention on optimizing supply chain performance effectiveness to support profitability objectives. Supply chain performance is being monitored for "perfect order" attainment (on-time, right product, right price, damage free), cycle time reduction and customer product delivery. Productivity initiatives and performance objectives continue to target improvements in on-time delivery, cycle times and inventory turns.

Transportation management: Anything but "business as usual"

Transportation became the hot topic in 2004 as rapidly rising costs and capacity shortages presented significant challenges. Cost increased by 23 percent over two years to an average of US\$1.69 per mile. *Outbound* and *intrafacility transportation* combined now make up 62 percent of logistics costs, or 6 percent of gross revenue. Shippers saw huge fuel surcharges, increases in rates and increases in accessorial fees, and found themselves more often booking premium-priced carriers in order to move loads.

Changes to the federal Hours-of-Service regulations reduced the average distance drivers could cover in a day. This change – combined with other industry factors – contributed to a shortage of drivers, and resulted in an overall drop in truckload capacity. Several respondents reported that customers have reduced the level of freight they will pick up at the manufacturer's distribution center (DC). Customers are less eager to take on the headaches of moving freight in today's difficult environment and are more willing to let the manufacturers deal with the challenge.

Transportation management initiatives

Survey responses reflect the intensifying focus CP companies are placing on transportation. Companies are looking to squeeze more out of their transportation dollars by better utilizing trailers, taking advantage of continuous move opportunities and utilizing more drop trailers (see Figure 9).

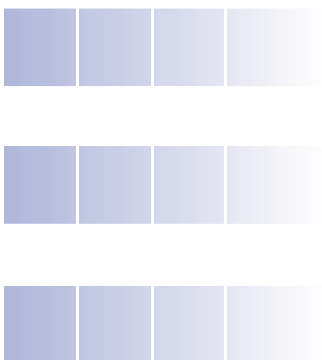
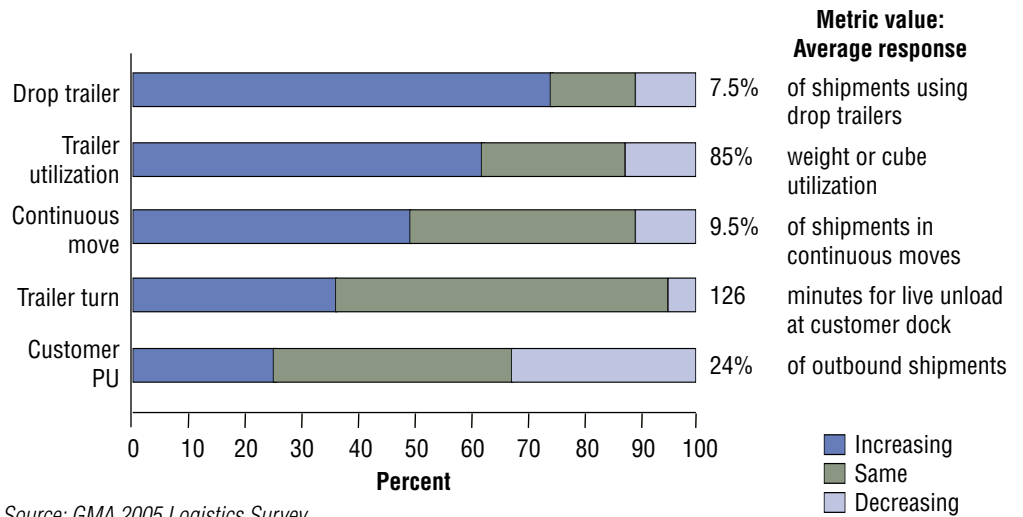


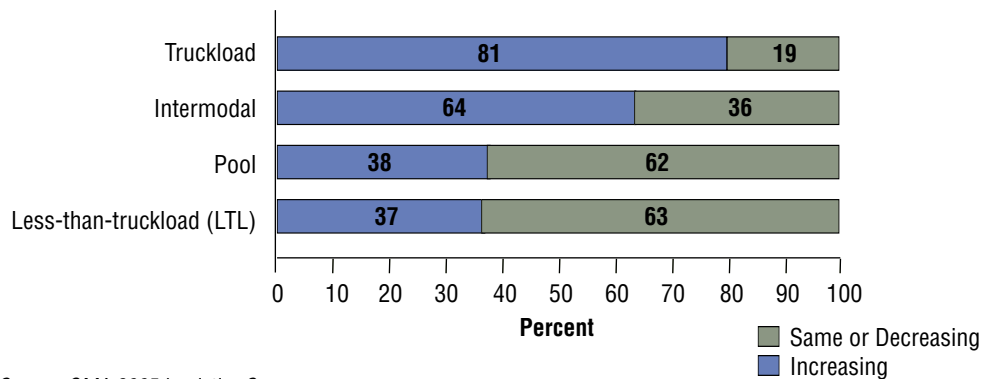
Figure 9. What are the transportation metrics for each initiative and are they increasing, decreasing or the same?



Source: GMA 2005 Logistics Survey.

Shippers also looked to shift freight into more efficient modes (see Figure 10).

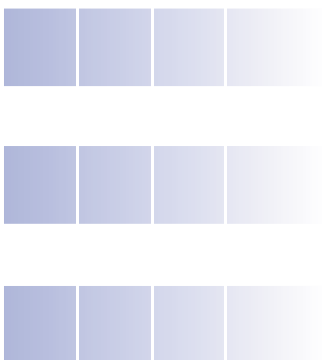
Figure 10. Are your shipments increasing, decreasing or the same for each of the following modes?



Source: GMA 2005 Logistics Survey.

The dramatic changes seen in transportation last year drove some very significant supply chain management behavior changes. Many efforts are aimed directly at freight:

- Shifting modes, where possible
- Utilizing more continuous moves
- Improving trailer utilization
- Increasing use of drop trailers for outbound shipments
- Partnering with carriers to secure year-round capacity.



Shippers are also reevaluating entire logistics networks to reflect service pressures and the shift in balance between transportation, DC operations and inventory carrying cost:

- Increasing the number of DCs
- Increasing DC inventory
- Adjusting sourcing assignments.

For the most part, shippers did *not* look to partner with carriers with performance-based incentive programs – only 10 percent indicated increases in this practice; 75 percent actually reported decreases.

When asked what *average cost-per-mile* expectations are within the next two years, respondents indicated that they are expecting a decrease from US\$1.69 to approximately US\$1.43. This reflects a somewhat more optimistic outlook expressed in late 2004, when this survey was conducted. An informal poll of GMA Information System/ Logistics & Distribution conference attendees in April 2005 indicated that few (if any) expected costs to drop this low. Analysts' views for the future are mixed, but high transportation costs and capacity shortages are expected to continue through 2005. Many analysts are projecting a slow growth of truckload capacity and high fuel costs, as well as continued strong demand.

CP manufacturers should expect transportation to continue to be a challenge. In addition to the creative tactics employed in the past 12 months to assure capacity and maintain costs, logistics managers will need to adopt permanent adjustments to their operations and should assess their supply chains to verify that higher freight costs are considered in strategic plans. Strategic network design, inventory deployment, sourcing and transportation strategies should all be closely evaluated to reflect the relative cost of freight.

Carrier services

Carriers continue to provide traditional services such as scheduling, but to a lesser degree provide cross-docking and load planning or optimization services (see Figure 11). Also, carriers are providing information technology services for proof-of-delivery, shipment tracking and Electronic Data Interchange (EDI). Fifty-five percent are receiving proactive alert notifications for carrier delivery. This may indicate a trend toward improvement of on-time delivery to customer request date.

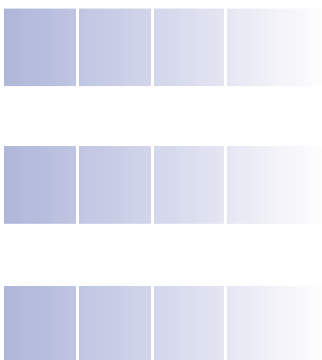
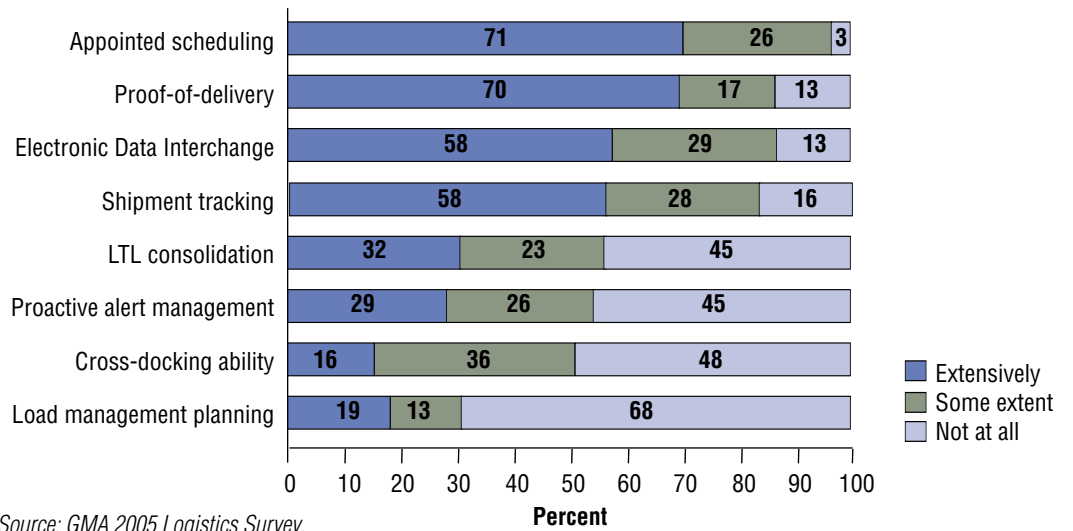


Figure 11. What services are provided by transportation carriers?



Source: GMA 2005 Logistics Survey.

Customer demands for specialization are becoming increasingly complex

As retailers struggle to differentiate themselves in a competitive marketplace, consumer product companies are increasingly being asked to do more to support specialized processes. Respondents have noticed an increase in the number of floor ready displays, customized packaging and store-ready, cross-dock pallets. They are also being pressured for shorter order lead times as retailers manage inventory levels more tightly. The strain on transportation capacity has led to a reduction in customer pickups, but retailer deductions for late shipments have increased with some "zero tolerance" policies.

According to survey results, companies are continuing to focus efforts on partner collaboration and the need to coordinate/integrate supply chain activities to reduce costs and improve performance. Alliances with key customers are used to achieve long-term strategic objectives, such as customer satisfaction, competitive differentiation and inventory reduction.

Respondents also are developing standard offerings to reduce the number of "one-off" requests and to establish common processes within their DCs (see Figure 12). There is continued emphasis on specialized and value-added logistics services based upon customer segmentation. Tactical practices – such as pre-assembled displays and custom pallets – continue to have a higher degree of effectiveness than the more involved strategic initiatives, such as postponement.

"As retailers attempt to differentiate themselves with unique strategies, suppliers' product lines and processes become more convoluted."
 – VP, Supply Chain Management

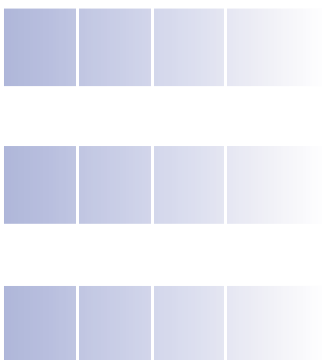
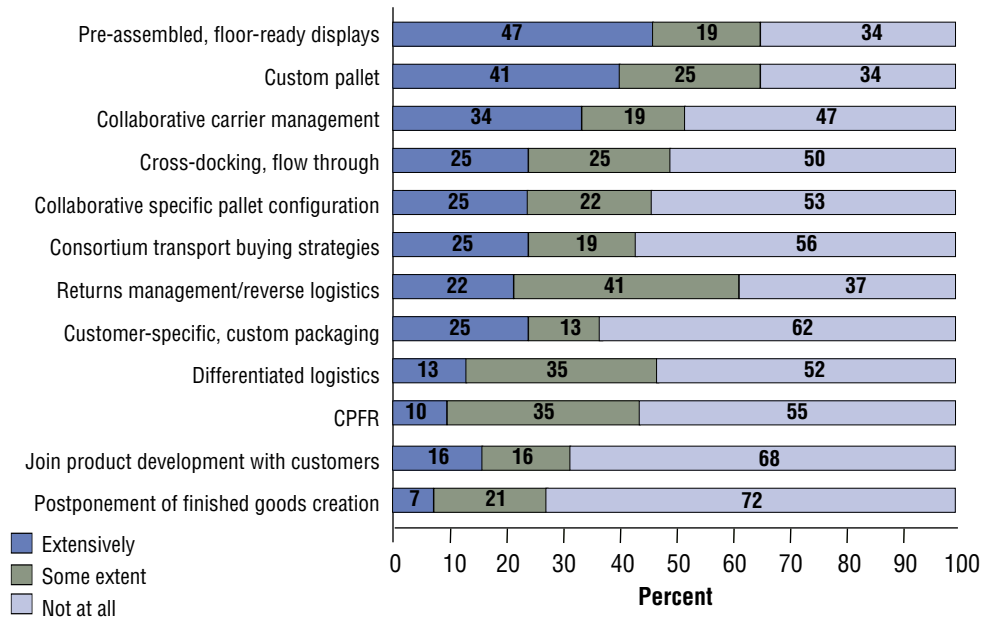
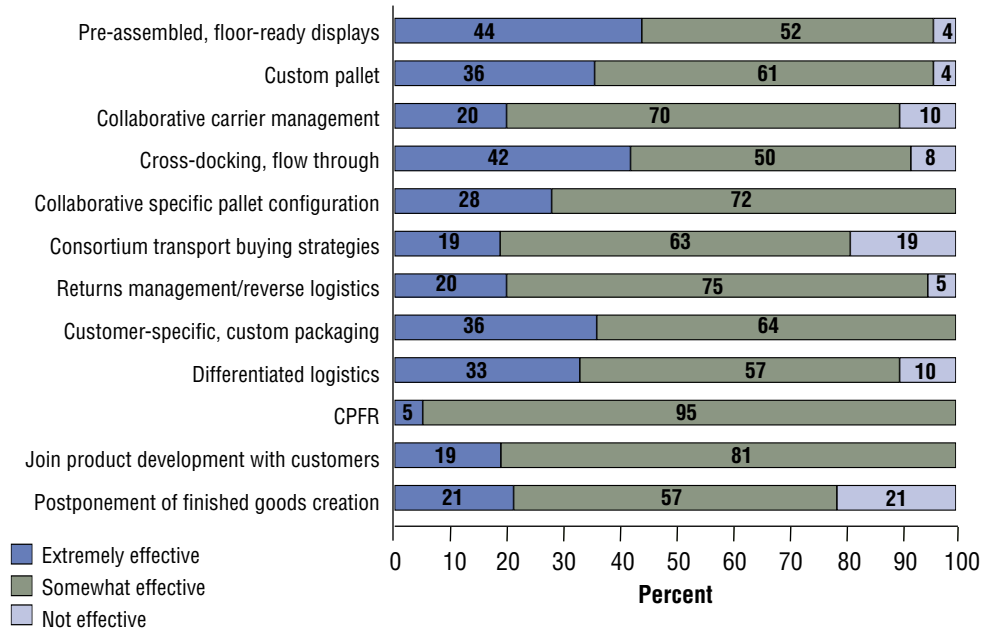


Figure 12. Distribution practices.

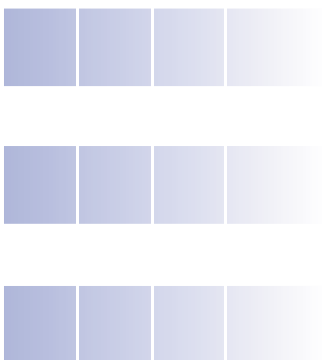
To what extent have the following practices been implemented?



How effective have these practices been in meeting objectives?



Source: GMA 2005 Logistics Survey.



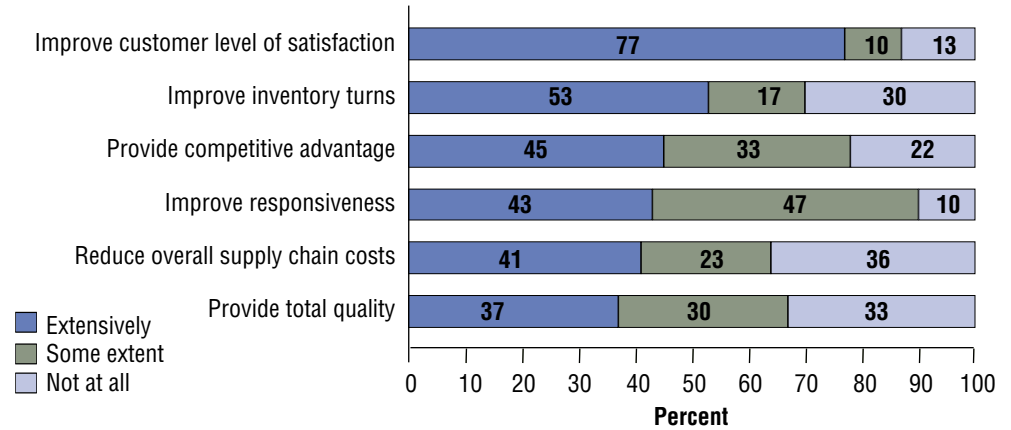
Most respondents are collaborating now more than ever with partners on strategic issues such as customer visibility to point-of-sale, forecasts, inventory and promotions, collaborative decision-making and performance scorecards with logistics providers. They are sharing information about plans, issues and actions to:

- Enable rapid decision-making in collaboration with partners and logistics service providers, and
- Proactively manage logistics activities with scorecards and event monitoring of exceptions.

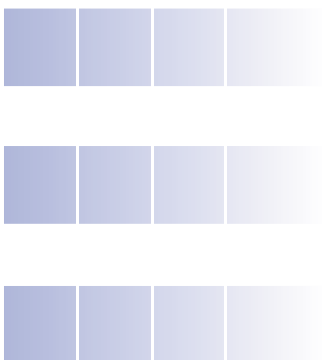
Often, dashboards are used to display performance measurements results/ scorecards. Many companies are establishing a collaborative knowledge base with historical performance data to identify trends and recurring issues.

A large majority, 93 percent, responded that alliances and/or partnerships with key logistics providers have positively impacted their business processes, whereas 80 percent report that alliances with key customers have positively impacted business processes (see Figure 13).

Figure 13. Do you use alliances with key customers to do the following?



Source: GMA 2005 Logistics Survey.



"3PL's have become more sophisticated, more professional, and are better at managing logistics services."
– Director of Distribution

Respondents indicated that their top initiatives to enhance trading relationships are:

- Enhanced customer visibility (63 percent)
- Collaborative decision-making (53 percent)
- Performance scorecards with logistics providers (50 percent)
- Dashboards to manage performance (35 percent).

Initiatives to enhance product/service differentiation, information visibility or to enhance customer return processes or controls were cited to a lesser extent.

Related practices in differentiated logistics strategies are based upon customer segmentation – customizing service levels and inventory planning by various customer classifications. Also, profitability objectives may be aligned through segmentation of customer product/service strategies with pricing optimization.

Surprisingly few of these large CP companies are using customer segmentation techniques and margin analysis to make inventory planning and deployment decisions (only 24 percent extensively track customer cost and profitability).

Companies are satisfied and continue to outsource logistics

Transportation and DC operations continue to be heavily outsourced in this segment and respondents are generally satisfied with third-party logistics providers' (3PLs) performance. Respondents report that 3PLs are now more sophisticated, more professional and frequently better suited to manage these functions. Beyond freight audit/payment, adoption of other 3PL services has been much slower. Many respondents are considering outsourcing additional distribution facilities, but few are planning to increase the scope of services handled by third parties.

Most companies are still performing traditional supply chain logistics functions such as transportation, distribution and inventory management, but many are expanding the end-to-end supply chain reach to include customer service and planning functions.

Outsourcing of logistics functions continues predominantly in the traditional transportation, warehousing and facilities management services (see Figure 14). This trend appears to be consistent over the past three years. Of those functions that are outsourced, most responded that they have been effective in reaching the desired objectives. The only areas of dissatisfaction – albeit slight – are in *carrier management* and *product return disposition management*.

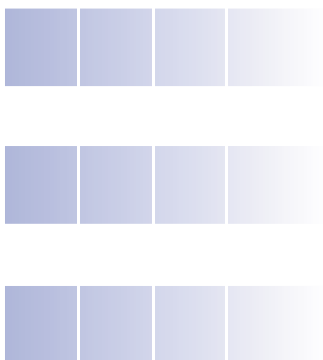
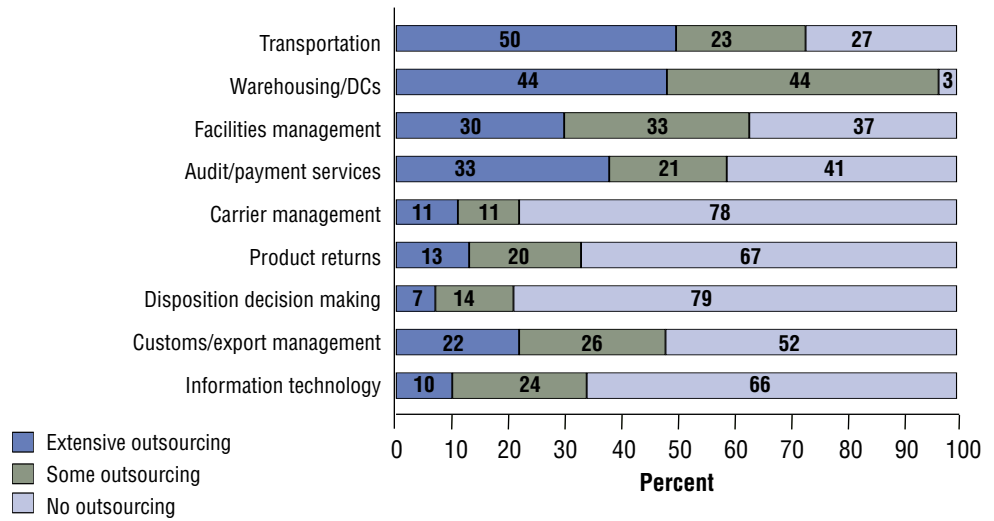
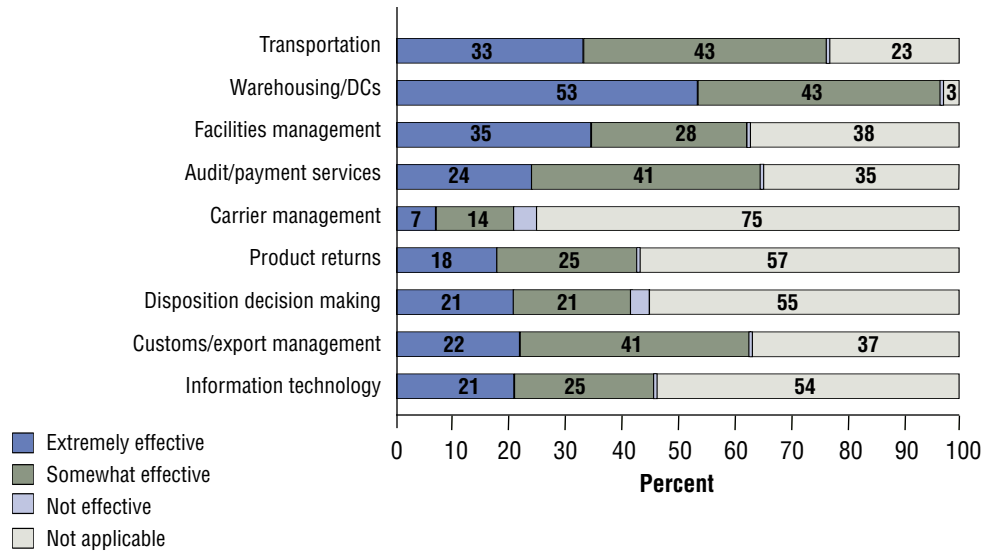


Figure 14. Outsourcing of logistics functions.

To what extent has each of the following functions been outsourced?



If outsourced, how effective has each outsourced business function been in reaching desired objectives?



Source: GMA 2005 Logistics Survey.

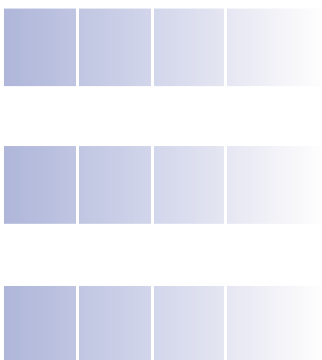
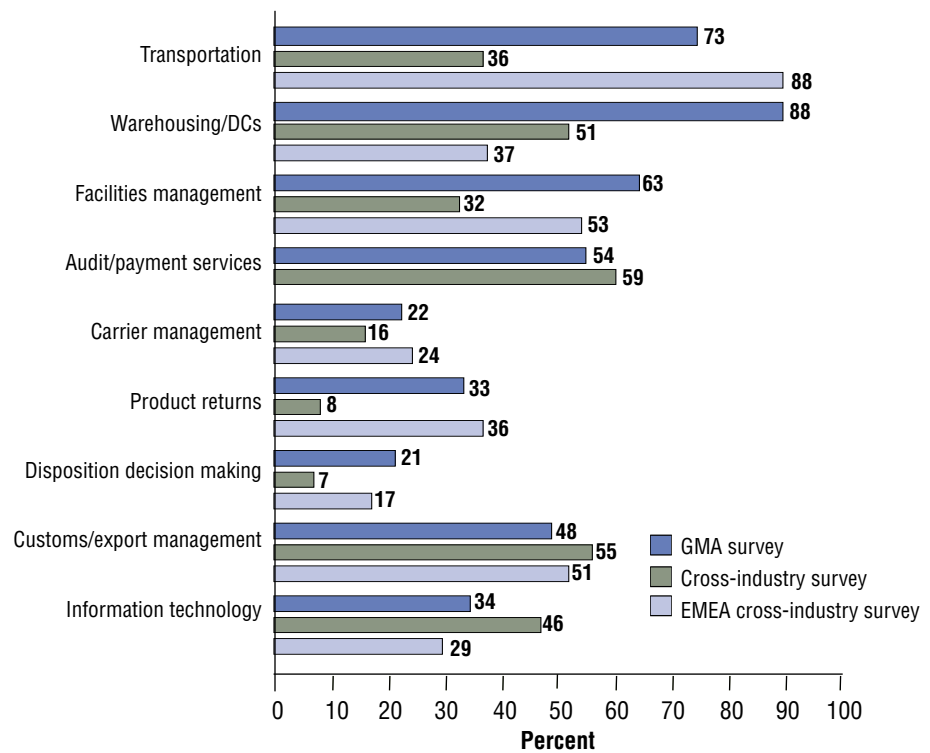


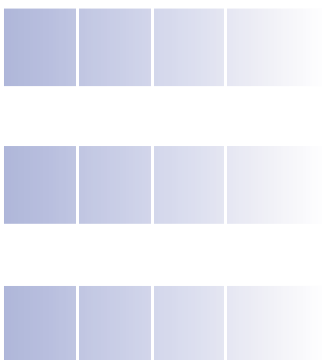
Figure 15 compares GMA survey responses to two other cross-industry benchmarks, one in the Americas and one in Europe, Middle East and Africa (EMEA). This comparison of the three groups shows:

- GMA respondents had the highest rate of outsourcing in *warehousing/DCs*, *facilities management*, *product returns* and *disposition* functions
- Transportation services are more highly outsourced in Europe
- *Information technology* was more highly outsourced by cross-industry companies in the Americas than the other two groups
- *Customs and export management* are similar in all three surveys, averaging about 50 percent outsourcing these functions.

Figure 15. Outsourcing of logistics functions: Comparison of results from three surveys.



Source: GMA 2005 Logistics Survey.



"As each customer is requesting unique SKU's, we lose any room for error and must be better at forecasting."

– Director of Planning

Demand visibility improves forecast accuracy

Traditional forecast planning is largely guesswork about customer buying preferences. Demand management, on the other hand, is about shaping and influencing what customers want to purchase by gathering intelligence on consumer trends, and then building marketing and promotional campaigns around product/ service bundles to drive sales.

The GMA 2005 Logistics Survey shows that sales and marketing remains responsible for demand forecasting, in collaboration with supply chain execution process owners. More noteworthy, however, is that only 7 percent of the respondents receive customers' forecasts and demand plans. Collaborative planning and forecasting with customers includes continuous replenishment programs and shared management of inventory with visibility. Forecasting remains historically based to a large degree, with variations on the use of actual sales orders and customer estimates. Short-term operational forecasts are used primarily as input to manufacturing planning and production for inventory management; and deployment planning is mostly used as input to distribution planning.

Demand forecast accuracy helps create high responsiveness and cuts cost inside the supply chain through the integration of planning and scheduling with logistics execution. According to a recent report by AMR Research, "Companies that are best at demand forecasting average 15 percent less inventory, 17 percent stronger perfect-order fulfillment, and 35 percent shorter cash-to-cash cycle times, while having a tenth of the stockouts of their peers."²

Forecasting has improved, with Mean Absolute Percentage Error down to 24 percent accuracy, near levels experienced in 1996 (see Figure 16). This may be linked to the emphasis on improving supply chain efficiency and inventory turns through enhanced planning, as integrated inventory management is also the second-largest information technology category.

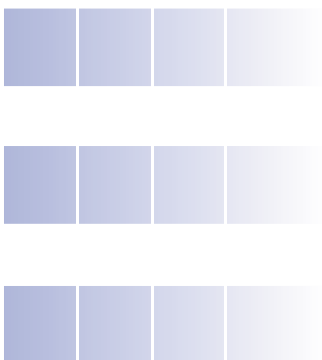
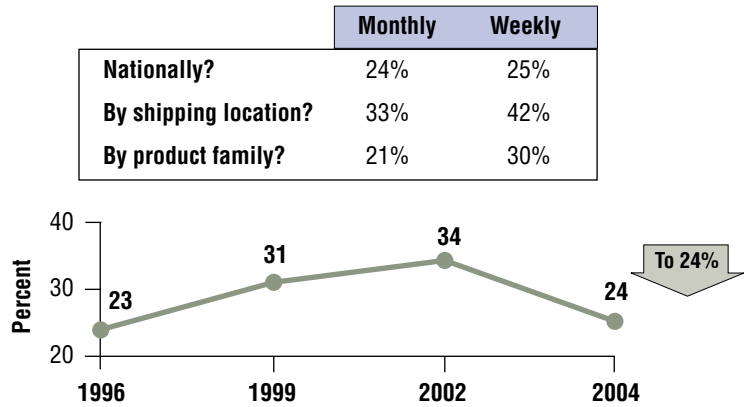


Figure 16. Forecast error rates.

What is your average monthly forecast measured as Mean Absolute Percentage Error (MAPE)?



Source: GMA 2005 Logistics Survey.

Advanced inventory management methods, such as *actual consumption driven (point-of-sale) continuous replenishment* and *postponement techniques* are not widely used – even *VMI* and *comanaged methods* are being used by less than 50 percent of those surveyed.

Inventory planning and deployment is primarily based upon *category or product line* (68 percent) and *unit volume* (61 percent), followed by *geography*. Only 39 percent of the respondents extensively use *ABC inventory classification* for inventory placement.

Inventory *total days of supply* has been decreasing slowly during the past five years. There is room for improvement toward the goal of returning to 1996 levels (see Figure 17), but this may be a challenge in consideration of transportation capacity and congestion constraints. Turns are lower than desired, in part due to the proliferation of custom items and item configurations demanded by retailers (which are more difficult to forecast) and potentially to a lack of point-of-sale information to determine replenishment requirements of faster-turning items.

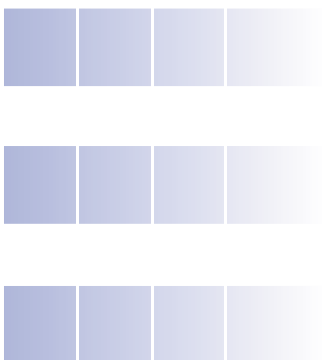
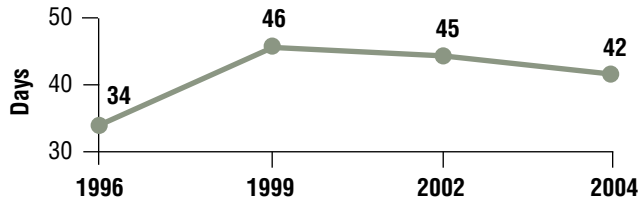


Figure 17. What is your finished goods inventory in Total Days of Supply? What is your finished goods inventory turn rate?

	Currently		Goal within 2 years
	Average	Median	
What is your finished goods inventory in total days of supply?	42 days	40 days	36 days
What is your finished goods inventory turn rate?	8.7/year	9.1/year	10.1/year



Source: GMA 2005 Logistics Survey.

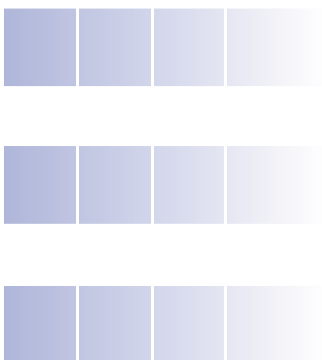
Demand management processes and tools help to synchronize demand with supply, and therefore accelerate cycle time and improve forecast accuracy and customer service.

Compliance and information management initiatives: Helping CP firms achieve business objectives

Several questions were added to this year’s survey to uncover how information management and compliance initiatives impacted survey participants’ business performance. Executives participating in survey interviews confirmed the following findings on key industry initiatives:

- *Radio Frequency Identification (RFID)* continues to be implemented within only a small percentage of grocery manufacturers’ operations, with the majority incurring the least possible investment to comply with retailers’ requirements. Only 10 percent of respondents stated that RFID was extremely effective in meeting business objectives.
- Significant progress is being made in the implementation of *data synchronization* initiatives, with the majority of respondents (52 percent) reporting a moderate to high level of adoption.

"Data synchronization is difficult, as retailers are not fully automating their integration, but CPG companies are making strides."
 – Manager, Logistics Information Systems



- Sarbanes-Oxley impacts *business process controls*, primarily in the areas of trade promotion, freight payment, inventory control and customer invoice audits.
- *Information management initiatives* are critical in supporting all logistics functions, with extensive process performance enhancement underway in customer service, inventory management, and distribution and supply chain planning functions.

Radio Frequency Identification

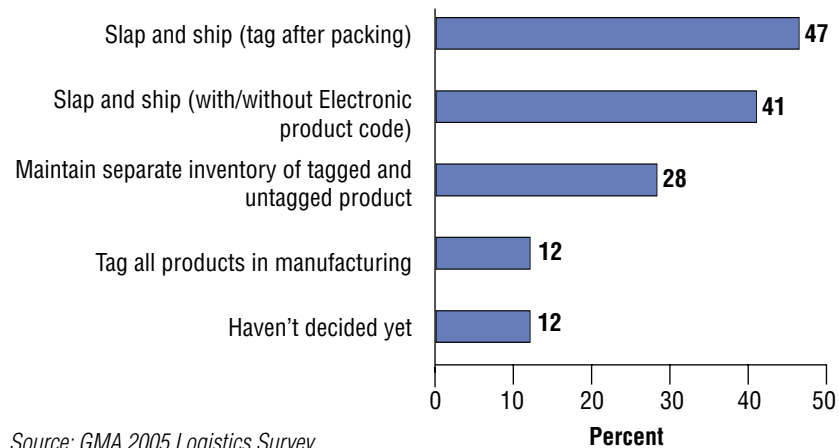
Several questions focused on the usage and anticipated return on investment (ROI) of RFID. RFID implementations are complete, in only a small percentage of manufacturers, with the majority performing just enough to meet retailer compliance requirements (69 percent). This finding is consistent with a cross-industry value chain survey conducted by IBM, which found that more than 70 percent of the respondents had not yet planned the implementation of RFID.³

The most significant expected benefits from implementing RFID technologies were the following:

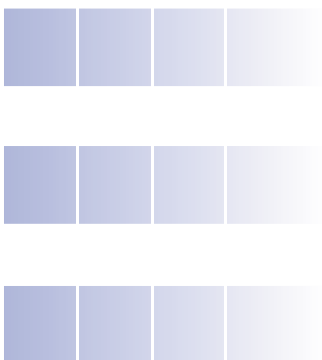
- Meet compliance requirements (68 percent)
- Reduce out-of-stock at retail stores (59 percent)
- Improve trading relationships (53 percent)
- Reduce shortage claims from retailers (44 percent).

To meet retailer compliance requirements, respondents are employing a variety of tagging strategies (see Figure 18). The majority (88 percent) are implementing "slap and ship" tagging strategies (keeping RFID compliance costs down by tagging only the goods headed to selected customers).

Figure 18. What tagging strategy is your company planning to deploy to respond to retailer requirements for RFID in the short term (3-6 months)?



Source: GMA 2005 Logistics Survey.



Respondents are mixed on the longer-term impacts or ROI associated with RFID initiatives, with 53 percent expecting some positive impact where benefits will exceed costs, and 44 percent expecting a negative ROI. These perceptions are consistent with data from a recent RFID survey conducted by GMA and IBM, which found that the actual costs per case outweigh the benefits for virtually all product categories and distribution methods.⁴

Figure 19. Average benefits and costs per case (normalized).

Category		Average per cases shipped to RFID-enabled retailers		Average per case of total volume	
		Benefits (US\$)	Costs (US\$)	Benefits (US\$)	Costs (US\$)
DC	Grocery - Dry goods (food)	0.20	0.40	0.04	0.14
	Grocery - Dry goods (non-food)	0.24		0.10	
	Grocery - Frozen, refrigerated	0.11		0.03	
	HBC/OTC	0.19		0.12	
DSD	Carbonated soft drinks (CSD), snacks	0.15	0.46	0.08	0.21

Source: IBM and A.T. Kearney business case studies. Normalized results.

Several interviewed executives report being in a “wait and see” mode as to whether a positive ROI can be achieved and are hopeful, given industry data, that RFID costs will continue to decrease.

Data synchronization

Sixty-eight percent of survey respondents indicate that data synchronization initiatives are underway, with 73 percent of those companies noting moderate to high effectiveness in meeting business objectives. Significant inroads have been made aligning product information with trading partners, with pricing and promotion data synchronization efforts planned or partially underway. However, few executives think their organization has implemented a comprehensive global data management solution, as illustrated in Figure 20.

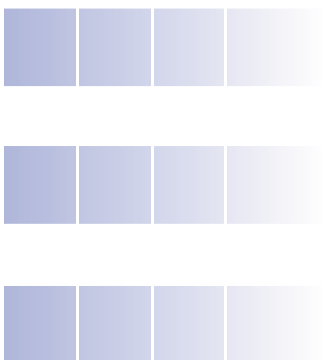
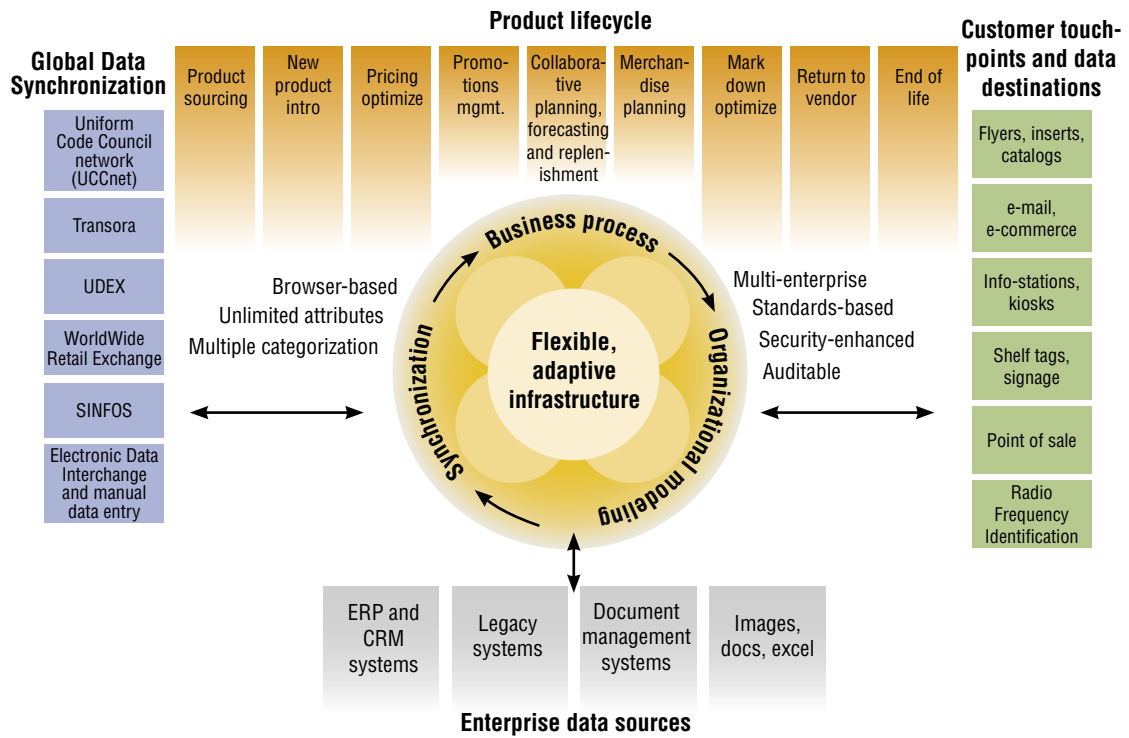


Figure 20. Data management and synchronization.



Source: IBM Institute for Business Value, "Global Data Synchronization: Building a flexible approach." IBM Corporation. December 2004.

Information management

Information management initiatives are critical in supporting logistics functions, providing extensive process performance enhancement in customer service, inventory management, and distribution and supply chain planning functions. A majority of respondents (83 percent) state that they have timely information across the supply chain, and 80 percent report a high level of information integrity and accuracy. EDI continues as the predominant and effective means of information exchange with logistics partners, used by 91 percent of survey participants (see Figure 21).

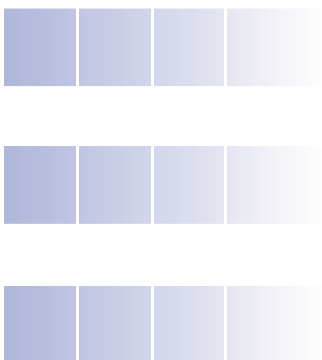
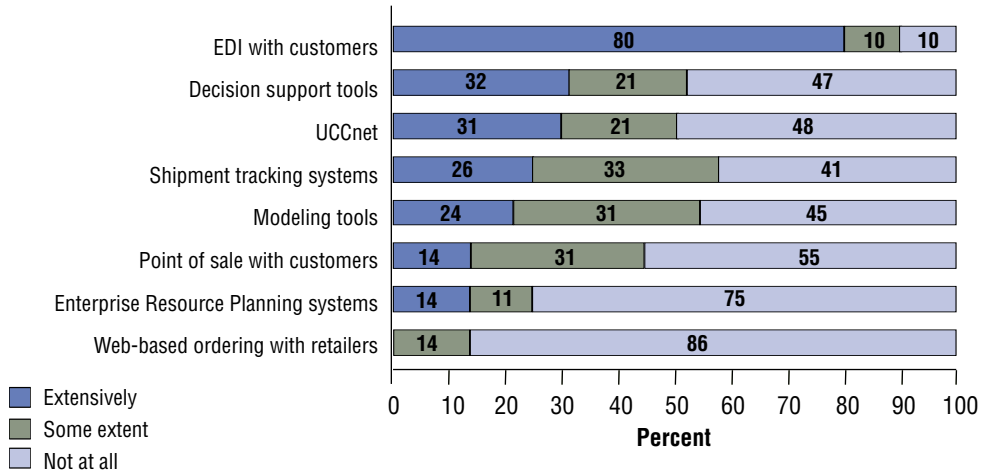


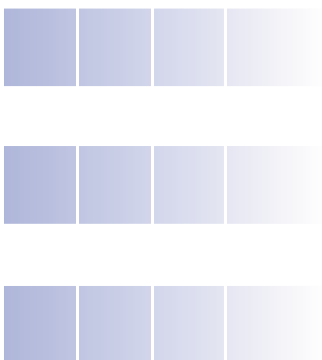
Figure 21. Information technology application profile.

How are the following information technology applications used?



Source: GMA 2005 Logistics Survey.

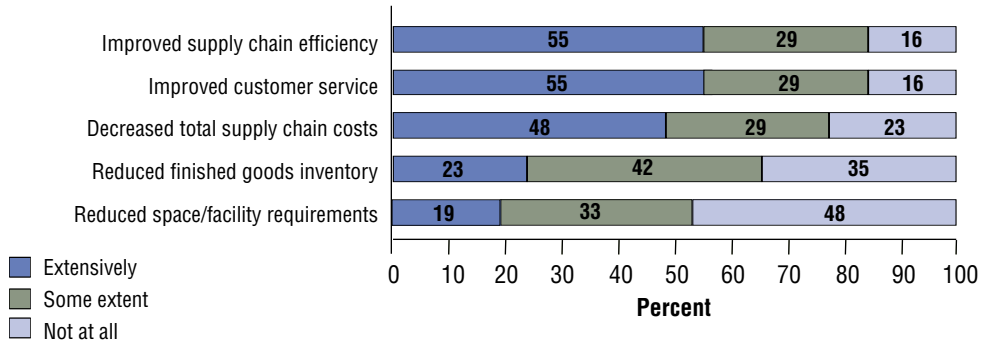
While EDI is the predominant technology for sharing information, the usage of UCCnet has increased from 22 percent in 2003 to 52 percent in 2005. Shipment tracking applications are used by 59 percent (provided, for the most part, by logistics service providers). Modeling and decision support tools are used to a lesser degree, and primarily for occasional network planning and optimization. A surprising finding – given that profitability and customer responsiveness were noted as the two leading objectives for 2005 – is that few respondents are leveraging customer point-of-sale data to drive demand-based replenishment.



Conclusion

Since the last GMA Logistics Survey was performed two years ago, CP companies report making progress in key supply chain performance initiatives, such as improving supply chain performance and improving customer service (see Figure 22).

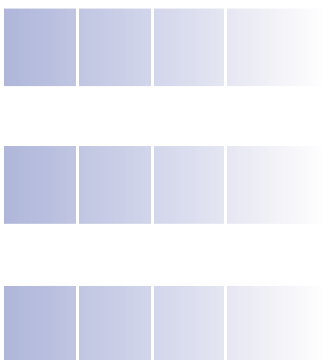
Figure 22. Since the last GMA survey in 2002, your initiatives have:



Source: GMA 2005 Logistics Survey.

However, challenges remain in balancing cost and service level objectives while meeting profitability targets. In summary, this report has evidenced:

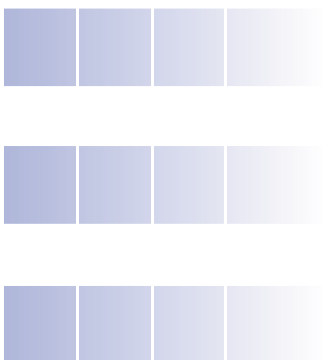
- On-time delivery and order-to-delivery cycle time performance has improved – improvement of overall customer satisfaction and responsiveness remains a primary objective
- Transportation issues are requiring much greater management attention; the impact must be addressed for the long term in both transportation management and distribution network strategies.
- Retailer demands for special packages, stock-keeping-units and services continue to complicate distribution processes
- Third-party logistics providers have solidified performance of core functions; outsourcing of CP warehousing and transportation is prevalent and effective.
- In spite of increased complexity, the use of technology, collaboration and planning have been successful in improving demand forecasting
- CP companies are putting significant effort into information technology initiatives that are customer focused.



To assist in evaluating and improving your own company's logistics initiatives, we recommend the following:

- *Integrate planning and forecasting with suppliers and logistics service providers* to provide differentiated customer segment product and service bundles and superior customer service levels
- *Continue to outsource non-differentiating transportation, distribution and information technology functions* to better manage end-to-end logistics costs, while providing greater levels of on-time delivery, fill rate and other customer performance levels
- *Condition demand through planning and forecasting* to better serve customers' specific requirements for promotions, special packaging and other value-added services
- *Continue to rationalize distribution networks* with regionalization for specific customer requirements; increase the use of flow-through or cross-docking and direct-to-store strategies by various product and customer categories
- *Implement advanced collaborative planning and forecasting with customers*, including continuous replenishment programs and shared management of inventory
- *Optimize product pricing* based upon profitability of segments.

Today's business environment is rapidly changing. Leading CP companies are demonstrating that supply chain logistics not only concerns cost reduction objectives, but is focused more and more on developing new strategies to outperform the competition and to satisfy customers.



About the author

Karen Butner is the Supply Chain Management Global Leader with the IBM Institute for Business Value and an associate partner in IBM Business Consulting Services. She can be reached at kbutner@us.ibm.com.

Contributors

Paul Huppertz is a Partner in IBM Business Consulting Services, Supply Chain Management Services. He can be reached at paul.f.huppertz@us.ibm.com.

Georgeann Fears is a Managing Consultant in IBM Business Consulting Services, Learning and Knowledge, Supply Chain Benchmarking. She can be reached at georgeann.fears@us.ibm.com.

About GMA

The Grocery Manufacturers Association (GMA) represents the world's leading branded food, beverage and consumer products companies. Since 1908, GMA has been an advocate for its members on public policy issues and has championed initiatives to increase industrywide productivity and growth. GMA member companies employ more than 2.5 million workers in all 50 states and account for more than \$680 billion in sales. GMA is led by a board of member company chief executives. For more information, visit the GMA Web site at www.gmabrands.com.

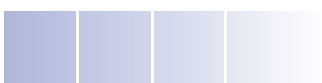
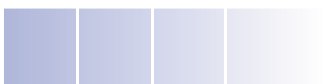
About IBM Business Consulting Services

With consultants and professional staff in more than 160 countries globally, IBM Business Consulting Services is the world's largest consulting services organization. IBM Business Consulting Services provides clients with business process and industry expertise, a deep understanding of technology solutions that address specific industry issues and the ability to design, build and run those solutions in a way that delivers bottom-line business value.



References

- ¹ "The ECR Scorecard." The Global Commerce Initiative. January 2005.
- ² Friscia, Tony, Kevin O'Marah and Joe Souza. "The AMR Research Supply Chain Top 25 and the New Trillion-Dollar Opportunity." AMR Research Report, November 2004.
- ³ Bourde, Marc and Karen Butner. "Energize your supply chain network: New competitive advantage from existing investments." IBM Institute for Business Value. January 2004. <http://www-1.ibm.com/services/us/index.wss/ks/imc/a1001625?cntxtid=a1000044>.
- ⁴ "A Balanced Perspective: EPC/RFID Implementation in the CPG Industry." Report by IBM, AT Kearney and Grocery Manufacturers Association, October, 2004.





© Copyright IBM Corporation 2005

IBM Global Services
Route 100
Somers, NY 10589
U.S.A.

Produced in the United States of America
06-05
All Rights Reserved

IBM and the IBM logo are trademarks or registered trademarks of International Business Machines Corporation in the United States, other countries, or both.

Other company, products and service names may be trademarks or service marks of others.

References in this publication to IBM products and services do not imply that IBM intends to make them available in all countries in which IBM operates.