

# GMA-FMI TRADING PARTNER ALLIANCE

## ACTION PLAN

### to Accelerate Trading Partner Electronic Collaboration

7. COLLABORATIVE  
INSIGHT & PRODUCT DEVELOPMENT

6. COLLABORATIVE  
SALES & PROMOTION PLANNING

5. COLLABORATION  
SUPPLY CHAIN MANAGEMENT

4. COLLABORATION  
TRANSACTION MANAGEMENT

3. ITEM SYNCHRONIZATION

2. SINGLE ITEM REGISTRY

1. COMMON DATA STANDARDS

*Data Synchronization Proof of Concept: Case Studies from Leading Manufacturers and Retailers*



GROCERY MANUFACTURERS OF AMERICA  
LEADING THE WORLD'S CHANGING MARKET OF  
FOOD MANUFACTURERS AND SUPERMARKET RETAILERS

**KEARNEY**  
an EDS company



## BACKGROUND AND OBJECTIVES

Over the last year, the consumer goods and retail industries have made significant progress in establishing a common platform for electronic collaboration – the use of internet-based technologies to allow continuous automated exchange of information between trading partners. Thanks to the efforts of industry organizations and individual executives around the world, key players have agreed to a global system for synchronizing catalog data between manufacturers, retailers and their intermediaries. A single global system for data synchronization is considered a critical foundation for realizing the long-promised benefits of electronic collaboration – only if basic information in trading partners' catalogs is correct and "in synch," can companies reliably communicate electronic information about transactions, future sales plans and the movement of product through the supply chain.

According to the global data synchronization model, manufacturers, retailers and intermediaries have agreed to adopt a common set of global data standards (the Global Trade Identification Number and the Global Location Number), and manufacturers have agreed to make their product catalog available in data pools linked to a single global registry (the UCCnet GlobalRegistry). Customers then are able to search this registry, identify the data pools where information is held about the items they wish to synchronize, and establish a permanent link from these data pools to their own catalog via the synchronization engine of their choice; the information in their catalog is then continuously and automatically updated and synchronized.

In June 2002, the GMA-FMI Trading Partner Alliance first published the "Action Plan to Accelerate Trading Partner Electronic Collaboration," explaining the concept and benefits of data synchronization. Since then, more than 400 companies have signed up with the UCCnet registry and begun synchronizing item information with their trading partners. There are now more than 60,000 items in the registry.

Nevertheless, there are still many retailers and manufacturers (in North America and elsewhere) that have not yet signed up with UCCnet's GlobalRegistry. While there are many reasons why individual companies have delayed adoption, many executives have commented that they have still not seen convincing proof of the benefits of data synchronization.

The GMA-FMI Trading Partner Alliance therefore requested A.T. Kearney to conduct an independent review at six pioneering companies to establish a quantification of the costs and benefits of data synchronization. Three leading manufacturers and three leading retailers were selected to participate in the initial case studies – Ahold USA, Kraft Foods, Nestlé Purina PetCare, Procter & Gamble, Shaw's Supermarkets and Wegmans Food Markets. All six have been pioneers in implementing data synchronization. Most importantly, they were all willing to share business information and dedicate management time and resources to help A.T. Kearney complete the case studies. The six also represent a broad spectrum of size, from relatively small regional players to large diverse conglomerates.

The GMA and FMI Boards would like to thank A.T. Kearney and these companies for their continuing contribution to enhancing the future efficiency of the entire industry.

## CASE STUDY METHODOLOGY

Many companies find it difficult to identify the benefits of data synchronization because the effects of incorrect item information (and the corresponding benefits of data synchronization) are felt across the organization. Furthermore, many employees do not recognize the time and resources that they expend dealing with bad data, because they see it as just part of the job. Even at the participating companies, which are fully committed to data synchronization, the full impact has not been recognized in many functional areas.

We therefore followed a similar process at all the companies to quantify the costs of bad data and project the benefits of synchronization. First, we held a workshop with a broad cross-section of managers representing key functional areas – to identify all processes currently impacted by manual data entry and inaccurate catalog information (i.e., sales, customer service, outbound logistics, finance and IT on the manufacturing side; merchandising, buying, logistics, warehouse, stores, finance and IT on the retail side). We then held follow-up meetings and interviews with specialists in each identified area to agree on the specific data required to measure the costs of current processes and the benefits of data synchronization.

In some cases, companies had already conducted in-depth analyses in key functional areas to identify the time and resources expended or the sales lost as a result of inaccurate information. In other cases, we asked a sample of employees (e.g., sales people, customer service reps, category merchants, DSD receivers, etc.) to track their activities over a fixed period to identify the frequency that item data-related issues impact their work and the time spent on these issues.

In all cases, only the direct costs of basic item errors were taken into account. Costs associated with price and deal discrepancies (in purchase orders, invoices, etc.) were not included in any calculations. Many companies hope to begin synchronizing this information in the near future, but these case studies focused only on quantifying the benefits of the basic item synchronization.

Once we identified the total costs of current manual processes and information discrepancies, we then assessed to what extent these costs are being reduced by data synchronization. In some areas, participating companies have already begun to realize the benefits of synchronization – in the form of reduced headcount (in data entry and transcription functions) or reduced purchase order and invoice errors. In other areas, benefits will be fully realized only once a critical mass of trading partners are synchronizing information and associates have developed trust that the system is working. For instance, manufacturers are unlikely to reduce the time they spend checking purchase orders (and the head-count dedicated to this activity) until they are 100 percent sure that all their customers are sending purchase orders with correct (i.e., synchronized) information – in the meantime, the cost of checking all purchase orders is less than the risk of making incorrect shipments due to information discrepancies.

A.T. Kearney's model therefore projects the total benefits of data synchronization for each company, once it has been fully implemented across trading partners and product categories. The model assumes that each company will only attain these benefits gradually over the next five years, as more partners begin synchronization and as associates in each functional area eliminate the activities they now have in place to handle data discrepancies.

On the cost side, the model accounts for all costs associated with implementing synchronization. These include both up-front investments (i.e., hardware and software upgrades, management time, programming, implementation/conversion costs within each business function, etc.) and ongoing maintenance costs (i.e., fees to UCCnet and other solution providers, communication costs, ongoing management time and programming).

Even with fully-loaded implementation costs and allowing five years for full realization of the benefits, the return on investment for each of the participating companies is in excess of 500 percent and payback on the initial investment takes less than one year.

The information collection and analysis for the case studies was conducted between November 2002 and January 2003.

## SUMMARY OF FINDINGS

Summaries of the findings at each participating company are included as inserts in this folder. For reasons of competitive non-disclosure, detailed calculations at each company cannot be provided, but each case study provides a summary of the total benefits, costs and ROI and a descriptive explanation of the benefits at each company.

The benefits across companies can be summarized as follows:

### MANUFACTURERS

- \* Three to 5 percent reduction in shelf out-of-stocks
- \* Two-week reduction in speed to market for new items – i.e., 14 extra days' sales of faster-moving items
- \* Seven to 13 percent reduction in salesforce time communicating basic item information to customers, following up, resolving queries, etc.
- \* Reduction in call center and website queries regarding basic item information
- \* Five to 10 percent reduction in salesforce and accounting time spent dealing with invoice disputes
- \* Reduction in invoice write-offs incurred as a result of data discrepancies
- \* Elimination of basic item data errors, currently found in up to 8 percent of total purchase orders
- \* 0.2 - 0.7 percent reduction in outbound logistics costs
- \* 0.5 percent reduction in inventory

### RETAILERS

- \* Three to 5 percent reduction in shelf out-of-stocks
- \* Two-week reduction in speed to market for new items – i.e., 14 extra days' sales of faster-moving items
- \* 10,000-30,000 hours saved in store labor costs resulting from shelf-tag and scan errors
- \* 5,000-10,000 hours saved in merchandising and data entry time dealing with new item introductions and updates
- \* 1,000-2,000 hours saved in finance time dealing with invoice disputes related to basic item information
- \* Reduction in invoice auditor fees
- \* One-half to 1 percent reduction in inbound freight costs
- \* 1,000-2,000 hours saved in warehouse and DSD time dealing with item discrepancies
- \* One percent reduction in inventory

While processes and cost-structures at each company vary and hence the scale of benefits in each functional area can vary, total expected benefits are remarkably similar.

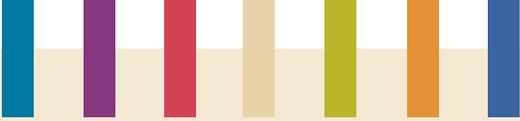
- \* For the manufacturers, total benefits are all in the range of \$1 million additional earnings for every \$1 billion of sales.
- \* For the retailers, total benefits are all in the range of \$500,000 additional earnings for every \$1 billion of sales. Given that data synchronization is currently applied only to non-perishable grocery categories (approximately 50 percent of retailers' sales), benefits are again in the range of \$1 million additional earnings for every \$1 billion of relevant sales.

## OBSERVATIONS AND RECOMMENDATIONS

Even within companies that are committed to data synchronization and see clear benefits, many had not realized how extensive the benefits can be across all functions. As companies move forward with synchronization, we would urge them to investigate all areas impacted by current data-handling processes – unless companies identify the business processes that have been built into the organization to handle data errors and inefficiencies, they will likely not realize the full benefits in terms of reduced headcounts, faster time-to-market, etc. Of the case study companies, those that undertook thorough analysis of current processes and inefficiencies before implementing data synchronization are the ones that have already realized the greatest benefits.

We recommend that companies beginning implementation follow the same path:

- \* Conduct thorough analysis of current processes before implementation
- \* Redesign processes to take advantage of the fact that information will now be automatically transmitted and always correct
- \* Track progress not just in terms of numbers of items or trading partners in synch, but in terms of measurable benefits (i.e., out-of-stocks, speed-to-market, fleet utilization, percent of invoices or purchase orders with errors, headcount, inventory levels, etc.).



# GMA - FMI TRADING PARTNER ALLIANCE

## GMA-FMI DATA SYNCHRONIZATION CASE STUDY:

### Wegmans Food Markets

#### Overall Findings

Wegmans Food Markets, a \$3 billion retailer operating 65 upscale supermarkets in New York, Pennsylvania and New Jersey, expects to generate benefits of at least \$1.5 million per year within the next five years once all of its major suppliers are capable of data synchronization. Given an initial investment of approximately \$300,000, start-up costs of \$600,000 per year for the first two or three years to populate the data synchronization system, and ongoing costs of \$100,000 per year to maintain the system, this translates into a return on investment well in excess of 500 percent.

#### Implementation Progress

Under the leadership of Danny Wegman, Wegmans Food Markets has been at the forefront of the drive toward data synchronization since the birth of the idea at the GMA/EDS Future Forces Roundtable in 1998. Wegmans has dedicated significant leadership time to support the development of the UCCnet data registry and synchronization service. Wegmans and Ralston Purina (now Nestlé Purina PetCare) were the first pair of companies to synchronize item information for a complete product category using UCCnet in March 2001.

As of March 2003, Wegmans is accepting synchronized item data from a total of 50 suppliers, with a total of over 2,000 items in synch. By the end of 2003, Wegmans expects to be in synch with more than 50 percent of their grocery warehouse items.

Wegmans has created and maintains its own proprietary interface for managing communication among UCCnet and its internal systems. Item data in Wegmans internal systems (merchandising, buying, logistics, warehouse, DSD, POS, AP, etc.) is linked to this interface.

#### Direct Benefits for Consumers and Store Operations

##### ***Reduced Out of Stocks***

Analysis of shelf out-of-stocks at Wegmans has shown that, while the majority are caused by human errors in the stores or the buying function, approximately 5 percent of out-of-stocks result from supply chain delays due to data integrity issues (i.e., delays in purchase order processing, freight scheduling, warehouse and DSD receiving, etc.). By eliminating buying and supply chain delays due to catalog errors, data synchronization prevents these out-of-stock incidents – thereby increasing consumer satisfaction and generating several hundred thousand dollars per year in additional sales for Wegmans.

##### ***Increased Speed to Shelf for New Items***

Analysis of new item introductions at Wegmans confirmed the findings of previous studies: automated synchronization of data between the vendor and the retailer reduces the amount of time required to introduce new items into Wegmans' systems from two or three weeks to a matter of hours. Once a critical mass of retailers is

capable of data synchronization, manufacturers are expected to reduce the lead time for new item launches and bring forward the “first ship date” (and the corresponding marketing launch) by two weeks or more. Given that new items typically sell at twice the velocity of the items they are replacing (often at a higher margin), these faster item introductions are expected to increase Wegmans sales by several million dollars per year.

### ***Reduced Shelf-Tag and Checkout Errors in the Stores***

Frequently when manufacturers alter pack sizes (count, weight, dimensions), this information is not updated immediately in retailers’ systems. As a result, every week hundreds of shelf-tags in Wegmans stores are found to have price-per-unit discrepancies. Wegmans incurs considerable labor and printing costs re-ordering, re-printing and re-installing thousands of tags each week. Real-time data synchronization entirely eliminates these shelf-tag inaccuracies.

There are also times when items do not scan at the checkout because information about the item or its UPC code has not been updated in the Wegmans POS system. This can happen several hundred times per week in each Wegmans store. While these “not on file” errors represent a tiny proportion of all item scans, each of these incidents results in delays at the checkout, additional labor to run an item-check and reduced customer satisfaction. In some cases, consumers decide not to buy the item in question. Real-time synchronization of vendor item data entirely eliminates this type of scan error.

There are also incidents when manufacturer coupons do not scan at the checkout because the “coupon family code” on the coupon does not match the coupon family code assigned to the item in the Wegmans POS system. As with item scan errors, these events are a small proportion of total coupon scans, but can still happen several hundred times per week in each store. Each of these events results in similar delays at the checkout, as the scanner checks that the customer has purchased the item and overrides the coupon scan error. Correct application and continuous synchronization of coupon family codes entirely eliminates this type of scan error.

Altogether, data synchronization is expected to eliminate thousands of hours per year in non-value-added activities in Wegmans stores caused by shelf-tag and POS errors – quite apart from the impact on customer satisfaction and sales.

## **Transactional Efficiencies**

### ***Reduced Merchandising Time on Item Introductions & Updates***

Currently Wegmans’ category managers and their administrative team spend thousands of hours per year receiving, following up and manually entering new item data sheets from their suppliers. With the advent of data synchronization, the time required for new item introduction has been reduced by 80 percent, freeing up thousands of hours of category manager time to be spent on more value-adding activities like category planning, market intelligence, etc.

Category managers and their support team also spend hundreds of hours per year receiving, checking and inputting updates to existing item information. This process is entirely eliminated for items in synch.

In addition, once the majority of manufacturers in each category maintain their catalogs in an accessible data pool, category managers expect to save significant time in the category research, planning and item selection process.

### ***Reduced Time and Errors Generating Purchase Orders***

Wegmans’ buyers spend hundreds of hours per year checking and correcting item information in purchase orders and communicating with vendors, to ensure that the items ordered are correct and their weight and dimensions are calculated to optimize freight utilization rates. Data synchronization has substantially reduced the time required for purchase order verification and correction.

### ***Reduced Time and Fees for Invoice Reconciliation***

It is well known that a large proportion of invoices result in disagreements between manufacturers and retailers (50 percent or more, according to some studies). While the majority of these disputes result from pricing or deal discrepancies, a sizeable proportion are caused by discrepancies in basic item data – i.e., disputes over the type of items ordered or delivered, the item count or quantity, freight allowances based on the size of order, etc. ABC analysis

of the invoice-handling process at Wegmans revealed that Wegmans finance people spend thousands of hours per year resolving invoice-disputes caused by these basic item-data issues. Data synchronization, by ensuring correct alignment of data between the retailer's purchase orders and the manufacturer's delivery records, eliminates these discrepancies and the time (and auditor fees) wasted by both the manufacturer and the retailer resolving these disputes.

## **Supply Chain Benefits**

### ***Reduced Inbound Logistics Costs***

Currently, inaccurate information about item dimensions and weight frequently results in under-utilization of inbound trucks – and sometimes drives the need for extra trucks (when the load is larger than expected). With the benefits of synchronized weight and dimension data, Wegmans expects to increase inbound freight utilization and eliminate all instances of additional trailers due to unexpected overage.

### ***Reduced Warehouse Receiving and Handling Costs***

Currently, Wegmans uses Cubiscan technology to measure every new item, pack and case, to ensure smooth operation of the warehouse and outbound logistics operations. With the benefits of synchronized weight and dimension data, the time and equipment required to measure new items and input this data into Wegmans systems will be eliminated.

Despite the time spent by merchants and buyers verifying item information and purchase orders, every day items arrive at Wegmans warehouses whose description, weight or dimensions do not match the information in Wegmans internal systems. As a result, significant time is spent checking these deliveries and scheduling additional labor and equipment to handle unexpected loads and re-pallet loads that do not fit into assigned warehouse slots. These delays in receiving, handling and slotting can also delay the unloading of other shipments and trigger penalties. Wegmans also returns dozens of shipments per year to vendors – the majority as the result of basic differences in catalog information. These return shipments result in significant costs to vendors, and may result in lost sales of the items that Wegmans had intended to order.

In total, warehouse employees waste hundreds of hours per year, as a result of inadequate or incorrect information about items, cases and pallets passing through Wegmans warehouses.

### ***Reduced Outbound Logistics Costs***

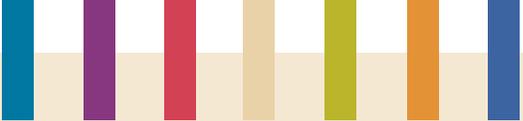
Inaccurate item data rarely causes problems in outbound logistics, since discrepancies are usually caught during the inbound process or in the warehouse. However, there are occasions when unexpectedly large cross-dock shipments (particularly seasonal promotions or modular pallets) require the dispatch of additional outbound trailers. While rare, each of these incidents costs Wegmans several thousand dollars in extra freight costs and management time. These events are eliminated with the synchronization of accurate case and pallet information from vendors.

### ***Reduced Delays in DSD Receiving***

DSD receivers at each of Wegmans' stores frequently receive shipments with items that are "not on file" in the Wegmans system. An audit has revealed that several times per week these events are caused at each store location simply because item data has not been updated between the vendor and Wegmans systems. Each event results in significant delays while the receiver resolves the discrepancy and can result in loss or damage of items while they are held in the stockroom. Real-time synchronization of data between the DSD vendor and the retailer entirely eliminates these events. The resulting labor and shrink savings across 65 stores are worth hundreds of thousands of dollars.

### ***Inventory Reduction (across the supply chain)***

The various delays in product deliveries caused by item data errors (i.e., in purchase order processing, freight scheduling, warehouse and DSD receiving and handling, etc.) cause retailers to maintain a buffer stock of inventory. Conservatively, Wegmans has estimated that current inventory levels could be reduced by at least 1 percent, once data synchronization has been fully implemented.



# GMA-FMI TRADING PARTNER ALLIANCE

## GMA-FMI DATA SYNCHRONIZATION CASE STUDY:

### Kraft Foods North America

#### Overall Findings

Kraft Foods North America, the leading food company in North America with sales more than \$25 billion, has the potential to generate benefits in the same range as the five other participating companies (approximately \$1 million in benefits per year for every \$1 billion in sales). The full extent of these benefits will be achieved over the next five years once all of Kraft's customers are capable of data synchronization. Given an initial investment in the range of \$4-5 million and ongoing costs projected between \$2-3 million per year, this would translate into an excellent return on investment.

#### Implementation Progress

Kraft has been at the forefront of the drive toward data synchronization since the formal launch of UCCnet in 2000. Kraft Foods and Shaws were the first manufacturer and retailer team to complete the UCCnet certification process in February 2001, and Kraft has dedicated significant leadership time to support the development of UCCnet since then.

As of March 2003, Kraft has begun synchronizing item data with at least five customers, with a total of more than 2,000 items in synch. By the end of 2003, Kraft expects more than 90 percent of its North American product catalog to be registered with UCCnet and synchronized with key retail customers.

Kraft uses Transora to manage the interface between its master item catalog and UCCnet. Item data in all internal systems (R&D, sales, logistics, finance, etc.) are linked to the master item catalog.

#### Direct Benefits for Consumers and Kraft's Top-Line

##### ***Reduced Out of Stocks***

Industry studies have found that products are out-of-stock on retailers' shelves on average as much as 8 percent of the time. While the majority of these out-of-stocks are caused by errors in the stores or in forecasting and ordering, root cause analysis at Wegmans and Shaw's has revealed that as many as 3-5 percent of out-of-stocks are caused by bad data (i.e., incorrect item information in the retailer's systems causes delays in buying, shipping, receiving, handling, etc.). By eliminating buying and supply chain delays due to catalog errors, data synchronization prevents this portion of out-of-stock incidents. For a company of Kraft's size, this translates into additional revenues and corresponding bottom-line benefits.

##### ***Increased Speed to Shelf for New Items***

By automating the process for entering new item information into retailers' IT systems, data synchronization significantly reduces the time required to launch new products in the market. Consistent with the other manufacturers and retailers in this study, Kraft has found that the time required for new item data entry has been reduced from two weeks or more to a matter of hours. Apart from significantly reducing time demands on Kraft's

salesforce (see below), this has a significant impact on Kraft's sales. Since new products typically outsell the products they are replacing by a ratio of at least 2:1 (often at a higher margin), each additional week of new product sales translates into additional revenues and profits for Kraft. Kraft expects to generate additional new product sales as a result of data synchronization.

## **Transactional Efficiencies**

### ***Reduced Salesforce Time on Item Introductions & Updates***

Under the old system of manual item data sheets, Kraft's salesforce spends a significant portion of its time communicating basic information to customers about new items and changes to existing items. In addition, whenever a new product is launched, Kraft salespeople spend many hours following up with each function at their customers (merchandising, buying, warehouse, stores, etc.) to ensure they have the correct information and are ready to start ordering and receiving product. Kraft surveyed a cross-section of salespeople serving a variety of customer types (retail/wholesale, centralized/decentralized) and found that salespeople spend a significant portion of their time simply communicating and following up basic item information. By automating the data entry process and subsequent information updates, data synchronization completely eliminates salesforce time spent communicating and updating basic item information. This will eliminate tens of thousands of administrative hours across the Kraft North America salesforce.

Kraft field representatives also spend a significant portion of their time on item data rework and retail audits. Once retailers' systems are synchronized with correct and up-to-date product information, much of the time spent on these basic item checks will be eliminated.

Kraft also maintains a Web site and call center to handle customer orders and questions. A small but significant portion of the queries received at the call center and Web site relate to basic item information. With data synchronization, item information is automatically updated in customers' systems, and the time required to respond to these queries is eliminated.

### ***Reduced Time spent on Invoice Reconciliation and Deductions***

It is well known that a large proportion of invoices result in disagreements between manufacturers and retailers (50 percent or more, according to some studies). In Kraft's case, internal research has found that a small, but significant, portion of invoice disputes relate to basic item information – i.e., disagreements over the type of items ordered or delivered, the item count or quantity, freight allowances based on the size of order, etc. Data synchronization, by ensuring correct alignment between the retailer's purchase orders and the manufacturer's delivery records, eliminates these disputes about basic delivery quantities, freight allowances, etc. Since Kraft's customer service coordinators, field sales and finance professionals spend a significant amount of their time dealing with invoice disputes, eliminating even a small portion of these disputes saves Kraft several hundred thousand dollars per year.

In addition, Kraft expects to see a significant reduction in the write-offs it incurs as a result of these discrepancies

## **Supply Chain Benefits**

### ***Reduced Time in Purchase Order Processing and Shipment Rework***

Many of the purchase orders received by Kraft have errors related to basic item information: incorrect products, UPC codes, quantities, weights, dimensions, etc. A survey of Kraft customer service coordinators found that coordinators spend a significant portion of their time correcting purchase orders, reworking shipments and communicating changes to vendors. Data synchronization completely eliminates these errors in basic product information.

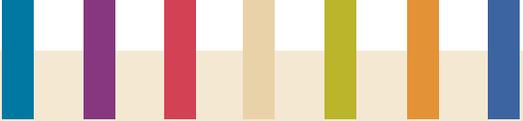
### ***Reduced Logistics Costs***

Kraft, like other manufacturers, spends a considerable amount of time checking purchase orders and reworking shipments, so as to maximize truck utilization and minimize freight costs. Nevertheless, inaccurate customer information about item weights and dimensions means that many shipments are less than fully utilized – and occasionally

additional trailers have to be dispatched when loads exceed their expected size. By ensuring that customers have accurate item information, data synchronization is expected to significantly reduce these incidents of under-cubing or additional shipments. Data synchronization also eliminates delays and/or shipment returns when items arrive at customers' warehouses and their description, weight or dimensions do not match the information in customers' internal systems. Given the size of Kraft's freight bill, even a fractional increase in overall utilization is worth at least a million dollars per year to Kraft.

***Inventory Reduction (across the supply chain)***

The various delays in product deliveries caused by item data errors (i.e., in purchase order processing, freight scheduling, warehouse and DSD receiving, etc.) cause manufacturers to maintain a buffer stock of inventory. Kraft expects to cut current inventory levels, once data synchronization has been fully implemented.



# GMA-FMI TRADING PARTNER ALLIANCE

## GMA-FMI DATA SYNCHRONIZATION CASE STUDY:

### Procter & Gamble

#### Overall Findings

Procter & Gamble, one of the world's largest consumer goods companies with sales over \$20 billion in North America, has the potential to generate benefits well in excess of \$30 million per year. The full extent of these benefits will be achieved over the next five years once all of its major customers are capable of data synchronization. Given an initial investment of approximately \$2.4 million and ongoing costs of about \$1.4 million per year, this translates into a return on investment well in excess of 1,000 percent.

#### Implementation Progress

Procter & Gamble has been at the forefront of the drive toward data synchronization since the birth of the idea at the GMA/EDS Future Forces Roundtable in 1998. P&G was one of the six original pilot companies at the launch of UCCnet in 2000, and has dedicated significant leadership time to support the development of UCCnet since then.

As of March 2003, P&G has begun synchronizing item data with at least four customers, with a total of more than 12,700 US items registered and 7,500 US items published. By the end of 2003, P&G expects more than 90 percent of its U.S. product catalog to be registered with UCCnet and synchronized with key retail customers.

P&G uses Transora as their home data pool to manage the interface between its master item catalog and the UCCnet GLOBAL Registry and customer catalogs. Item data in all internal systems (R&D, sales, logistics, finance, etc.) are linked to the master item catalog.

#### Direct Benefits for Consumers and P&G's Top-Line

##### ***Reduced Out of Stocks***

Industry studies have found that products are out-of-stock on retailers' shelves as much as 8 percent of the time. While the majority of these out-of-stocks are caused by errors in the supply network, store operations or in forecasting and ordering, root cause analysis at Wegmans and Shaw's has revealed that as many as 3-5 percent of out-of-stocks are caused by bad data (i.e., incorrect item information in the retailer's systems causes delays in buying, shipping, receiving, handling, etc.). By eliminating buying and supply chain delays due to item data errors, data synchronization prevents this portion of out-of-stock incidents. For a company of P&G's size, this translates into additional sales of several million dollars per year and corresponding bottom-line benefits.

##### ***Increased Speed to Shelf for New Items***

By automating the process for entering new item information into retailers' item management systems, data synchronization significantly reduces the time required to launch new products in the market. Consistent with the other manufacturers and retailers in this study, P&G has found that the time required for new item data entry may be reduced from two weeks or more to a matter of hours. Apart from significantly reducing time demands on P&G's

salesforce (see below), this has an impact on P&G's sales. Since new products typically outsell the products they are replacing by a ratio of at least 2:1 (and often at a higher margin), each additional week of new product sales translates into additional revenues and profits for P&G. P&G expects to generate several million dollars in additional new product sales from the adoption of data synchronization.

## **Transactional Efficiencies**

### ***Reduced Salesforce Time on Item Introductions & Updates***

Under the old system of manual item data sheets, P&G's salesforce spends a significant amount of time communicating basic information to customers about new items and changes to existing items. In addition, whenever a new product is launched, P&G salespeople spend many hours following up with each function at their customers (merchandising, buying, warehouse, stores, etc.) to ensure that each has the correct information and are ready to start ordering and receiving product. Depending on the type of customer (retail/wholesale, centralized/decentralized), P&G studies in the US and Canada have found that salespeople spend a significant amount of their time communicating and following up basic item information. By automating the data entry process and subsequent information updates, data synchronization completely eliminates salesforce time spent communicating and updating basic item information. This will eliminate tens of thousands of hours and save millions of dollars in labor costs across the P&G North America salesforce (apart from savings in communication and IT costs).

Field representatives in P&G's Retail Sales Organization (RSO) also spend a significant amount of their time on item data rework and retail audits. Once retailers' systems are synchronized with correct and up-to-date product information, much of the time spent on these basic item checks will be eliminated. This will also save tens of thousands of hours and millions of dollars in labor costs each year.

P&G also maintains a Web site and call center to handle customer orders and questions. A small but significant portion of the queries received at the call center and Web site relate to basic item information. With data synchronization, item information is automatically updated in customers' systems, and the time required to respond to these queries is eliminated.

### ***Reduced Time spent on Invoice Reconciliation and Deductions***

It is well known that a large proportion of invoices result in disagreements between manufacturers and retailers (50 percent or more, according to some studies). In P&G's case, internal research has found that a small, but significant, portion of invoice disputes relate to basic item information – i.e., disagreements over the type of items ordered or delivered, the item count or quantity, freight allowances based on the size of order, etc. Data synchronization, by ensuring correct alignment between the retailer's purchase orders and the manufacturer's delivery records, eliminates these disputes about basic delivery quantities, freight allowances, etc. Since P&G's account executives spend a significant amount of their time on invoice disputes, eliminating even a small portion of these disputes saves P&G several hundred thousand dollars per year.

In addition, P&G expects to see a small reduction in the write-offs it incurs as a result of these discrepancies.

### ***Reduced Information Systems Costs***

P&G management estimates that a significant portion of their total IT and data management budget is expended on redundant systems required to align and translate item information across P&G's various divisions. With the creation of a single master item catalog for data synchronization, P&G has already saved several million dollars per year in IT and transcription costs.

## Supply Chain Benefits

### ***Reduced Time in Purchase Order Processing and Shipment Rework***

A large number of the purchase orders received by P&G have errors related to basic item information: incorrect products, UPC codes, quantities, weights, dimensions, etc. P&G has found that each incorrect PO costs several dollars to check, correct errors, communicate changes to vendors, etc. Data synchronization completely eliminates these errors in basic product information and should save P&G several hundred thousand dollars per year.

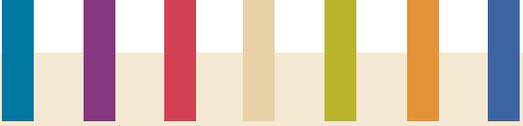
### ***Reduced Logistics Costs***

P&G, like other manufacturers, spends a considerable amount of time checking purchase orders and reworking shipments, in order to maximize truck utilization and minimize freight costs. Nevertheless, inaccurate customer information about item weights and dimensions means that many shipments are less than fully utilized – and occasionally additional trailers have to be dispatched when loads exceed their expected size. By ensuring that customers have accurate item information, data synchronization is expected to significantly reduce these incidents of under-cubing or additional shipments. Given the size of P&G's freight bill, even a fractional increase in overall utilization is worth several million dollars per year.

Data synchronization also eliminates delays and/or shipment returns when items arrive at customers' warehouses and their description, weight or dimensions do not match the information in customers' internal systems. These return shipments and delivery delays currently cost P&G several million dollars per year.

### ***Inventory Reduction (across the supply chain)***

The various delays in product deliveries caused by item data errors (i.e., in purchase order processing, freight scheduling, warehouse and DSD receiving, etc.) cause manufacturers to maintain a buffer stock of inventory. P&G expects to reduce current inventory levels, once data synchronization has been fully implemented.



# GMA-FMI TRADING PARTNER ALLIANCE

## GMA-FMI DATA SYNCHRONIZATION CASE STUDY:

### Nestlé Purina PetCare

#### Overall Findings

Nestlé Purina PetCare, a leading global manufacturer of pet food and pet-care products with sales of \$4.2 billion in North America, expects to generate benefits in excess of \$2 million per year. The full extent of these benefits will be achieved over the next five years once all of its major customers are capable of data synchronization. Given Purina's initial investment and ongoing annual costs, this translates into a return on investment in excess of 1,000 percent.

#### Implementation Progress

Purina has been at the forefront of the drive toward data synchronization since the birth of the idea at the GMA/EDS Future Forces Roundtable in 1998. Purina has dedicated significant leadership time to support the development of the UCCnet data registry and synchronization service. Purina and Wegmans were the first pair of companies to synchronize item information for a complete product category using UCCnet in March 2001.

As of March 2003, Purina has begun synchronizing item data with six customers, with a total of more than 1,200 items in synch. By the end of 2003, Purina expects 100 percent of its U.S. branded product catalog to be registered with UCCnet and synchronized with additional key retail customers.

Purina has created and maintains its own proprietary interface for managing communication between its master item catalog and UCCnet. Item data in all internal systems (R&D, sales, logistics, finance, etc.) are linked to the master item catalog.

#### Direct Benefits for Consumers and Purina's Top-Line

##### ***Reduced Out of Stocks***

Industry studies have found that products are out-of-stock on retailers' shelves on average as much as 8 percent of the time. While the majority of these out-of-stocks are caused by errors in the stores or in forecasting and ordering, root cause analysis at Wegmans and Shaw's has revealed that as many as 3-5 percent of out-of-stocks are caused by bad data (i.e., incorrect item information in the retailer's systems causes delays in buying, shipping, receiving, handling, etc.). By eliminating buying and supply chain delays due to catalog errors, data synchronization prevents this portion of out-of-stock incidents. For a company of Purina's size, this may translate into millions of dollars in additional sales per year and corresponding bottom-line benefits.

##### ***Increased Speed to Shelf for New Items***

By automating the process for entering new item information into retailers' IT systems, data synchronization significantly reduces the time required to launch new products in the market. Consistent with the other manufacturers and retailers in this study, Purina has found that the time required for new item data entry has been reduced from two weeks or more to a matter of hours. Apart from reducing time demands on Purina's salesforce (see below), this may

have an impact on Purina's sales. Since new products typically outsell the products they are replacing by a ratio of at least 2:1 (often at a higher margin), each additional week of new product sales can translate into additional revenues and profits for Purina. Purina expects to generate incremental dollars in additional new product sales as a result of data synchronization.

## **Transactional Efficiencies**

### ***Reduced Salesforce Time on Item Introductions & Updates***

Under the old system of manual item data sheets, Purina's salesforce spends a portion of its time communicating basic information to customers about new items and changes to existing items. In addition, whenever a new product is launched, Purina salespeople spend many hours following up with each function at their customers (merchandising, buying, warehouse, stores, etc.) to ensure they have the correct information and are ready to start ordering and receiving product. Purina surveyed a cross-section of salespeople serving a variety of customer types (retail/wholesale, centralized/decentralized) and found that salespeople spend a considerable portion of their time simply communicating and following up basic item information. By automating the data entry process and subsequent information updates, data synchronization will help reduce salesforce time spent communicating new item data, and eliminate salesforce time spent updating basic item information. This can save the Purina North America salesforce several thousand hours (apart from savings in communication and IT costs).

Purina field representatives also spend a portion of their time on item data rework and retail audits. Once retailers' systems are synchronized with correct and up-to-date product information, much of the time spent on these basic item checks will be eliminated. This can also save the field representatives thousands of hours each year.

The company has also found that where Purina acts as the category captain for retailers, Purina category managers spend a portion of their time collecting, verifying and reconciling basic information about other vendors' products in their category (identifying the appropriate product codes, verifying dimensions for planograms, etc.). Once accurate and complete information on each item in a category is available, category captains will save time in the category research and planning process.

### ***Reduced Time spent on Invoice Reconciliation and Deductions***

It is well known that a large proportion of invoices result in disagreements between manufacturers and retailers (50 percent or more, according to some studies). In Purina's case, internal research has found that a small portion of invoice disputes relate to basic item information – i.e., disagreements over the type of items ordered or delivered, the item count or quantity, freight allowances based on the size of order, etc. Data synchronization, by ensuring correct alignment between the retailer's purchase orders and the manufacturer's delivery records, will help eliminate these disputes about basic delivery quantities, freight allowances, etc. Since Purina's salespeople and finance function spend time dealing with invoice disputes, eliminating even a small portion of these disputes can save Purina several thousand dollars per year.

In addition, Purina expects to see a small reduction in the write-offs it incurs as a result of these discrepancies.

## Supply Chain Benefits

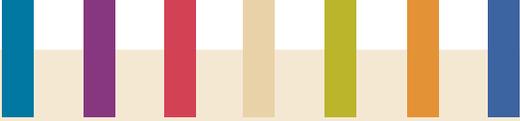
### ***Reduced Time in Purchase Order Processing and Shipment Rework***

Detailed ABC analysis at Purina has revealed that many purchase orders received have errors related to basic item information: incorrect products, UPC codes, quantities, weights, dimensions, etc. Purina has found that each incorrect purchase order costs several dollars to check, correct errors, communicate changes to vendors, etc. Data synchronization will eliminate these errors in basic product information and should save Purina several thousand dollars per year.

### ***Reduced Logistics Costs***

Purina, like other manufacturers, spends a considerable amount of time checking purchase orders and reworking shipments, so as to maximize truck utilization and minimize freight costs. Nevertheless, inaccurate customer information about item weights and dimensions means that many shipments are less than fully utilized. By ensuring that customers have accurate item information, data synchronization is expected to reduce these incidents of under-cubing. Given the size of Purina's freight bill, even a small increase in overall utilization is worth a significant amount of dollars per year.

Data synchronization will also eliminate delays and/or shipment returns when items arrive at customers' warehouses and their description, weight or dimensions do not match the information in customers' internal systems. These return shipments and delivery delays currently cost Purina several thousand dollars per year.



# GMA-FMI TRADING PARTNER ALLIANCE

## GMA-FMI DATA SYNCHRONIZATION CASE STUDY:

### Shaw's Supermarkets

#### Overall Findings

Shaw's Supermarkets, a \$4.4 billion retailer operating 185 supermarkets in the New England region, expects to generate benefits of at least \$2 million per year, within the next five years once all of its major suppliers are capable of exchanging all the data synchronization message sets. Given an initial investment of approximately \$400,000, to purchase and program new systems, and ongoing costs of \$100,000 per year to maintain the system, this would translate into a return on investment well in excess of 500 percent.

#### Implementation Progress

Shaw's Supermarkets has been at the forefront of the data synchronization movement since the formal launch of UCCnet in 2000. Shaw's senior management has dedicated significant time to developing and promoting the concept of data synchronization in the industry. Kraft Foods and Shaw's were the first manufacturer and retailer team to complete the UCCnet certification process in February 2001. In early 2002, Shaw's sent a letter to all their vendors informing them that from January 1, 2003 they would no longer process manual item data sheets and would only accept item updates in electronic form – either via UCCnet or via electronic kiosks at Shaw's merchandising locations.

As of March 2003, Shaw's has processed 1,637 catalog items and has now synchronized the data on 541 of them from a total of 14 suppliers.

Shaw's created and maintains its own machine-to-machine interface (using Vista Technology) for managing communication between UCCnet and its internal systems. Item data in all internal systems (merchandising, buying, logistics, warehouse, DSD, POS, AP, etc.) are fed by this interface.

#### Direct Benefits for Consumers and Store Operations

##### ***Reduced Out of Stocks***

Analysis of shelf out-of-stocks at Shaw's has shown that approximately 3 percent of out-of-stocks result from delivery delays due to data integrity issues (i.e., delays in purchase order processing, freight scheduling, warehouse and DSD receiving, etc.). By eliminating buying and supply chain delays due to catalog errors, data synchronization prevents these out-of-stock incidents and is projected to increase sales and customer satisfaction levels at Shaw's Supermarkets.

##### ***Increased Speed to Shelf for New Items***

The new automated item data entry process at Shaw's has reduced the amount of time required to introduce new items into the retailer's systems for evaluation from two or three weeks to a matter of hours. Once a critical mass of retailers is capable of data synchronization, manufacturers are expected to reduce the lead time for new item launches and bring forward the "first ship date" (and the corresponding marketing launch) by two weeks or more.

Given that new items typically sell at twice the velocity of the items they are replacing (often at a higher margin), these faster item introductions are expected to increase Shaw's sales and profit.

### ***Reduced Shelf-Tag and Checkout Errors in the Stores***

Frequently when manufacturers alter pack sizes (count, weight, dimensions), this information is not updated immediately in retailers' systems. As a result, every week hundreds of shelf-tags in Shaw's supermarkets become candidates for price-per-unit discrepancies. Shaw's incurs considerable labor and printing costs re-ordering, re-printing and re-installing several hundred tags each week. Real-time data synchronization significantly minimizes these shelf-tag inaccuracies.

There are also times when items do not scan at the checkout because information about the item or its UPC-code has not been updated in the Shaw's POS system. This can happen several thousand times per week across all 185 stores. While these "not on file" errors represent a tiny proportion of all item scans, each of these incidents results in delays at the checkout, additional labor to run an item-check and reduced customer satisfaction. In some cases, consumers decide not to buy the item in question. Real-time synchronization of vendor item data entirely eliminates this type of scan error.

Altogether, data synchronization is expected to eliminate thousands of hours per year in non-value-added activities in Shaw's supermarkets caused by shelf-tag and POS errors – quite apart from the impact on customer satisfaction and sales.

## **Transactional Efficiencies**

### ***Reduced Merchandising Time on Item Introductions & Updates***

Under the old system of manual item data sheets, Shaw's buyers, pricing analysts, data administrators and other employees spent countless hours receiving, following up and manually entering new item data sheets from suppliers. With the advent of data synchronization, the time required for new item introduction will be drastically reduced, freeing up additional hours of merchandising time to be spent on more value-adding activities like category planning, market intelligence, etc.

Shaw's store helpdesk, EDI and data management functions also spend many hours per year receiving, checking and inputting updates to existing item information. This process is entirely eliminated for items in synch.

In addition, once the majority of manufacturers in each category maintain their catalogs in an accessible data pool, category managers expect to save significant time in the category research, planning and item selection process.

### ***Reduced Time and Errors Generating Purchase Orders***

Shaw's flow of goods buyers spend hundreds of hours per year checking and correcting item information in purchase orders and communicating with vendors, to ensure that the items ordered are correct. Data synchronization on item cost and deal information will substantially reduce the time required for purchase order verification and correction.

### ***Reduced Time and Fees for Invoice Reconciliation***

It is well known that a large proportion of invoices result in disagreements between manufacturers and retailers (50 percent or more, according to some studies). While the majority of these disputes result from pricing or deal discrepancies, a sizeable proportion are caused by discrepancies in basic item data – i.e., disputes over the type of items ordered or delivered, the item count or quantity, freight allowances based on the size of order, etc. Analysis of the invoice-handling process at Shaw's revealed that buying and accounting personnel spent hundreds of hours per year resolving invoice-disputes caused by these basic item-data issues. Data synchronization, by ensuring correct alignment between the retailer's purchase orders and the manufacturer's delivery records, eliminates these discrepancies and the administrative and management time wasted by both the manufacturer and the retailer resolving these disputes.

Shaw's also pays external auditors significant fees each year to uncover invoice errors. With data synchronization, a large portion of these fees is expected to be eliminated.

## **Supply Chain Benefits**

### ***Reduced Inbound Logistics Costs***

Currently, inaccurate information about item dimensions and weight frequently results in under-utilization of inbound trucks – and sometimes drives the need for extra trucks (when the load is larger than expected). With the benefits of synchronized weight and dimension data, Shaw's expects to increase inbound freight utilization and eliminate most instances of additional trailers due to unexpected overage.

### ***Reduced Warehouse Receiving and Handling Costs***

Currently, Shaw's uses Cubiscan technology to measure every new item, pack and case, to ensure smooth operation of the warehouse and outbound logistics operations. With the benefits of synchronized weight and dimension data, the time and equipment required to measure new items and input this data into Shaw's systems will be eliminated.

Despite the time spent by merchants and FOG buyers verifying item information and purchase orders, every day items arrive at Shaw's warehouses whose description, weight or dimensions do not match the information in Shaw's internal systems. As a result, significant time is spent checking these deliveries and scheduling additional labor and equipment to handle unexpected loads and re-pallet loads that do not fit into assigned warehouse slots. These delays in receiving, handling and slotting can also delay the unloading of other shipments and trigger penalties.

In total, warehouse employees spend hundreds of hours per year, as a result of inadequate or incorrect information about items, cases and pallets passing through Shaw's warehouses.

### ***Reduced Outbound Logistics Costs***

Shaw's internal research has found that a small, but significant, portion of outbound loads are under-cubed or over-cubed due to inaccurate item information. Given the additional costs of each under-cubed or additional load, these data inaccuracies result in additional costs of several hundred thousand dollars per year. These costs will be eliminated as Shaw's outbound managers have access to real-time accurate item information.

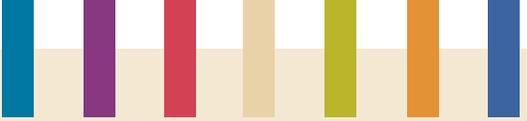
### ***Reduced Delays in DSD Receiving***

DSD receivers at each Shaw's store frequently receive shipments with items that are "not on file" in the receiving system. Internal studies have revealed that several times per week these events are caused simply because item data has not been updated between the vendor and Shaw's systems. Each event results in significant delays while the receiver resolves the discrepancy and can result in loss or damage of items while they are held in the stockroom. Real-time synchronization of data between the DSD vendor and the retailer entirely eliminates these events. The resulting labor and shrink savings across 185 stores are worth hundreds of thousands of dollars.

In addition, Shaw's store receivers currently inventory all cases by opening and scanning items. With data synchronization, the correct GTIN will be located on the box itself, thereby eliminating the need to scan the item, and significantly reducing the time required for the backroom inventory process.

### ***Inventory Reduction (across the supply chain)***

The various delays in product deliveries caused by item data errors (i.e., in purchase order processing, freight scheduling, warehouse and DSD receiving, etc.) cause retailers to maintain a buffer stock of inventory. Shaw's expects to reduce current inventory levels, once data synchronization has been fully implemented.



# GMA - FMI TRADING PARTNER ALLIANCE

## GMA-FMI DATA SYNCHRONIZATION CASE STUDY:

### BI-LO (Ahold USA)

#### Overall Findings

BI-LO, a \$3 billion retailer within the Ahold USA umbrella, operates 300 supermarkets in South Carolina, North Carolina, Georgia and Tennessee. BI-LO expects to generate benefits in excess of \$500,000 annually within the next five years once all of its major suppliers are capable of data synchronization. BI-LO has not published estimates on system installation costs.

Under the leadership of Bill Grize, Ahold USA has been at the forefront of the data synchronization movement since the formal launch of UCCnet in 2000 – senior management has dedicated significant time to developing and promoting the concept in the industry. In 2001, Ahold was one of the first retailers to inform their vendors that they would expect all suppliers to be capable of data synchronization. BI-LO was the first of Ahold USA's six operating companies to begin receiving synchronized data from suppliers in early 2002.

As of March 2003, BI-LO is accepting synchronized item data from a total of 31 suppliers, with a total of over 1,200 items in synch. The current expectation within BI-LO is that 30 percent of all warehouse grocery items will be in synch by the end of 2003.

BI-LO has created and maintains its own proprietary interface for managing communication between UCCnet and its internal systems.

#### Direct Benefits for Consumers and Store Operations

##### ***Reduced Out of Stocks***

At any one time, a small number of items on the shelves of BI-LO stores are out-of-stock as a direct result of delivery delays due to data integrity issues (i.e., delays in purchase order processing, freight scheduling, warehouse and DSD receiving, etc.). These out-of-stocks are a small share of total out-of-stocks (industry studies have shown as much as 8 percent of items out-of-stock at any one time), but each missing item results in lost sales and consumer dissatisfaction. By eliminating buying and supply chain delays due to catalog errors, data synchronization prevents these out-of-stock incidents and is projected to increase sales.

##### ***Increased Speed to Shelf for New Items***

Analysis of new item introductions at BI-LO confirmed the findings of previous studies: the current manual process of receiving and entering new item information can take two to three weeks to complete. Data synchronization reduces this process. Once a critical mass of retailers is capable of data synchronization, manufacturers are expected to reduce

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the lead-time for new item launches and bring forward the "first ship date" (and the corresponding marketing launch) by two weeks or more. Given that new items typically sell at twice the velocity of the items they are replacing, these faster item introductions are expected to increase BI-LO's sales.

### ***Reduced Shelf-Tag and Checkout Errors in the Stores***

Research at BI-LO stores found that several times per week items do not scan at the checkout because information about the item or its UPC-code has not been updated in the BI-LO POS system. While these "not on file" errors represent a tiny proportion of all item scans, each of these incidents results in delays at the checkout, additional labor to run an item-check and reduced customer satisfaction. In some cases, consumers decide not to buy the item in question. Real time synchronization of vendor item data reduces this type of scan error, thereby reducing checkout labor and increasing customer satisfaction and sales.

Altogether, data synchronization is expected to eliminate thousands of hours per year in non-value-added activities in BI-LO stores caused by shelf-tag and POS errors – quite apart from the impact on customer satisfaction and sales.

## **Transactional Efficiencies**

### ***Reduced Merchandising Time on Item Introductions & Updates***

Interviews with BI-LO merchandisers and administrative teams revealed that currently merchandisers, pricing assistants and others in aggregate spend thousands of hours per year receiving, following up and manually entering new item data sheets from their vendors. With the advent of data synchronization, the time required for new item introduction is expected to be significantly reduced, freeing up hundreds of hours of the merchandising team's time to be spent on more value-adding activities like category planning, market intelligence, etc.

BI-LO merchandisers, buyers, pricing analysts and their assistants also spend hundreds of hours per year receiving, checking and inputting updates to existing item information. This process is entirely eliminated for items in synch.

In addition, once the majority of manufacturers in each category maintain their catalogs in an accessible data pool, merchandisers expect to save significant time in the category research, planning and item selection process.

### ***Reduced Time and Errors Generating Purchase Orders***

BI-LO replenishment buyers spend numerous hours per year checking and correcting item information in purchase orders and communicating with vendors, to ensure that the items ordered are correct. With the advent of data synchronization, the time required for purchase order verification and correction is expected to be reduced.

In the event of vendor-wide item changes, replenishment buyers spent a significant amount of time manually changing vendor codes within the systems. These occurrences may be infrequent, but they do translate to additional work. These hours of extra work would be eliminated by data synchronization.

### ***Reduced Time and Fees for Invoice Reconciliation***

It is well known that a large proportion of invoices result in disagreements between manufacturers and retailers (50 percent or more, according to some studies). While the majority of these disputes result from pricing or deal discrepancies, a sizeable proportion are caused by discrepancies in basic item data – i.e., disputes over the type of items ordered or delivered, the item count or quantity, freight allowances based on the size of order, etc. Analysis of the invoice-handling process indicates a portion of invoices require some form of follow-up solely due to item-data related issues. Data synchronization, by ensuring correct alignment of data between the retailer's purchase orders and the manufacturer's delivery records, eliminates these discrepancies and the administrative and management time wasted by both the manufacturer and the retailer resolving these disputes.

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## Supply Chain Benefits

### ***Reduced Inbound Logistics Costs***

Currently, inaccurate information about item dimensions and weight frequently results in under-utilization of inbound trucks – and occasionally results in the need for extra trucks. With the benefits of synchronized weight and dimension data, BI-LO expects to improve inbound freight utilization.

### ***Reduced Warehouse Receiving and Handling Costs***

Currently, BI-LO uses Cubiscan technology to measure every new item, pack and case, to ensure smooth operation of the warehouse and outbound logistics operations. With the benefits of synchronized weight and dimension data, the time and equipment required to measure new items and input this data into BI-LO systems will be eliminated.

Despite the time spent by buyers verifying item information and purchase orders, every day items arrive at BI-LO's warehouses whose description, weight or dimensions do not match the information in BI-LO's internal systems. Significant time is spent checking these incorrect deliveries and using additional labor and equipment to handle unexpected loads and re-pallet loads that do not fit in their assigned warehouse slots. These delays in receiving, handling and slotting can also delay the unloading of other shipments.

In total, warehouse employees waste hundreds of hours per year, as a result of inadequate or incorrect information about items, cases and pallets passing through BI-LO warehouses.

### ***Reduced Outbound Logistics Costs***

Inaccurate item data rarely causes problems in outbound logistics, since discrepancies are usually caught during the inbound process or in the warehouse. However, there are occasions when outbound loads are under-cubed or over-cubed do to inaccurate item information. Given the additional cost of each under-cubed or additional load, while rare, each of these incidents can cost thousands of dollars in extra freight and labor costs.

### ***Reduced Delays in DSD Receiving***

DSD receivers at each of BI-LO's stores frequently receive shipments with items that are "not on file" in the receiving system. Interviews with store receivers revealed that several times per week these events are caused simply because item data has not been updated between the vendor and BI-LO's systems. Each event results in significant delays while the receiver resolves the discrepancy. Real-time synchronization of data between the DSD vendor and the retailer entirely eliminates these events. The resulting labor savings across 300 stores are worth thousands of dollars.

### ***Inventory Reduction (across the supply chain)***

The various delays in product deliveries caused by item data errors (i.e., in purchase order processing, freight scheduling, warehouse and DSD receiving and handling, etc.) cause retailers to maintain a buffer stock of inventory. BI-LO expects to reduce current inventory levels, once data synchronization has been fully implemented.

**NOTE: This study represents an estimate of gross savings for the grocery, dairy and frozen departments. GM/HBC and perishables are not included. This study does not include any expenses for the implementation of data synchronization, nor the cost of realizing soft savings. This information is presented for modeling purposes only.**