How to Reduce Order Processing Costs by $400,000 Over 5 Years, Improve Customer Service and Reduce Stress At the Same Time!

Cream & Yogurt Case Yields Lessons for CPG Manufacturers

by Tom Ingram, PMP

Note: The names and figures in this case have been altered to protect confidential information.

Imagine that you are the CEO of a $120 million consumer packaged goods (CPG) manufacturer. You are looking to improve bottom line efficiencies *today*. You want your people to focus their energies on what they do best and you want to off-load lower value work to partners who can do it more efficiently than you can. You are passionate about customer service and you know your order processing operations can be improved.

How would you proceed? What options would you pursue? What results could you expect? This case study is intended to present some useful concepts and results based on Cream & Yogurt' experience facing just these types of problems.

> **25% improvement in orders right the first time.**

Problem: Let's examine your issues in a little more detail. You know that your order processing and customer service functions can be done for less than it is costing now, but you are not certain how to go about it. You know that improving customer service will lead to happier customers, more productive sales people and increased revenues.

You currently use approximately 80 food brokers to distribute your products to retailers. About half of your brokers and retailers transmit orders electronically, while the other half use fax, voice or mail. Your larger and more progressive partners transmit orders electronically through EDI (Electronic Data Interchange), but nearly everyone uses a different electronic format.

The complexity and adversarial nature of these relationships is annoying, time consuming and damaging to employee and customer good will.

You know that you can make some operational improvements that will help your customers. You might be able to help them to lower safety stocks, improve inventory turns, reduce the time between order and delivery and save some administrative costs.

> **See Business Case on Page 2**

In addition to all of the above, you have some long-term strategic goals for the business. You want executive time focused on high value activities, rather than fighting day-to-day order processing and customer service problems. You want to be prepared to rapidly expand your sales volume, but you do not want to commit to substantial fixed costs that might hurt your profits during a downturn. You would like to see inventory turns improved and reduce your "order-to-cash" cycle time.

Some Background: Cream & Yogurt has been pursuing improvements along the above lines for many years. ABC Software is a

Business Case for Hypothetical $400 Million/yr CPG Manufacturer Wanting to Reduce Customer Service and Order Processing Costs Using ABC Software (based on Cream & Yogurt's experience)	
Assumptions:	
# work days per year	XXX
POs processed per year	XXX
POs processed per day per person	XXX
Avg salary for cust service / order processing person	XXX
Overhead burden percent (mgmt, hiring, training, retention)	XXX
Total cost of salary and overhead per person per year	XXX
Utilization / effectiveness %	XXX
Administrative productivity improvement through ABC Software[i]	XXX
Cost for fully equipped computer per person per year[ii]	XXX
Square feet of work space and common area required per person per year	XXX
Cost for space, common area, utilities (suburban office park) per sq ft per year	XXX
Total cost of space, common area, furniture, utilities per person per year	XXX
Cost for electronic data transactions per PO (avg 2 transmission / PO)	XXX
Cost for electronic data transactions per person per year	XXX
Cost for telephone system per year	XXX
Long distance telephone charges per person per day	XXX
Long distance telephone charges per person per year	XXX
Calculations:	XXX
Number of people required to process PO volume (POs per year) / (POs per day per person) / (# of work days per year) / (Utilization%), rounded up the next whole person	XXX
Total cost per cust service / order processing person per year (Salary plus overhead plus computer, space, EDI and phone costs)	XXX
Total approximate cost of cust service / order processing operation / yr (Total cost per person times number of people required)	XXX
Option 1: Manufacturer uses only ABC Software's' computer system service, continues to staff customer service / order processing functions in-house	XXX
Approximate total annual savings possible using ABC Software computer system services only (Annual cost times administrative productivity improvement with ABC Software)	XXX
Annual cost for ABC Software services[iii]	XXX
Net annual savings	XXX
Net five year savings	**$ XXX**
Option 2: Manufacturer totally outsources customer service and order processing functions to ABC Software	
Approximate annual savings from outsourcing (Total approximate cost of cust service / order processing operation less 25% because it is not practical to assume 100% outsourcing of these functions)	$ XXX
Approximate annual fees to ABC Software[iv]	$ XXX
Net annual savings	**$ XXX**
Net five year savings	**$409,275**

company that provides advanced technology and services to improve order processing and customer service operations. Cream & Yogurt has been doing business with ABC Software and its parent company[v] for many years. Approximately three years ago, ABC Software implemented a new technology (called "The ABC Software System") to improve efficiencies and reduce costs.

77% reduction in cost per error.

This case study uses actual data from Cream & Yogurt's experience and benefits of the ABC Software System. We have created a hypothetical $400 million consumer packaged goods (CPG) manufacturer as an example. Our intent is to simply and clearly communicate the problems and issues faced by a firm such as Cream & Yogurt in attempting to make improvements as described above. Refer to the endnotes for explanations and assumptions. Any questions regarding our conclusions may be directed to Tom Ingram at the enclosed phone number.

Solution: The systems, services and processes provided to Cream & Yogurt by ABC Software and its parent company have evolved over a 20-year relationship. For simplicity, the following is a summary of how ABC Software's systems and services would be implemented for a new client, starting from scratch. Cream & Yogurt comments regarding this description and reasonable expectations for a manufacturer implementing these systems and processes are included at the end of this case.

An Overview Of The Basic Components Of The Solution: ABC Software provides services and a computer system that acts as an intermediary between Cream & Yogurt, its food broker and its retail customers. The ABC Software solution provides the following key functions:

a) Order entry: Retail customers place orders directly into ABC's software using PCs connected to the Internet. A special process is set up to handle faxed orders.

b) Deal verification and validation: The ABC Software System is set up to check dozens and dozens of details against the Cream & Yogurt price list, quantities allowed, lead times, special promotions, etc. Great effort is exerted to get the best possible "deal" information into the ABC Software system so that orders can be processed without errors.

c) Order format translation: ABC Software automatically converts the order from the format used by the retail customer to the electronic format needed by Cream & Yogurt.

d) Order transmission: The ABC Software system automatically transmits the order to Cream & Yogurt. If the order contains no errors, the entire process can take place in just a few minutes.

e) Error Handling: Many, but not all order errors can be prevented. The ABC Software System scans the orders immediately and notifies an ABC Software customer service person when attention is needed. Most errors are resolved and on their way to Cream & Yogurt within 70 minutes, though some take longer to resolve.

f) Reconciliation of Orders and Invoices: The ABC Software System provides several tools to assist in quickly resolving discrepancies. A history for each order is always available online. This history includes every change made to the order to allow it to be processed, a code showing who made the changes and comments regarding the change.

g) Sales and Order History, Trend Reporting: Having all of this order data available online and in a consistent format is useful for investigating sales trends and patterns.

Data is available to aid in evaluating the results from advertising, promotions, coupons, etc.

How Does the Solution Address the Key Problems? In general, Cream & Yogurt has "outsourced" its order processing and much of its customer service functions to ABC Software. Cream & Yogurt pays ABC Software a fixed fee per order processed plus additional fees for resolving different types of errors or "touched"[vi] orders. Following is a general description of how each of the major problems are addressed and some of the mechanics of the solution:

(1) Cost Reduction and Management:

Labor Cost Reductions: Labor is saved in the order processing area because the ABC Software makes it easy for Cream & Yogurt's customers to enter orders in a common format. The ABC Software also does a rigorous check against all the details necessary for a clean order such as correct quantities, correct lead times, price and promotion arrangements within agreed upon ranges, etc. This eliminates a great deal of tedious data entry and order verification. The software also reminds Cream & Yogurt's customers to enter the right data the first time, greatly reducing the labor required to process orders.

Similarly, labor is saved in the customer service department because fewer mistakes are made, better information is in the order and the ABC Software provides tools to help quickly resolve problems. Every time necessary labor is reduced by one person, the cost of hiring, training, overhead, retention and management of that one person is saved as well.

> **82% reduction in average time from order placed until a clean order is ready for the manufacturer to process.**

We do not have exact information on Cream & Yogurt's cost to resolve order errors prior to ABC Software services and systems, but we can make an educated guess from industry statistics. On average, the dollar cost per order to resolve an error ranges between \$40 and \$400.[vii] According to Joe Willis, Director of Customer Service for ABC Software's parent company, internal data shows that every time a human must touch an order, the average cost will be \$39.50. The cost can rapidly escalate to \$450 or more when executive and sales rep time is required to resolve the problem. The analogy Joe uses is, "We are in the business of doing regular \$39.50 oil changes in order to prevent \$450 engine repairs!"

Additional Cost Savings: Because ABC Software handles order processing for many manufacturers such as Cream & Yogurt, it enjoys significant economies of scale and benefits from experience. Items such as Information Technology labor and systems costs are minimized. Third party costs such as consultants and EDI transaction costs are also minimized. Since ABC Software is based on PCs accessing the Internet, costs for proprietary hardware, software and support services are largely eliminated.

Pay for Only What You Need: The costs for the services that Cream & Yogurt buys from ABC Software are based solely on usage, and are easily managed as a direct cost of sales. By replacing the "Fixed Costs" of in-house order processing and customer service departments with the "Variable Costs" of ABC Software's solution, Cream & Yogurt can expand quickly to meet increased sales levels yet keep the organization lean and profitable in the event of a downturn.

> **40% reduction in number of orders escalated to management per month.**

Reduce Cost of Deductions[viii] and Invoice Disputes: Deductions are reduced through a combination of "making it easy to enter the order right the first time", and some disciplines enforced by ABC's software. When deduction

disputes do occur, ABC Software provides tools to make reconciliation faster and less adversarial. For example, ABC Software provides a history of every order and every change made to that order, including who made the changes and their comments. Note also that resolving disputed invoices quicker means lower outstanding receivables, reduced borrowing costs, reduced write-offs and frees up valuable cash to be applied in other parts of the business.

Process Improvements Reduce Cost of Order Processing: One of ABC Software's highest goals is to reduce the number of times an order has to be touched by a human being. This has resulted in numerous process improvements and removal of several process steps. ABC Software's economies of scale extend to process improvements as well.

Cost Structure That Rewards Efficiencies: Note that the rate structure which Cream & Yogurt pays ABC Software is equitable for Cream & Yogurt yet provides ABC Software the opportunity to improve its profit margins by finding even greater efficiencies. Contrast this to the incentives that internal managers have in running customer service and order processing departments.

One Point of Responsibility for All Costs: Cream & Yogurt has transferred responsibility for managing a host of costs to ABC Software. These include telephone equipment, long distance charges, office equipment, space, software, systems and support, and EDI charges (not to mention all the costs associated with the order processing and customer service labor force).

(2) Increase Revenue: Several aspects of the ABC Software solution can improve sales:

Happy Customers Buy More: It is no surprise that fewer errors result in more satisfied customers and additional sales from good will. Happy customers are much more likely to recommend you.

Improved Sales Rep Productivity: Reducing the paperwork required for sales people is another way ABC Software helps increase revenues. Jean Davis, ABC Software's VP of Operations, explains, "The ABC Software System can provide every form a sales rep needs, instantly, with an Internet connection. It can even help fill out the form with routine information. Considering that field sales forces fill out hundreds, if not thousands of forms weekly, the increased sales productivity can add up quickly."

Fewer order errors also means your sales reps are spending more time selling and less time fixing problems.

Be Easy to Do Business With: Brad Johnson, ABC Software's President, describes an additional way to improve sales. "If you are Proctor & Gamble, your order processing problems don't come from Wal-Mart, they come from the little guys! ABC Software lets the order from the little guy and the order from Wal-Mart be processed just the same. We help your order processing function look just the way your customer wants it – every time."

By being easier to do business with and reducing buyer frustration, you are more likely to win in competitive situations.

Quicker New Product Launches: New product introductions and the time it takes to introduce a new product are notorious problems in the CPG industry. ABC Software forces some pre-planning and disciplines that can speed up the process. The sales reports will also give a more accurate picture of how the new product introduction is proceeding.

Better Sales Reporting: The disciplines enforced by ABC Software can also result in better sales reporting. Sales reports are more accurate because orders are more likely to be forced into common formats and price, deal and promotion items are more likely to be handled in a standard way.

Opportunities to Up-Sell: If a retailer places an order that is within 8 percent of the

manufacturer's next quantity price break, an order processing person can be notified immediately. This presents an opportunity to up-sell the retailer to the next quantity price break. Similarly, whenever a new customer places an order, a customer service person can be notified, providing an opportunity to see that the new customer is treated well and, perhaps, result in some additional sales.

(3) Reduce The Complexity and Adversarial Nature Of Trading Partner Relationships: Brad Johnson explains, "Our key value is in expediting and simplifying the process of exchanging price and promotional information among trading partners."

Reduce Cost and Stress of Deductions: Difficulties and potential financial pressures can easily arise from the traditional methods of order handling and deductions. The outsourcing arrangement that Cream & Yogurt has with ABC Software results in more accurate orders, reduced disputes, improved good will and lower costs on all sides. Having a history available for every order makes it easy to quickly gather the facts.

> **8.2% increase in average revenue per month.**

Customers Able to Use Their Own Systems: Another way that Cream & Yogurt has been able to maintain good relationships with its customers is by not requiring retailers to use its forms, data format, data transmission standards, etc. Brad Johnson describes the situation: "Customers often want to use fax or various different Electronic Data Interchange formats to transmit orders – and they will sometimes change abruptly. We want this to be ABC Software's problem – not the manufacturer's. The manufacturer just tells ABC Software the format they want the order in – and we give it to them in that format – every time."

(4) Benefits to Cream & Yogurt' Customers: One of the best ways to increase revenues and keep customers is to make improvements

that help customers with their own thorny problems. Following are some examples of how the Cream & Yogurt partnership with ABC Software is helping:

Customers Continue To Operate With Existing Systems: The ABC Software solution allowed Cream & Yogurt to continue to operate with its current systems, current forms and methods of data transmission. It also allowed Cream & Yogurt's customers to continue to operate with their own systems and forms. ABC Software is intended to act as a "common bridge" between trading partners with minimum changes required to the systems and procedures of both sides of the trading partner equation.

> **15.2% improvement in average $ per customer order.**

Customer Service Improvements: ABC Software now acts as an extension of Cream & Yogurt's order processing and customer service organizations. ABC Software personnel are assigned, trained and, in some cases, provided special systems and software to support Cream & Yogurt' customers.

Easy Access to Order Status and Information: Because ABC Software uses PCs on the internet, order viewing and sales reporting can be easily accessed for both Cream & Yogurt and its retailers.

Reduced Safety Stocks, Improved Inventory Turns: By reducing the time to process orders and reducing order errors, some of Cream & Yogurt's retailers have the opportunity to reduce safety stocks. This is because the retailers are more confident that the right goods will arrive at the correct time. Reduced safety stocks can lead to improved inventory turns, less inventory carrying costs and higher profits for Cream & Yogurt's retailers.

(5) Support for Strategic Goals: Some of Cream & Yogurt's longer-term goals are also supported by the ABC Software solution:

Better Use of Executive Time: Executives have more time available to concentrate on strategic issues rather than "firefighting" the order processing and deduction problem that previously consumed too much of their time.

Ability to Handle Rapid Increases In Order Volume: Cream & Yogurt can now rapidly increase its order volume without being constrained by ramping up its internal customer service and order processing organizations. This means quicker new product introductions and new market expansions. Cream & Yogurt can also expand with less concern about economic downturns. Since its costs are variable and directly related to sales volume, there is much less concern that a sudden downturn would see Cream & Yogurt's profits eaten up by fixed costs.

Improve Percent of Orders Correct the First Time: As countless studies have shown, it is far less expensive to prevent problems than correct them later. In the order processing area, this translates to the single most important measure – percent of orders right the first time.

Reduce "Order-to-Cash" Time for All Parties: Reduced errors and disputes results in fewer opportunities for cash to be held up. This reduces borrowing costs and frees up cash needed for other areas of Cream & Yogurt's business.

Improve Employee Quality of Life: Cream & Yogurt recognizes that turnover in the order processing and customer service functions hurts both people and profits. The ABC Software solution makes great strides in offloading the tedious, contentious work of traditional order processing to the computer system. Cream & Yogurt personnel are able to direct their efforts to more rewarding, higher value, less contentious work.

What Results Could a CPG Manufacturer Expect from the ABC Software Solution?

Summary of Probable Results for Outsourcing a Hypothetical $400 Million CPG Manufacturer based on Data from Cream & Yogurt and other ABC Software Clients[ix]

Item	Improvement
Percent of orders right on first pass (requiring no human contact)	25%
Reduction in cost per error (including customer service, sales and executive time costs)[x]	77%
Reduction in average time from order placed until clean order ready for manufacturer to process[xi]	82%
Reduction in number of orders escalated to Management per month[xii]	40%
Increase in average revenue per month[xiii]	8.2%
Improvement in average $ per customer order[xiv]	15.2%

Comments from Sharon Bing, CEO of Cream & Yogurt: "We have had a long and beneficial relationship with ABC Software's parent company. We have watched with interest as new technology such as the ABC Software system has played a greater and greater role in the effective handling of our orders and customer service.

I have reviewed this case and consider the estimates of dollar savings and other benefits to be reasonable, based on our experience. We asked ABC Software to honor our need for confidentiality, so these numbers are not our exact numbers. I would say, however, that the case study sets a reasonable expectation for the costs and benefits that a CPG manufacturer

choosing to use ABC Software's services would be likely to enjoy."

Author's Note: We have taken care in this case to represent claims conservatively and the Cream & Yogurt people have been an excellent source of verification. As you evaluate this case and consider using ABC Software's services, keep in mind that Cream & Yogurt personnel and other ABC Software client personnel contributed substantial effort to bringing these results about. This case study is by no means a guarantee of the results you will achieve, but seeks to set a reasonable expectation of what you and ABC Software could achieve together. Feel free to contact me at the enclosed phone number if you have questions about any of the statements or calculations.

About this Case Study…

The research for this paper has included multiple interviews and sources of data to help provide a balanced picture and confirm key assertions. It is written as a teaching and communication tool and is not intended to fully describe exact details or dialog. Contact Tom Ingram & Associates, Inc. if you have questions about this case. This paper has been prepared for a fee. **You are free to duplicate and redistribute this paper,** provided you distribute it as a whole, with credit to Tom Ingram & Associates, Inc.

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Since 1983, Tom Ingram and his project teams have delivered over $15 million in project contracts substantially on time, on budget and as promised. These projects have generated some **$55 million in measured benefits for clients.** Ingram has published two dozen articles and newsletters. His book, *How to Turn Computer Problems into Competitive Advantage,* was published by the Project Management Institute in 1998. This case study is part of Ingram's ongoing efforts to recognize, promote and teach about *High Impact Projects.*

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