Growth Through Product Innovation

*Improved product information management drives growth and profits in the food processing industry.*
GROWTH THROUGH PRODUCT INNOVATION

IMPROVED INFORMATION MANAGEMENT DRIVES GROWTH AND PROFITS IN THE FOOD PROCESSING INDUSTRY - For several years now, companies operating in the processed foods industry have sought to increase growth and profits via the well-tread, well-proven path of improving production efficiency, with good reason. Tweaking manufacturing and supply chain processes or implementing more advanced ERP or MRP systems have generally resulted in improved margins in this competitive business. In some ways, these strategies have worked too well. Today, most efficiencies have been realized, meaning that attempts to drive further revenue and profit growth solely through production investments are providing ever poorer returns.

With the well running dry on the production side, the time has come to focus on product development and how to improve the design processes to boost margins. Experience has shown, that it begins with better managing and leveraging of innovation knowledge — information that already exists within the company but is not being managed efficiently, making it hard to find, share, validate, and reuse.

IN PROCESSED FOODS, MORE THAN IN ANY OTHER INDUSTRY TODAY, INNOVATION IS THE MAJOR DRIVER OF GROWTH AND PROFITS - New products mean new consumers, the ability to enhance or add new marketing claims or make a splash with a new line extension, and the possibility of reducing costs by altering ingredients, manufacturing processes, packaging or suppliers. Every company is racing to develop more products faster and be the first to launch them in the market, knowing that a head start on the competition is the best way to ensure a product’s profitability and a place on the retailer’s crowded shelf. Those companies who get their products to the shelf too late are forced to compete at commodity price points and suffer poorer returns on R&D investments.

For most processors, innovation more often means changes to products already in the market. Such changes, which include packaging, formulation, the manufacturing process, quality control plans, suppliers, and labeling, are driven by a constant flow of market, customer and regulatory events.

WHAT MAKES PRODUCT INNOVATION DIFFICULT? - Companies competing in this fast-paced industry must be able to effectively manage innovation to ensure growth. Unfortunately, there are notable challenges in today’s environment: product design is more intricate, regulatory requirements are more rigorous, quality and production processes are more complex. Moreover, companies are managing many more new ideas and, partly driven by the growth of private labeling, have greatly expanded their product portfolios. And, because of the urgency of getting new products or product changes to market, avoiding costly errors is made much more difficult. These obstacles help to explain why the food industry is one of the few where time-to-market for new products, line extensions, and reformulations is actually increasing (see graph below).
WHATEVER ITS NATURE, FOR FOOD PROCESSORS, CHANGE DOES NOT EXIST IN ISOLATION - Like trying to solve a Rubik’s Cube, every move on one side has an impact on another. A company that wants to develop a new or modified product has many decisions to make that can impact labeling, suppliers, formulations, regulatory claims, documentation, ingredient sourcing, safety, costs, and package sizing. A new formulation, for example, often drives the need for new labeling which must comply with government regulations. The effects of even small changes are often wide-ranging, complex, and potentially not well understood, but knowing the full impact of each change is essential to bring about the best decisions and avoid costly mistakes.

Since companies traditionally focused on driving growth primarily through production improvements, investments to optimize product development processes have fallen short. As a result, few effective tools have been deployed to improve product innovation performance. More specifically, most food processors lack an effective product development information management system that adequately provides a holistic view of all product elements and their interdependencies. Existing systems, which may be manual, inflexible, homegrown, or transaction oriented, such as production ERP or MRP applications, are rarely adequate for supporting the information requirements needed to make good innovation decisions.

SERIOUS PROBLEMS CAN ARISE FROM THIS LACK OF VISIBILITY - particularly due to the fact that there is no single version of the truth. Conflicting information stored in different systems or documents means that employees waste valuable time trying to determine which version is correct. Moreover, when information is not centrally managed, personnel may not be able to find it and use it, which can lead to the considerable duplication of work (such as re-keying and re-developing) by people whose time is already expensive and in short supply. Systems often don’t talk to each other and the ability to reuse essential information — past formulations, previous solutions to problems, ingredients already in production, manufacturing processes, quality control plans, or equipment settings — is compromised.
It is no surprise that a recent study by the Aberdeen Group showed that more best in class companies have adopted centralized systems to manage their product information and design knowledge.

INEFFICIENCY IS ONE ISSUE, RISK IS ANOTHER - Companies that do not move to support their product development processes with access to, and analysis capabilities of, key design information expose themselves to a range of risks. First among them is financial. Delays getting products to market mean missed opportunities, even launch failures. In a recent Prepared Foods web survey, conducted on behalf of Lascom Solutions, over 70 percent of responding companies cited slow time to market, and hence lost business opportunity, as their greatest innovation risk.

Survey Question: Which represent the largest innovation risks for your company?

Similarly, unconnected or inadequate information systems also lead to more errors, when changes to formulations are not reflected on new labels, for example, and can lead to stop-shipments, regulatory fines, litigation and audits — none of which is beneficial to a company’s brand image.

EFFECTIVE PRODUCT INFORMATION MANAGEMENT CAN HELP - It can help key people take a holistic view of the design process, adding productivity and reducing risk — both of which help strengthen profits. In the same Prepared Foods survey, over 50% percent of respondents said that better product information management would contribute most to their company in minimizing these risks. Other leading solutions cited were enhanced information analysis and decision support tools, and greater visibility of the impacts associated with any change – each directly related to the availability of effective product information management and analysis tools.
Addressing these issues begins with the creation of a single accessible repository of information that includes every detail pertaining to all products and how these details are inter-related at every stage of their life cycle. Once centralized, the information must be managed in a way that allows it to be viewed from different perspectives based on task, project or product, type of information, version or date of creation, and other advanced queries.

Extensive search and decision support tools must be available to locate information across the repository and perform “where-used”, comparisons, and change-related impact analysis. Complete history and audit capabilities are also required to facilitate information reuse and enable full FDA Title 21 CFR Part 11 compliance.

A good system provides companies with another valuable capacity: reusability. When everyone involved in product development knows how to locate and reuse work that has already been done, errors are reduced and time is saved. With the starting point moved up the track, innovative new products can get to the finish line faster.

Perhaps most important, an effective information management system must provide secure information access across the design chain, from internal stakeholders — including R&D, quality, regulatory, marketing and sales, procurement and operations — to external parties such as suppliers, customers, contract manufacturers and co-packers, laboratories, and graphic designers. Providing key stakeholders with secure access to the same information enhances collaboration and helps speed and improve decision-making.

Survey Question: What would most help your company in minimizing these risks?

Source: Prepared Foods Web Survey, May 2010
SOME COMPANIES ARE ALREADY REAPING THE REWARDS OF BETTER KNOWLEDGE MANAGEMENT – A leading global dairy products manufacturer with a highly decentralized structure was hampered by multiple systems and the difficulty of sharing information across its global network of subsidiaries and franchisees. Implementing a knowledge management solution, to centrally manage all product specification information and provide secure access across their design chain, enabled faster new formulation development, more reliable information sharing, error-free document generation, and an impressive 33 percent gain in R&D productivity.

But a company need not be a giant to benefit. A small private label cereal bar maker suffered from slow bid response time, poor specification accuracy, and an inability to scale their innovation capabilities. They were losing deals as well as market credibility until they implemented a centralized knowledge base and workflow management system for their new product development process. This allowed them to automate document generation of their customer bids and, as a result, request-to-quote times dropped by two-thirds, proposal accuracy increased (as did margins), and the company was able to maintain an annual growth rate of above 20 percent without acquiring new staff.

GROWTH COMES THROUGH BETTER INNOVATION – To maintain growth and profitability, companies must look beyond the limited gains to be made on the manufacturing side of the house and invest in innovation. The complexity of product development represents a significant obstacle to realizing those gains for companies working with traditional methods of information management. However, the best companies have found that improved product information management and decision support tools are the starting point to realizing new sources of profitability and growth.

ABOUT LASCOM – Founded in 1989, Lascom is a software and services company that helps food manufacturers and private label retailers improve productivity and reduce business risks in new product development, change management, quality control, and regulatory compliance. With North American headquarters in San Diego, California and world headquarters in Paris, France, Lascom maintains over 200 production systems across Europe and the United States.

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1 PLM Solutions for the CPG Industry: The Impact of Formula Management and Specification Management, Chad Jackson, Aberdeen Group