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Integrated market management: Seamless information exchange and collaboration for CPGs and retailers

A consolidating marketplace, coupled with increasingly demanding consumers, is bringing about a new era in trade relationships for manufacturers and retailers. How can consumer packaged goods manufacturers and retailers fundamentally change the way they conduct business to dramatically improve operational efficiencies and deliver differentiated value to their trade partners and consumers in this rapidly changing ecosystem of the future?

By Sean O'Neill

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Executive summary

The industry ecosystem inhabited by consumer packaged goods manufacturers (CPGs) and retailers is evolving rapidly. In particular, today's dynamic marketplace presents three fundamental challenges for industry executives:

- Consumers are becoming more empowered.
- The marketplace is experiencing increased consolidation.
- Technologies are growing more powerful than ever before.

To address these changes and remain competitive, CPGs and retailers must change the way they think about trade relationships. Improved technologies, competitive shifts, and increased focus on point-to-point collaboration between retailers and suppliers have created an environment in which trading partners can work more effectively and make more educated and viable decisions. However, these evolving trade relationships are inherently complex and uncertain, and the industry needs a shared vision of the future to help guide investment decisions, reduce risks and increase economic returns.

Integrated market management is a new model for trade relations, providing CPGs and retailers with a framework to structure new business practices and investments. By integrating and automating data flow and analysis, trading partners can gain insight into operational performance and consumer preferences and make continuous, realtime improvements across key shared processes.

A key strategic shift is that integrated market management involves tight information sharing across all three components of "the consumer goods triad," seamlessly linking the CPG, the retailer and the consumer. It demands new ways of handling fundamental business processes and requires trading partners to adopt a fundamentally new philosophy based on three key principles:

- Consumer focus
- Peer-to-peer interactions
- Systematic intelligence.

Implementing these core values effectively changes the way retailers and CPGs view their trading partners and their basic responsibilities. As these principles take hold, and cross-enterprise collaboration becomes second nature, integrated market management-related initiatives will have the potential to significantly and positively impact revenues, operating margins and shareholder value for manufacturers and retailers alike.

Note that integrated market management is an overarching vision to guide business transformation. Companies will not achieve their objectives in one giant step—rather, it provides a roadmap to help executives assess, plan and execute key strategic initiatives over time. To begin, CPGs and retailers must evaluate their IT infrastructure and solutions *now* to understand whether they have the tools necessary to effectively collaborate with key trading partners and drive useful business intelligence through sophisticated data analysis techniques. They need to move swiftly to fill critical capability gaps today, while planning for new initiatives that will drive future competitiveness. By laying such a foundation, trading partners will be well positioned to achieve the best-in-class status that accompanies market leadership.

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Issue

Today's marketplace is becoming more challenging for CPGs and retailers on multiple levels. Compared to ten or even just five years ago, improved technologies, increased consumer sophistication and the growth of bilateral trading partner demands have created new opportunities, as well as complex problems, for players across the supply chain. A select group of CPGs and retailers have emerged as powerhouses by exploiting these trends, thereby putting severe pressure on other industry competitors. To help ensure future prosperity, they will need to address these factors directly:

- *Empowered consumers*—With greater access to product and pricing information across multiple channels, loyal consumers are more elusive than ever before. Today's consumers are sophisticated and inundated with promotional materials and marketing messages. As their time becomes more and more valuable, their demands for convenience and personalized service from retailers increase. Capturing consumer loyalty in such an environment is immensely challenging for any single retailer or CPG.

- *Market consolidation*—Mergers and acquisitions have become much more prevalent among CPGs and retailers as they seek to maintain and improve their competitive position. By 2005, the top ten grocers in the U.S. will likely control 65 percent of the market.[1] In the CPG space, total food-and-beverage-industry merger and acquisition deals increased from US$10 billion in 1999 to US$85 billion in 2000.[2] With immense market power, the top competitors—particularly those in the retail channel—are changing the competitive dynamics of the industry.
- *Emerging technologies*—Data management and analytical technologies have become more sophisticated, more powerful and easier to use. The growth of Web-based standards has enabled technologies that can be accessed virtually anywhere by anyone, linking systems across the enterprise. Additionally, advancements in multichannel retailing have fostered improvements in the capture, management and analysis of POS data to support viable decision-making. As market leaders harness emerging technologies to their advantage, it becomes a competitive necessity to invest in leading-edge solutions.

These forces, as well as other company-specific issues, are leading CPGs and retailers to take a hard look at their current operations and business partnerships. A clear area of "pain" is the current lack of cooperation between suppliers and distributors and missed opportunities to optimize business operations through closer collaboration. The question is… how can CPGs and retailers collaborate more effectively to increase benefits and reduce competitive risks for both parties?

Analysis

Technological sophistication and information availability present a unique and timely opportunity to exploit collaboration

Collaboration is now less costly and more productive for trading partners, offering the opportunity to increase operational efficiencies, spending effectiveness and consumer loyalty.

In the past, true collaboration between trading partners was impossible, not simply due to distrust between CPGs and retailers, but also due to technological limitations and reliance on third-party data management and insight development. However, today's CPGs and retailers have a wealth of new technologies available to them and they are becoming more sophisticated at using their own data to make key business decisions. Collaboration is now less costly and more productive for trading partners, offering the opportunity to increase operational efficiencies, spending effectiveness and consumer loyalty. The time is right to begin taking deliberate steps toward the integrated market management model for two primary reasons: developing technology and changing information availability.

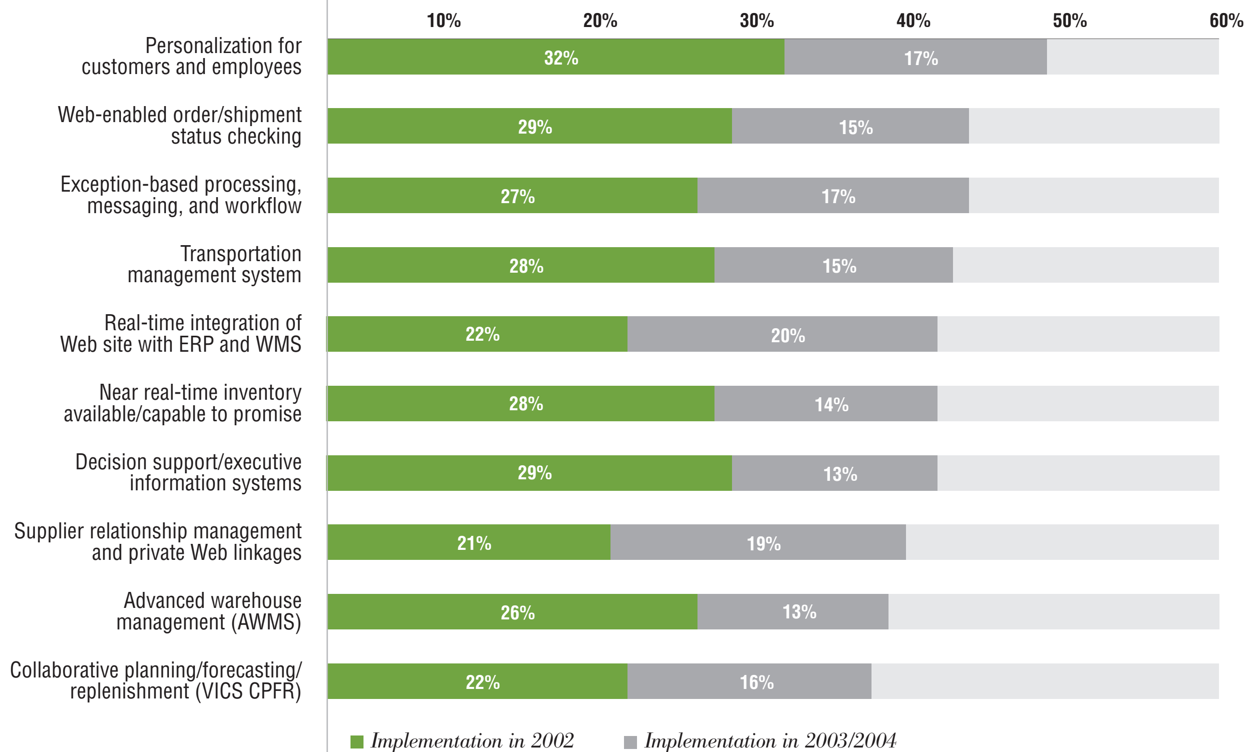
- *Technology sophistication*—Technology has become increasingly vital to CPG and retailer operations. Investment in technology continues to rise as its benefits have become more apparent. A survey conducted by Consumer Goods Technology in 2000, found that half of respondents were increasing their IT budgets by an average of 10 percent in 2001.[3] A year later, the survey found that respondents were still planning to grow their IT budgets by an average of 6.4 percent, even giveneconomic conditions of that time.[4] Many leading retailers, such as Wal-Mart, have developed advanced in-house systems to analyze POS data, link multiple sales channels or enhance customer relationship management.[5]

  The emergence of the Internet has been one of the key factors driving IT investment. The Web provides a nimble platform for collaboration with trading partners as well as rapid and ubiquitous access to key information across functional areas. Over half of the top ten technologies planned for implementation in 2002 and 2003 will be connected to a Web-based infrastructure, according to Consumer Goods Technology's most recent IT survey.[6]

- *Information availability*—The traditional role and utility of syndicated data sources are being altered as competitive strategies shift. Wal-Mart recently pulled out of AC Nielsen altogether, while other leading retailers have become increasingly skeptical of the value gained from sharing POS data with these intermediaries.[7] By creating its own system to capture, manage, and analyze POS data, Wal-Mart has eliminated competitor access to its data, developed customized analytics to suit its own needs and opened up a potential new revenue stream by charging CPGs for its data. This move, in turn, has forced smaller retailers to consider developing more sophisticated data and market analysis tools to replace the intelligence previously garnered from Wal-Mart POS data.

  For CPGs, syndicated sources represent a costly, yet vital, source of sales information. As retailers weigh their involvement in syndicated sources, CPGs must consider other ways of obtaining this data. Closer collaboration with retailers might be the most effective means of doing so. Today's retailers are demanding sophisticated analytics, category management support, improved inventory management and forecasting improvements. Thus far, syndicated sources have provided only a superficial response to retailer needs. However, CPGs could provide much of the assistance that retailers demand, in exchange for the POS data that retailers possess. CPGs offer detailed market and segmentation data and analytics, in addition to comprehensive product expertise that retailers can use to their benefit in consumer analytics, promotions execution and category management. By agreeing to create a valuable exchange of data and analytics, both parties can help one another remain competitive.

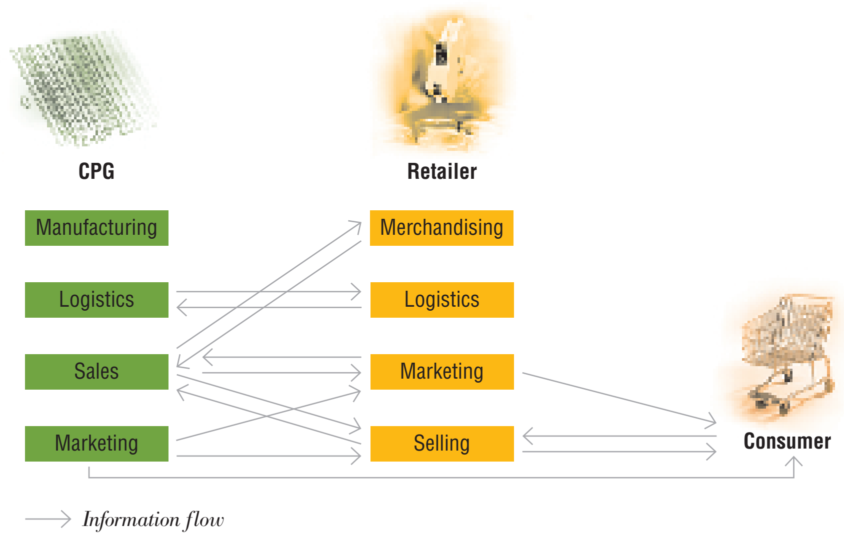
Figure 1. Top applications planned for implementation, 2002-2004 [8]



Integrated market management is true collaboration across the consumer goods triad

Today's trade relationships often lack the process integration and the cooperation necessary to provide both CPGs and retailers with the operational efficiencies that they want. In general, relationships continue to be contentious, with critical data withheld not only from key trading partners but from internal departments as well. Data is often trapped in functional silos and not leveraged across the full enterprise. Data analysis is often ad hoc and inconsistent, limited by time and software capabilities, providing executives with only a cursory view of their customers or their internal operations. While investment in customer relationship management (CRM) has increased in recent years, effective analysis of consumer data collected continues to elude the majority of retailers. Even worse off, CPGs often have little or no insight into the consumer beyond what they are able to reap from their retailer partners.

Figure 2. Current supply chain relationships



Source: IBM Institute for Business Value.

To optimize trade relations and better serve the consumer, CPGs and retailers must adopt a new way of doing business. Integrated market management is fundamentally based on a seamless flow of information among the CPG, retailer and consumer. Solutions that support integrated market management coordinate shared enterprise processes, automatically converting raw data into useful intelligence to foster realtime, continuous improvements. In particular, under this new model, analytical tools will convert data at the store and SKU-level to allow for more precise decision-making and responsiveness to consumer needs.

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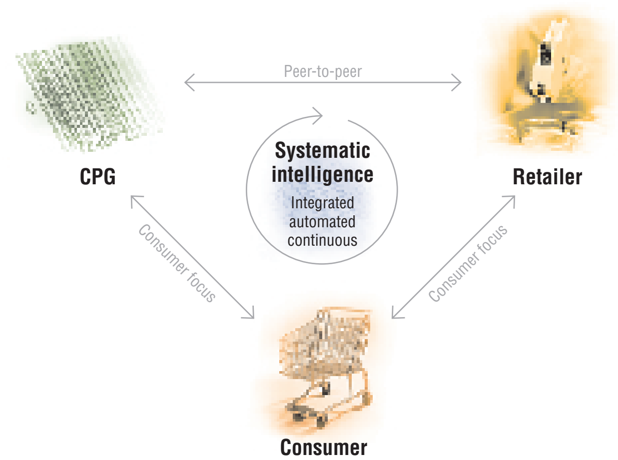
CPGs, retailers, and consumers each contribute to the integrated market management model, providing key inputs that allow for the development of useful intelligence that benefits the entire triad. For example, consumers provide retailers with valuable POS and consumer loyalty data. When combined with CPG data including sales force, inventory, product development and consumer segmentation information, the data can be aggregated and cut to provide insightful analyses that allow trading partners to act collaboratively to improve operational efficiencies and customer service.

Figure 3. Supply chain relationships under integrated market management



Source: IBM Institute for Business Value.

By adhering to the principles of integrated market management, retailers and CPGs will make fundamental improvements in their key shared business processes

To engage in fully collaborative relations with key trading partners, CPGs and retailers must subscribe to a new behavioral model. Additionally, they need to commit themselves to investing in the technological solutions necessary to support information-rich decisions. The integrated market management model of trade relations points the way to next-generation business processes, based on three primary principles:

- *Consumer focus*—Not surprisingly, one must start with the consumer. In this context, consumer focus refers to the sharing and joint analysis of consumer data, through which trading partners can arrive at more sophisticated insights, based on a truly comprehensive view of individual or household-level preferences and patterns. CPGs and retailers need to focus on incorporating detailed consumer analytics into shared processes including new product development and promotions management.

While rich consumer, channel and operational data are increasingly available, powerful automated data analytics are required to convert this data into useful intelligence.

- *Peer-to-peer interactions*—While much hype was given to industrywide "public exchanges" in the recent past, true industry leaders will focus on building strategic capabilities on a bilateral basis (peer-to-peer). CPGs and retailers must understand and meet the specific demands of individual relationships with key trading partners. These relationships need to be characterized by dependability, open data sharing and deep process integration to help optimize revenues and profitability.
- *Systematic intelligence*—While rich consumer, channel and operational data are increasingly available, powerful automated data analytics are required to convert this data into useful intelligence. CPGs and retailers need to invest in the technologies that will enable the capture, translation and thorough analysis of data from multiple sources. Additionally, trading partners need to implement solutions that allow for easy transfer of analytics within and between enterprises to reap the full benefits from the intelligence created.

By following these three principles, CPGs and retailers can effectively transform key shared business processes, see Figure 4. Initially, trading partners might seek to collaborate across shared processes that drive top-line revenue, such as category management and trade promotions management. Over time, other process areas, such as transportation and warehouse management, will be tackled.

Figure 4. Enterprise process transformation through integrated market management

Product lifecycle management	⟶	**Collaborative product lifecycle management** • Automated process management, active engagement of retail partners and consumers, online focus groups
Forecasting and replenishment	⟶	**Collaborative planning forecasting and replenishment: Act 2** • Joint planning and forecasting, autoreplenishment and perpetual inventory
Category management	⟶	**Household needs management** • Store level, item level category management • Consumer driven category management
Promotions management	⟶	**Synergistic promotion management** • Joint promotion planning, automated compliance and analysis
Account management	⟶	**Integrated trade customer data management** • Seamless and efficient interactions across the value chain
Consumer CRM	⟶	**Cross enterprise consumer management** • One-to-one marketing, closed-loop marketing

Source: IBM Institute for Business Value

Integrated market management initiatives will help enable trading partners to address many of the pain points that they currently experience. For instance, CPGs often feel that they do not have adequate access to retailer POS data for category planning, and thus believe that they lack input into the category management process. From their perspective, retailers often feel that they have a suboptimal product mix, with consumers overwhelmed by a vast product assortment. By adhering to the principles of integrated market management, trading partners can share key data and automate data analytics, generating a richer and more insightful view of the consumer. This insight should allow them to jointly pursue store-level and SKU-level category management that is truly consumer-driven, focused on the needs of individual households.

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As businesses implement integrated market management principles across their organizations, virtually all major process areas will be transformed to exploit improved collaboration and communication both within enterprises and across trading relationships.

Investments in integrated market management-related initiatives can provide companies with rapid benefits

Those companies that fully embrace integrated market management may well become unstoppable competitive juggernauts, as improvements in individual areas generate virtuous cycles of superior financial performance and fund investments in new capabilities. The scope of potential benefits is broad and might include:

- Higher sales volumes
- Improved new product success rates
- Decreased out-of-stock merchandise
- Improved price synchronization and consistency
- Improved customer satisfaction.

As collaboration increases across shared enterprise processes, CPGs and retailers can experience exponential growth in the benefits that they see. However, integrated market management is not a one-off solution and should be approached with the care and thoughtfulness required when dramatically changing an approach to trade relations to help reap optimum benefits.

Fortunately, industry executives do not have to tackle integrated market management as a single project or strategy – they can build toward this future model by undertaking individual initiatives that generate positive return today. Already, a number of leading CPGs and retailers have begun to see the potential benefits reaped from closer collaboration with key trading partners. For example, collaborative planning, forecasting and replenishment (CPFR) was one of the first shared processes in which CPGs and retailers have engaged. While current CPFR initiatives have yet to achieve full integration of CPG and retailer processes, they have yielded some promising results, helping to make the case for even closer collaboration between trading partners across a greater variety of processes in the future, see Figure 5.

Figure 5. Sample benefits from implementation of CPFR[9]

Retailer benefits	Improvement percent
Minimized store and warehouse inventory	10-15
Improved shelf in-stock levels	1-4
Increased sales	1-25
Manufacturer benefits	**Improvement percent**
Reduced inventory costs	10-25
Improved service levels	0.5-2
Increased sales	1-25

CPFR Pilot: Nabisco and Wegmans

Nabisco and Wegmans Food Markets engaged in a CPFR pilot covering 22 Planters Nut SKUs over 58 Wegmans stores. By assembling a cross-functional team that combined representatives from Sales, Category Management, Supply Chain Management, Information Systems, and Customer Service divisions, Nabisco and Wegmans were able to develop a methodology for approaching the CPFR pilot. The methodology included training and education around VICS CPFR standards, joint alignment of goals, definition of performance metrics, sales and order forecast generation, and execution of shipments. Results of the pilot included a 13 percent increase in category sales at Wegmans, in contrast with an 8 percent decline for other retailers in the market. Nabisco saw a sales increase of 53 percent, as measured by Information Resources Inc., for the Planters brand. Service levels to stores increased from 93 percent to 97 percent, and days of inventory fell by 18 percent, or 2.5 days. The favorable results experienced from the pilot led Nabisco and Wegmans to extend the pilot timeline and expand its scope to include Milk-Bone pet snack products, while also investigating additional pilots with other trading partners.[10]

Leading market players, such as Wal-Mart, Kimberly-Clark, and Procter & Gamble, have pursued CPFR pilots with great success.[11] Of note, these players have focused on CPFR as an integrated process involving joint alignment of goals, rather than as a solution implementation. When engaging in collaboration, trading partners must recognize the linkages between process areas and the transferability of key analyses and insights within and across enterprises. As CPGs and retailers become more comfortable with collaboration and address the challenges and risks associated with data sharing, the benefits to sales, operations, customer service, and shareholder value can be quite substantial.

Implications

Overcoming the challenges and risks of collaboration

The integrated market management model offers trading partners unique opportunities to develop seamless, efficient and more profitable relationships in support of the consumer. However, CPG firms and retailers must begin addressing a number of underlying challenges before they can transform their fundamental behaviors and embrace collaboration wholeheartedly. Beyond the obvious technological complexities, companies must adopt new business rules and develop new competencies to address the following:

Beyond the obvious technological complexities, companies must adopt new business rules and develop new competencies.

- *Trust*—Traditionally, relationships between CPGs and retailers have been marred by distrust. Trading partners constantly wrestle with issues around trade promotion compliance, deductions, financial settlement, replenishment and inventory management. To reconcile issues of trust, trading partners must explicitly align their strategic goals and agree upon well-defined business objectives for the joint initiatives that they undertake. In the end, however, to achieve the true potential of integrated market management, fundamental philosophies and approaches must change to move trade relationships beyond current zero-sum attitudes.
- *Data ownership*—A key issue compounded by lack of trust is that of data sharing and control. True collaboration requires open sharing of operational and customer data. However, most companies view such data as a competitive asset, and thorny issues around its ownership and use must be resolved for integrated market management to flourish. One possible solution is for trading partners to draw up contractually binding agreements that define the roles and responsibilities of each partner with respect to data sharing. Such an agreement would identify where different shared data sets are located, in what form they can be shared, and how the data may be used. In addition, the withdrawal of Wal-Mart and others from syndicated data services—thus eliminating a valued source of aggregated retail POS data—is emerging as a serious issue for much of the industry.

- *Data analysis* – The wealth of data that CPGs and retailers are able to gather from multiple channels offers enormous potential but equally significant challenges. Data analysis can be onerous given the diversity of information sources and the outdated technologies that many CPGs and retailers currently have in place. In many cases, companies are not making beneficial use of their own data simply due to the complexity involved in aggregating, translating, analyzing and synthesizing the information; adding trading partner data to their own will make the task even more difficult. New IT-enabled techniques and systems will need to be developed and deployed. Even more importantly, business managers will need to develop improved "know-how" about which analytics should be employed to solve a given business problem and how the results should be interpreted and translated into effective action.

Figure 6. Challenges associated with integrated market management

Issue	Challenge	Potential resolution
Trust	• CPGs and retailers generally feel they have different business objectives and different needs	• Joint alignment of goals and linking of benefits between trade partners
Data ownership	• CPGs and retailers are hesitant to release data to trading partners for fear of that information being used for competitive purposes	• Definitions of roles and responsibilities related to data sharing
Data analysis	• Data analysis is onerous given information from disparate sources in dissimilar formats	• Reasonable investment of resources to improve analytical capabilities and achieve household-level targeting

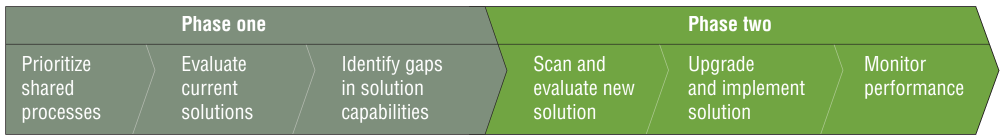
Source: IBM Institute for Business Value.

The challenges facing trading partners who want to embrace the principles of integrated market management are not merely technical but extend to organizational capabilities and competitive strategy. While skepticism is often the rule rather than the exception in the industry, CPGs and retailers need to fully invest themselves in tackling these fundamental issues to effectively evolve their trade relationships.

Moving forward

The journey to integrated market management will take time and require a well-planned long-term strategy. Retailers and CPGs must take a phased, systematic approach to redesigning business processes and implementing solutions supportive of integrated market management. They need to carefully create an environment conducive to inter-enterprise cooperation and communication in one shared process area at a time. By taking an approach that includes the following key steps, trading partners can verify that they are truly aligned.

Figure 7. Pursuing integrated market management initiatives



Source: IBM Institute for Business Value

- *Prioritize shared processes*—Determine which shared processes offer the greatest near-term return on investment (ROI) and where trading partners are most demanding added sophistication. Take a phased approach to integrated market management, gradually extending collaborative capabilities throughout the enterprise. For instance, if trade promotions management is a high-priority area for the organization, and could gain the most from improved external cooperation, put that process at the top of the list. Understand how you want to transform your trade promotions process and choose a select number of partners to work with initially.
- *Evaluate current solutions*—Understand your current capabilities and how they match up to those of your trading partners. Develop a set of criteria that can measure current solutions in the prioritized process area; decide how to measure the strength of your solution from both a high-level and a specific feature-level perspective. Work with partners to determine how complementary solutions need to communicate with each other from both sides of the relationship. With the trade promotions example, understand what solutions capabilities are needed for business planning, event management and payment management. When evaluating the solutions, look for key feature capabilities such as post-event analysis and budgeting features that can make for a competitive solution.

- *Identify gaps in solutions capabilities* – Understand where data sharing and communication is lacking. Compare current solutions capabilities to future needs to identify where gaps might exist, and determine which ones are most crucial to fill. After you and your trading partners have identified all the capabilities that you view as essential to a comprehensive trade promotions solution, identify the current gaps. Post-event analysis can be a key feature that is currently not supported by a solution but could truly benefit trading partners and support enhanced collaboration.
- *Conduct new solutions scan and evaluation* – Determine how best to fill capability gaps. Can current solutions be upgraded or will new solutions need to be deployed? Perform a vendor scan to identify solutions providers that can help fill current capability gaps. If, for example, a post-event analysis capability is currently missing from your trade promotions capability set, undertake a vendor scan to see what potential fixes are available – which solution provides the strongest post-event analysis capability, but also links you and your trading partners most effectively?

Consult with trading partners during the implementation to help ensure that new capabilities are brought online with a seamless transition across both enterprises.

- *Upgrade and implement solutions* – Devise a comprehensive and detailed plan. Look at solutions implementation in a holistic way, evaluating budget constraints, compatibility with trade partner solutions, implementation timeline and employee training needs. Consult with trading partners during the implementation to help ensure that new capabilities are brought online with a seamless transition across both enterprises. For example, while implementing post-event analysis capabilities, link with the trade promotions organizations of your key trading partners to verify that implementation will be effective.
- *Monitor solutions performance* – Attach specific hard and soft ROI metrics to the solutions, working with trading partners. Nominate individuals from both sides of the partnership to take ownership for performance monitoring. Monitor the solution over time to verify that it meets required goals. Then, work with your key partners to identify other areas where you can expand collaboration. For example, after the post-event analysis gap has been filled, work collaboratively to develop key performance metrics. How does this solution improve forecasting capabilities? How does it improve promotion effectiveness and coupon redemption rates for future promotions?

While integrated market management must be approached one step at a time, its benefits are self-reinforcing. By enabling greater inter- and intra-enterprise collaboration, CPGs and retailers can not only improve fundamental operations, but also evolve into world-class leaders within their respective industry segments. In the future, CPGs and retailers will need to ally closely with key trading partners to act as one, cohesive force to precisely address the needs of consumers and improve their competitive strength. Each industry participant can become a part of a unified, continuously improving value chain that leverages advanced decision-making capabilities and dramatically increases trade customer and consumer satisfaction. As companies increasingly pursue initiatives that support integrated market management, a new, vastly improved paradigm should emerge in CPG and retailer trade relations.

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References

[1] IBM Institute for Business Value.

[2] Mergerstat and Prepared Foods, July 1, 2001.

[3] Consumer Goods Technology, *Consumer Goods Technology Study 2000*.

[4] Consumer Goods Technology, *Consumer Goods Technology Trends Research Report*, October, 2001.

[5] St. Louis Post-Dispatch, *Some Question Value of Data After Wal-Mart Discontinues Supplying Numbers*, November 5, 2001.

[6] Consumer Goods Technology, *Consumer Goods Technology Study 2000*.

[7] Consumer Goods Technology, *Consumer Goods Technology Trends Research Report* October, 2001.

[8] St. Louis Post-Dispatch, *Some Question Value of Data After Wal-Mart Discontinues Supplying Numbers*, November 5, 2001.

[9] Syncra Systems, Inc. (2002). Retrieved from the World Wide Web, March 13, 2002. http://www.syncra.com/value/manufacturers.html and http://www.syncra.com/value/retailers.html.

[10] Collaborative Planning, Forecasting and Replenishment. *Voluntary Interindustry Commerce Standards Association*. Retrieved from the World Wide Web, February 19, 2002. http://www.cpfr.org.

[11] Ibid.

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