



Improving Your Competitive Advantage with Knowledge  
of New Trends in Intelligent Data Analytics  
whitepaper



## **IMPROVING COMPETITIVE ADVANTAGE WITH KNOWLEDGE OF NEW TRENDS IN INTELLIGENT DATA ANALYTICS**

New trends are emerging in intelligent demand data analytics. As the technology for generating information advances, so too must demand data capture and analysis technology in the consumer packaged goods (CPG) industry. This evolution will drive businesses to the point where the primary factor for success in any for-profit organization hinges on its ability to generate timely, actionable insights from their demand data. Whether your organization sells TVs or soda, your profit potential will be based on the efficiency in which demand data is captured and used. Three main challenges have emerged in the industry over the last decade. The technology that CIOs implement in the coming years must address these changes in order for their organizations to stay competitive.

### **THE BALKANIZATION OF DATA FEEDS**

The first challenge is an idea that can be termed the balkanization of information. Balkanization refers to the division of a large entity into smaller, usually ineffectual groups. It's a strange and somewhat cumbersome term, but the problem is quite simple. Historically demand data has come from one, two, maybe three main sources. These sources were large scale content providers – market research companies who specialize in providing clients with consumer, shopper and retail market information. Historically IT departments would process the raw data and route it to the right people, who would then analyze the data and get it out to the field so that it could add value to the business. This has worked fairly well over the last fifty years. However, in the last twenty years, the general ease of the system has been complicated by balkanization. What does this mean? Once Wal-Mart pulled out of the consortium of retailers providing information to these demand data content providers, fragmentation of the demand data industry began. Wal-Mart instituted Retail Link, its own form of data provision to its suppliers. Retail Link offered more current and comprehensive data than the leading content providers, but it was also exclusive. Wal-Mart no longer supplied data to the content providers, which led to a situation where any producer whose products were in Wal-Mart had to use Retail Link if it wanted to stay on Wal-Mart's shelves and thrive there. Thus IT departments had to learn new software and ways to deal with a whole new data feed.



Retail Link was largely successful and grew the profits of many of Wal-Mart's suppliers – again the demand data was more current and comprehensive. The downside of Wal-Mart's actions was that it started a trend. Over the last ten to twenty years, many retailers created their own data feed like Retail Link. This trend is evident at many local grocery store chains where there are handheld scanners to assist consumers with savings. With this device, the retailer is recording its own unique data which is passed on to its suppliers. More and more retailers every year are breaking off and forming their own data feeds. This is the balkanization of demand data. It is a fragmentation that is getting to the point of causing scores of frustrated and overwhelmed IT departments. A new feed means new software, new tagging of products and new problems to getting the data distributed across the organization. Balkanization is already a big problem, and it is getting worse.

## **MOBILITY ON THE RISE**

Exacerbating the first problem is the second trend. This second challenge is the advent of mobility. The two-way communication devices that people are carrying around in their pockets are changing consumer behavior. People are connecting to each other; companies are connecting with consumers; and companies are connecting within themselves and to others in ways never before imagined. According to the International Telecommunications Union, there are more than 4.1 billion active cell phone subscriptions in the world today. Blackberrys, iPhones and other PDAs are becoming the dominant way for people to stay connected, both personally and professionally. As companies are dealing with the increasing fragmentation of data, they also must process entirely new types of data as a result of two-way communication devices.

Companies are looking at the possibility of receiving data from a consumer at the point of purchase. Rather than just harvesting information from the point of sale – the point at which the consumer actually buys something – mobile technology is paving the way for data to be taken from the point of purchase – the point at which the consumer is standing in front of a product trying to make a decision. Through the mobile device, product manufacturers are going to be able to interact with the individual consumer as they go through the decision making process. It is the first time manufacturers can interact with consumers directly. This opens up a world of options for making the sale. Coupons could be offered. Time sensitive discounts could be given to the consumer, e.g. \$100 off of Product A if you buy in the next sixty minutes. The option could be offered to begin a verbal dialogue with a representative of the manufacturer, who would in turn have information specific to the history and location of the individual consumer initiating the conversation. Not only does this present new opportunities to make the sale, but it generates new types of data.



The new kinds of data generated will require new technology for dealing with the customer and for harvesting the data from the interactions. There is the potential for interactions with consumers in real time on a much larger scale than the CPG industry has ever experienced. Not only do mobile devices provide organizations with a new data feed to add to the balkanization problem, that new feed will be organically different information than previous, after-the-fact demand data. It will put a strain on IT department resources and across the organization. Companies will have to be able to react in real time to consumers. It is a huge challenge that is just beginning to emerge. Therefore, while dealing with the very large and very present first problem of balkanization, companies need to plan to solve the second problem of new interactions and new data, which will become a glaring issue in the next few years if they are unprepared.

### **MANAGING WHAT YOU KNOW**

The third large challenge facing the realm of demand data is the lack of knowledge management. There is more demand data content from the balkanization of the information feeds. As a result, more applications must be created to distribute the content (usually, one per data feed). The same number of analysts are having to deal with rapidly growing sources and volumes of information. Generally, companies are not hiring analysts at a comparable rate to the growth of demand data content. Therefore, the challenge to CIOs and managers is to determine what is genuinely working and adding value across the company. They need to know what data and applications are adding value, and what is a waste of time. Finally, organizations should know from a knowledge management system who is using the applications and data and which ones actually produce favorable results.

Knowledge management is knowing what people, application and content are adding value to the business. Organizations make large investments on demand data and yet lack the knowledge of how well it is implemented. The top 200 CPG companies spend over \$50 billion a year in advertising to influence consumers. Yet it can take weeks or months to figure out if it worked. Often the true effectiveness of an ad is never fully brought to light. This should not be the case. If your company is spending millions of dollars on extracting demand data from sales, marketing and consumer interactions across the board, it is inconceivable that the CIO would not be able to answer the question of who used that data yesterday.



Comprehensive knowledge management is a simple idea, but its implementation has evaded most CPG companies. As a result, this problem will only get worse with the growth of demand data feeds and content.

## **SOLUTIONS**

The most immediate challenge to address is that companies need to be prepared to deal with the increasing number of data feeds. When new data feeds become available, the information must be integrated into the current system seamlessly. CIOs will need to implement technology by a vendor that addresses this immediate problem. The vendor must also have a vision that will address the other challenges organizations will face in the near future. The CPG industry can look to other industries as an example of how real-time data is managed. For example, the integration of data should work in a similar manner to how a trading room floor operates. On a trading room floor, data is being generated at every minute of the day that informs the trades being made. The system cannot go down, or it would be disastrous to the trading activity. The same should be true when it comes to the system in place that deals with demand data. There needs to be implementation of an enterprise-wide solution that allows for ever increasing numbers of demand data feeds from POS systems to be easily integrated. With balkanization still a present problem, IT departments cannot have the companies entire system going down because a new feed is bringing in different information. Feeds will be added and removed all the time and this should not impact corporate strategy or performance.

A standardized user interface should be created so that category managers only have to learn a single application rather than multiple applications tied to specific data feeds. This would not only deal with the problem of balkanization, but also prepare for the second problem brought on by new technology.

Next, CIOs need to be aware of the new forms of data and interactions that mobile technology is bringing. The ability to interact with the consumer in real time will be essential, and the necessity of a system in place to mine the data from those interactions is just as vital. Consumers will be able to walk into a store, wave a phone in front of a product's bar code, and begin interacting with the manufacturer. Management departments all around the world need to begin thinking toward this



end so as to be ready when the real-time interactions of this mobile age we are now in become standard. It will be the biggest new trend in demand analytics, and it needs to be at the forefront of every CIO's mind now instead of five years from now when the technology is in full swing, at which point it will be too late. Companies that begin to capitalize now on growing their competitive advantage through real-time interactions will by that point have created substantial barriers to entry. Work must be done toward the end of acquiring completely innovative technology that has the power to handle these new interactions and the data it will produce. The current technology platforms are not designed for real-time interaction. Many vendors are rushing to re-engineer their existing systems to address real-time data interactions. Few vendors are building brand new platforms to address this trend.

Finally and perhaps most importantly, an efficient knowledge management layer must be in place. Companies that lack in this area must focus on the implementation of an enterprise-wide knowledge management solution that is solely focused on tracking data, applications and the productivity of employees. This system should have a detailed reporting function that allows managers to know what digital assets are and are not providing value to the enterprise. Then more value can be extracted from the data itself, as well as the applications bought or created to utilize the data, and the people you pay to run those applications. If the new technology doesn't provide a way of tracking productivity, then it wasn't a good investment. A substantial financial and human resource investment was made and no one really knows how much of an impact it had on profits. Mobility and real-time demand data will create a veritable avalanche of new information streams that will need to be integrated into an organization and acted upon. Sitting on top of this information will be multiple layers of software designed to give companies a competitive advantage. Leveraging both data and applications is the most important piece of all, and this ultimately means human analysts drawing insights from all of this technology and delivering packaged information to consumers, executives and the sales and marketing teams.

Every piece of this information supply chain should be tracked and tied to results. Companies will not be able to afford to do otherwise. As these new trends begin to set in, the companies who wasted with their resources will find that they are beginning to lose their competitive advantage. By the time they realize that, the advantages of others who were already dealing with these problems will be insurmountable, and it will be too late.



## **About alqemyiQ**

alqemyiQ, a Process Software Company, is DataAlchemy evolved. alqemyiQ is leading the consumer goods industry with enterprise solutions designed to empower manufacturers, retailers and sales agents to analyze and profit from critical information. The company's flagship product, DataAlchemy, is a user-friendly desktop application that automates the data analytics process by providing a single platform for disparate data sources. Its dynamic PowerPoint presentations and Excel charts make it easy to provide actionable and timely insights that are critical to the business decision process. DataAlchemy has been helping category managers in the consumer goods industry make better business decisions for over ten years. By introducing a new enterprise pricing model, the company will continue to provide affordable solutions to businesses for years to come. The newest solution in the alqemyiQ product line, Enterprise 7.0, will be released in Spring of 2010. For additional information, visit: <http://www.alqemyiqcorp.com>.



