Big Data and Personalizing the Grocery Shopping Experience

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The Battle Between Online vs. Brick and Mortar

Like Marty McFly discovered in the 1980's Classic "Back to the Future", what was once old is new again in the Grocery Shopping business.

Back in the days before refrigeration, logistics, and the Interstate Highway System, all foodstuffs were acquired locally. Meats, vegetables, dairy were sourced from area farmers, and everybody knew everybody else. The egg guy knew how many eggs you bought, and had them ready for you for pick up on your regular day.

Then, shopping became a centralized event. Increased demand from the establishment of cities, and improvements in shipping capabilities drove goods to intermediate warehouses, then end unit grocery store outlets, where consumers could get whatever they wanted, from anywhere in the country, at their local store.

Now, online capabilities and personalized marketing, has taken today's shopper back in time, to a custom, personalized experience, thanks to the advent of Big Data, and the knowledge that comes from specific buying hitory down to the individual level. How can grocers, who just completed the brick and mortar conversion to the "superstore" bulk, one-stop-shop model, reconfigure timely to compete usingdata driven analytics?

Labor Force Takeaway

TAN recommends that the acquisition of Big Data tools that allow for the collection and reporting of client purchasing trends be included in all food service industry strategic roadmaps. Buyer behavior with automated tracking and reporting of purchasing patterns, volumes, and seasonality. Reporting through companion software tools will allow management to make proactive decisions as regards to product mix, restocking/replenishing, and individual purchase histories. And, the ability to generate, read, interpret, and act upon the reporting of it will be essential. Certifications in mining tools, like MySQL, Python, Hadoop and Node JS will give employees an edge. This data mining, interpretation, and utilization is a growing field.

The work of upskilling existing associates and redeploying workers to different functions brought about by the assimilation and interpretation of big data is crucial. Certifications in proprietary software tools, data mining capabilities, reports building abilities (Crystal Reports, SalesForce, Quickbase) and more, will be new requirements savvy food service companies will need to ensure their associates are getting.

PREDICTIVE GROCERY ANALYTICS AND BUSINESS NECESSITY

Big Data is here to stay. The ability to collect, aggregate, and report on customer buying patterns is a business reality, and retailers who continue to market the old-fashioned way will not fare well in the new economy. The nation's biggest and most prevalent retailer, Wal-Mart, even recognizes this, and said so publicly in a shareholder meeting in November,2017. Doug McMillon, President and CEO, stated the company has used historically data to restock and replenish goods, but not to personalize the marketing of them – and that will change. A total of 55% of all grocery retailers agree, that they are not where they need to be strategically in terms of embracing and using Big Data.

Grocery analytics are a business necessity, for three major reasons:

(1) Customer Experience Decisions – Analytics can be used to predict needs, and thereby enhance the shopping experience. Market niches can be targeted, and, according to a report by Accenture, these efforts have been demonstrated to increase client loyalty and likelihood of repurchase;

(2) Strategic Decisions – With Big Data, grocery purveyors can make very targeted decisions as to the 4P's of marketing – product, price, place and promotion – which will optimize revenue opportunities, and;

(3) Operational Decisions – Stocking amounts, types, vendor purchasing patterns, and promotional activity can all be better managed with the predictive capabilities Big Data provides, all while tightly managing the expense line.

Examples of chains already deploying the information gathered through Big Data and Predictive Analytics abounds. Kroger, a major midwestern chain, has implemented personalized coupons direct to loyal store shoppers, which has earned the chain millions in upselling. Target Supermarket's Instacart service, which is an on-demand grocery service, aims at getting orders to clients in under an hour, and is currently available in the Minneapolis test market. Amazon, from it's purchase of Whole Foods, offers Amazon fresh and Amazon Dash to clientele, which remembers and prepopulates past and or regular purchases for shopping convenience. And the internet eCommerce resource Internet Retailer is forecasting that all retailers will be using some form of Artificial Intelligence/Machine Learning, supported by Big Data, to get and stay ahead of the competition within the next 5 years.

Big Data can even help ease the transition from Brick and Mortar to Online, according to Boston Consulting Group:

Localization – helping brick and mortar stores stay relevant by grouping products likely to be purchased together and improving the in-store experience – is an effort Big Data can assist with targeted intel.

Reporting out on shopper purchases can guide retailers on ideal floor space allocation (design), placement (heat maps), product assortment, adjacencies, and bundling by assimilating purchasing decisions from online and in store purchasing patterns. Though not a replacement for an online presence, it is certainly a viable transitional strategy.

Where are the grocery dollars going today? There is big money at stake. IDC reports that 22% of all dollars are spread by consumers between multiple vendors. 40% are spending their grocery dollars online. They further predict that the use of analytics can potentially increase all grocery sales and share of wallet by 29%, or $310B, annually.

Customized tools and software abound in this effort, together with data warehousing suppliers, to help the grocery executives new to the field of Big Data get started. IBM's tool, Sales and Promotional Analytics, can bundle tools and data warehousing for the user, as well as provides other real time insights on demand. Another tool, DS-IQ, (Dynamic Shopper Intelligence), discovers and activates meaningful and actionable shopper intelligence. Finally, Intelligence Nodes, "Incompetitor", a SaaS based pricing and analytics tool, is also gaining ground in this sector.

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