THE 5 PS AND DATA ANALYTICS - DECODED FOR RETAIL AND CPG ENTERPRISES
The 5 Ps of product, price, promotion, place, and people are the holy grail of business for retailers and consumer packaged goods (CPG) enterprises. Data scientists are now simplifying and creating the optimal mix of these 5 Ps for enterprises, using the massive amount of data they generate. While advances in retail have transformed the producer-oriented business into a customer-centric model, algorithms are helping businesses combine business sense with data to redefine every ‘P’.

**Product**

Advanced demand management techniques, powered by data, help retailers and CPG companies increase return on investment by accurately matching demand with supply. This includes forecasting models which combine real-time data with historical sales data to make projections for future demand and prediction tools which require minimal sales data to predict store-specific sales across product categories. The accuracy of such predictions only increases with frequency of data updates and quality of inputs.

Another area big data powers up is accelerated product innovation by guiding product design and streamlining product testing. Early feedback on the product and market sentiment enables enterprises to make course corrections. The analytical tools combine structured and unstructured data to empower merchandisers with visibility into the composition and size of shopping carts which can be integrated with historical sales data to customize the product assortment for each store.

- Demand-driven forecasting optimizes sourcing, supply chain management, as well as inventory management
- It prevents stock-out incidents by triggering automatic replenishment and restocking of retail shelves
- Automated order processing, real-time inventory tracking mechanisms, and simulation models boost the efficiency of warehouse and logistics operations
Data science is a catalyst for effective pricing strategies. Analytical models evaluate variables influencing the financial performance of retail and CPG companies — they correlate data and identify patterns between demand for a specific product, sales of complementary products, cost of sales, and history of competing brands. This insight helps enterprises adopt dynamic pricing system to maximize profit. So, end-of-season sales can be replaced with more profitable discounting approaches that capitalize on demand while providing value to customers. Moreover, e-commerce thrives on price optimization. Big data platforms map real-time merchandising data and customer information with fluctuations in demand for dynamic pricing.

- Advanced analytics helps customized product lines determine price elasticity and provides actionable business insights
- Big data pricing tools also support shelf life management and minimize wastage of perishable products. For example, a retailer can make a real-time offer on cheese nearing expiration date against an order for macaroni or spaghetti

Digital technology provides retailers with the ability to personalize sales and marketing techniques. It empowers retailers to do customized promotions, which not only boost sales, but also help deliver a superior customer experience. Smartphones, social media, geospatial technology and analytics have transformed advertising and campaign management, and driven direct-to-shopper marketing. Smart analytical models crunch product as well as customer data and supply chain metrics to create targeted offers. It helps retailers and CPG brands cultivate customer relationships by reaching out to the right customers, at the right time, through the right channel.
Retail and CPG enterprises need to adopt an anytime, anywhere model to serve millenial shoppers. While omnichannel is a business imperative, the age-old question of ‘what to place where’ needs to be addressed, in the physical as well as online store. Shopper data and behavior can help build a seamless shopping experience using smart planogramming, helping shoppers easily navigate, both physically in stores and digitally on the website.

- Big data solutions track the online journey and the trail of shoppers at physical stores to optimize the layout
- Digital behavior analysis and web analytics improve the layout and usability of e-commerce stores
- Image analysis of video content from security cameras and heat maps of customer movement on the store floor enhance planograms and space planning

Marketing campaigns revolve around people - customers as well as employees who serve them. Global retailers can engage with customers meaningfully and offer proactive service only when they gauge requirements correctly. Big data tools analyze demographic data, in-store shopping behavior, social interactions, online browsing trends, transaction history, and post-purchase trends to understand customers and predict product preferences – this enables customer retention and powers customer loyalty.

Big data and analytics helps retailers and CPG companies answer many questions: Whether this new product line will work in the market? What would be the best channel to sell this product? Are the products priced right? With advanced analytics and forecasting techniques, the immense amount of data collected finally has a place to be - and retailers and CPG manufacturers no longer have a choice, but to use this data to their advantage and adopt these new technologies, fully and fast.

For more information, contact askus@infosys.com