



Making Omnichannel Retailing “Omniscient” using Data Science

The retail industry has gone all-in with omnichannel as its future in the digital world. It's a good vision - a bigger vision than just bricks and mortar. But, is omnichannel trying to be all things to all people? And, most importantly, where does the consumer fit in the omnichannel vision?

Omnichannel puts a retail brand in front of the consumer - physically, digitally and on mobile. It opens up new ways for the consumer to purchase goods and products wherever they are. It creates promotional and engagement opportunities in many new and different ways. But, how does a retailer take advantage of this growing number of consumer touchpoints – and what technologies will enable them to join the dots?

Retailers have the answer to these questions already. It's sitting in databases across their organisation, and throughout their partner network. It's data, and there is a lot of it! So, how can retailers extract business value out of all of this data? In an effort to try and leverage this data, some retailers have poured millions into Big Data projects and technology but have little to show for it. Results often are the most beautifully harmonised systems and data structures, but there's always one thing missing – the ability to action that data cross-channel and target the consumer in a synchronised, personalised way.

The inability to action this data is not for the want of trying. It's simply been approached in the wrong way: actioning Big Data is not a systems problem, but should be tackled with the help of Data Science. Rather than trying to manage or systematize Big Data – an impossible task given its scale, growth and fragmented nature – Data Science can reveal new dynamic patterns in Big Data that can be used as triggers for action on either customer side or supply chain.

Imagine, at the beginning of spring a consumer walks into a store in a leafy suburban location, buys a box of tissues and redeems points on their loyalty card. That same consumer logs into the retailer's app and browses for eye drops. Later, the same consumer purchases a decongestant online through the same retailer. When reading this example, it's not difficult for you or I to deduce that this poor consumer is likely struggling with hayfever. But how can your systems know this? At best, they may recommend similar or related products (that have been manually tagged and associated) and also look at what other unrelated consumers purchased. Those heartbroken consumers who have just been through a relationship breakup - purchasing tissues and a gallon of ice cream - are going to throw these recommendations a big curveball! No amount of data management or systems integration is going to connect the dots and automatically suggest allergy recommendations to the first consumer. However, Data Science can.

Data Science excels at automatically handling lots of unrelated, even weak data and discovering patterns within it that can immediately be used to make micro-recommendations. These recommendations can also be fed, in real-time, to your consumer-facing or supply chain systems to prompt other commercial actions and decisions. One of our partners in BigData4Analytics' technology eco system recently achieved exactly this on a global basis for a worldwide beverage brand. By enabling thousands of self-service retail touchpoints with Data Science to provide dynamic point-of-sales personalization, hosted and maintained in the Cloud, we were able to deliver immediate sales increases of over 20%. In an industry where 2% is impressive, 20% is phenomenal. And, by automatically sharing these patterns of consumer interaction and purchasing with the beverage company's ERP and retail planning systems, the Data Science platform was able to correlate and detect different data patterns that were automatically used to optimize their systems on the supply side as

well. This delivered a 20% savings in operational costs by predicting what products were needed and when, thereby increasing on-shelf availability. This was done in a completely automated, data science-driven way with no systems integration, no data preparation and no involvement by any internal IT, systems or logistics personnel.

The results keep getting better for the beverage client as the platform sees more data and more interactions, and feeds into more systems. Machine learning feeds the Data Science which in turn sends triggers to the operational systems. That's the foundation of successful and sustainable omnichannel retailing. Data Science identifies and unlocks value from the multitude of disparate data sources that a retailer has access to and delivers transformational results within weeks.

So, to be "omniscient" in omnichannel, take the (data-) scientific approach!



Jackie Down is Vice-President Sales & Marketing at BigData4Analytics, Europe's leading "Management Consultancy in Big Data" – with a refreshingly different three-pronged approach:

- Business consulting that helps business leaders identify "early wins" and adopt the "data-driven culture" needed to get the best from analytics
- World-class data science consulting – delivered as consulting or as "Interim Chief Data Officer"
- An "ecosystem" of innovative analytics technologies that provide clients with more choices on the "make-buy" scale.

Our consulting clients include a top 5 global professional services firm and several top tier retailers. We run "The Art of the Possible" analytics orientations for executive teams, showing live demonstrations from our "Ecosystem" partners - in Predictive Analytics, Enterprise Yield Analytics, Excel replacement and Boardroom Visualisation, for example – all in a "vendor neutral" environment.

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