



Driving consumer-led innovation in CPG using machine learning and data analytics

Abstract

Since the emergence of modern marketing, consumer-facing brands have tried every trick in the book, utilized every tool to try and get more accurate, targeted information about their potential customers. Who is their target audience? What are their needs that are reflected in their buying patterns? How do they go about forming their opinion and making a decision when it comes to purchase? Questions such as these are asked with the purpose of making more efficient and effective marketing decisions to gain a competitive edge and predict trends that are built on the foundation of consumer behavior. While the type of questions really haven't changed, the tools at our disposal now to answer these targeted questions are rapidly evolving and will only continue to over the coming years.

Millennials are fast-becoming the most powerful and influential consumer segment. They set buying trends across all industries, and have great influence over older generation consumers. In this world of hypercompetitive markets and fickle consumers, businesses have to innovate to thrive. According to a recent Accenture study, "Supercharging innovation is rightly considered mission-critical for all manner of businesses. For consumer packaged goods (CPG) companies, however, a unique set of circumstances is making this ever more challenging. Lifecycles have become increasingly compressed as new products become obsolete ever faster. Behind this is the phenomenon of digitally savvy and sophisticated consumers demanding greener, more functional, more cost-effective, and more personalized products"

The advent of digital media, powered by AI, now gives brands the option to not just understand the pulse of the consumer and conversations they are having around a product/service, it enables them to track and predict new trends and focus on the key ones that actually matter. In a new O'Reilly survey report, 61% of marketers indicated that AI and ML is the most important aspect of their data strategy to win big.

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Staying relevant in the age of a digital consumer

The digitally savvy customer of today leaves behind clues on the internet about their preferences and likely next moves. Their digital footprint is leaving behind huge trails of data, from what they are browsing, what their preferences are, where they holiday, what they eat and so much more. The key now is to make sense of the data, identify patterns and try to score an edge over competition.

Brands and innovators who want to stay ahead of the curve need to now figure out how to determine and deploy consumer insight. Taking 24 months from inception to execution to go-to-market is no longer an option. With traditional entry barriers removed, smaller, born-in-the-clouds, nimble startups are eating into the market share of legacy companies by reacting to consumer preferences faster, thereby gaining the first-mover advantage.

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The crystal ball dilemma

What if you were able to predict the future? If there were a crystal ball or time machine that helped you look into future trends; wouldn't it eliminate all the guesswork? Marketers have been trying to crack the code on hit products forever with limited success. Blame the economics of standard product development and marketing. Product innovation and mass marketing is often supplier-led vs. based on what consumers actually want.

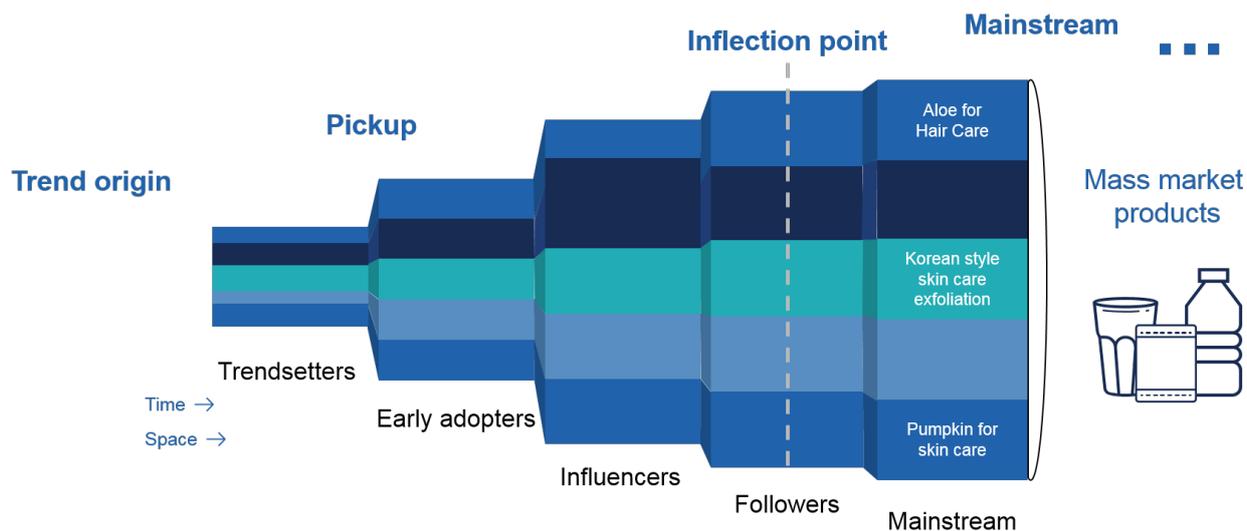
The flameout rate for new products ranges from 75% to 95% and above. Smart employment of AI and machine learning could improve those odds greatly, not just by identifying trends but by prioritizing them and isolating the ones with the greatest chance of success. As per a report by Narrative Science, 61% of companies that have an innovation strategy use AI to identify opportunities in data.

Digital transformation has dramatically changed the relationship between brands and consumers. We now live in an on-demand economy, where the thoughts, needs and behaviors of consumers are influenced by countless brand touch points across a constantly growing digital ecosystem – all in real-time. PointSource's chatbot report found that when AI is present, 49% of consumers are willing to shop more frequently, while 34% will spend more money. Digitally-native challenger brands are forcing traditional brands to rethink their strategies and use technology to drive innovation, not just to manage existing processes. 44% of organizations fear they'll lose out to startups if they're too slow to implement AI, as per an Economist Intelligence Unit report.

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Tracking trends in the age of the digital consumer

Trends don't come out of the blue; most consumer trends already exist, albeit in a different category or in a different market. Sometimes, they have existed for decades or centuries but just aren't mainstream enough. The key is to discover, score and track trends through their lifecycle. If you are able to do this, you can constantly track trends, even the smallest ones and understand what stage they are in, who is pushing them, how successful is the push and finally, how likely the trend is to become mainstream.



Trends have an inflection point, hitting which determines if the trend will go mainstream or not. Traditional tracking methods help brands find out what is going on in the market – which means you will learn when something significant is happening, typically after or too close to the inflection point. This means most times CPG brands are not setting the innovation agenda but reacting to a nimble competitor.

The difference between identifying trends and prioritizing them

Identifying trends isn't new. What is necessary though, is to be able to evaluate whether a trend has long-term potential to impact a category, and therefore warrants investment. Legacy brands need to know where, how and when to invest their money, separate the signals from the noise and invest in trends that are likely to go mainstream sooner than later.

Detecting trends early and using AI can help break this cycle – now you can see what's going on early on, how it's likely to move and how you should prepare for it – it gives you more time to plan and be proactive and provides a single prediction that multiple teams can use and align on. The difference that AI and ML bring is that they can make sense of the noise and identify the most promising products (like pea yogurt) by showing how such trends evolve and what influences their growth. That's because AI can analyze data and recognize patterns that resulted in successful past product launches. It can also identify early on what trends are not so hot (like savory yogurt).

In the future, blindly guessing what consumers are going to like months from now doesn't make much sense. Nor does bringing a finalized version of that product to market and trying to make it fit. Forrester predicts, by 2020 businesses with data insights-driven teams will steal \$1.2 trillion per annum from their less-informed peers.

What does make sense is using all the available data and computing power to make product launches as successful as possible. It also provides a good roadmap for taking the trends to market (e.g., how to market and advertise pea yogurt to consumers). That's the closest thing we have to seeing into the future and it's getting closer all the time.

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How machine learning and AI can improve the odds

While no one can glimpse the future, looking at the data closely enough will get you far enough along that you can beat the odds. As per McKinsey Global Institute Analysts, a study of AI and use cases from across 20 industries indicated that the most value coming from AI is in improving performance of existing analytics efforts.

With product launches, the variables include the progression of trends across geographies and market categories and from early adopters to mainstream, the impact of large consumer trends (e.g., sustainability, fair trade), the impact that influencers have on trends becoming mainstream, the alignment of consumer perception and actual needs, and more. There is too much of this type of data for a human being to make sense of, but machines can find patterns in huge amounts of data.

In a recent example, K-beauty skin care, a major trend in cosmetics, began in South Korea and then gained interest in Europe before it became a hot topic in the United States. In that instance, a U.S. marketer could have looked at the data and seen a trend. In the CPG industry, trends travel across geographies and subcategories (food/beverage, health/beauty). In this case, an AI system might have predicted the worldwide spread of the K-beauty trend early enough for a marketer to capitalize on it.

While that example looked at growth across the globe, another indicator of strong growth is the type of people who are discussing a product category. In the food and beverage category, topics like dairy-free, vegan, and organic have all become big trends. A recent example in this category is the discussion among trendsetters about pea yogurt, and the data shows the discussion is unusually strong. That indicates that pea yogurt may be just a few months from going mainstream. Overall, plant-based yogurt saw 31% sales growth in the past year as per Nielsen Product Insider, powered by Label Insight.

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Conclusion

Leveraging analytics helps consumer brands not only identify what consumers are interested in today, but also track patterns in their behavior to accurately forecast what will catch their fancy in the future and what trends need to be invested in, before they become big. This however, is only the beginning of what we consider, the potential of big data and predictive analytics.

As the field of advanced analytics and big data is increasingly being used by marketers to make data-driven decisions - from surfacing and predicting unknown and emerging trends, to executing dynamic content in response to real-time changes in audience behavior, to identifying undervalued targets for potential merger and acquisition investment, it would not be unwise to say that analytics will continue to transform innovation and marketing. AI and ML will most definitely become, if they haven't already, key to a marketers success.

Leveraging analytics for innovation in CPG

Social media and artificial intelligence now allow brands not just to listen to what consumers are saying, but to predict new trends and determine which ones matter. Brands that can utilize these robust and rich data sources to deliver real-time consumer insights are most likely to win at the marketplace! At LatentView Analytics, we are driven by a commitment to deliver unrivalled analytics solutions that enable Fortune 500 companies to anticipate product trends, improve customer retention and turn unstructured data into a valuable business asset. To know more, please write into: sales@latentview.com

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About the author



Shalabh

Shalabh leads the Consumer Goods practice at LatentView Analytics. In his current role, he helps leading food, make-up and home decor brands understand millennial consumers and develop innovative products that help them compete in a changing market. He believes that consumer goods companies need to completely reinvent their product development process by looking at the world outside-In and is working on SmartInsights, a product that will enable this transformation.

He is also an avid cook, backpacker and history buff.

About: LatentView Analytics

LatentView Analytics is a leading global data analytics firm, helping Fortune 500 companies harness the power of data to drive digital transformation. LatentView's solutions provide a 360-degree view of the digital consumer, fuel machine learning capabilities and support artificial intelligence initiatives. Companies in the retail, CPG, BFSI, high tech, healthcare and other sectors use LatentView's analytics solutions to predict new revenue streams, anticipate product trends, improve customer retention, optimize investment decisions and turn data into a valuable business asset. LatentView Analytics has offices in Princeton, N.J., San Jose, Calif., London, Singapore and Chennai, globally.

For more information, please visit www.latentview.com or write into: sales@latentview.com