White Paper

How Amazonian Competition Is Cannibalizing Retailers

IN TODAY'S WORLD FIRST MOVERS ARE WINNERS TAKE IT ALL. FAST SECONDS ARE BEING FOOLED BY OLD SUCCESSES. MICRO TRENDS ANALYTICS IS FUELING THE HYPERGROWTH OF THE WINNERS.

SALE

TRENDALYZE

Amazonian Competition

Let us face it! Today all retailers are engaged in brutal Amazonian competition. This is not just a survival of the fittest. This is a survival of the few most fit for the new economic reality. If you do not believe it, just check out the statistics on store closings and bankruptcy filings by retailers.

But it is not just physical stores that are disappearing. Many retailers are selling more and more through other retailers' channels rather than through their own branded web stores.

Why is this happening? How to survive and thrive in this new hyper competitive environment? These are the questions that many retail executives grapple with.

The Data Effect

The number one factor that fuels this huge transformation is the enormous collection and analysis of data. Not any data, but a very detailed (granular) data that records the footprints of all retail events.

Data is not new to retailers. Retailers have always collected and competed on data. Data has fueled the amazing growth of some marquee retail companies. New retail giants have often risen because of better data and analytics.

Years ago, Walmart implemented a data system that linked suppliers, merchandizers and stores to determine quickly the profitability of each sold item. The idea was quite simple. If you knew at the end of the day if you made money or not on the sale of individual items, you could fix the issue. If you waited six months for a profitability report, you would have accumulated irrecoverable losses. This system resulted in the famous "everyday low prices" that many competitors couldn't match. The growth of Walmart was the result of better and more timely analytics.

But even this is not enough for Walmart to stay competitive today!

The Value of Granular Data

New technologies allow new players to collect extremely granular data. To use an analogy, this new type of data is as detailed as DNA data. And it contains as many valuable sequences and patterns as the DNA data.

When you have such data, you can analyze sales on an item, store, consumer, price and other levels of granularity. Such low level of analysis factors in all conditions that make the unique DNA of different sales environments, i.e., it factors the unique combination of stores, shoppers, items and other effects, that makes sales so different from on location to

another. Today's opportunities to increase margins and optimize revenues rely on the understanding of these unique patterns.

The analysis of this DNA like granular data is known in science as motif discovery, i.e., the discovery of recurring or repeating patterns in time series or sequential data, such as POS data in retail. The analysis has been rebranded for business as micro trends discovery, i.e., the ability to gain insights about new behavioral patterns and newly forming consumer habits, and the ability to act on this information. Micro trends analysis allows retailers to understand the DNA of consumer preferences based on actual behaviors.

The monetization of micro trends is based on the discovery and targeting of micro segments. Spotting a micro trend reveals the needle in the haystack. Searching and finding similar micro trends allows marketers and other business professionals to organize the haystack into micro segments that can be nudged with various incentives and offers to change behaviors.

How Micro Trends Discovery Works?

1. Today all retailers collect vast volumes of time stamped data that is called time series data. All POS data is time series data. The time series data tracks behaviors and events over time, and, thus, contains many patterns that lead to valuable insights.

2. Like the motifs in DNA data, the motifs in POS data mean something. Time series motifs are like words. If you can discover and visualize them, they tell a story.

3. The problem is how to extract the story from the millions of time series in your data. The more granular the analysis is, the more opportunities can be found, but also the more individual time series have to be analyzed. Hence, it becomes impossible for humans to do it without the aid of machines. In the past, retailers have used Excel and other business intelligence tools to aggregate data to see the macro trends. But these macro trends are based on totals and averages which obfuscate much bigger opportunities that can only be discovered on the granular level (See our insert on the "flow of averages").

4. Trendalyze augments the human intelligence in two ways. First, the platform leverages machine profiling to point the business professional to interesting micro trends. Second, it provides unique interactive visualizations specifically designed for exploring and finding micro trends in large time series data. Using both approaches, a business professional can quickly understand the meaning of the patterns in the data and gain insights how to improve business outcomes.

5. Like Google, Trendalyze empowers business professionals to search

within larger volumes of data for similar micro trends. Finding similar cases, allows business professionals to take various actions to improve business outcomes.

When companies do micro trends discovery on a massive scale they achieve significant price optimization, margin improvements, and consumer campaigns effectiveness. The process makes consumer offers economically precise which in turn attracts more consumers and ultimately cannibalizes other retailers' customer bases. This is the modern data-driven equivalent of Walmart's "every day low prices".

A faster transition to an automated micro trends analysis and monetization is the only survival strategy within the Amazonian competition. Data allows retailers to act fast and scale fast. The "first movers" become the "winners take it all" companies that outpace those retailers that adhere to "fast second" strategies.
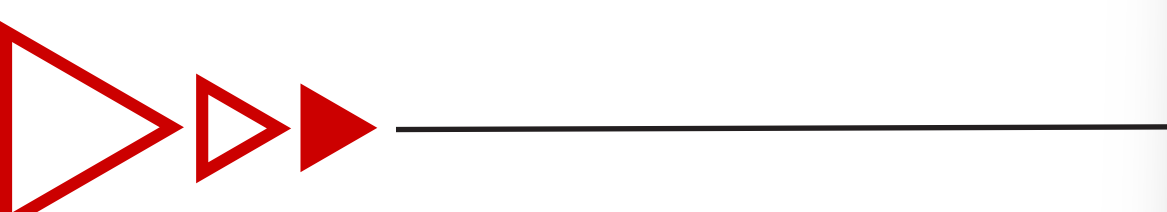
THE FLOW OF AVARAGES

Business data is highly dimensional which results in thousands and even millions of individual time series containing valubale micro trends. It is impossible for humans to discover, analyze, and monitor for trends on the individual time series level. Business analysts use traditional BI and analytics approaches that rely on averages to solve the dimensionality problem. Yet the flow of avarages states:

"Plans based on average assumptions are wrong on average."

Sam Savage
Stanford economist