

How to accurately measure market share on Amazon:

Two essential methods for gaining insight into category-wide sales.

MACHINE LEARNING



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Introduction

Measuring market share on Amazon has become imperative for CPGs. Due to its unequalled reach, Amazon is a critical platform for major brands and benchmarking sales performance against competitors is a necessity. The platform provides brands with their own sales results, but not market share, a fundamental metric CPGs need.

A sprawling 3P market, constantly shifting sales rank, an evolving algorithm and a unique, dynamic etail model mean traditional market share metrics are obsolete.

Next generation ML models are required to succeed on AMZ today.

Effective ML models for estimating AMZ market share must have two features: automated data management and categorization. Doing either manually is impossible due to the amount of data and the complexity of AMZ.



Obsolescence of legacy machine learning (ML) models for Amazon.

AMZ's ecosystem is continually evolving. Significant recent changes to its e-retail media offering is a form of advertising visible on AMZ as 'Sponsored products' which appear at the top and elsewhere in search results. This e-media model has major impact on sales.

However, because it's so dynamic, with the sponsored products shifting constantly, it's only possible to measure this impact if the rate of data collection is very frequent.

The second problem around legacy AMZ measurement models concerns the ongoing algorithm changes on Amazon. They've made statistical extrapolation analytics, the industry standard, redundant.

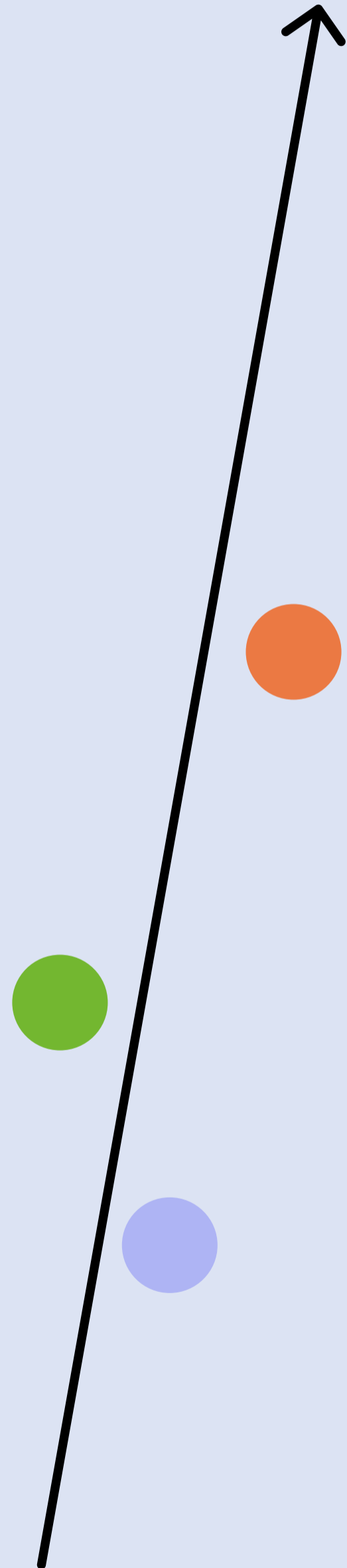
Robust new analytics are required to succeed on Amazon.



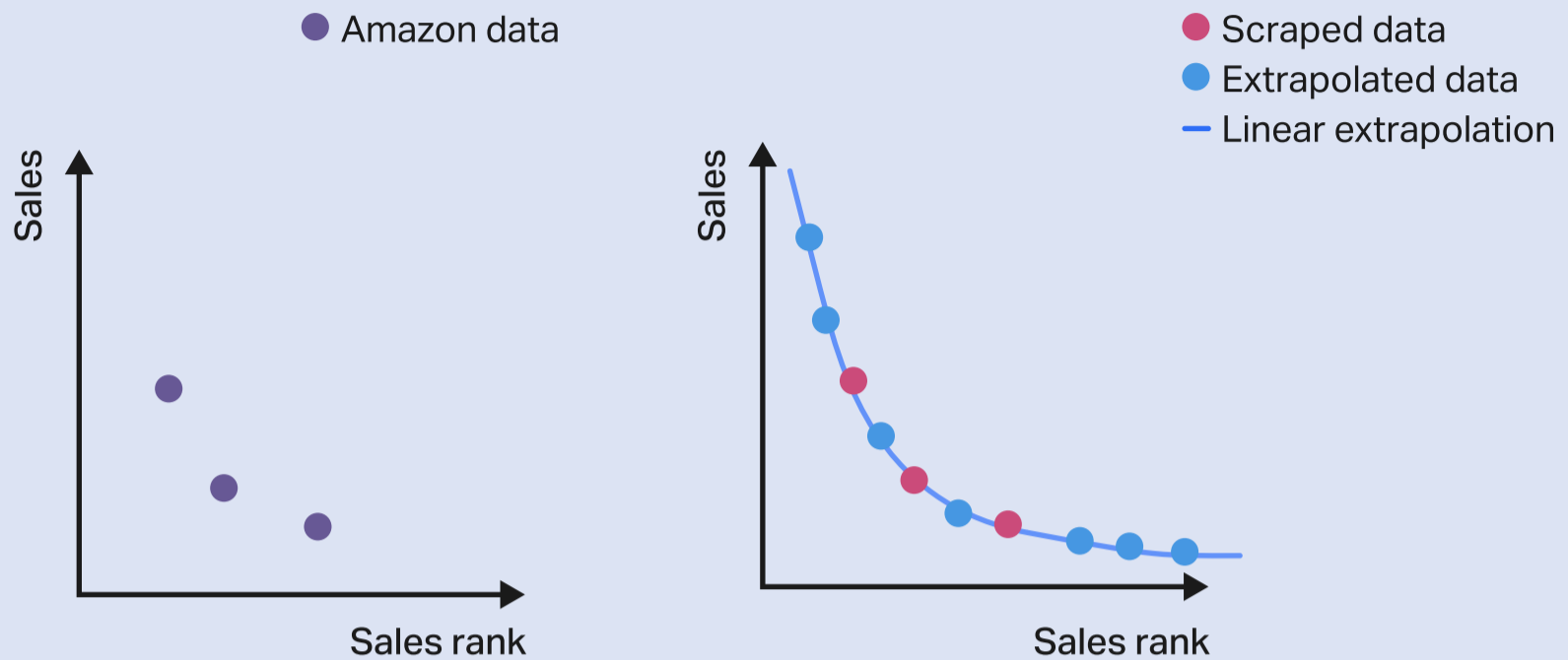
Two indispensable machine learning model features for measuring AMZ market share.

1/ An ML model sophisticated enough to handle the complexity of AMZ's algorithm.

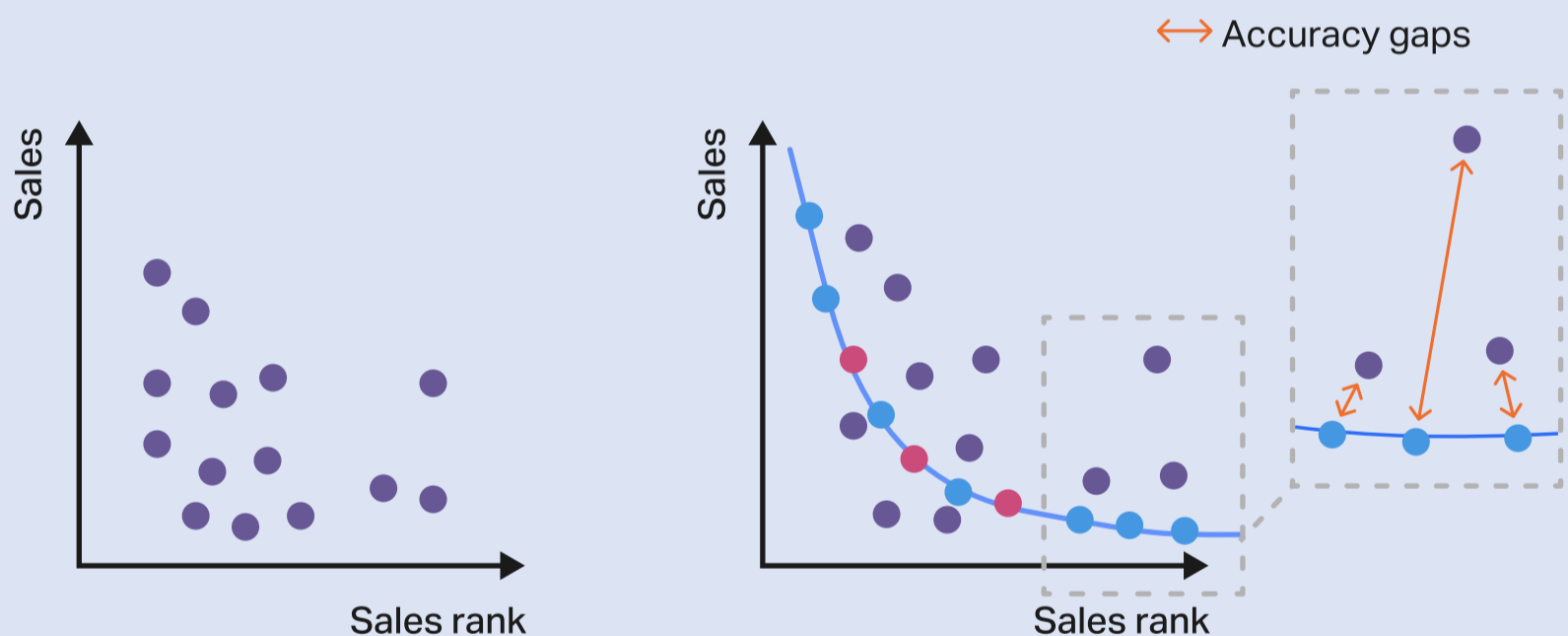
Traditionally, linear modeling has been used to estimate sales & market share on Amazon. Essentially, it involves taking relatively few data signals and building a more complete picture of sales prediction from them.



Traditional Linear Measurement Before



Traditional Linear Measurement Now



That method worked for a time. As Amazon continued to grow and become more complex however, it became inadequate.

Using just the correlation between sales rank and sales is no longer reliable. The relationship between the two data points is no longer direct and the calculation now includes too much guesswork.

As the graph below shows, products can have no sales and yet very different sales ranks, while others can have relatively few sales and a good sales rank.



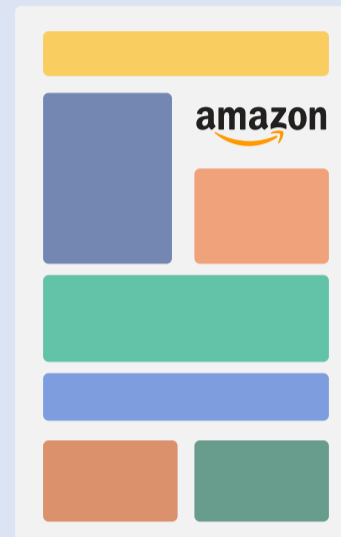
The reality is that sales rank alone can't be used to determine sales & market share.

Formula to obtain high accuracy

- Scraped data
- Extrapolation using deep machine learning



+



High accuracy. Even during key events like Prime Day and Black Friday.

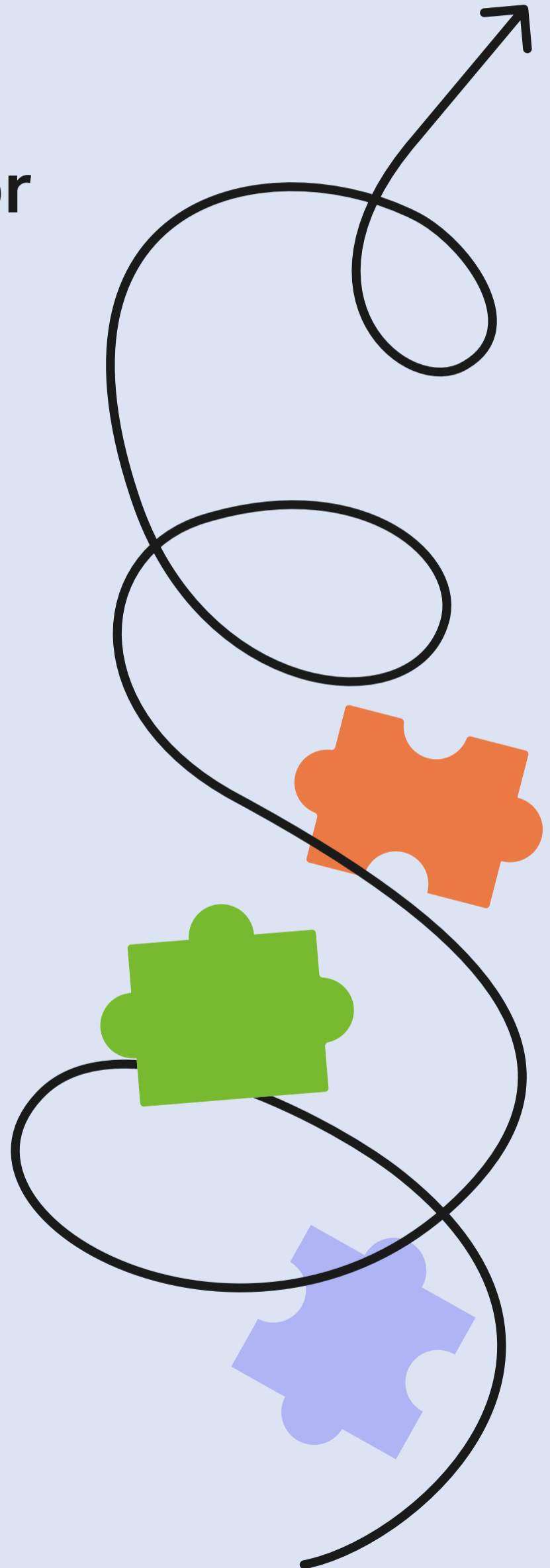
What's needed is a more comprehensive extrapolation model that captures data from several data sources beyond sales rank--a new ML model that constantly adapts to AMZ's ongoing changes.

A new machine learning model that constantly adapts to the ongoing changes is required.

Two indispensable machine learning model features for measuring AMZ market share.

2/ Automated data management and categorization.

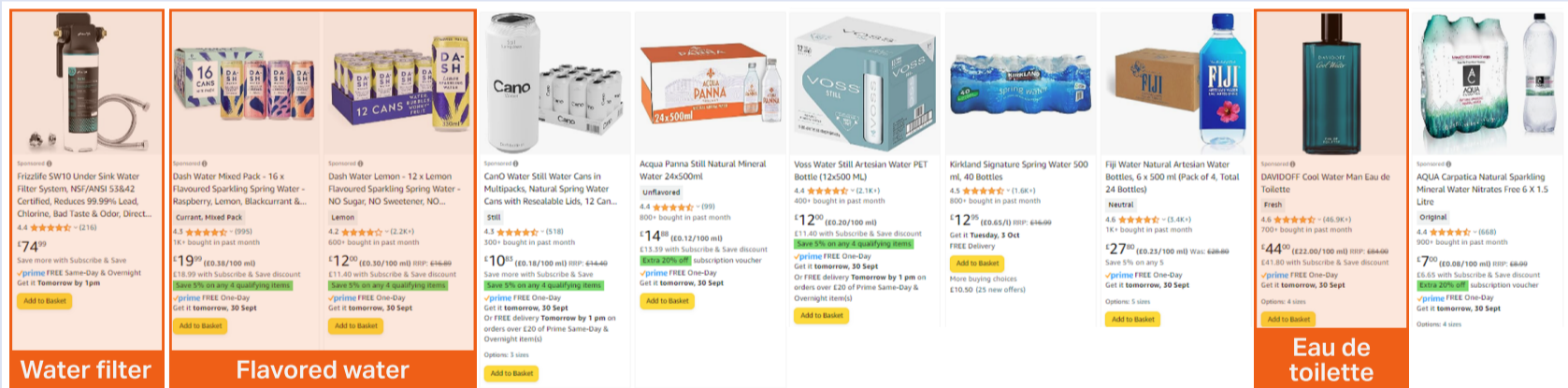
Vendor Central provides brands with data, however the sheer size and amount of activity on Amazon means that data contains products which belong in different categories.



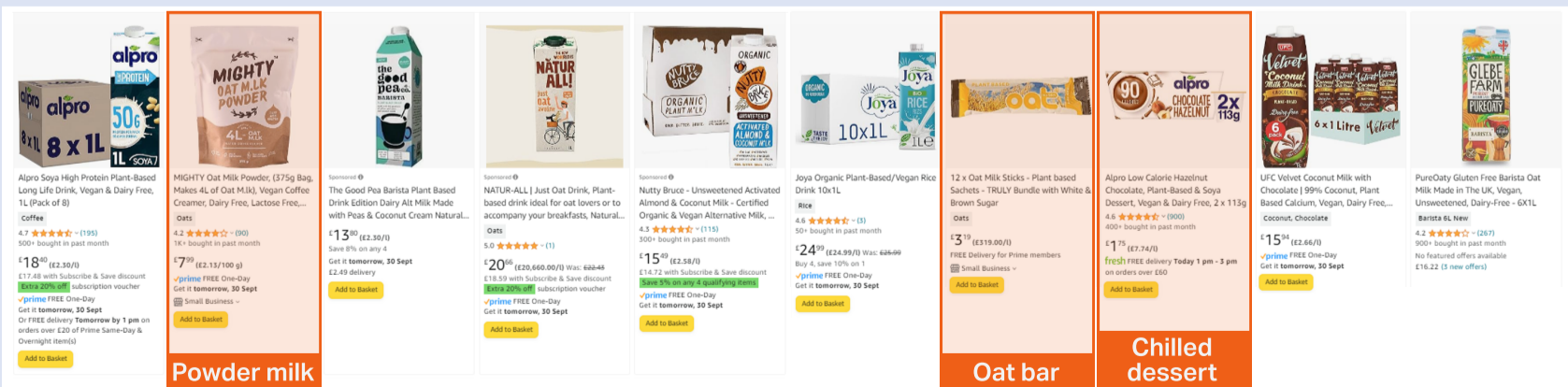
The following are examples of miscategorization, also known as noise. This noise requires cleaning on the part of the brand or a partner. It's a time consuming and laborious task for teams to do this manually and ties up resources.

Fully automated data management and categorization not only gives a CPG reliable data, it simplifies their Amazon experience, and once the data is clean it's accurate-- which enables cross-referencing.

Search results for "water"

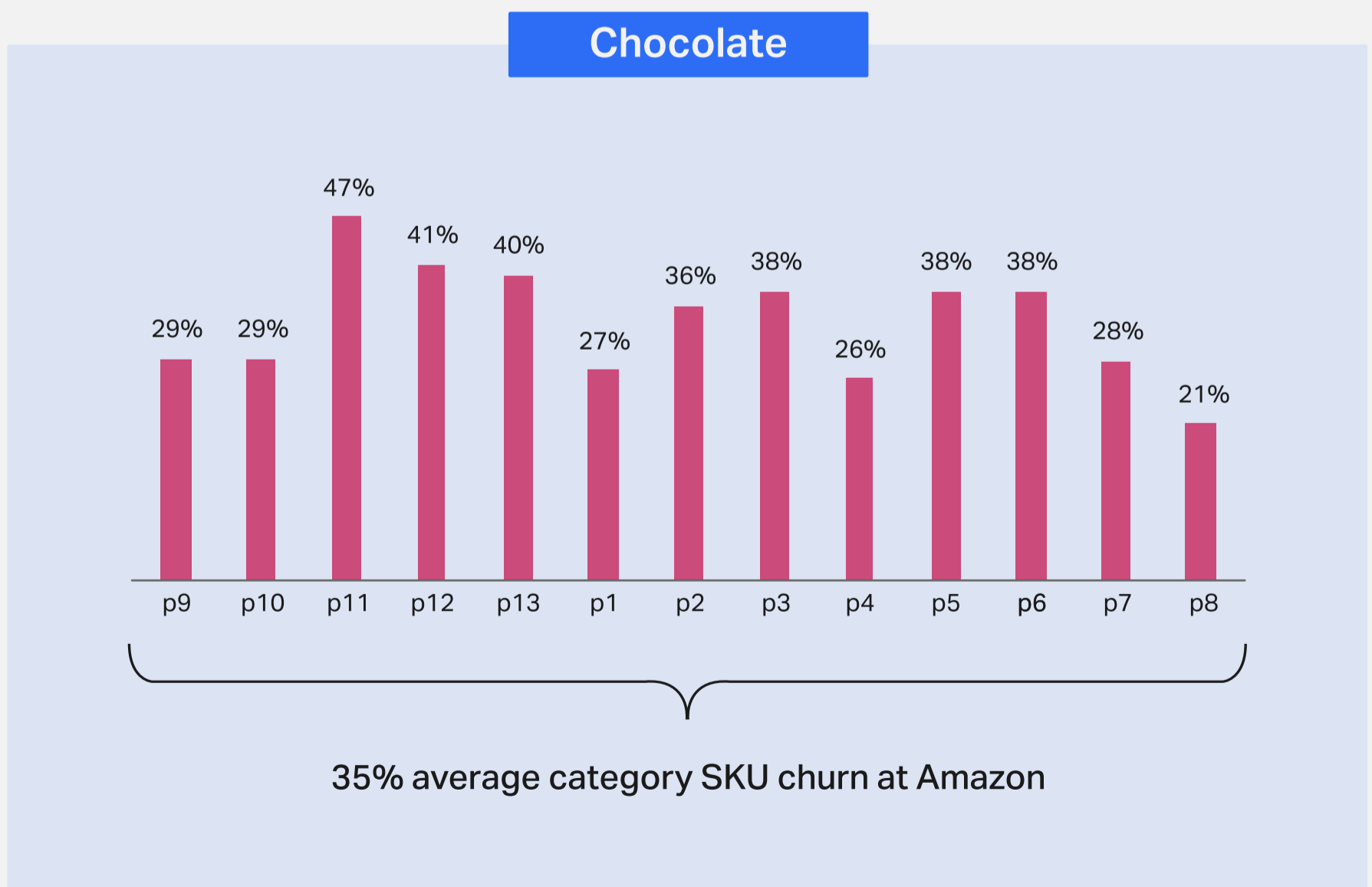


Search results for "plant based milk"



Another reason an ML model that includes automated data management is necessary is handling product turnover, or churn. Product turnover is very high on AMZ for several reasons, the most important being that it's much easier to list a product on Amazon than traditional retailers and many brands take advantage of that.

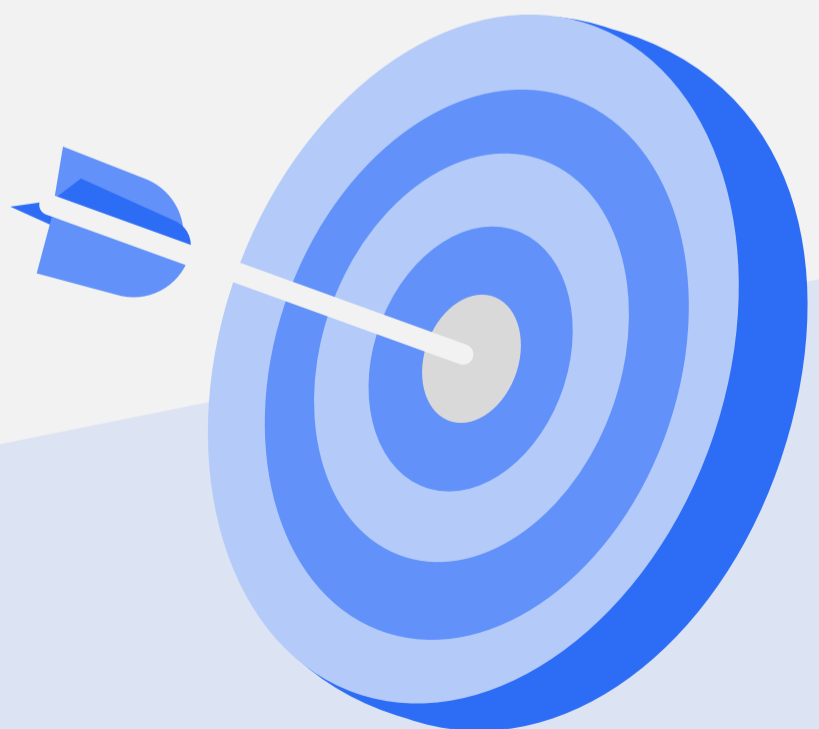
Only frequent automated data collection and management will pick up all the products sold on Amazon, giving a true picture of activity and performance on the site.



Conclusion

Estimating sales and market share on Amazon is challenging for several reasons, including the huge and changing 3P market. Many brands make significant investments in Amazon's paid search function, yet the impact on sales it has is unknown to them, as well as the impact competitor's search investments have on their sales. This eretail media model is ignored by too many brands and must be considered for acquiring reliable analytics.

The ML model used for Amazon must be robust enough to handle events like Black Friday. Accurate market share measurement is crucial to confidently make data-driven decisions.



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