Data-Driven Analysis of U.S. Retail Expansion Failures and Regional Business Vitality

Yesterday, while I was just researching stock shares in the US, I read news about big retail chains closing stores left and right. Walgreens is shutting down hundreds of locations. Big Lots is going out of business completely. Even smaller chains like Joann Fabrics are closing nearly 800 stores. These are not just small mistakes - each failed store costs millions to build and stock, and when it closes, jobs disappear and money is lost. These reflect that companies pick the wrong places to open stores. They guess based on gut feeling or old data, not real signs of whether a town or city is growing or shrinking.

Actually, a similar thing happened to me when my family tried to open a new shop in my hometown. We thought the place was crowded so that we would get profits, but we never analyzed why it was crowded - whether people there were truly potential customers or just passing by. Because of that, our shop had to close eventually. That experience made me realize how important data-driven decisions are, and that is why I want to solve that problem.

I want to help retailers open stores where businesses are actually doing well, where new shops are opening, jobs are being created, and fewer places are closing. That way, they do not waste money and business can grow safely.

There are three main stakeholders who will benefit differently from this analysis. First, retail executives and site planners gain clear guidance on where to expand safely. Second, investors and shareholders receive more reliable projections, lowering financial risk. Third, local communities avoid the negative effects of store closures, such as job losses and reduced economic activity.

To support this analysis, I am using the Business Dynamics Statistics (BDS) dataset from data.gov, published by the U.S. Census Bureau. It is free, updated every year from 1978 to 2023, and shows how many stores open and close each year, how many jobs are added or lost, which areas (states or cities) are growing, all broken down by type of business, like retail. It is easy to download or pull through an API.

Here is how the analytics process will be taken. First, we will begin with descriptive analytics which we look at the past - where did retail grow? Where did it shrink? Then, we will diagnose the connection between job growth bringing more shoppers, or too many closures mean people are leaving. Next, we try to predict the future using machine learning models like whether a city will keep growing in the next 2-3 years? Finally, we will give advice to make business decisions for the best locations for expansion.

Even though we use data analytics, we cannot say that it will be fully solved. There are some limits. Since the data is yearly, not monthly, big changes in a few months might be missed. It is also grouped by city area (MSA), not street by street. And the newest full year is 2023. But we can still use it well by combining it with newer job reports and focus on city-level trends, which is exactly what big chains need.

In the end, this use case will show how open data can help people make smart decision-making. By using the BDS dataset, we can find cities with more store openings, growing jobs, and fewer closings. We will give each city a simple score like ‘High chance of success’ or ‘High risk,’ and use a dashboard to show the trends. Avoiding just two or three bad locations can save $10-30 million. This is not about complex math or long reports, it is about using real data to answer one clear question, “Is this a good place to open a store?”, and turning that answer into smarter growth, stronger markets, and fewer costly mistakes for various stakeholders.

References

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