Retail Opportunity Inference from Nearby Cities

IBM Data Science Professional Certificate Capstone Project

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Introduction/ Business Problem

Across the country the retail landscape is constantly changing. Factors like consumer trends, neighborhood revitalization, and even demographic migration inform the success or failure of different types of businesses in different neighborhoods. Consider as an example Williamsburg in Brooklyn, New York. If only the same types of businesses remained, we would still see mostly mom and pop shops and factories, rather than the coffee shops and artisanal boutiques you see there today.

We want to determine under-represented retail categories which would potentially succeed in a changing neighborhood. There are several key players in retail that would benefit from this insight. Property managers like to know what types of businesses would be wise for renting their space. Entrepreneurs with an eye on a particular neighborhood may want to know what retail void could be filled. Existing business owners seeking to expand their offerings may look to these insights as well.

We can’t assume current retail categories operating in a neighborhood of interest entirely represent the customers’ wants. Often it is the case that consumers don’t know what they want. The problem property managers, entrepreneurs, and existing business owners face is looking beyond their neighborhood for deeper insight into what may be successful. This problem is commonly addressed in a limited way by exchanging information with people in nearby cities with similar markets.

To address the challenge of looking beyond the market of a neighborhood, we can compile and analyze retail location data from neighborhoods in nearby cities. We make the assumption consumers in similar, nearby markets will behave similarly. Based on this assumption, we can generate a ranked list of retail categories which have a high potential for success in our neighborhood.

We will test this process on the neighborhood Church Hill in Richmond, VA. This is a good neighborhood because it is in the early stages of revitalization. It’s also in a city that sits right in the middle of the state surrounded by several similar cities.

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