Data Analytics 2 - Market Basket Analysis

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Version Number	Changes	Date
0.9	Basic structure, text and plots	16.09.2019

Main Takeaways

In most product categories Blackwell and Electronidex fit together nicely by offering products in different categories or product in different price ranges.

With PC:s, Displays and Tablets there is considerable overlap. This is worrying as these 3 categories create 45 % percent of Blackwells' profits.

Electronidex has a huge portfolio of over 4000 products and as there are only slightly over 10000 transactions with more than 1 unique product, it is hard to find reliable connections for buying certain products together.

If we add the product brand to the analysis, the results are still weak. The one interesting thing in this level is the way that apple products are often bought together with other apple products. Apple is also the most popular brand in transactions, being over 2 times more common than the next one which OWC (who make Apple accessories).

If we perform the market basket analysis at level of product categories, we find interesting connections between buying smartwatches, cameras and products of category other (these include a number of different products e.g. lamps with usb ports for charging other devices, connected thermostats etc.) and buying products of categories

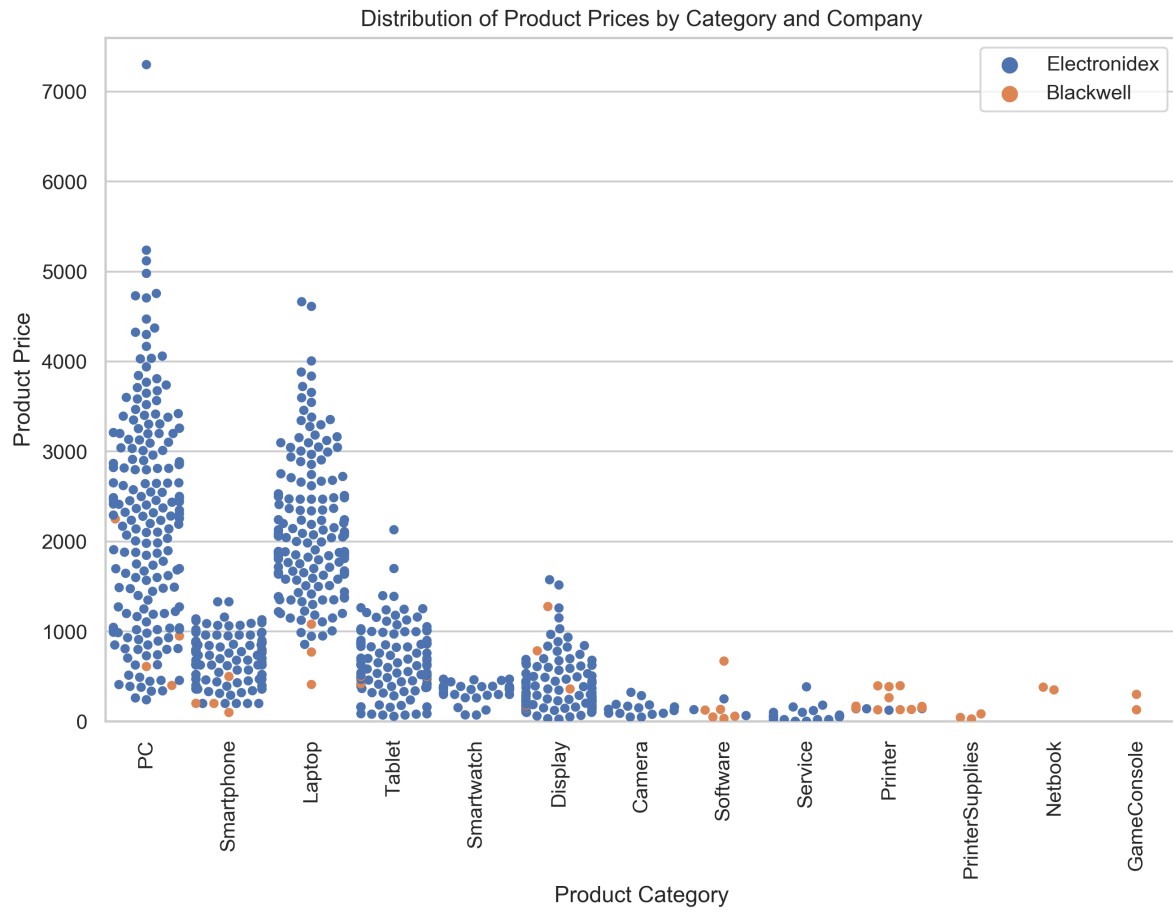## Blackwell Product Line Comparison to Electronidex Product Line

Where we make profits

Product Categories Share of Blackwell Profits
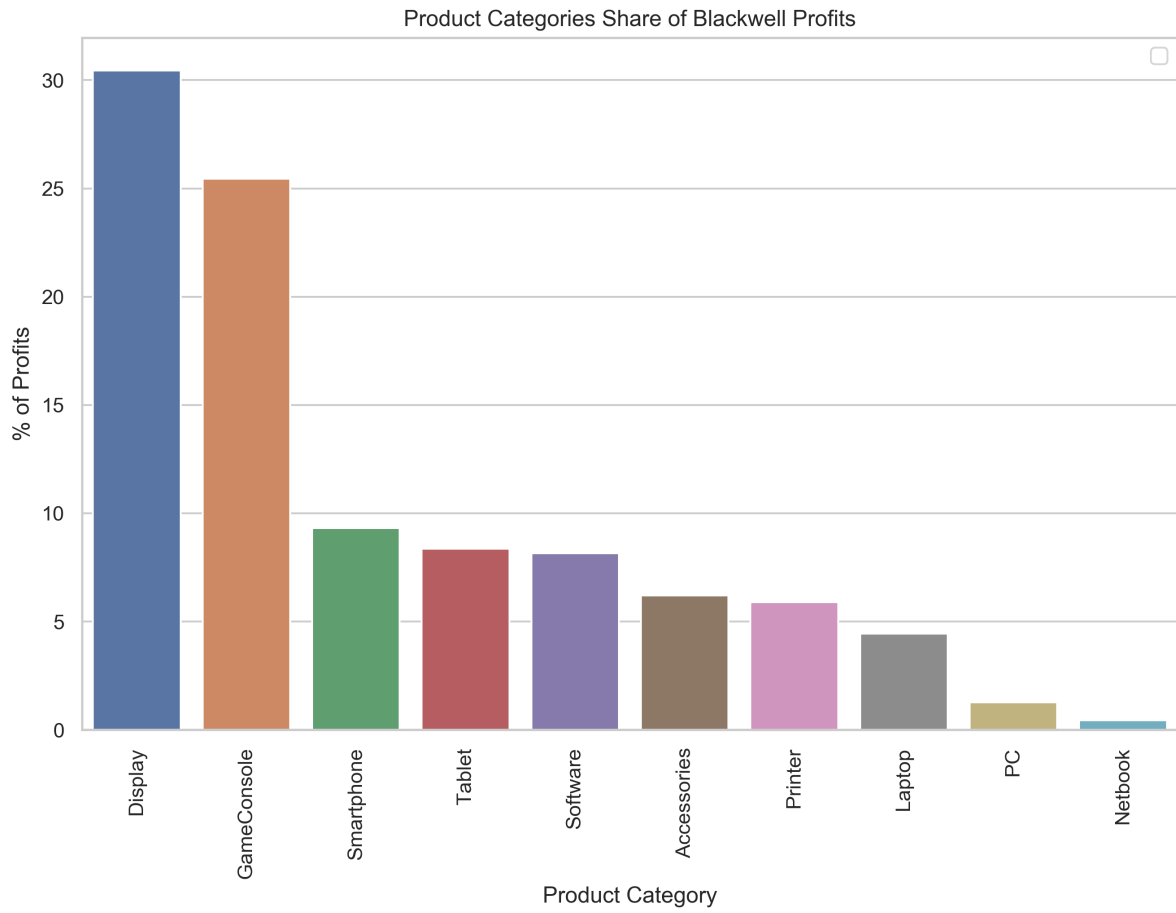
What are the individual profits per product?

Blackwell Product Profits by Product Category
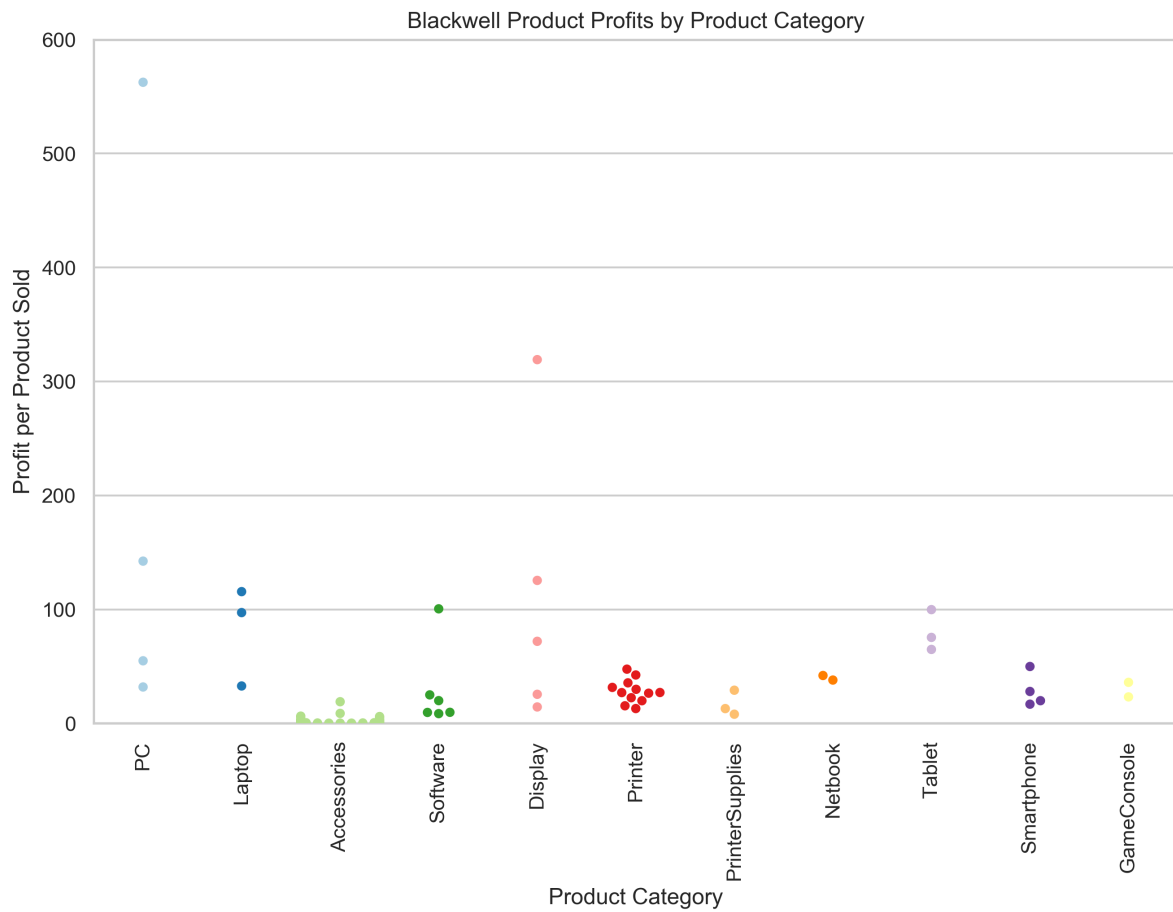
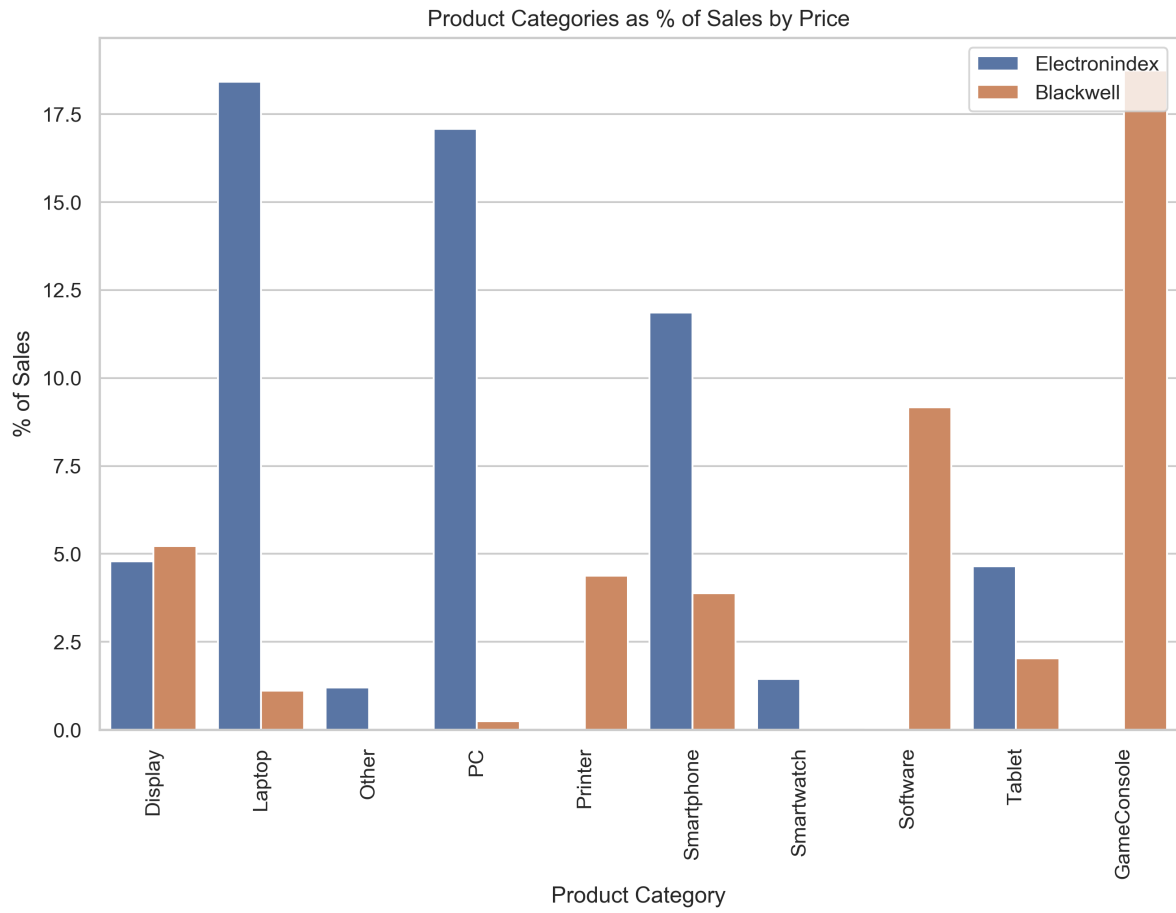How our product line fits in with the product line of Electronidex?
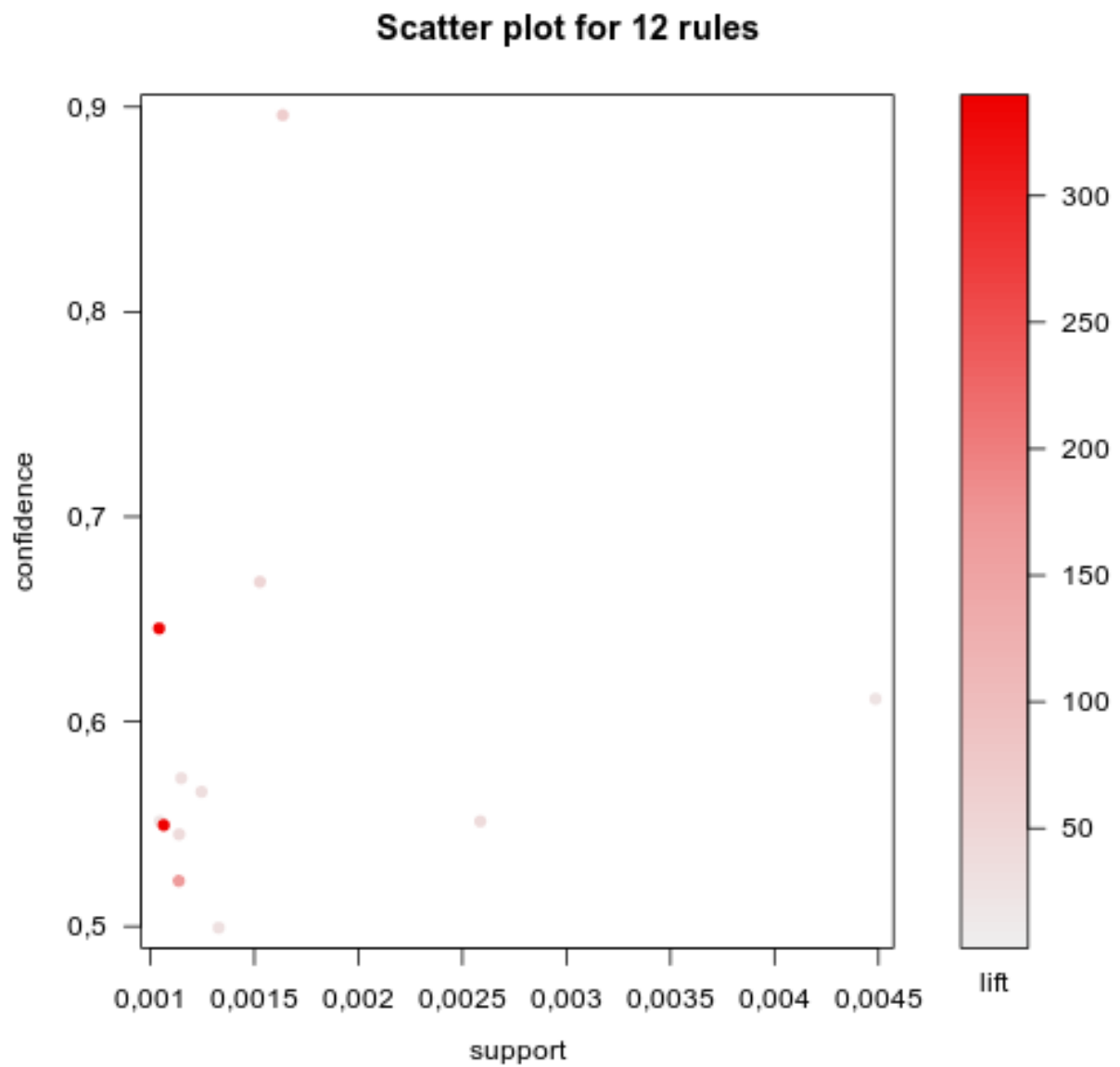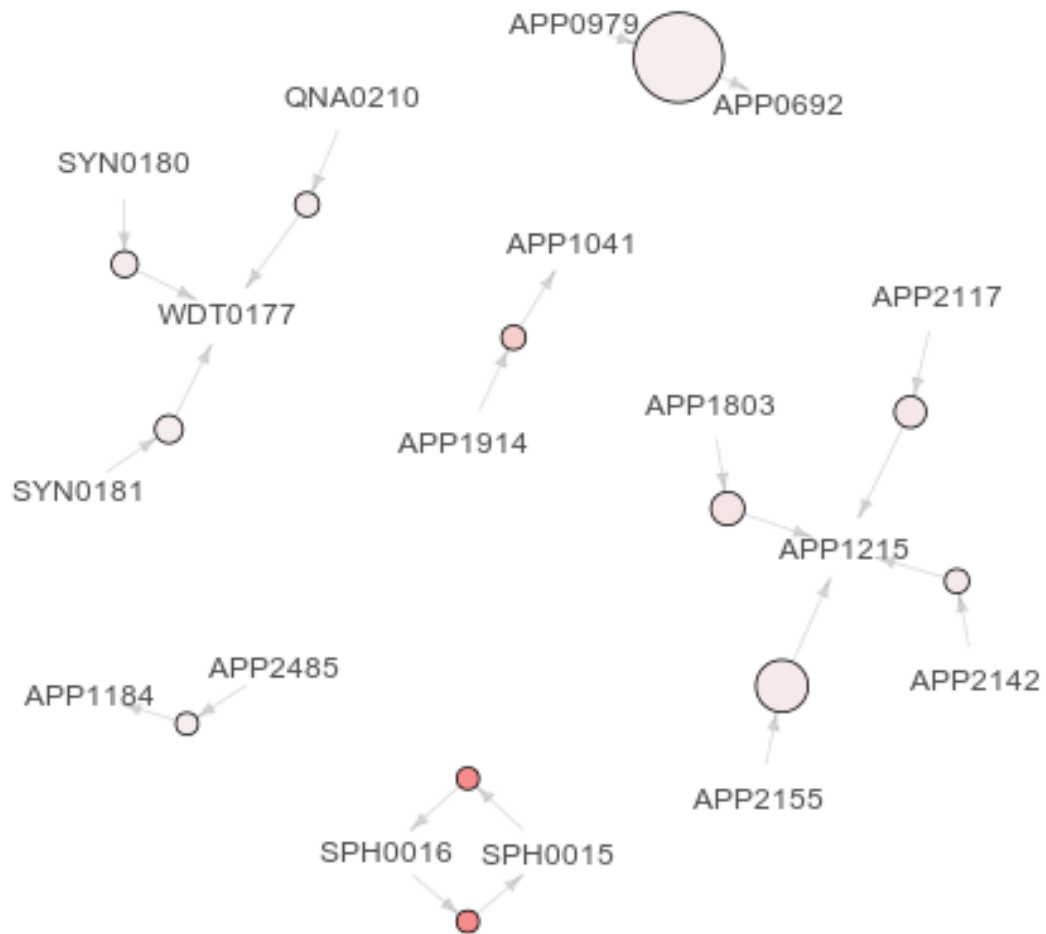
Blackwell and Electronidex sales by product category

Product Categories as % of Sales by Volume

Product Categories as % of Sales by Price
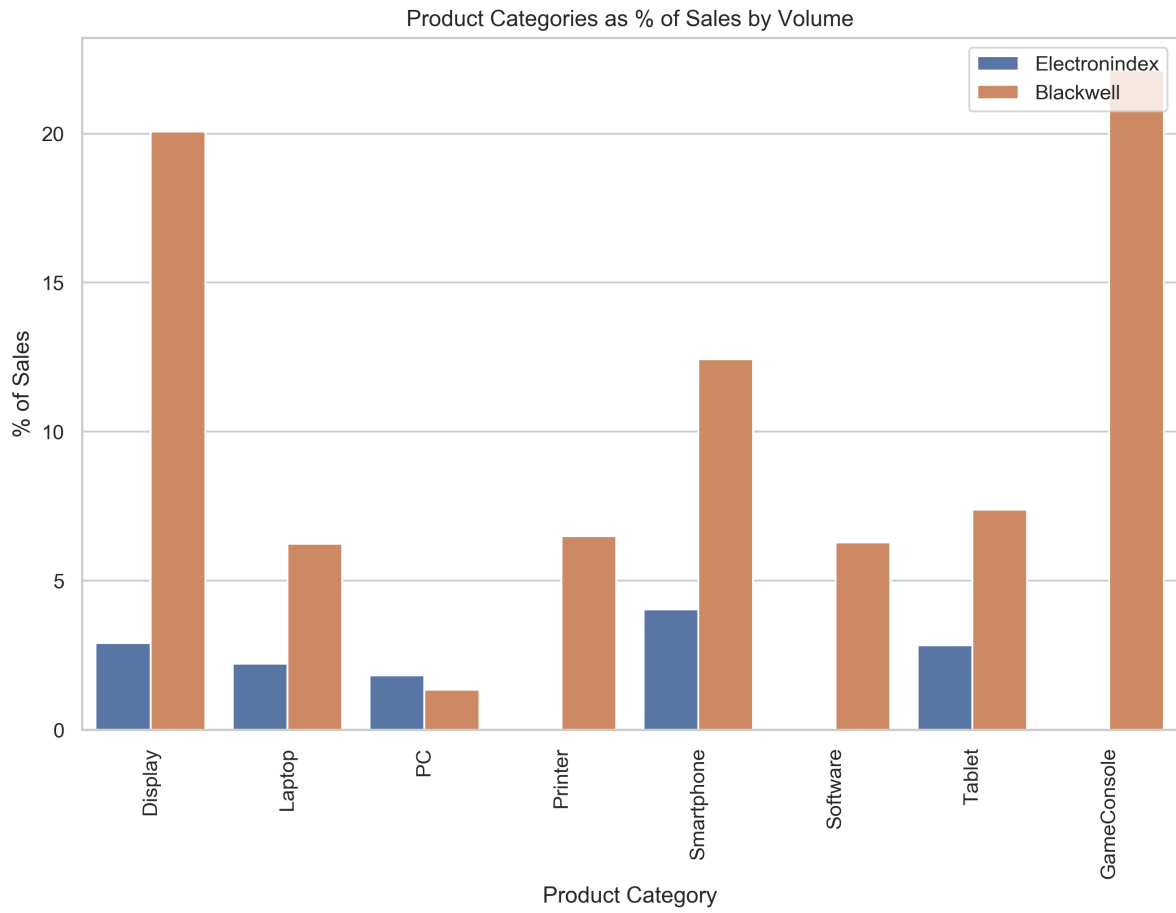
Market Basket Analysis of Electronidex Transactions

Product Level

Scatter plot for 12 rules

Graph for 12 rules

size: support (0,001 - 0,004)
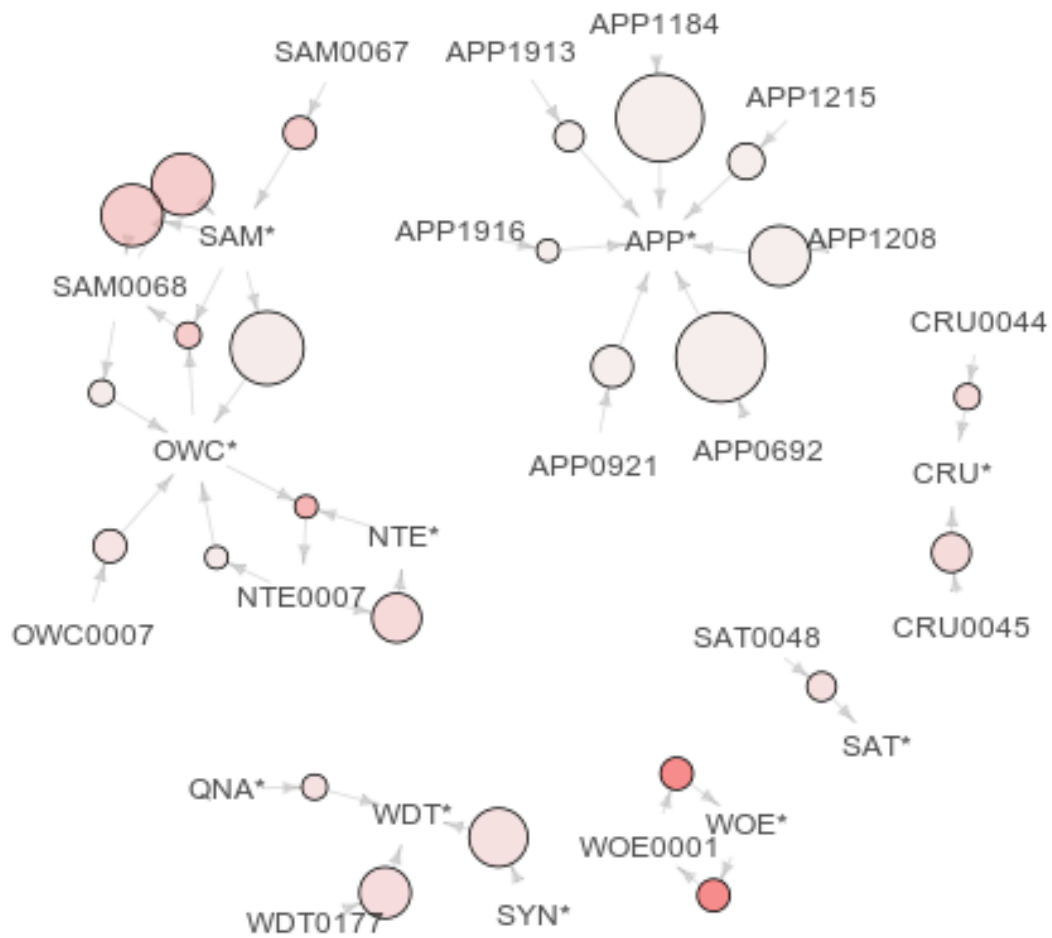color: lift (20,315 - 338,185)

Brand Level

Scatter plot for 25 rules
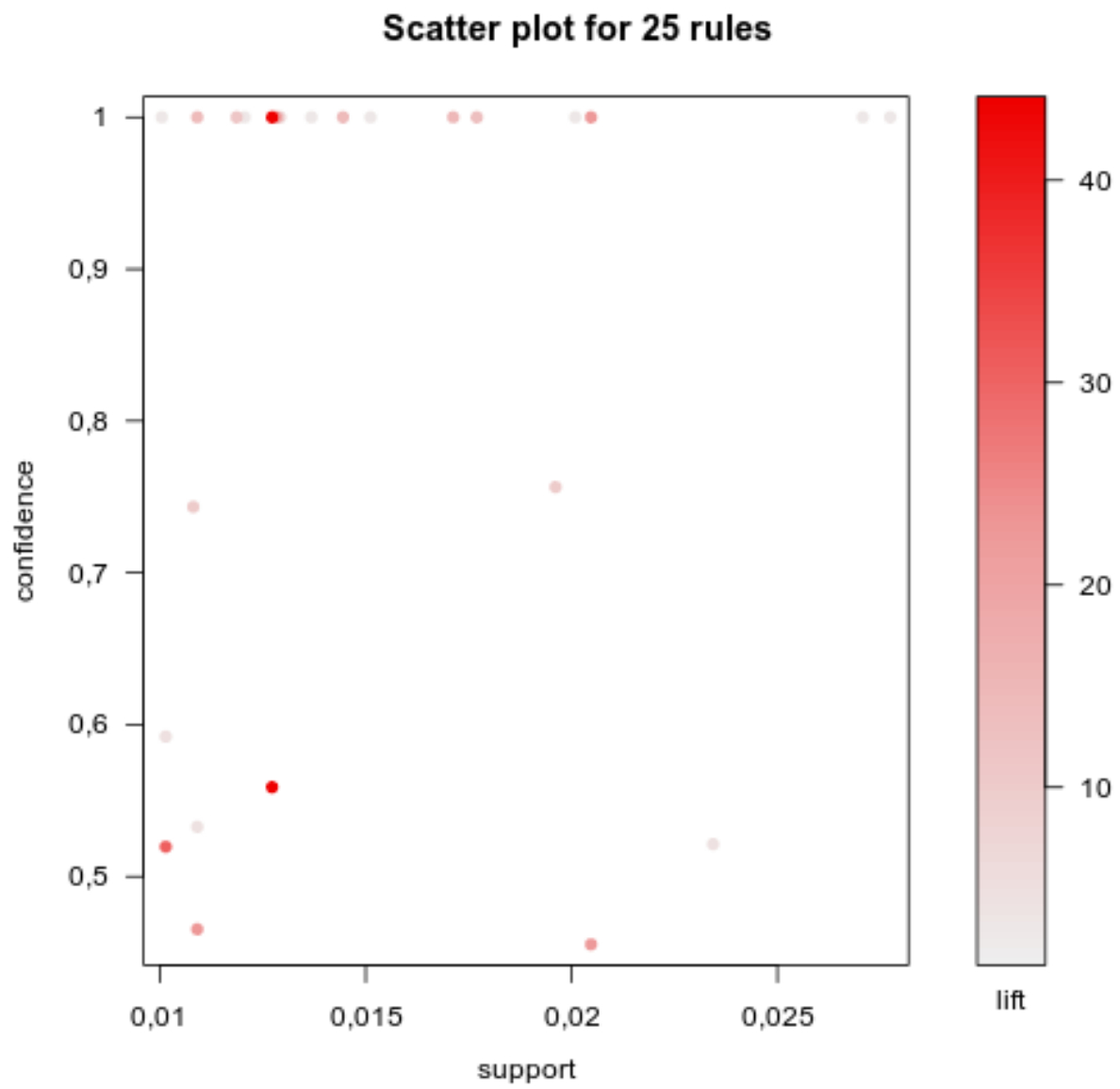
Graph for 25 rules

size: support (0,01 - 0,028)
color: lift (2,737 - 43,92)

Product Category Level

Scatter plot for 49 rules
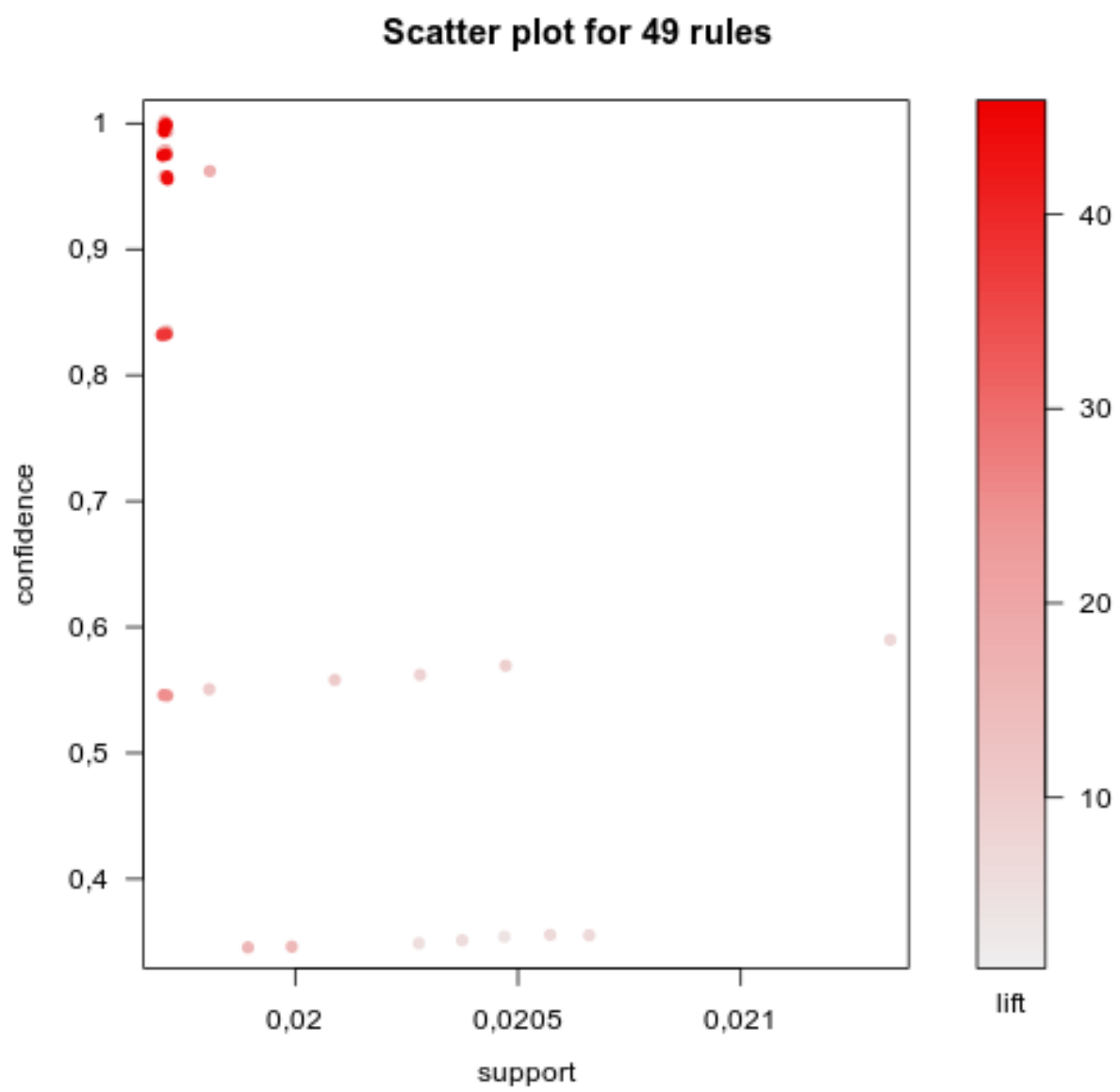
Graph for 49 rules

size: support (0,02 - 0,021)
color: lift (4,117 - 45,646)

Suggested Next Steps

Some text