**Market Basket Analysis**

1. **Background of the Project**

* The board of Directors for Blackwell Electronics is considering acquiring Electronidex, a start-up electronics online retailer. So the the board of directors is requesting for additional information to better understand the clientele that Electronidex currently is serving and if it would be an optimal partnership.

1. **Objective**

* The objective of the Market Market Basket Analysis is to identify purchasing patterns that will provide insight into Electronidex's clientele.

1. **Data**

* The dataset (Electroindex Transactions 2017) that was given to perfom this project contains a total of 9835 transactions with 2864 items.

1. **Analysis(Key Finding)**

* The highest transactions for item sets was 1461 for 1 itemset. 824 transactions were carried out for 2 item sets, 821 for 3 item sets, while 59 item sets attracted only 1 transaction, 41 item sets attracted 3 transactions etc.

Calendar

Description automatically generated

* The most frequent items that was procured was the Wireless at 3207, the Desktop at 2560 and the MacBook at 2392 There was a gradual decline in transactions with increase in the number of item sets procured.

Chart, histogram

Description automatically generated

* There are 13 rules #3 items have the most rules :7. These parameters are requesting that the rules cover 10% of the transactions and are 80% correct.

Text

Description automatically generated

:

A screenshot of a computer

Description automatically generated with medium confidence

1. **Recommendation**

While some of the sales levels of Electronidex on some item sets seem to be high and sales to corporations may yield benefits, there is still need for some more data if a concrete decision needs to be made. Data required would include financial data - that may give some information on the true state of profits and losses from these transactions.