**Adidas vs Nike Revenue Analysis -MS SQL**

1. **Create the required tables with ‘product\_id’ as the primary key for all tables.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Total\_Row\_Count | Brand\_Count | Finance\_Count | Info\_Count | Review\_Count | Traffic\_Count |
| 3178 | 3119 | 3119 | 3116 | 3119 | 2927 |

1. **Check the data for completeness by finding the number of unpopulated product\_ids.**

-The tables are mostly complete and is only Traffic\_Count is missing a large amount of data.

1. **Compare pricing and revenue between Adidas and Nike**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| brand | Price\_Category | NumberofAdidas | Adidas\_Revenue | Percent\_Revenue\_ByBrand |
| Adidas | Expensive | 1021 | 6054399.1 | 0.53 |
| Adidas | Affordable | 1308 | 3781339.42 | 0.33 |
| Adidas | Cheap | 112 | 107330.76 | 0.01 |
| Adidas | Elite | 134 | 1583549.8 | 0.14 |
| Nike | Expensive | 113 | 128563.52 | 0.16 |
| Nike | Affordable | 26 | 8587.86 | 0.01 |
| Nike | Cheap | 353 | 588086.01 | 0.74 |
| Nike | Elite | 52 | 70136.03 | 0.09 |

-The table assigns price categories [Cheap (0,25); Affordable (25,75); Expensive (75,150); Elite (150+)] to items based on ‘listing\_price’. The data shows that Adidas generates the most sales on items in the ‘Expensive’ price range, while Nike generates most of its sales from the ‘Cheap’ price range. This data informs the companies what products they should focus their production on.

|  |  |  |  |
| --- | --- | --- | --- |
| brand | NumberofProducts | Total\_Revenue | AverageRev\_PerItem |
| Adidas | 2575 | 11526619.08 | 4476.36 |
| Nike | 544 | 795373.42 | 1462.08 |

-Comparison of revenue between Adidas and Nike. Adidas has both higher total revenue and a higher average revenue per item listed. Shows that Adidas sales practices are more effective than Nike’s for this set of data.

1. **Price discount effect on sales**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| brand | discount | Number\_Items | Total\_Revenue | Revenue\_PerItem |
| Adidas | 0 | 647 | 4615838.82 | 7134.22 |
| Adidas | 0.3 | 96 | 595793.89 | 6206.19 |
| Adidas | 0.4 | 750 | 2929922.78 | 3906.56 |
| Adidas | 0.2 | 48 | 156694.78 | 3264.47 |
| Adidas | 0.6 | 60 | 189251.28 | 3154.19 |
| Adidas | 0.5 | 974 | 3039117.53 | 3120.24 |
| Nike | 0 | 544 | 795373.42 | 1462.08 |

-For Adidas there is a moderate negative correlation between discount and revenue generated per item. On the surface this indicates that applying a discount to an item cause a decrease in sales, but without knowing why the discount was applied initially it is impossible to derive any real conclusion about the correlation.

1. **Calculate the correlation coefficient between the revenue generated by an item and the rating left on an item as well as the correlation between revenue and number of reviews.**

-The correlation coefficient between revenue and rating is **-.028** which indicates that a higher rated item does not generate more revenue. There is a moderate correlation of **0.624** between revenue and number of reviews left. This positive correlation is likely caused by items that have more sales also have more reviews with revenue being the cause and number of reviews being the effect.

1. **Footwear sales vs clothing sales**

|  |  |  |  |
| --- | --- | --- | --- |
| Product\_type | Number\_Products | Total\_Revenue | Revenue\_PerItem |
| Clothes | 478 | 886246.95 | 1854.07 |
| Footwear | 2700 | 11435745.55 | 4235.46 |

**-**The data indicates that Adidas and Nike should continue to produce more footwear items than clothing items, because footwear items generate 2.3 times more revenue per item listed.