

Performance

How did the Swarm forecast do compared to actual sales?

The sales volume of each of the eight sweater styles was reported by the Fashion Retailer and was converted to Scaled Unit Sales (Table 1, Appendix A). The forecasts generated by the Swarm platform were then compared to the true sales data. Comparing the results item by item, Swarm enabled Bustle to correctly predict two of the three top sellers from the group of eight. In addition, if we compare the three items ranked highest by Swarm against the three items ranked lowest, we see that the top three picks outsold the bottom three by a factor of 150% (see Figure 6 below). This is a remarkable result, especially considering that the only difference between the items were color and graphic treatments.

Figure 6: Comparison of Actual Sales for the Rankings made by Swarm

But what if we had not used Swarm and had simply asked the participants to provide their forecasts through a traditional online survey? This analysis was done, and it was more predictive of the actual Unit Sales Volume than the survey. As shown in Table 2 of Appendix A, the ratings of the Trendiness, Breadth of Appeal, and Scaled Sales Forecast generated by the Swarm platform were highly correlated to actual Unit Sales, successfully predicting 34% of the variance (as compared to only 4% for the survey). This conforms with numerous published academic studies which show that Swarm AI surveys of equal or far greater size.