Curve

Education

M & M’s Curve and Color Distribution Analysis M & M’s Curve and Color Distribution Analysis The analysis starts with purchase ofthe M & M package and categories the candies according to the color distribution. Subsequent counts to determine the number total number of candies with a particular color gave varying results (Ziemer, 2010). The 24 Packages of the candies had an average color distribution of Red (53), Orange (94) Yellow (51) Blue (88), Green (80), and brown (51). This was different as per the percentage distribution of colors posted in the company website. As such, it was critical to carry out an analysis.

Results

Red

Orange

Yellow

Blue

Green

Brown

Total M & M’s

Percentage Expected (as per the company website)

24%

13%

16%

20%

13%

14%

Mathematical mean counted

52. 25

93. 63

51. 04

88. 08

79. 29

53. 33

Percentage observed

10. 45%

18. 73%

10. 21%

17. 62%

15. 86%

10. 67%

Quantities Observed

456

409

449

411

408

416

2549

Standard Deviation

1. 98

2. 23

2. 95

2. 18

2. 56

2. 48

2. 4

Variance

1. 48

6. 97

5. 87

7. 02

5. 98

6. 76

5. 68

The quantities of every row as observed were computed and compared to the company website values. The most popular color was orange as indicated in the findings 93. 63 (18. 73%). Blue (17. 62%), green (15. 86%), brown (10. 67%), red (10. 45%), and yellow (10. 21%) followed this in this order. The variation was clear when compared to the company website of the percentage points expected for each color. However, green, blue, and brown were closer to the expected percentages. This is well indicated in the graph below showing distribution of the colors in average.

Mean graph

Standard deviation graph

It is clear that the yellow is the score with absolute centre of the group (mean average score).

Reference

Ziemer, H. (2010) . Statistical Distribution. Viewed on 24th October 2012