A Comparison of Three Ice Cream Flavors using ANOVA Analysis

Attributes			Significance
Quality	product 1	product 2	0.000
		product 3	0.114
	product 2	product 1	0.000
		product 3	0.000
	product 3	product 1	0.114
		product 2	0.000
Creamy	product 1	product 2	0.000
		product 3	0.004
	product 2	product 1	0.000
		product 3	0.000
	product 3	product 1	0.004
		product 2	0.000
Sweet	product 1	product 2	0.083
		product 3	0.811
	product 2	product 1	0.083
		product 3	0.278
	product 3	product 1	0.811
		product 2	0.278
Unique	product 1	product 2	0.000
		product 3	0.000
	product 2	product 1	0.000
		product 3	0.994
	product 3	product 1	0.000
		product 2	0.994

Attributes			Significance
Lots_flavor	product 1	product 2	0.000
		product 3	0.007
	product 2	product 1	0.000
		product 3	0.002
	product 3	product 1	0.007
		product 2	0.002
Unusual_flavor	product 1	product 2	0.000
		product 3	0.002
	product 2	product 1	0.000
		product 3	0.000
	product 3	product 1	0.002
		product 2	0.000
Sweet_savory	product 1	product 2	0.000
		product 3	0.005
	product 2	product 1	0.000
		product 3	0.000
	product 3	product 1	0.005
		product 2	0.000
Appealing	product 1	product 2	0.000
		product 3	0.002
	product 2	product 1	0.000
		product 3	0.000
	product 3	product 1	0.002
		product 2	0.000

Attributes			Significance
Surprise	product 1	product 2	0.000
		product 3	0.000
	product 2	product 1	0.000
		product 3	0.000
	product 3	product 1	0.000
		product 2	0.000
Liking	product 1	product 2	0.000
		product 3	0.000
	product 2	product 1	0.000
		product 3	0.000
	product 3	product 1	0.000
		product 2	0.000
Recommend	product 1	product 2	0.000
		product 3	0.000
	product 2	product 1	0.000
		product 3	0.000
	product 3	product 1	0.000
		product 2	0.000
Purchaseintent	product 1	product 2	0.000
		product 3	0.002
	product 2	product 1	0.000
		product 3	0.000
	product 3	product 1	0.002
		product 2	0.000

- Besides the attributes *Tastes like it has quality ingredients* and *Is a unique flavor I couldn't find elsewhere*, all other qualities are statistically different between all three products
- None of the three products are statistically significant on the attribute, *Is Sweet*, indicating that there are no significant differences in sweetness between the three products

Attributes		Means
Quality	product 1	5.09
	product 2	2.94
	product 3	4.55
Creamy	product 1	5.44
	product 2	3.20
	product 3	4.60
Sweet	product 1	5.04
	product 2	4.57
	product 3	4.91
Unique	product 1	5.89
	product 2	4.35
	product 3	4.32
Lots_flavor	product 1	5.30
	product 2	3.71
	product 3	4.57
Unusual_flavor	product 1	5.22
	product 2	2.94
	product 3	4.36
Sweet_savory	product 1	5.46
	product 2	3.16
	product 3	4.70
Appealing	product 1	5.31
	product 2	3.04
	product 3	4.47
Surprise	product 1	5.37
	product 2	3.00
	product 3	4.32
Liking	product 1	5.50
	product 2	2.86
	product 3	4.26
Recommend	product 1	5.28
	product 2	3.04
	product 3	4.34
Purchaseintent	product 1	5.46
	product 2	3.27
	product 3	4.57

Product ONE should be added to the company's product line

- As indicated in the chart to the right, product one performed the best on every attribute based on mean value scores
  - It is the most appealing product across all attributes
- Product one is also a unique flavor that cannot be found anywhere else
  - As indicated in the chart below, there is no difference between products two and three on the unique flavor attribute, but there is a statistical difference between products one and two and products one and three, meaning that product one is unique

Unique	product 1	product 2	0.000
		product 3	0.000
	product 2	product 1	0.000
		product 3	0.994
	product 3	product 1	0.000
		product 2	0.994

- Since the company is wanting to add a flavor that is both appealing and unique, then they should add product one as it fulfills both of these needs