

Lampiran 13. Data dan Analisis Friedman Uji Organoleptik Aroma Sorbet Semangka

1. Data Organoleptik Aroma Sorbet Semangka

Panelis	Perlakuan								
	B1S1	B1S2	B1S3	B2S1	B2S2	B2S3	B3S1	B3S2	B3S3
1	4	4	4	4	5	3	4	3	4
2	2	4	4	4	3	4	4	4	4
3	5	4	3	3	4	2	5	4	4
4	4	4	4	4	5	4	4	4	4
5	4	4	5	2	3	4	4	3	3
6	4	4	4	4	5	5	4	4	4
7	4	5	5	4	4	4	5	5	5
8	4	4	4	5	4	3	3	4	3
9	5	4	3	4	2	3	4	4	5
10	3	4	4	4	5	4	4	2	4
11	3	4	4	4	2	4	4	4	4
12	4	3	3	4	4	4	2	4	5
13	5	4	5	4	4	3	2	4	4
14	3	3	2	2	4	4	4	3	3
15	4	3	4	2	4	2	4	3	4
16	4	3	4	3	3	2	4	4	5
17	3	3	4	3	3	4	4	3	4
18	4	4	4	3	2	4	4	5	4
19	5	5	4	4	3	4	3	2	4
20	4	5	4	3	4	4	4	4	4
21	4	5	4	4	3	3	2	3	4
22	5	5	4	5	4	4	3	4	3
23	2	4	4	3	5	4	3	4	5
24	3	4	2	4	4	3	4	4	3
25	4	4	4	4	4	4	3	4	4
26	4	5	5	4	5	4	2	4	5
27	4	5	5	4	4	4	5	4	5
28	4	4	4	4	4	4	5	4	4
29	4	4	5	5	3	3	4	3	3
30	4	4	4	2	4	2	4	4	3
Total	116	122	119	109	113	106	111	111	120
Rata-rata	3.87	4.07	3.97	3.63	3.77	3.53	3.70	3.70	4.00

2. Analisis Uji Friedman Aroma Sorbet Semangka

Panelis	Perlakuan								
	B1S1	B1S2	B1S3	B2S1	B2S2	B2S3	B3S1	B3S2	B3S3
1	5.5	5.5	5.5	5.5	9	1.5	5.5	1.5	5.5
2	1	6	6	6	2	6	6	6	6
3	8.5	5.5	2.5	2.5	5.5	1	8.5	5.5	5.5
4	4.5	4.5	4.5	4.5	9	4.5	4.5	4.5	4.5
5	6.5	6.5	9	1	3	6.5	6.5	3	3
6	4	4	4	4	8.5	8.5	4	4	4
7	2.5	7	7	2.5	2.5	2.5	7	7	7
8	6	6	6	9	6	2	2	6	2
9	8.5	5.5	2.5	5.5	1	2.5	5.5	5.5	8.5
10	2	5.5	5.5	5.5	9	5.5	5.5	1	5.5
11	2	6	6	6	1	6	6	6	6
12	6	2.5	2.5	6	6	6	1	6	9
13	8.5	5	8.5	5	5	2	1	5	5
14	4.5	4.5	1.5	1.5	8	8	8	4.5	4.5
15	7	3.5	7	1.5	7	1.5	7	3.5	7
16	6.5	3	6.5	3	3	1	6.5	6.5	9
17	2.5	2.5	9	6.5	2.5	6.5	6.5	2.5	6.5
18	5.5	5.5	5.5	2	1	5.5	5.5	9	5.5
19	8.5	8.5	5.5	5.5	2.5	5.5	2.5	1	5.5
20	5	9	5	1	5	5	5	5	5
21	6.5	9	6.5	6.5	3	3	1	3	6.5
22	8	8	4.5	8	4.5	4.5	1.5	4.5	1.5
23	1	5.5	5.5	2.5	8.5	5.5	2.5	5.5	8.5
24	3	7	1	7	7	3	7	7	3
25	5.5	5.5	5.5	5.5	5.5	5.5	1	5.5	5.5
26	3.5	7.5	7.5	3.5	7.5	3.5	1	3.5	7.5
27	3	7.5	7.5	3	3	3	7.5	3	7.5
28	4.5	4.5	4.5	4.5	4.5	4.5	9	4.5	4.5
29	6	6	8.5	8.5	2.5	2.5	6	2.5	2.5
30	6.5	6.5	6.5	1.5	6.5	1.5	6.5	6.5	3
Total	152.5	173	167	134.5	149	124	147	138.5	164.5
Rata-rata	5.08	5.77	5.57	4.48	4.97	4.13	4.90	4.62	5.48

$$\begin{aligned}
T &= \frac{12}{rt(t+1)} \sum_{i=1}^t (Ri)^2 - 3r(t+1) \\
&= \frac{12}{30.9(9+1)} \sum_{i=1}^t (152,5^2 + 173^2 + 167 + \dots + 164,5^2) - 3.30(9+1) \\
&= 9,30 \\
X^2_{(0,05;8)} &= 15,51
\end{aligned}$$

$T < X^2$, maka terima H_0 tolak H_1 yang berarti interaksi antara jenis bahan penstabil dan konsentrasi *symplesyrup* berpengaruh tidak nyata terhadap kesukaan panelis akan aroma Sorbet semangka.

Lampiran 14. Data dan Analisis Friedman Uji Organoleptik Warna Sorbet Semangka

1. Data Organoleptik Warna Sorbet Semangka

Panelis	Perlakuan								
	B1S1	B1S2	B1S3	B2S1	B2S2	B2S3	B3S1	B3S2	B3S3
1	5	4	4	5	4	4	3	2	3
2	5	4	4	4	5	3	4	4	2
3	4	4	5	4	4	4	3	3	4
4	5	5	4	4	4	4	4	4	4
5	3	5	4	4	4	5	5	4	3
6	4	5	5	4	5	4	4	4	4
7	4	4	4	5	5	4	4	4	5
8	4	4	4	2	1	3	3	4	4
9	4	4	2	4	3	3	4	5	2
10	4	4	4	3	4	4	5	4	2
11	4	4	4	3	4	4	4	2	4
12	4	5	4	4	5	4	4	3	4
13	4	4	5	4	4	3	4	3	5
14	4	3	2	4	3	4	4	4	4
15	5	3	5	4	4	4	5	2	4
16	3	4	4	5	4	4	4	3	4
17	4	3	4	5	5	4	5	4	3
18	5	5	4	4	3	4	4	4	4
19	4	4	4	5	4	5	4	3	4
20	3	4	5	4	4	4	2	4	3
21	5	4	4	4	4	3	4	4	3
22	4	4	3	4	3	4	5	4	4
23	4	4	5	4	4	4	3	2	4
24	3	4	3	3	4	3	4	5	4
25	4	4	5	5	4	3	3	4	5
26	5	5	5	5	2	2	4	5	5
27	4	4	5	5	4	5	4	5	5
28	4	4	4	4	4	4	5	4	4
29	3	4	4	3	4	4	3	3	4
30	4	5	2	4	3	4	3	4	3
Total	4.07	4.13	4.03	4.07	3.83	3.80	3.90	3.67	3.77
Rata-rata	122	124	121	122	115	114	117	110	113

2. Analisis Uji Friedman Warna Sorbet Semangka

Panelis	Perlakuan								
	B1S1	B1S2	B1S3	B2S1	B2S2	B2S3	B3S1	B3S2	B3S3
1	8.5	5.5	5.5	8.5	5.5	5.5	2.5	1	2.5
2	8.5	5	5	5	8.5	2	5	5	1
3	5.5	5.5	9	5.5	5.5	5.5	1.5	1.5	5.5
4	8.5	8.5	4	4	4	4	4	4	4
5	1.5	8	4.5	4.5	4.5	8	8	4.5	1.5
6	3.5	8	8	3.5	8	3.5	3.5	3.5	3.5
7	3.5	3.5	3.5	8	8	3.5	3.5	3.5	8
8	7	7	7	2	1	3.5	3.5	7	7
9	6.5	6.5	1.5	6.5	3.5	3.5	6.5	9	1.5
10	5.5	5.5	5.5	2	5.5	5.5	9	5.5	1
11	6	6	6	2	6	6	6	1	6
12	4.5	8.5	4.5	4.5	8.5	4.5	4.5	1	4.5
13	5	5	8.5	5	5	1.5	5	1.5	8.5
14	6.5	2.5	1	6.5	2.5	6.5	6.5	6.5	6.5
15	8	2	8	4.5	4.5	4.5	8	1	4.5
16	1.5	5.5	5.5	9	5.5	5.5	5.5	1.5	5.5
17	4.5	1.5	4.5	8	8	4.5	8	4.5	1.5
18	8.5	8.5	4.5	4.5	1	4.5	4.5	4.5	4.5
19	4.5	4.5	4.5	8.5	4.5	8.5	4.5	1	4.5
20	2.5	6	9	6	6	6	1	6	2.5
21	9	5.5	5.5	5.5	5.5	1.5	5.5	5.5	1.5
22	5.5	5.5	1.5	5.5	1.5	5.5	9	5.5	5.5
23	5.5	5.5	9	5.5	5.5	5.5	2	1	5.5
24	2.5	6.5	2.5	2.5	6.5	2.5	6.5	9	6.5
25	4.5	4.5	8	8	4.5	1.5	1.5	4.5	8
26	6.5	6.5	6.5	6.5	1.5	1.5	3	6.5	6.5
27	2.5	2.5	7	7	2.5	7	2.5	7	7
28	4.5	4.5	4.5	4.5	4.5	4.5	9	4.5	4.5
29	2.5	7	7	2.5	7	7	2.5	2.5	7
30	6.5	9	1	6.5	3	6.5	3	6.5	3
Total	159.5	170	162	162	147.5	139.5	145	125.5	139
Rata-rata	5.32	5.67	5.40	5.40	4.92	4.65	4.83	4.18	4.63

$$\begin{aligned}
 T &= \frac{12}{rt(t+1)} \sum_{i=1}^t (Ri)^2 - 3r(t+1) \\
 &= \frac{12}{30.9(9+1)} \sum_{i=1}^t (159,5^2 + 179^2 + 162^2 + \dots + 139^2) - 3.30(9+1) \\
 &= 7,29
 \end{aligned}$$

$$X^2_{(0,05;8)} = 15,51$$

$T < X^2$, maka terima H_0 tolak H_1 yang berarti interaksi antara jenis bahan penstabil dan konsentrasi *symple syrup* berpengaruh tidak nyata terhadap kesukaan panelis akan warna Sorbet semangka.

Lampiran 15. Data dan Analisis Friedman Uji Organoleptik Tekstur Sorbet Semangka

1. Data Organoleptik Tekstur Sorbet Semangka

Panelis	Perlakuan								
	B1S1	B1S2	B1S3	B2S1	B2S2	B2S3	B3S1	B3S2	B3S3
1	3	3	4	4	4	4	2	4	3
2	4	4	4	3	4	4	3	4	5
3	4	3	4	4	5	5	4	4	4
4	4	4	3	3	4	4	4	4	5
5	3	3	4	5	3	5	4	4	3
6	4	4	4	5	4	4	4	5	4
7	4	4	5	5	5	5	4	4	4
8	5	5	5	4	4	4	3	2	1
9	4	3	4	4	5	4	3	2	4
10	4	4	2	4	4	4	4	3	4
11	4	2	4	4	3	4	5	4	4
12	3	4	4	4	3	2	3	4	4
13	3	4	4	3	4	5	4	3	4
14	2	4	5	4	3	3	3	4	2
15	2	2	4	3	4	5	4	5	3
16	2	4	2	3	4	4	4	4	4
17	4	3	3	4	2	3	4	4	2
18	4	4	2	3	4	5	4	4	2
19	5	4	4	3	2	4	4	4	5
20	4	4	4	2	5	3	3	4	4
21	5	4	5	3	4	4	4	4	4
22	4	3	3	4	5	3	2	4	4
23	4	3	4	4	3	2	4	2	4
24	2	2	4	2	2	3	4	5	5
25	3	3	3	3	3	3	4	3	3
26	3	3	5	4	2	2	5	5	5
27	4	3	4	3	5	5	4	3	5
28	4	4	4	4	4	4	5	4	4
29	3	5	3	4	4	4	4	4	4
30	4	4	2	5	4	3	3	2	4
Total	3.60	3.53	3.73	3.67	3.73	3.80	3.73	3.73	3.77
Rata-rata	108	106	112	110	112	114	112	112	113

2. Analisis Uji Friedman Tekstur Sorbet Semangka

Panelis	Perlakuan								
	B1S1	B1S2	B1S3	B2S1	B2S2	B2S3	B3S1	B3S2	B3S3
1	3	3	7	7	7	7	1	7	3
2	5.5	5.5	5.5	1.5	5.5	5.5	1.5	5.5	9
3	4.5	1	4.5	4.5	8.5	8.5	4.5	4.5	4.5
4	5.5	5.5	1.5	1.5	5.5	5.5	5.5	5.5	9
5	2.5	2.5	6	8.5	2.5	8.5	6	6	2.5
6	4	4	4	8.5	4	4	4	8.5	4
7	3	3	7.5	7.5	7.5	7.5	3	3	3
8	8	8	8	5	5	5	3	2	1
9	6	2.5	6	6	9	6	2.5	1	6
10	6	6	1	6	6	6	6	2	6
11	5.5	1	5.5	5.5	2	5.5	9	5.5	5.5
12	3	7	7	7	3	1	3	7	7
13	2	6	6	2	6	9	6	2	6
14	1.5	7	9	7	4	4	4	7	1.5
15	1.5	1.5	6	3.5	6	8.5	6	8.5	3.5
16	1.5	6.5	1.5	3	6.5	6.5	6.5	6.5	6.5
17	7.5	4	4	7.5	1.5	4	7.5	7.5	1.5
18	6	6	1.5	3	6	9	6	6	1.5
19	8.5	5	5	2	1	5	5	5	8.5
20	6	6	6	1	9	2.5	2.5	6	6
21	8.5	4.5	8.5	1	4.5	4.5	4.5	4.5	4.5
22	6.5	3	3	6.5	9	3	1	6.5	6.5
23	7	3.5	7	7	3.5	1.5	7	1.5	7
24	2.5	2.5	6.5	2.5	2.5	5	6.5	8.5	8.5
25	4.5	4.5	4.5	4.5	4.5	4.5	9	4.5	4.5
26	3.5	3.5	7.5	5	1.5	1.5	7.5	7.5	7.5
27	5	2	5	2	8	8	5	2	8
28	4.5	4.5	4.5	4.5	4.5	4.5	9	4.5	4.5
29	1.5	9	1.5	5.5	5.5	5.5	5.5	5.5	5.5
30	6.5	6.5	1.5	9	6.5	3.5	3.5	1.5	6.5
Total	141	134.5	152	145	155.5	160	151	152.5	158.5
Rata-Rata	4.70	4.48	5.07	4.83	5.18	5.33	5.03	5.08	5.28

$$\begin{aligned}
 T &= \frac{12}{rt(t+1)} \sum_{i=1}^t (Ri)^2 - 3r(t+1) \\
 &= \frac{12}{30.9(9+1)} \sum_{i=1}^t (141^2 + 134,5^2 + 152^2 + \dots + 158,5^2) - 3.30(9+1) \\
 &= 2,48
 \end{aligned}$$

$$X^2_{(0,05;8)} = 15,51$$

$T < X^2$, maka terima H_0 tolak H_1 yang berarti interaksi antara jenis bahan penstabil dan konsentrasi *symple syrup* berpengaruh tidak nyata terhadap kesukaan panelis akan tekstur Sorbet semangka.

Lampiran 16. Data dan Analisis Friedman Uji Organoleptik Rasa Sorbet Semangka

1. Data Organoleptik Rasa Sorbet Semangka

Panelis	Perlakuan								
	B1S1	B1S2	B1S3	B2S1	B2S2	B2S3	B3S1	B3S2	B3S3
1	4	3	3	3	4	4	2	3	3
2	3	3	4	4	4	3	4	3	4
3	5	4	5	4	4	3	4	4	5
4	4	4	4	5	5	4	4	4	4
5	4	3	2	3	4	4	3	4	2
6	5	5	5	4	4	4	4	4	5
7	5	5	5	4	4	4	5	5	5
8	5	3	3	4	4	3	3	4	4
9	4	2	3	4	4	4	4	5	2
10	4	5	4	4	4	3	4	4	5
11	4	4	5	4	4	4	4	4	4
12	5	4	4	3	4	4	4	3	4
13	4	5	4	3	3	4	4	2	2
14	4	2	2	4	4	4	3	4	5
15	4	4	4	3	5	3	2	4	3
16	4	3	3	4	4	4	3	4	4
17	4	5	4	4	4	4	4	2	4
18	3	4	3	4	2	2	4	5	4
19	4	2	4	3	4	4	4	2	3
20	5	4	4	4	4	2	4	5	4
21	3	4	5	2	4	2	4	5	5
22	4	4	3	4	4	3	3	2	4
23	4	5	5	4	4	3	4	5	4
24	4	2	4	2	3	3	4	4	4
25	4	3	3	4	4	3	3	3	4
26	4	4	5	5	2	3	5	5	5
27	4	4	4	4	3	3	4	4	4
28	4	4	4	4	4	4	5	4	4
29	3	4	4	3	3	3	3	4	3
30	4	4	2	2	2	2	2	2	4
Total	4.07	3.73	3.80	3.63	3.73	3.33	3.67	3.77	3.90
Rata-rata	122	112	114	109	112	100	110	113	117

2. Analisis Uji Friedman Rasa Sorbet Semangka

Panelis	Perlakuan								
	B1S1	B1S2	B1S3	B2S1	B2S2	B2S3	B3S1	B3S2	B3S3
1	8	4	4	4	8	8	1	4	4
2	2.5	2.5	7	7	7	2.5	7	2.5	7
3	8	4	8	4	4	1	4	4	8
4	4	4	4	8.5	8.5	4	4	4	4
5	7.5	4	1.5	4	7.5	7.5	4	7.5	1.5
6	7.5	7.5	7.5	3	3	3	3	3	7.5
7	7	7	7	2.5	2.5	2.5	2.5	7	7
8	7	2.5	2.5	7	7	2.5	2.5	7	7
9	6	1.5	3	6	6	6	6	9	1.5
10	4.5	8.5	4.5	4.5	4.5	1	4.5	4.5	8.5
11	4.5	4.5	9	4.5	4.5	4.5	4.5	4.5	4.5
12	9	5.5	5.5	1.5	5.5	5.5	5.5	1.5	5.5
13	6.5	9	6.5	3.5	3.5	6.5	6.5	1.5	1.5
14	6	1.5	1.5	6	6	6	3	6	9
15	6.5	6.5	6.5	3	9	3	1	6.5	3
16	6.5	2	2	6.5	6.5	6.5	2	6.5	6.5
17	5	9	5	5	5	5	5	1	5
18	3.5	6.5	3.5	6.5	1.5	1.5	6.5	9	6.5
19	7	1.5	7	3.5	7	7	7	1.5	3.5
20	8.5	4.5	4.5	4.5	4.5	1	4.5	8.5	4.5
21	3	5	8	1.5	5	1.5	5	8	8
22	7	7	3	7	7	3	3	1	7
23	4	8	8	4	4	1	4	8	4
24	7	1.5	7	1.5	3.5	3.5	7	7	7
25	7.5	3	3	7.5	7.5	3	3	3	7.5
26	3.5	3.5	7	7	1	2	7	7	7
27	6	6	6	6	1.5	1.5	6	6	6
28	4.5	4.5	4.5	4.5	4.5	4.5	9	4.5	4.5
29	3.5	8	8	3.5	3.5	3.5	3.5	8	3.5
30	8	8	3.5	3.5	3.5	3.5	3.5	3.5	8
Total	179	150.5	158	141	152	111.5	135	155	168
Rata-rata	5.97	5.02	5.27	4.70	5.07	3.72	4.50	5.17	5.60

$$\begin{aligned}
 T &= \frac{12}{rt(t+1)} \sum_{i=1}^t (Ri)^2 - 3r(t+1) \\
 &= \frac{12}{30,9(9+1)} \sum_{i=1}^t (179^2 + 150,5^2 + 158^2 + \dots + 168^2) - 3,30(9+1) \\
 &= 13,54
 \end{aligned}$$

$$X^2_{(0,05;8)} = 15,51$$

$T < X^2$, maka terima H_0 tolak H_1 yang berarti interaksi antara jenis bahan penstabil dan konsentrasi *symple syrup* berpengaruh tidak nyata terhadap kesukaan panelis akan rasa Sorbet semangka.