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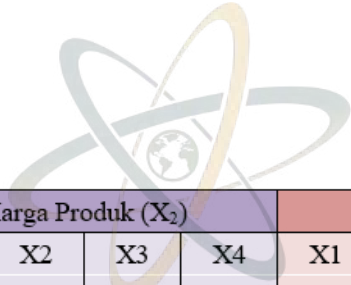
UNIVERSITAS ISLAM NEGERI
SUMATERA UTARA MEDAN



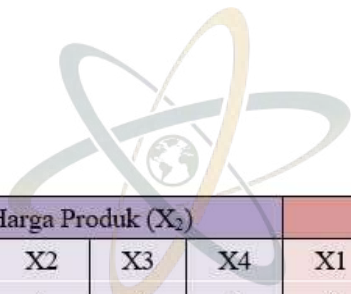
Lampiran 1

1. Merek Produk Lifebouy

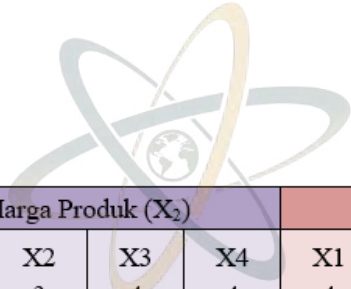
Kondisi Kulit (X ₁)				Harga Produk (X ₂)				Kualitas Produk (X ₃)				Aroma Sabun (X ₄)			
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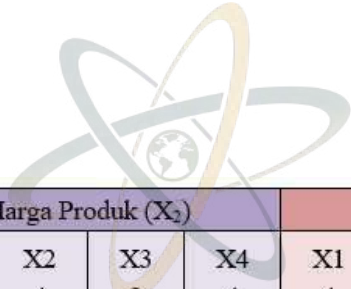
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Kondisi Kulit (X ₁)				Harga Produk (X ₂)				Kualitas Produk (X ₃)				Aroma Sabun (X ₄)			
X1	X2	X3	X4	X1	X2	X3	X4	X1	X2	X3	X4	X1	X2	X3	X4
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Kondisi Kulit (X ₁)				Harga Produk (X ₂)				Kualitas Produk (X ₃)				Aroma Sabun (X ₄)			
X1	X2	X3	X4	X1	X2	X3	X4	X1	X2	X3	X4	X1	X2	X3	X4
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Kondisi Kulit (X ₁)				Harga Produk (X ₂)				Kualitas Produk (X ₃)				Aroma Sabun (X ₄)			
X1	X2	X3	X4	X1	X2	X3	X4	X1	X2	X3	X4	X1	X2	X3	X4
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Kondisi Kulit (X ₁)				Harga Produk (X ₂)				Kualitas Produk (X ₃)				Aroma Sabun (X ₄)			
X1	X2	X3	X4	X1	X2	X3	X4	X1	X2	X3	X4	X1	X2	X3	X4
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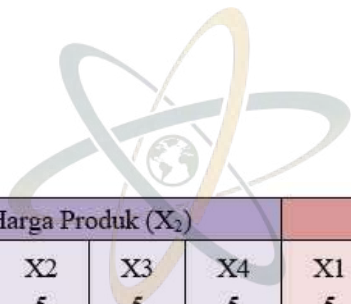


Kondisi Kulit (X ₁)				Harga Produk (X ₂)				Kualitas Produk (X ₃)				Aroma Sabun (X ₄)			
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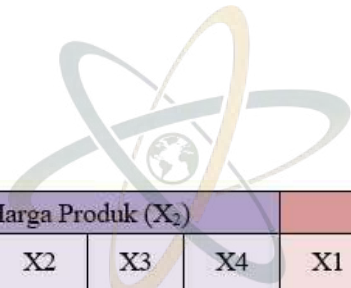
Kondisi Kulit (X ₁)				Harga Produk (X ₂)				Kualitas Produk (X ₃)				Aroma Sabun (X ₄)			
X1	X2	X3	X4	X1	X2	X3	X4	X1	X2	X3	X4	X1	X2	X3	X4
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3. Merek Produk Nuvo

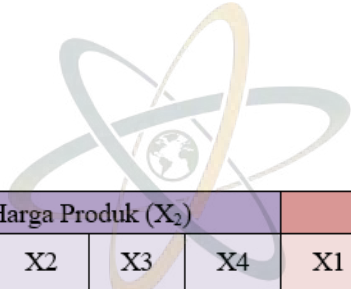
Kondisi Kulit (X ₁)				Harga Produk (X ₂)				Kualitas Produk (X ₃)				Aroma Sabun (X ₄)			
X1	X2	X3	X4	X1	X2	X3	X4	X1	X2	X3	X4	X1	X2	X3	X4
2	3	2	3	3	4	5	5	5	4	5	3	3	3	2	3
5	5	5	5	4	5	1	5	5	4	4	5	5	4	3	2
4	4	1	4	4	4	1	4	4	4	4	5	4	5	1	5
2	4	5	5	4	5	5	4	5	5	5	5	5	5	3	5
3	3	3	5	4	3	4	4	4	4	4	4	5	4	2	4
3	4	3	4	4	4	2	4	4	3	2	4	4	4	4	4
4	2	2	5	4	2	3	4	5	4	3	2	4	2	3	2
2	2	2	3	5	5	3	4	3	4	3	2	4	2	2	1
4	3	1	4	4	3	4	4	2	3	4	4	5	4	1	3
3	3	3	5	5	4	5	5	5	4	5	3	5	3	2	3
4	3	2	5	5	4	5	5	5	4	5	3	5	3	2	2
2	3	1	4	5	5	5	5	5	3	5	3	5	2	1	3
4	3	1	5	5	5	5	5	5	3	5	4	5	2	1	3



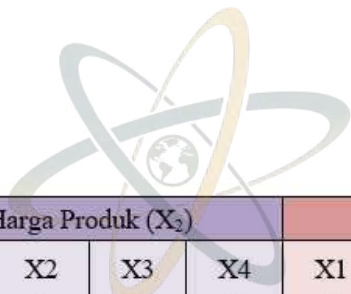
Kondisi Kulit (X ₁)				Harga Produk (X ₂)				Kualitas Produk (X ₃)				Aroma Sabun (X ₄)			
X1	X2	X3	X4	X1	X2	X3	X4	X1	X2	X3	X4	X1	X2	X3	X4
2	1	1	5	5	5	5	5	5	4	5	2	4	1	1	1
3	1	2	4	5	4	5	5	4	4	5	2	5	1	1	1
1	3	3	4	5	3	5	4	5	4	5	2	3	2	2	2
4	2	2	5	5	3	4	4	4	4	4	2	4	2	1	3
4	2	1	4	5	4	4	4	4	4	4	2	4	2	2	3
2	1	2	2	5	2	5	4	5	3	5	3	3	1	1	1
4	4	2	3	5	4	5	5	4	5	5	4	4	3	3	4
4	3	1	5	5	5	4	5	4	3	4	2	5	3	2	2
5	4	3	2	1	2	4	3	5	4	4	3	3	5	3	3
5	5	5	4	4	4	3	4	3	3	3	5	4	3	5	5
5	5	5	4	5	4	4	3	3	5	4	4	3	5	5	4
5	5	5	4	4	4	3	4	3	3	3	5	4	3	5	5
5	5	5	4	5	4	4	3	3	5	4	4	3	5	5	4
5	5	5	4	4	3	3	4	4	5	3	4	3	3	3	5
5	4	5	5	5	3	4	4	4	3	4	4	5	3	5	5
3	1	1	3	4	4	2	4	4	3	2	2	4	1	2	1
4	2	2	3	5	4	3	4	3	4	3	2	4	1	1	2
4	3	1	4	5	4	4	3	3	4	4	2	4	2	1	2
3	3	3	4	4	3	3	3	5	3	3	2	4	2	1	3
5	5	5	4	4	3	3	4	4	5	3	4	3	3	3	5
5	4	5	5	5	3	4	4	4	3	4	4	5	3	5	5
3	1	1	3	4	4	2	4	4	3	2	2	4	1	2	1



Kondisi Kulit (X ₁)				Harga Produk (X ₂)				Kualitas Produk (X ₃)				Aroma Sabun (X ₄)			
X1	X2	X3	X4	X1	X2	X3	X4	X1	X2	X3	X4	X1	X2	X3	X4
4	2	2	3	5	4	3	4	3	4	3	2	4	1	1	2
4	3	1	4	5	4	4	3	3	4	4	2	4	2	1	2
3	3	3	4	4	3	3	3	5	3	3	2	4	2	1	3
2	1	2	2	5	2	5	4	5	3	5	3	3	1	1	1
4	3	3	3	5	5	2	4	4	2	5	3	5	2	3	3
5	5	5	3	4	4	5	3	5	5	5	4	5	1	1	3
3	3	3	4	4	3	2	4	3	3	4	2	2	3	1	1
2	3	2	3	3	4	5	5	5	4	5	3	3	3	2	3
5	5	5	5	4	5	1	5	5	4	4	5	5	4	3	2
4	4	1	4	4	4	1	4	4	4	4	5	4	5	1	5
2	4	5	5	4	5	5	4	5	5	5	5	5	5	3	5
3	3	3	5	4	3	4	4	4	4	4	4	5	4	2	4
3	4	3	4	4	4	2	4	4	3	2	4	4	4	4	4
4	2	2	5	4	2	3	4	5	4	3	2	4	2	3	2
2	2	2	3	5	5	3	4	3	3	2	4	4	2	2	1
4	3	1	4	4	3	4	4	2	3	4	4	5	4	1	3
3	3	3	5	5	4	5	5	5	4	5	3	5	3	2	3
4	3	2	5	5	4	5	5	5	4	5	3	5	3	2	2
2	3	1	4	5	5	5	5	5	3	5	3	5	2	1	3
4	3	1	5	5	5	5	5	5	3	5	4	5	2	1	3
2	1	1	5	5	5	5	5	5	4	5	2	4	1	1	1
3	1	2	4	5	4	5	5	4	4	5	2	5	1	1	1



Kondisi Kulit (X ₁)				Harga Produk (X ₂)				Kualitas Produk (X ₃)				Aroma Sabun (X ₄)			
X1	X2	X3	X4	X1	X2	X3	X4	X1	X2	X3	X4	X1	X2	X3	X4
1	3	3	4	5	3	5	4	5	4	5	2	3	2	2	2
4	2	2	5	5	3	4	4	4	4	4	2	4	2	1	3
4	2	1	4	5	4	4	4	4	4	4	2	4	2	2	3
2	1	2	2	5	2	5	4	5	3	5	3	3	1	1	1
4	4	2	3	5	4	5	5	4	5	5	4	4	3	3	4
4	3	1	5	5	5	4	5	4	3	4	2	5	3	2	2
5	4	3	2	1	2	4	3	5	4	4	3	3	5	3	3
2	3	2	3	3	4	5	5	5	4	5	3	3	3	2	3
5	5	5	5	4	5	1	5	5	4	4	5	5	4	3	2
4	4	1	4	4	4	1	4	4	4	4	5	4	5	1	5
2	4	5	5	4	5	5	4	5	5	5	5	5	5	3	5
3	3	3	5	4	3	4	4	4	4	4	4	5	4	2	4
3	4	3	4	4	4	2	4	4	3	2	4	4	4	4	4
4	2	2	5	4	2	3	4	5	4	3	2	4	2	3	2
2	2	2	3	5	5	3	4	3	4	3	2	4	2	2	1
4	3	1	4	4	3	4	4	2	3	4	4	5	4	1	3
3	3	3	5	5	4	5	5	5	4	5	3	5	3	2	3
4	3	2	5	5	4	5	5	5	4	5	3	5	3	2	2
2	3	1	4	5	5	5	5	5	3	5	3	5	2	1	3
4	3	1	5	5	5	5	5	5	3	5	4	5	2	1	3
2	1	1	5	5	5	5	5	5	4	5	2	4	1	1	1
3	1	2	4	5	4	5	5	4	4	5	2	5	1	1	1

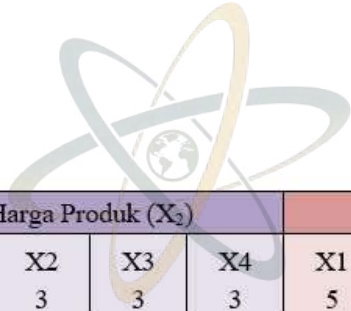


Kondisi Kulit (X ₁)				Harga Produk (X ₂)				Kualitas Produk (X ₃)				Aroma Sabun (X ₄)			
X1	X2	X3	X4	X1	X2	X3	X4	X1	X2	X3	X4	X1	X2	X3	X4
1	3	3	4	5	3	5	4	5	4	5	2	3	2	2	2
4	2	2	5	5	3	4	4	4	4	4	2	4	2	1	3
4	2	1	4	5	4	4	4	4	4	4	2	4	2	2	3
2	1	2	2	5	2	5	4	5	3	5	3	3	1	1	1
4	4	2	3	5	4	5	5	4	5	5	4	4	3	3	4
4	3	1	5	5	5	4	5	4	3	4	2	5	3	2	2
5	4	3	2	1	2	4	3	5	4	4	3	3	5	3	3
5	5	5	4	4	4	3	4	3	3	3	5	4	3	5	5
5	5	5	4	5	4	4	3	3	5	4	4	3	5	5	4
5	5	5	4	4	3	3	4	4	5	3	4	3	3	3	5
5	4	5	5	5	3	4	4	4	3	4	4	5	3	5	5
3	1	1	3	4	4	2	4	4	3	2	2	4	1	2	1
4	2	2	3	5	4	3	4	3	4	3	2	4	1	1	2
4	3	1	4	5	4	4	3	3	4	4	2	4	2	1	2
3	3	3	4	4	3	3	3	5	3	3	2	4	2	1	3
2	3	3	2	5	3	3	4	4	3	3	3	3	2	2	3
1	3	1	3	5	4	2	4	4	3	2	2	4	1	1	2
2	3	2	3	3	4	5	5	5	4	5	3	3	3	2	3

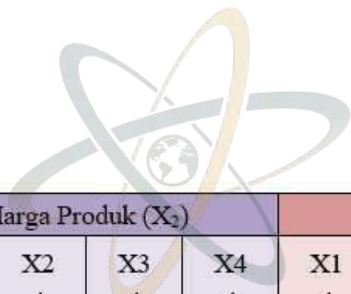


4. Merek Produk Give

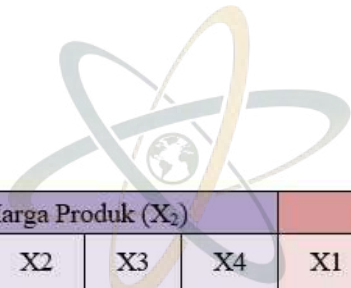
Kondisi Kulit (X ₁)				Harga Produk (X ₂)				Kualitas Produk (X ₃)				Aroma Sabun (X ₄)			
X1	X2	X3	X4	X1	X2	X3	X4	X1	X2	X3	X4	X1	X2	X3	X4
5	5	1	5	5	4	4	5	5	4	4	4	5	4	5	5
5	5	4	5	5	5	4	3	5	3	4	5	5	5	5	5
4	5	4	5	5	4	5	5	4	4	5	5	5	5	4	5
2	3	1	5	5	4	2	3	4	3	2	5	5	4	1	4
2	1	2	3	5	5	1	3	4	2	4	1	3	3	2	1
3	2	3	3	4	3	2	4	3	2	2	2	3	1	1	2
3	2	1	2	4	3	2	3	3	2	2	2	3	1	1	2
3	3	3	3	3	3	3	3	5	2	3	3	4	3	2	3
3	2	2	4	5	4	4	5	5	1	5	2	4	1	2	2
4	3	3	3	5	5	2	4	4	2	5	3	5	2	3	3
5	5	5	3	4	4	5	3	5	5	5	4	5	1	1	3
3	3	3	4	4	3	2	4	3	3	4	2	2	3	1	1
2	3	3	2	5	3	3	4	4	3	3	3	3	2	2	3
1	3	1	3	5	4	2	4	3	2	2	2	4	1	1	2
5	5	1	5	5	4	4	5	5	4	4	4	5	4	5	5
5	5	4	5	5	5	4	3	5	3	4	5	5	5	5	5
4	5	4	5	5	4	5	5	4	4	5	5	5	5	4	5
2	3	1	5	5	4	2	3	4	3	2	5	5	4	1	4
2	1	2	3	5	5	1	3	4	2	4	1	3	3	2	1
3	2	3	3	4	3	2	4	3	2	2	2	3	1	1	2
3	2	1	2	4	3	2	3	3	2	2	2	3	1	1	2



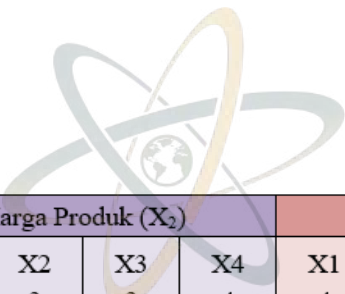
Kondisi Kulit (X ₁)				Harga Produk (X ₂)				Kualitas Produk (X ₃)				Aroma Sabun (X ₄)			
X1	X2	X3	X4	X1	X2	X3	X4	X1	X2	X3	X4	X1	X2	X3	X4
3	3	3	3	3	3	3	3	5	2	3	3	4	3	2	3
3	2	2	4	5	4	4	5	5	1	5	2	4	1	2	2
4	3	3	3	5	5	2	4	4	2	5	3	5	2	3	3
5	5	5	3	4	4	5	3	5	5	5	4	5	1	1	3
3	3	3	4	4	3	2	4	3	3	4	2	2	3	1	1
2	3	2	3	3	4	5	5	5	4	5	3	3	3	2	3
5	5	5	5	4	5	1	5	5	4	4	5	5	4	3	2
4	4	1	4	4	4	1	4	4	4	4	5	4	5	1	5
2	4	5	5	4	5	5	4	5	5	5	5	5	5	3	5
3	3	3	5	4	3	4	4	4	4	4	4	5	4	2	4
3	4	3	4	4	4	2	4	4	3	2	4	4	4	4	4
4	2	2	5	4	2	3	4	5	4	3	2	4	2	3	2
2	2	2	3	5	5	3	4	3	4	3	2	4	2	2	1
4	3	1	4	4	3	4	4	2	3	4	4	5	4	1	3
3	3	3	5	5	4	5	5	5	4	5	3	5	3	2	3
4	3	2	5	5	4	5	5	5	4	5	3	5	3	2	2
2	3	1	4	5	5	5	5	5	3	5	3	5	2	1	3
4	3	1	5	5	5	5	5	5	3	5	4	5	2	1	3
2	1	1	5	5	5	5	5	5	4	5	2	4	1	1	1
3	1	2	4	5	4	5	5	4	4	5	2	5	1	1	1
1	3	3	4	5	3	5	4	5	4	5	2	3	2	2	2
4	2	2	5	5	3	4	4	4	4	4	2	4	2	1	3



Kondisi Kulit (X ₁)				Harga Produk (X ₂)				Kualitas Produk (X ₃)				Aroma Sabun (X ₄)			
X1	X2	X3	X4	X1	X2	X3	X4	X1	X2	X3	X4	X1	X2	X3	X4
4	2	1	4	5	4	4	4	4	4	4	2	4	2	2	3
2	1	2	2	5	2	5	4	5	3	5	3	3	1	1	1
4	4	2	3	5	4	5	5	4	5	5	4	4	3	3	4
2	1	1	5	5	5	5	5	5	4	5	2	4	1	1	1
3	1	2	4	5	4	5	5	4	4	5	2	5	1	1	1
1	3	3	4	5	3	5	4	5	4	5	2	3	2	2	2
4	2	2	5	5	3	4	4	4	4	4	2	4	2	1	3
4	2	1	4	5	4	4	4	4	4	4	2	4	2	2	3
2	1	2	2	5	2	5	4	5	3	5	3	3	1	1	1
4	4	2	3	5	4	5	5	4	5	5	4	4	3	3	4
4	3	1	5	5	5	4	5	4	3	4	2	5	3	2	2
5	4	3	2	1	2	4	3	5	4	4	3	3	5	3	3
5	5	5	4	4	4	3	4	3	3	3	5	4	3	5	5
5	5	5	4	5	4	4	3	3	5	4	4	3	5	5	4
5	5	5	4	4	3	3	4	4	5	3	4	3	3	3	5
5	4	5	5	5	3	4	4	4	3	4	4	5	3	5	5
3	1	1	3	4	4	2	4	4	3	2	2	4	1	2	1
4	2	2	3	5	4	3	4	3	4	3	2	4	1	1	2
4	3	1	4	5	4	4	3	3	4	4	2	4	2	1	2
3	3	3	4	4	3	3	3	5	3	3	2	4	2	1	3
2	3	3	2	5	3	3	4	4	3	3	3	3	2	2	3
1	3	1	3	5	4	2	4	4	3	2	2	4	1	1	2



Kondisi Kulit (X ₁)				Harga Produk (X ₂)				Kualitas Produk (X ₃)				Aroma Sabun (X ₄)			
X1	X2	X3	X4	X1	X2	X3	X4	X1	X2	X3	X4	X1	X2	X3	X4
2	1	1	5	5	5	5	5	5	4	5	2	4	1	1	1
3	1	2	4	5	4	5	5	4	4	5	2	5	1	1	1
1	3	3	4	5	3	5	4	5	4	5	2	3	2	2	2
4	2	2	5	5	3	4	4	4	4	4	2	4	2	1	3
4	2	1	4	5	4	4	4	4	4	4	2	4	2	2	3
2	1	2	2	5	2	5	4	5	3	5	3	3	1	1	1
4	4	2	3	5	4	5	5	4	5	5	4	4	3	3	4
2	1	1	5	5	5	5	5	5	4	5	2	4	1	1	1
3	1	2	4	5	4	5	5	4	4	5	2	5	1	1	1
1	3	3	4	5	3	5	4	5	4	5	2	3	2	2	2
4	2	2	5	5	3	4	4	4	4	4	2	4	2	1	3
4	2	1	4	5	4	4	4	4	4	4	2	4	2	2	3
2	1	2	2	5	2	5	4	5	3	5	3	3	1	1	1
4	4	2	3	5	4	5	5	4	5	5	4	4	3	3	4
4	3	1	5	5	5	4	5	4	3	4	2	5	3	2	2
3	2	3	3	4	3	2	4	3	2	2	2	3	1	1	2
3	2	1	2	4	3	2	3	3	2	2	2	3	1	1	2
3	3	3	3	3	3	3	3	5	2	3	3	4	3	2	3
3	2	2	4	5	4	4	5	5	1	5	2	4	1	2	2
4	3	3	3	5	5	2	4	4	2	5	3	5	2	3	3
5	5	5	3	4	4	5	3	5	5	5	4	5	1	1	3
3	3	3	4	4	3	2	4	3	3	4	2	2	3	1	1



Kondisi Kulit (X ₁)				Harga Produk (X ₂)				Kualitas Produk (X ₃)				Aroma Sabun (X ₄)			
X1	X2	X3	X4	X1	X2	X3	X4	X1	X2	X3	X4	X1	X2	X3	X4
2	3	3	2	5	3	3	4	4	3	3	3	3	2	2	3
1	3	1	3	5	4	2	4	4	3	2	2	4	1	1	2
5	5	1	5	5	4	4	5	5	4	4	4	5	4	5	5
5	5	4	5	5	5	4	3	5	3	4	5	5	5	5	5
4	5	4	5	5	4	5	5	4	4	5	5	5	5	4	5
2	3	1	5	5	4	2	3	4	3	2	5	5	4	1	4
2	1	2	3	5	5	1	3	4	2	4	1	3	3	2	1
3	2	3	3	4	3	2	4	3	2	2	2	3	1	1	2
3	2	1	2	4	3	2	3	3	2	2	2	3	1	1	2
5	5	1	5	5	4	4	5	5	4	4	4	5	4	5	5

UNIVERSITAS ISLAM NEGERI
SUMATERA UTARA MEDAN

Lampiran 2

Hasil Uji Validitas dan Reliabilitas dengan SPSS 23

A. Hasil Uji Validitas Butir Kuisisioner

VALIDITAS X_1 /VARIABEL C_1 (Kondisi Kulit)

		X1.1	X1.2	X1.3	X1.4	Total X1
X1.1	Pearson Correlation	1	.575**	.371*	.259*	.751**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	384	384	384	384	384
X1.2	Pearson Correlation	.575**	1	.629**	.272*	.866**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	384	384	384	384	384
X1.3	Pearson Correlation	.371*	.629**	1	.125*	.772**
	Sig. (2-tailed)	.000	.000		.014	.000
	N	384	384	384	384	384
X1.4	Pearson Correlation	.259*	.272*	.125*	1	.511**
	Sig. (2-tailed)	.000	.000	.014		.000
	N	384	384	384	384	384
Total_X1	Pearson Correlation	.751**	.866**	.772**	.511**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	384	384	384	384	384

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

VALIDITAS X_2 / VARIABEL C_2 (Harga Produk)

		X2.1	X2.2	X2.3	X2.4	Total X2
X2.1	Pearson Correlation	1	.378**	.204**	.298**	.655**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	384	384	384	384	384
X2.2	Pearson Correlation	.378**	1	.014	.332*	.577**
	Sig. (2-tailed)	.000		.784	.000	.000
	N	384	384	384	384	384
X2.3	Pearson Correlation	.204**	-.014	1	.370**	.700**
	Sig. (2-tailed)	.000	.784		.000	.000
	N	384	384	384	384	384
X2.4	Pearson Correlation	.298**	.332*	.370**	1	.707**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	384	384	384	384	384
Total_X2	Pearson Correlation	.655**	.577**	.700**	.707**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	384	384	384	384	384

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

VALIDITAS X_3 / VARIABEL C_3 (Kualitas Produk)

		X3.1	X3.2	X3.3	X3.4	Total X3
X3.1	Pearson Correlation	1	.093	.438**	.096	.573**
	Sig. (2-tailed)		.086	.000	.061	.000
	N	384	384	384	384	384
X3.2	Pearson Correlation	.093	1	.309**	.303**	.651**
	Sig. (2-tailed)	.068		.000	.000	.000
	N	384	384	384	384	384
X3.3	Pearson Correlation	.438**	.309**	1	.132**	.718**
	Sig. (2-tailed)	.000	.000		.009	.000
	N	384	384	384	384	384
X3.4	Pearson Correlation	.096	.303**	.132**	1	.646**
	Sig. (2-tailed)	.061	.000	.009		.000
	N	384	384	384	384	384
Total_X3	Pearson Correlation	.573**	.651**	.718**	.646**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	384	384	384	384	384

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

VALIDITAS X_4 / VARIABEL C_4 (Aroma Produk)

		X4.1	X4.2	X4.3	X4.4	Total X4
X4.1	Pearson Correlation	1	.200**	.149**	.300**	.453**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	384	384	384	384	384
X4.2	Pearson Correlation	.200**	1	.572**	.687**	.846**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	384	384	384	384	384
X4.3	Pearson Correlation	.149**	.572**	1	.621**	.808**
	Sig. (2-tailed)	.003	.000		.000	.000
	N	384	384	384	384	384
X4.4	Pearson Correlation	.300**	.687**	.621**	1	.886**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	384	384	384	384	384
Total_X4	Pearson Correlation	.453**	.846**	.808**	.886**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	384	384	384	384	384

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

B. Hasil Uji Reliabilitas Kuisisioner

Case Processing Summary

		N	%
Cases	Valid	384	100.0
	Excluded ^a	0	.0
	Total	384	100.0

Reliability Statistics

Cronbach's Alpha	N of Items
.829	16

a. Listwise deletion based on all variables in the procedure.

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
X1.1	51.86	73.843	.441	.820
X1.2	52.22	67.729	.721	.800
X1.3	52.75	71.748	.442	.821
X1.4	51.37	74.140	.523	.815
X2.1	50.77	83.451	-.010	.839
X2.2	51.48	79.571	.229	.830
X2.3	51.67	76.687	.252	.833
X2.4	51.18	80.820	.204	.830
X3.1	51.08	80.545	.190	.831
X3.2	51.73	76.348	.430	.821
X3.3	51.35	76.464	.356	.824
X3.4	52.18	68.982	.722	.801
X4.1	51.17	76.428	.473	.819
X4.2	52.62	69.390	.585	.810
X4.3	53.09	69.537	.593	.809
X4.4	52.39	67.460	.678	.802

Lampiran 3

Perhitungan Normalisasi Matriks Keputusan R

$$X_2 = \sqrt{(3.07292)^2 + (3.1875)^2 + (3.03125)^2 + (2.86458)^2} = 6.08254$$

$$r_{12} = \frac{3.07292}{6.08254} = 0.5052$$

$$r_{22} = \frac{3.1875}{6.08254} = 0.52404$$

$$r_{32} = \frac{3.03125}{6.08254} = 0.49835$$

$$r_{42} = \frac{2.86458}{6.08254} = 0.47095$$

$$X_3 = \sqrt{(2.53125)^2 + (2.61458)^2 + (2.52083)^2 + (2.36458)^2} = 5.01887$$

$$r_{13} = \frac{2.53125}{5.01887} = 0.50435$$

$$r_{33} = \frac{2.61458}{5.01887} = 0.52095$$

$$r_{32} = \frac{2.52083}{5.01887} = 0.50227$$

$$r_{42} = \frac{2.36458}{5.01887} = 0.47114$$

$$X_4 = \sqrt{(3.875)^2 + (3.91667)^2 + (3.98958)^2 + (3.78125)^2} = 7.78271$$

$$r_{14} = \frac{3.875}{7.78271} = 0.4979$$

$$r_{24} = \frac{3.91667}{7.78271} = 0.50325$$

$$r_{34} = \frac{3.98958}{7.78271} = 0.52162$$

$$r_{44} = \frac{3.78125}{7.78271} = 0.48585$$

$$X_5 = \sqrt{(4.48958)^2 + (4.40625)^2 + (4.44792)^2 + (4.61458)^2} = 8.98052$$

$$r_{15} = \frac{4.48958}{8.98052} = 0.49992$$

$$r_{25} = \frac{4.40625}{8.98052} = 0.49065$$

$$r_{35} = \frac{4.44792}{8.98052} = 0.49529$$

$$r_{45} = \frac{4.61458}{8.98052} = 0.51384$$

$$X_6 = \sqrt{(3.7813)^2 + (3.8021)^2 + (3.7813)^2 + (3.7708)^2} = 7.5677$$

$$r_{16} = \frac{3.7813}{7.5677} = 0.49965$$

$$r_{26} = \frac{3.8021}{7.5677} = 0.50241$$

$$r_{36} = \frac{3.7813}{7.5677} = 0.49965$$

$$r_{46} = \frac{3.7708}{7.5677} = 0.49828$$

$$X_7 = \sqrt{(3.55208)^2 + (3.42708)^2 + (3.79167)^2 + (3.59275)^2} = 7.18707$$

$$r_{17} = \frac{3.55208}{7.18707} = 0.49423$$

$$r_{27} = \frac{3.42708}{7.18707} = 0.47684$$

$$r_{37} = \frac{3.79167}{7.18707} = 0.52757$$

$$r_{47} = \frac{3.59375}{7.18707} = 0.50003$$

$$X_8 = \sqrt{(4.05208)^2 + (4.04167)^2 + (4.17708)^2 + (4.0625)^2} = 8.1674$$

$$r_{18} = \frac{4.05208}{8.1674} = 0.49613$$

$$r_{28} = \frac{4.04167}{8.1674} = 0.49485$$

$$r_{38} = \frac{4.17708}{8.1674} = 0.51143$$

$$r_{48} = \frac{4.0625}{8.1674} = 0.4974$$

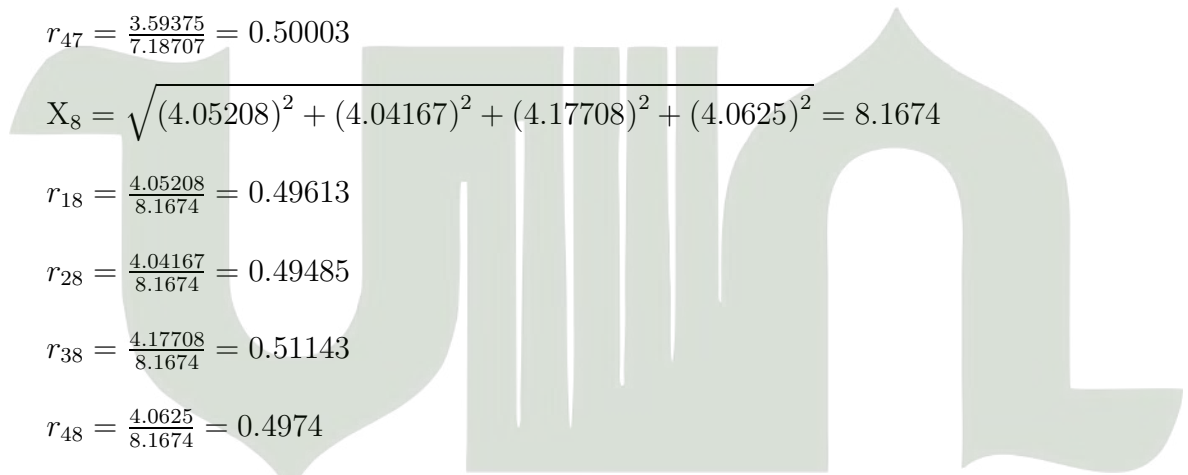
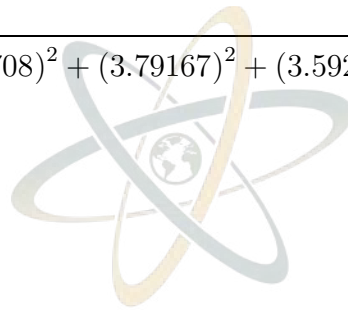
$$X_9 = \sqrt{(4.16667)^2 + (4.17708)^2 + (4.19792)^2 + (4.19792)^2} = 8.36984$$

$$r_{19} = \frac{4.16667}{8.36984} = 0.49782$$

$$r_{29} = \frac{4.17708}{8.36984} = 0.49906$$

$$r_{39} = \frac{4.19792}{8.36984} = 0.50155$$

$$r_{49} = \frac{4.19792}{8.36984} = 0.50155$$



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$$X_{10} = \sqrt{(3.5)^2 + (3.5)^2 + (3.76042)^2 + (3.35417)^2} = 7.06337$$

$$r_{110} = \frac{3.5}{7.06337} = 0.49551$$

$$r_{210} = \frac{3.5}{7.06337} = 0.49551$$

$$r_{310} = \frac{3.76042}{7.06337} = 0.53238$$

$$r_{410} = \frac{3.35417}{7.06337} = 0.47487$$

$$X_{11} = \sqrt{(3.86458)^2 + (3.80208)^2 + (4.20833)^2 + (3.9357)^2} = 7.91232$$

$$r_{111} = \frac{3.86458}{7.91232} = 0.48843$$

$$r_{211} = \frac{3.80208}{7.91232} = 0.48053$$

$$r_{311} = \frac{4.20833}{7.91232} = 0.53187$$

$$r_{411} = \frac{3.9375}{7.91232} = 0.49764$$

$$X_{12} = \sqrt{(3.0938)^2 + (3.2083)^2 + (3.2292)^2 + (2.9167)^2} = 6.2289$$

$$r_{112} = \frac{3.0938}{6.2289} = 0.4967$$

$$r_{212} = \frac{3.2083}{6.2289} = 0.5151$$

$$r_{312} = \frac{3.2292}{6.2289} = 0.5184$$

$$r_{412} = \frac{3.9375}{6.2289} = 0.4683$$

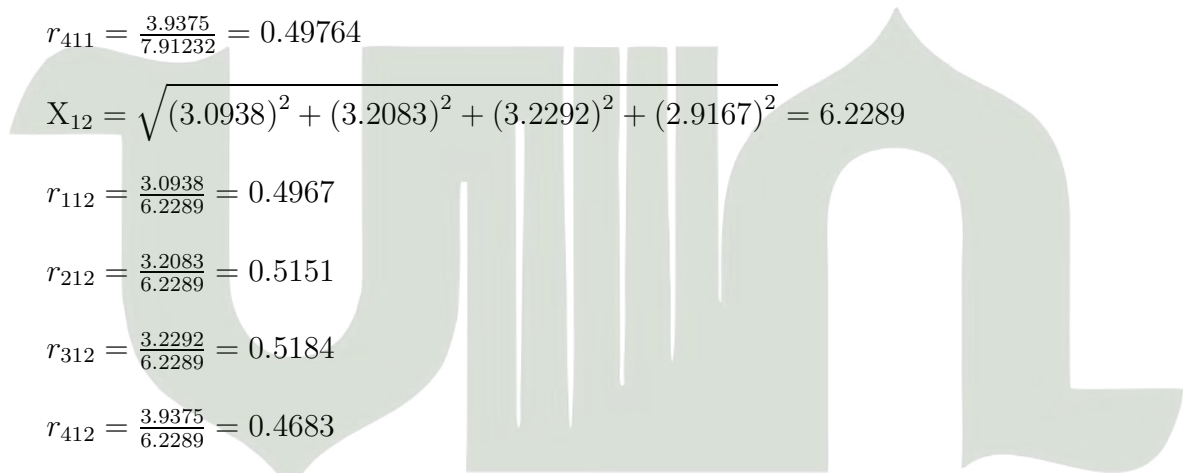
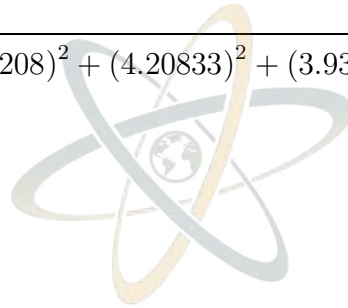
$$X_{13} = \sqrt{(4.09375)^2 + (4.125)^2 + (4.13542)^2 + (4.01042)^2} = 8.18288$$

$$r_{113} = \frac{4.09375}{8.18288} = 0.50028$$

$$r_{213} = \frac{4.125}{8.18288} = 0.5041$$

$$r_{313} = \frac{4.13542}{8.18288} = 0.50537$$

$$r_{413} = \frac{4.01042}{8.18288} = 0.4901$$



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$$X_{14} = \sqrt{(2.64583)^2 + (2.80208)^2 + (2.69792)^2 + (2.41667)^2} = 5.28877$$

$$r_{114} = \frac{2.64583}{5.28877} = 0.50027$$

$$r_{214} = \frac{2.80208}{5.28877} = 0.52982$$

$$r_{314} = \frac{2.69792}{5.28877} = 0.51012$$

$$r_{414} = \frac{2.41667}{5.28877} = 0.45694$$

$$X_{15} = \sqrt{(2.19792)^2 + (2.27083)^2 + (2.15625)^2 + (2.04167)^2} = 4.33651$$

$$r_{115} = \frac{2.19792}{4.33651} = 0.50684$$

$$r_{215} = \frac{2.27083}{4.33651} = 0.52365$$

$$r_{315} = \frac{2.15625}{4.33651} = 0.49723$$

$$r_{415} = \frac{2.04167}{4.33651} = 0.47081$$

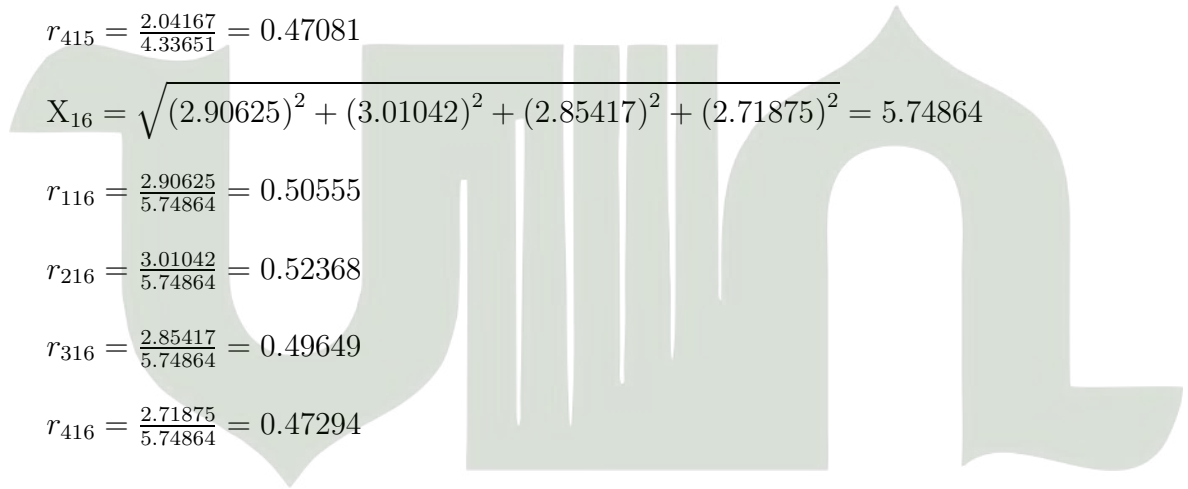
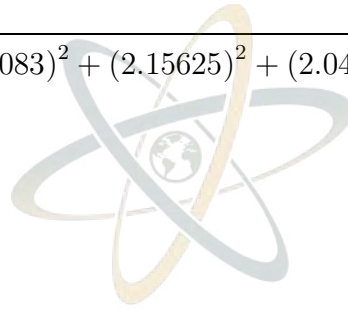
$$X_{16} = \sqrt{(2.90625)^2 + (3.01042)^2 + (2.85417)^2 + (2.71875)^2} = 5.74864$$

$$r_{116} = \frac{2.90625}{5.74864} = 0.50555$$

$$r_{216} = \frac{3.01042}{5.74864} = 0.52368$$

$$r_{316} = \frac{2.85417}{5.74864} = 0.49649$$

$$r_{416} = \frac{2.71875}{5.74864} = 0.47294$$



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Lampiran 4

Perhitungan Matriks Pembobot Ternormalisasi V

$$V_{i2} = \begin{bmatrix} V_{12} \\ V_{22} \\ V_{32} \\ V_{42} \end{bmatrix} = w_2 \times r_{i2} = \begin{bmatrix} r_{12} \\ r_{22} \\ r_{32} \\ r_{42} \end{bmatrix} = 0.01471 \times \begin{bmatrix} 0.5052 \\ 0.52404 \\ 0.49835 \\ 0.47095 \end{bmatrix} = \begin{bmatrix} 0.00743 \\ 0.00771 \\ 0.00733 \\ 0.00693 \end{bmatrix}$$

$$V_{i3} = \begin{bmatrix} V_{13} \\ V_{23} \\ V_{33} \\ V_{43} \end{bmatrix} = w_3 \times r_{i3} = \begin{bmatrix} r_{13} \\ r_{23} \\ r_{33} \\ r_{43} \end{bmatrix} = 0.02206 \times \begin{bmatrix} 0.50435 \\ 0.52095 \\ 0.50227 \\ 0.47114 \end{bmatrix} = \begin{bmatrix} 0.01113 \\ 0.01149 \\ 0.01108 \\ 0.01039 \end{bmatrix}$$

$$V_{i4} = \begin{bmatrix} V_{14} \\ V_{24} \\ V_{34} \\ V_{44} \end{bmatrix} = w_4 \times r_{i4} = \begin{bmatrix} r_{14} \\ r_{24} \\ r_{34} \\ r_{44} \end{bmatrix} = 0.02941 \times \begin{bmatrix} 0.4979 \\ 0.50325 \\ 0.51262 \\ 0.48585 \end{bmatrix} = \begin{bmatrix} 0.01464 \\ 0.0148 \\ 0.01508 \\ 0.01429 \end{bmatrix}$$

$$V_{i5} = \begin{bmatrix} V_{15} \\ V_{25} \\ V_{35} \\ V_{45} \end{bmatrix} = w_5 \times r_{i5} = \begin{bmatrix} r_{15} \\ r_{25} \\ r_{35} \\ r_{45} \end{bmatrix} = 0.03676 \times \begin{bmatrix} 0.49992 \\ 0.49065 \\ 0.49529 \\ 0.51384 \end{bmatrix} = \begin{bmatrix} 0.01838 \\ 0.01804 \\ 0.01821 \\ 0.01889 \end{bmatrix}$$

$$V_{i6} = \begin{bmatrix} V_{16} \\ V_{26} \\ V_{36} \\ V_{46} \end{bmatrix} = w_6 \times r_{i6} = \begin{bmatrix} r_{16} \\ r_{26} \\ r_{36} \\ r_{46} \end{bmatrix} = 0.0441 \times \begin{bmatrix} 0.49965 \\ 0.50241 \\ 0.49965 \\ 0.49828 \end{bmatrix} = \begin{bmatrix} 0.022 \\ 0.0222 \\ 0.022 \\ 0.022 \end{bmatrix}$$

$$V_{i7} = \begin{bmatrix} V_{17} \\ V_{27} \\ V_{37} \\ V_{47} \end{bmatrix} = w_7 \times r_{i7} = \begin{bmatrix} r_{17} \\ r_{27} \\ r_{37} \\ r_{47} \end{bmatrix} = 0.05147 \times \begin{bmatrix} 0.49423 \\ 0.47684 \\ 0.52757 \\ 0.50003 \end{bmatrix} = \begin{bmatrix} 0.02544 \\ 0.02454 \\ 0.02715 \\ 0.02574 \end{bmatrix}$$

$$V_{i8} = \begin{bmatrix} V_{18} \\ V_{28} \\ V_{38} \\ V_{48} \end{bmatrix} = w_8 \times r_{i8} = \begin{bmatrix} r_{18} \\ r_{28} \\ r_{38} \\ r_{48} \end{bmatrix} = 0.05882 \times \begin{bmatrix} 0.49613 \\ 0.49485 \\ 0.51143 \\ 0.4974 \end{bmatrix} = \begin{bmatrix} 0.02918 \\ 0.02911 \\ 0.03008 \\ 0.02926 \end{bmatrix}$$

$$V_{i9} = \begin{bmatrix} V_{19} \\ V_{29} \\ V_{39} \\ V_{49} \end{bmatrix} = w_9 \times r_{i9} = \begin{bmatrix} r_{19} \\ r_{29} \\ r_{39} \\ r_{49} \end{bmatrix} = 0.06618 \times \begin{bmatrix} 0.49782 \\ 0.49906 \\ 0.50155 \\ 0.50155 \end{bmatrix} = \begin{bmatrix} 0.03295 \\ 0.03303 \\ 0.03319 \\ 0.03319 \end{bmatrix}$$

$$V_{i10} = \begin{bmatrix} V_{110} \\ V_{210} \\ V_{310} \\ V_{410} \end{bmatrix} = w_{10} \times r_{i10} = \begin{bmatrix} r_{110} \\ r_{210} \\ r_{310} \\ r_{410} \end{bmatrix} = 0.07353 \times \begin{bmatrix} 0.49551 \\ 0.49551 \\ 0.53238 \\ 0.47487 \end{bmatrix} = \begin{bmatrix} 0.03643 \\ 0.03643 \\ 0.03915 \\ 0.03492 \end{bmatrix}$$

$$V_{i11} = \begin{bmatrix} V_{111} \\ V_{211} \\ V_{311} \\ V_{411} \end{bmatrix} = w_{11} \times r_{i11} = \begin{bmatrix} r_{111} \\ r_{211} \\ r_{311} \\ r_{411} \end{bmatrix} = 0.08088 \times \begin{bmatrix} 0.48843 \\ 0.48053 \\ 0.53187 \\ 0.49764 \end{bmatrix} = \begin{bmatrix} 0.0395 \\ 0.03887 \\ 0.04302 \\ 0.04025 \end{bmatrix}$$

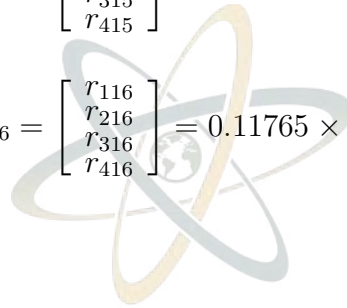
$$V_{i12} = \begin{bmatrix} V_{112} \\ V_{212} \\ V_{312} \\ V_{412} \end{bmatrix} = w_{12} \times r_{i12} = \begin{bmatrix} r_{112} \\ r_{212} \\ r_{312} \\ r_{412} \end{bmatrix} = 0.0882 \times \begin{bmatrix} 0.4967 \\ 0.5151 \\ 0.5184 \\ 0.4683 \end{bmatrix} = \begin{bmatrix} 0.0438 \\ 0.0455 \\ 0.0458 \\ 0.0413 \end{bmatrix}$$

$$v_{i13} = \begin{bmatrix} v_{113} \\ v_{213} \\ v_{313} \\ v_{413} \end{bmatrix} = w_{13} \times r_{i13} = \begin{bmatrix} r_{113} \\ r_{213} \\ r_{313} \\ r_{413} \end{bmatrix} = 0.09559 \times \begin{bmatrix} 0.50028 \\ 0.5041 \\ 0.50537 \\ 0.4901 \end{bmatrix} = \begin{bmatrix} 0.04782 \\ 0.04819 \\ 0.0431 \\ 0.04685 \end{bmatrix}$$

$$v_{i14} = \begin{bmatrix} v_{114} \\ v_{214} \\ v_{314} \\ v_{414} \end{bmatrix} = w_{14} \times r_{i14} = \begin{bmatrix} r_{114} \\ r_{214} \\ r_{314} \\ r_{414} \end{bmatrix} = 0.10294 \times \begin{bmatrix} 0.50027 \\ 0.52982 \\ 0.51012 \\ 0.45694 \end{bmatrix} = \begin{bmatrix} 0.0515 \\ 0.05454 \\ 0.05251 \\ 0.04704 \end{bmatrix}$$

$$v_{i15} = \begin{bmatrix} v_{115} \\ v_{215} \\ v_{315} \\ v_{415} \end{bmatrix} = w_{15} \times r_{i15} = \begin{bmatrix} r_{115} \\ r_{215} \\ r_{315} \\ r_{415} \end{bmatrix} = 0.11029 \times \begin{bmatrix} 0.50684 \\ 0.52365 \\ 0.49723 \\ 0.47081 \end{bmatrix} = \begin{bmatrix} 0.0559 \\ 0.05775 \\ 0.05484 \\ 0.05193 \end{bmatrix}$$

$$v_{i16} = \begin{bmatrix} v_{116} \\ v_{216} \\ v_{316} \\ v_{416} \end{bmatrix} = w_{16} \times r_{i16} = \begin{bmatrix} r_{116} \\ r_{216} \\ r_{316} \\ r_{416} \end{bmatrix} = 0.11765 \times \begin{bmatrix} 0.50555 \\ 0.52368 \\ 0.49649 \\ 0.47294 \end{bmatrix} = \begin{bmatrix} 0.05948 \\ 0.06161 \\ 0.05841 \\ 0.05564 \end{bmatrix}$$



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Lampiran 5

Perhitungan Penentuan Himpunan Concordance Index

$$C_{13} = V_{11} \geq V_{31} = 0.00372 \geq 0.00374 \quad C_{13} = \{2, 3, 5, 6, 15, 16\}$$

$$C_{12} = V_{12} \geq V_{32} = 0.00743 \geq 0.00733$$

$$C_{12} = V_{13} \geq V_{33} = 0.01113 \geq 0.01108$$

$$C_{12} = V_{14} \geq V_{34} = 0.01464 \geq 0.01508$$

$$C_{12} = V_{15} \geq V_{35} = 0.01838 \geq 0.01821$$

$$C_{12} = V_{16} \geq V_{36} = 0.022 \geq 0.022$$

$$C_{12} = V_{17} \geq V_{37} = 0.02544 \geq 0.02715$$

$$C_{12} = V_{18} \geq V_{38} = 0.02918 \geq 0.03008$$

$$C_{12} = V_{19} \geq V_{39} = 0.03295 \geq 0.03319$$

$$C_{12} = V_{110} \geq V_{310} = 0.03643 \geq 0.03915$$

$$C_{12} = V_{111} \geq V_{311} = 0.0395 \geq 0.04302$$

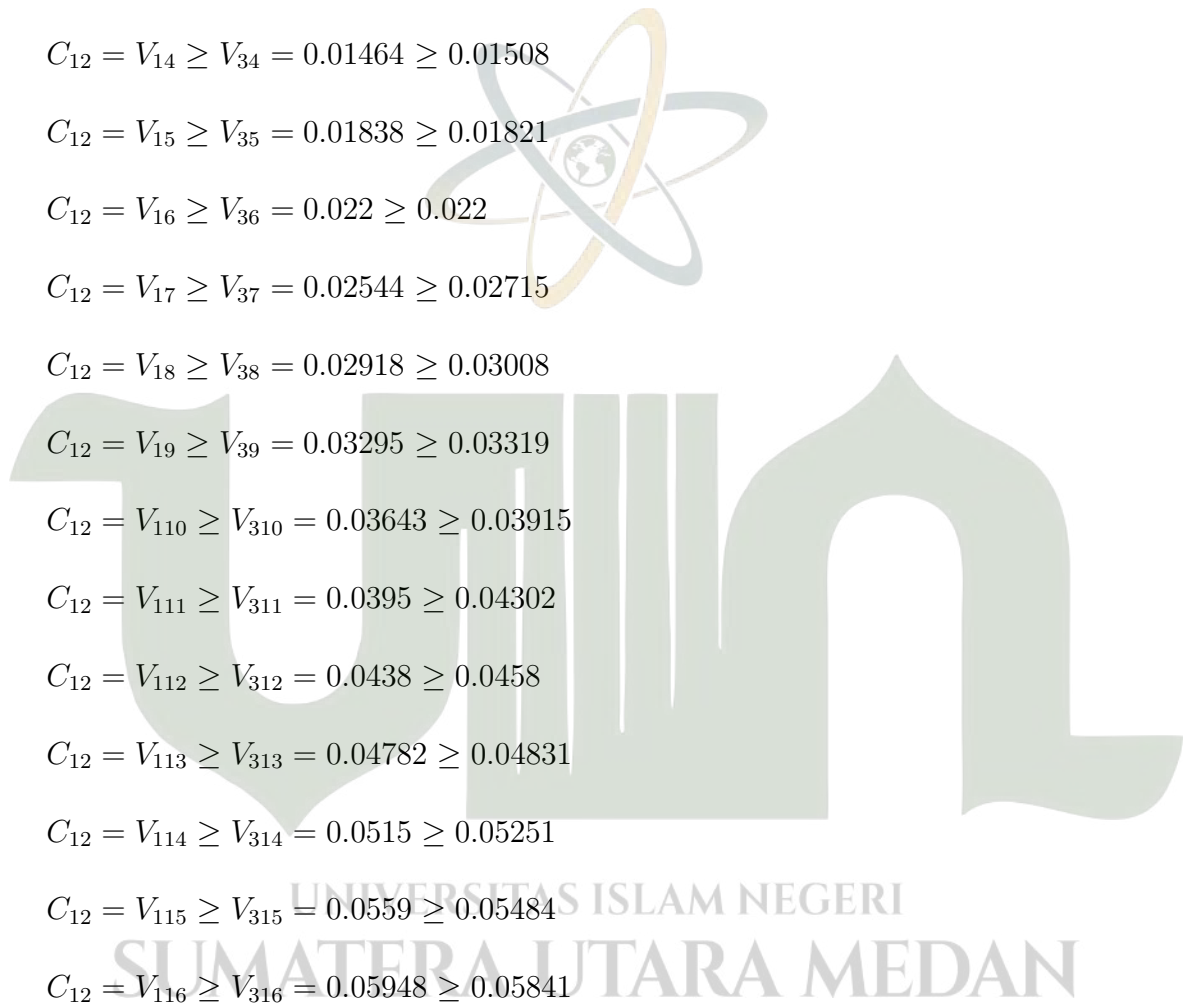
$$C_{12} = V_{112} \geq V_{312} = 0.0438 \geq 0.0458$$

$$C_{12} = V_{113} \geq V_{313} = 0.04782 \geq 0.04831$$

$$C_{12} = V_{114} \geq V_{314} = 0.0515 \geq 0.05251$$

$$C_{12} = V_{115} \geq V_{315} = 0.0559 \geq 0.05484$$

$$C_{12} = V_{116} \geq V_{316} = 0.05948 \geq 0.05841$$



$$C_{14} = V_{11} \geq V_{41} = 0.00372 \geq 0.00349 \quad C_{14} = \{1, 2, 3, 4, 6, 10, 12, 13, 14, 15, 16\}$$

$$C_{12} = V_{12} \geq V_{42} = 0.00743 \geq 0.00693$$

$$C_{12} = V_{13} \geq V_{43} = 0.01113 \geq 0.01039$$

$$C_{12} = V_{14} \geq V_{44} = 0.01464 \geq 0.01429$$

$$C_{12} = V_{15} \geq V_{45} = 0.01838 \geq 0.01889$$

$$C_{12} = V_{16} \geq V_{46} = 0.022 \geq 0.022$$

$$C_{12} = V_{17} \geq V_{47} = 0.02544 \geq 0.02574$$

$$C_{12} = V_{18} \geq V_{48} = 0.02918 \geq 0.02926$$

$$C_{12} = V_{19} \geq V_{49} = 0.03295 \geq 0.03319$$

$$C_{12} = V_{110} \geq V_{410} = 0.03643 \geq 0.03492$$

$$C_{12} = V_{111} \geq V_{411} = 0.0395 \geq 0.04025$$

$$C_{12} = V_{112} \geq V_{412} = 0.0438 \geq 0.0413$$

$$C_{12} = V_{113} \geq V_{413} = 0.04782 \geq 0.04685$$

$$C_{12} = V_{114} \geq V_{414} = 0.0515 \geq 0.04704$$

$$C_{12} = V_{115} \geq V_{415} = 0.0559 \geq 0.05193$$

$$C_{12} = V_{116} \geq V_{416} = 0.05948 \geq 0.05564$$



UNIVERSITAS ISLAM NEGERI
SUMATERA UTARA MEDAN

$$C_{21} = V_{21} \geq V_{11} = 0.00375 \geq 0.00372 \quad C_{21} = \{1, 2, 3, 4, 6, 9, 10, 12, 13, 14, 15, 16\}$$

$$C_{12} = V_{22} \geq V_{12} = 0.00771 \geq 0.00743$$

$$C_{12} = V_{23} \geq V_{13} = 0.01149 \geq 0.01113$$

$$C_{12} = V_{24} \geq V_{14} = 0.0148 \geq 0.01464$$

$$C_{12} = V_{25} \geq V_{15} = 0.01804 \geq 0.01838$$

$$C_{12} = V_{26} \geq V_{16} = 0.0222 \geq 0.022$$

$$C_{12} = V_{27} \geq V_{17} = 0.02454 \geq 0.02544$$

$$C_{12} = V_{28} \geq V_{18} = 0.02911 \geq 0.02918$$

$$C_{12} = V_{29} \geq V_{19} = 0.03303 \geq 0.03295$$

$$C_{12} = V_{210} \geq V_{110} = 0.03643 \geq 0.03643$$

$$C_{12} = V_{211} \geq V_{111} = 0.03887 \geq 0.0395$$

$$C_{12} = V_{212} \geq V_{112} = 0.0455 \geq 0.0438$$

$$C_{12} = V_{213} \geq V_{113} = 0.04819 \geq 0.04782$$

$$C_{12} = V_{214} \geq V_{114} = 0.05454 \geq 0.0515$$

$$C_{12} = V_{215} \geq V_{115} = 0.05775 \geq 0.0559$$

$$C_{12} = V_{216} \geq V_{116} = 0.06161 \geq 0.05948$$



UNIVERSITAS ISLAM NEGERI
SUMATERA UTARA MEDAN

$$C_{23} = V_{21} \geq V_{31} = 0.00375 \geq 0.00374 \quad C_{23} = \{1, 2, 3, 6, 14, 15, 16\}$$

$$C_{12} = V_{22} \geq V_{32} = 0.00771 \geq 0.00733$$

$$C_{12} = V_{23} \geq V_{33} = 0.01149 \geq 0.01108$$

$$C_{12} = V_{24} \geq V_{34} = 0.0148 \geq 0.01508$$

$$C_{12} = V_{25} \geq V_{35} = 0.01804 \geq 0.01821$$

$$C_{12} = V_{26} \geq V_{36} = 0.0222 \geq 0.022$$

$$C_{12} = V_{27} \geq V_{37} = 0.02454 \geq 0.02715$$

$$C_{12} = V_{28} \geq V_{38} = 0.02911 \geq 0.03008$$

$$C_{12} = V_{29} \geq V_{39} = 0.03303 \geq 0.03319$$

$$C_{12} = V_{210} \geq V_{310} = 0.03643 \geq 0.03915$$

$$C_{12} = V_{211} \geq V_{311} = 0.03887 \geq 0.04302$$

$$C_{12} = V_{212} \geq V_{312} = 0.0455 \geq 0.0458$$

$$C_{12} = V_{213} \geq V_{313} = 0.04819 \geq 0.04831$$

$$C_{12} = V_{214} \geq V_{314} = 0.05454 \geq 0.05251$$

$$C_{12} = V_{215} \geq V_{315} = 0.05775 \geq 0.05484$$

$$C_{12} = V_{216} \geq V_{316} = 0.06161 \geq 0.05841$$



UNIVERSITAS ISLAM NEGERI
SUMATERA UTARA MEDAN

$$C_{24} = V_{21} \geq V_{41} = 0.00375 \geq 0.00349 \quad C_{24} = \{1, 2, 3, 4, 6, 10, 12, 13, 14, 15, 16\}$$

$$C_{12} = V_{22} \geq V_{42} = 0.00771 \geq 0.00693$$

$$C_{12} = V_{23} \geq V_{43} = 0.01149 \geq 0.01039$$

$$C_{12} = V_{24} \geq V_{44} = 0.0148 \geq 0.01429$$

$$C_{12} = V_{25} \geq V_{45} = 0.01804 \geq 0.01889$$

$$C_{12} = V_{26} \geq V_{46} = 0.0222 \geq 0.022$$

$$C_{12} = V_{27} \geq V_{47} = 0.02454 \geq 0.02574$$

$$C_{12} = V_{28} \geq V_{48} = 0.02911 \geq 0.02926$$

$$C_{12} = V_{29} \geq V_{49} = 0.03303 \geq 0.03319$$

$$C_{12} = V_{210} \geq V_{410} = 0.03643 \geq 0.03492$$

$$C_{12} = V_{211} \geq V_{411} = 0.03887 \geq 0.04025$$

$$C_{12} = V_{212} \geq V_{412} = 0.0455 \geq 0.0413$$

$$C_{12} = V_{213} \geq V_{413} = 0.04819 \geq 0.04685$$

$$C_{12} = V_{214} \geq V_{414} = 0.05454 \geq 0.04704$$

$$C_{12} = V_{215} \geq V_{415} = 0.05775 \geq 0.05193$$

$$C_{12} = V_{216} \geq V_{416} = 0.06161 \geq 0.05564$$



UNIVERSITAS ISLAM NEGERI
SUMATERA UTARA MEDAN

$$C_{31} = V_{31} \geq V_{11} = 0.00374 \geq 0.00372 \quad C_{31} = \{1, 4, 6, 7, 8, 9, 10, 11, 12, 13, 14\}$$

$$C_{12} = V_{32} \geq V_{12} = 0.00733 \geq 0.00743$$

$$C_{12} = V_{33} \geq V_{13} = 0.01108 \geq 0.01113$$

$$C_{12} = V_{34} \geq V_{14} = 0.01508 \geq 0.01464$$

$$C_{12} = V_{35} \geq V_{15} = 0.01821 \geq 0.01838$$

$$C_{12} = V_{36} \geq V_{16} = 0.022 \geq 0.022$$

$$C_{12} = V_{37} \geq V_{17} = 0.02715 \geq 0.02544$$

$$C_{12} = V_{38} \geq V_{18} = 0.03008 \geq 0.02918$$

$$C_{12} = V_{39} \geq V_{19} = 0.03319 \geq 0.03295$$

$$C_{12} = V_{310} \geq V_{110} = 0.03915 \geq 0.03643$$

$$C_{12} = V_{311} \geq V_{111} = 0.04302 \geq 0.0395$$

$$C_{12} = V_{312} \geq V_{112} = 0.0458 \geq 0.0438$$

$$C_{12} = V_{313} \geq V_{113} = 0.04831 \geq 0.04782$$

$$C_{12} = V_{314} \geq V_{114} = 0.05251 \geq 0.0515$$

$$C_{12} = V_{315} \geq V_{115} = 0.05484 \geq 0.0559$$

$$C_{12} = V_{316} \geq V_{116} = 0.05841 \geq 0.05948$$



UNIVERSITAS ISLAM NEGERI
SUMATERA UTARA MEDAN

$$C_{32} = V_{31} \geq V_{21} = 0.00374 \geq 0.00375 \quad C_{32} = \{4, 5, 6, 7, 8, 9, 10, 11, 12, 13\}$$

$$C_{12} = V_{32} \geq V_{22} = 0.00733 \geq 0.00771$$

$$C_{12} = V_{33} \geq V_{23} = 0.01108 \geq 0.01149$$

$$C_{12} = V_{34} \geq V_{24} = 0.01508 \geq 0.0148$$

$$C_{12} = V_{35} \geq V_{25} = 0.01821 \geq 0.01804$$

$$C_{12} = V_{36} \geq V_{26} = 0.022 \geq 0.0222$$

$$C_{12} = V_{37} \geq V_{27} = 0.02715 \geq 0.02454$$

$$C_{12} = V_{38} \geq V_{28} = 0.03008 \geq 0.02911$$

$$C_{12} = V_{39} \geq V_{29} = 0.03319 \geq 0.03303$$

$$C_{12} = V_{310} \geq V_{210} = 0.03915 \geq 0.03643$$

$$C_{12} = V_{311} \geq V_{211} = 0.04302 \geq 0.03887$$

$$C_{12} = V_{312} \geq V_{212} = 0.0458 \geq 0.0455$$

$$C_{12} = V_{313} \geq V_{213} = 0.04831 \geq 0.04819$$

$$C_{12} = V_{314} \geq V_{214} = 0.05251 \geq 0.05454$$

$$C_{12} = V_{315} \geq V_{215} = 0.05484 \geq 0.05775$$

$$C_{12} = V_{316} \geq V_{216} = 0.05841 \geq 0.05841$$



UNIVERSITAS ISLAM NEGERI
SUMATERA UTARA MEDAN

$$C_{34} = V_{31} \geq V_{41} = 0.00374 \geq 0.00349 \quad C_{34} = \{1, 2, 3, 4, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16\}$$

$$C_{12} = V_{32} \geq V_{42} = 0.00733 \geq 0.00693$$

$$C_{12} = V_{33} \geq V_{43} = 0.01108 \geq 0.01039$$

$$C_{12} = V_{34} \geq V_{44} = 0.01508 \geq 0.01429$$

$$C_{12} = V_{35} \geq V_{45} = 0.01821 \geq 0.01889$$

$$C_{12} = V_{36} \geq V_{46} = 0.022 \geq 0.022$$

$$C_{12} = V_{37} \geq V_{47} = 0.02715 \geq 0.02574$$

$$C_{12} = V_{38} \geq V_{48} = 0.03008 \geq 0.02926$$

$$C_{12} = V_{39} \geq V_{49} = 0.03319 \geq 0.03319$$

$$C_{12} = V_{310} \geq V_{410} = 0.03915 \geq 0.03492$$

$$C_{12} = V_{311} \geq V_{411} = 0.04302 \geq 0.04025$$

$$C_{12} = V_{312} \geq V_{412} = 0.0458 \geq 0.0413$$

$$C_{12} = V_{313} \geq V_{413} = 0.04831 \geq 0.04685$$

$$C_{12} = V_{314} \geq V_{414} = 0.05251 \geq 0.04704$$

$$C_{12} = V_{315} \geq V_{415} = 0.05484 \geq 0.05193$$

$$C_{12} = V_{316} \geq V_{416} = 0.05841 \geq 0.05564$$



UNIVERSITAS ISLAM NEGERI
SUMATERA UTARA MEDAN

$$C_{41} = V_{41} \geq V_{11} = 0.00349 \geq 0.00372 \quad C_{41} = \{5, 6, 7, 8, 9, 11\}$$

$$C_{12} = V_{42} \geq V_{12} = 0.00693 \geq 0.00743$$

$$C_{12} = V_{43} \geq V_{13} = 0.01039 \geq 0.01113$$

$$C_{12} = V_{44} \geq V_{14} = 0.01429 \geq 0.01464$$

$$C_{12} = V_{45} \geq V_{15} = 0.01889 \geq 0.01838$$

$$C_{12} = V_{46} \geq V_{16} = 0.022 \geq 0.022$$

$$C_{12} = V_{47} \geq V_{17} = 0.02574 \geq 0.02544$$

$$C_{12} = V_{48} \geq V_{18} = 0.02926 \geq 0.02918$$

$$C_{12} = V_{49} \geq V_{19} = 0.03319 \geq 0.03295$$

$$C_{12} = V_{410} \geq V_{110} = 0.03492 \geq 0.03643$$

$$C_{12} = V_{411} \geq V_{111} = 0.04025 \geq 0.0395$$

$$C_{12} = V_{412} \geq V_{112} = 0.0413 \geq 0.0438$$

$$C_{12} = V_{413} \geq V_{113} = 0.04685 \geq 0.04782$$

$$C_{12} = V_{414} \geq V_{114} = 0.04704 \geq 0.0515$$

$$C_{12} = V_{415} \geq V_{115} = 0.05193 \geq 0.0559$$

$$C_{12} = V_{416} \geq V_{116} = 0.05564 \geq 0.05948$$



UNIVERSITAS ISLAM NEGERI
SUMATERA UTARA MEDAN

$$C_{42} = V_{41} \geq V_{21} = 0.00349 \geq 0.00375 \quad C_{42} = \{5, 6, 7, 8, 9, 11\}$$

$$C_{12} = V_{42} \geq V_{22} = 0.00693 \geq 0.00771$$

$$C_{12} = V_{43} \geq V_{23} = 0.01039 \geq 0.01149$$

$$C_{12} = V_{44} \geq V_{24} = 0.01429 \geq 0.0148$$

$$C_{12} = V_{45} \geq V_{25} = 0.01889 \geq 0.01804$$

$$C_{12} = V_{46} \geq V_{26} = 0.022 \geq 0.0222$$

$$C_{12} = V_{47} \geq V_{27} = 0.02574 \geq 0.02454$$

$$C_{12} = V_{48} \geq V_{28} = 0.02926 \geq 0.02911$$

$$C_{12} = V_{49} \geq V_{29} = 0.03319 \geq 0.03303$$

$$C_{12} = V_{410} \geq V_{210} = 0.03492 \geq 0.03643$$

$$C_{12} = V_{411} \geq V_{211} = 0.04025 \geq 0.03887$$

$$C_{12} = V_{412} \geq V_{212} = 0.0413 \geq 0.0455$$

$$C_{12} = V_{413} \geq V_{213} = 0.04685 \geq 0.04819$$

$$C_{12} = V_{414} \geq V_{214} = 0.04704 \geq 0.05454$$

$$C_{12} = V_{415} \geq V_{215} = 0.05193 \geq 0.05775$$

$$C_{12} = V_{416} \geq V_{216} = 0.05564 \geq 0.06161$$



UNIVERSITAS ISLAM NEGERI
SUMATERA UTARA MEDAN

$$C_{43} = V_{41} \geq V_{31} = 0.00349 \geq 0.00374 \quad C_{43} = \{5, 6, 9\}$$

$$C_{12} = V_{42} \geq V_{32} = 0.00693 \geq 0.00733$$

$$C_{12} = V_{43} \geq V_{33} = 0.01039 \geq 0.01108$$

$$C_{12} = V_{44} \geq V_{34} = 0.01429 \geq 0.01508$$

$$C_{12} = V_{45} \geq V_{35} = 0.01889 \geq 0.01821$$

$$C_{12} = V_{46} \geq V_{36} = 0.022 \geq 0.022$$

$$C_{12} = V_{47} \geq V_{37} = 0.02574 \geq 0.02715$$

$$C_{12} = V_{48} \geq V_{38} = 0.02926 \geq 0.03008$$

$$C_{12} = V_{49} \geq V_{39} = 0.03319 \geq 0.03319$$

$$C_{12} = V_{410} \geq V_{310} = 0.03492 \geq 0.03915$$

$$C_{12} = V_{411} \geq V_{311} = 0.04025 \geq 0.04302$$

$$C_{12} = V_{412} \geq V_{312} = 0.0413 \geq 0.0458$$

$$C_{12} = V_{413} \geq V_{313} = 0.04685 \geq 0.04831$$

$$C_{12} = V_{414} \geq V_{314} = 0.04704 \geq 0.05251$$

$$C_{12} = V_{415} \geq V_{315} = 0.05193 \geq 0.05484$$

$$C_{12} = V_{416} \geq V_{316} = 0.05564 \geq 0.05841$$



UNIVERSITAS ISLAM NEGERI
SUMATERA UTARA MEDAN

Lampiran 6

Perhitungan Penentuan Himpunan *Discordance Index*

$$D_{13} = V_{11} < V_{31} = 0.00372 < 0.00374 \quad D_{13} = \{1, 3, 4, 7, 8, 9, 10, 11, 12, 13, 14\}$$

$$C_{12} = V_{12} < V_{32} = 0.00743 < 0.00733$$

$$C_{12} = V_{13} < V_{33} = 0.01113 < 0.01108$$

$$C_{12} = V_{14} < V_{34} = 0.01464 < 0.01508$$

$$C_{12} = V_{15} < V_{35} = 0.01838 < 0.01821$$

$$C_{12} = V_{16} < V_{36} = 0.022 < 0.022$$

$$C_{12} = V_{17} < V_{37} = 0.02544 < 0.02715$$

$$C_{12} = V_{18} < V_{38} = 0.02918 < 0.03008$$

$$C_{12} = V_{19} < V_{39} = 0.03295 < 0.03319$$

$$C_{12} = V_{110} < V_{310} = 0.03643 < 0.03915$$

$$C_{12} = V_{111} < V_{311} = 0.0395 < 0.04302$$

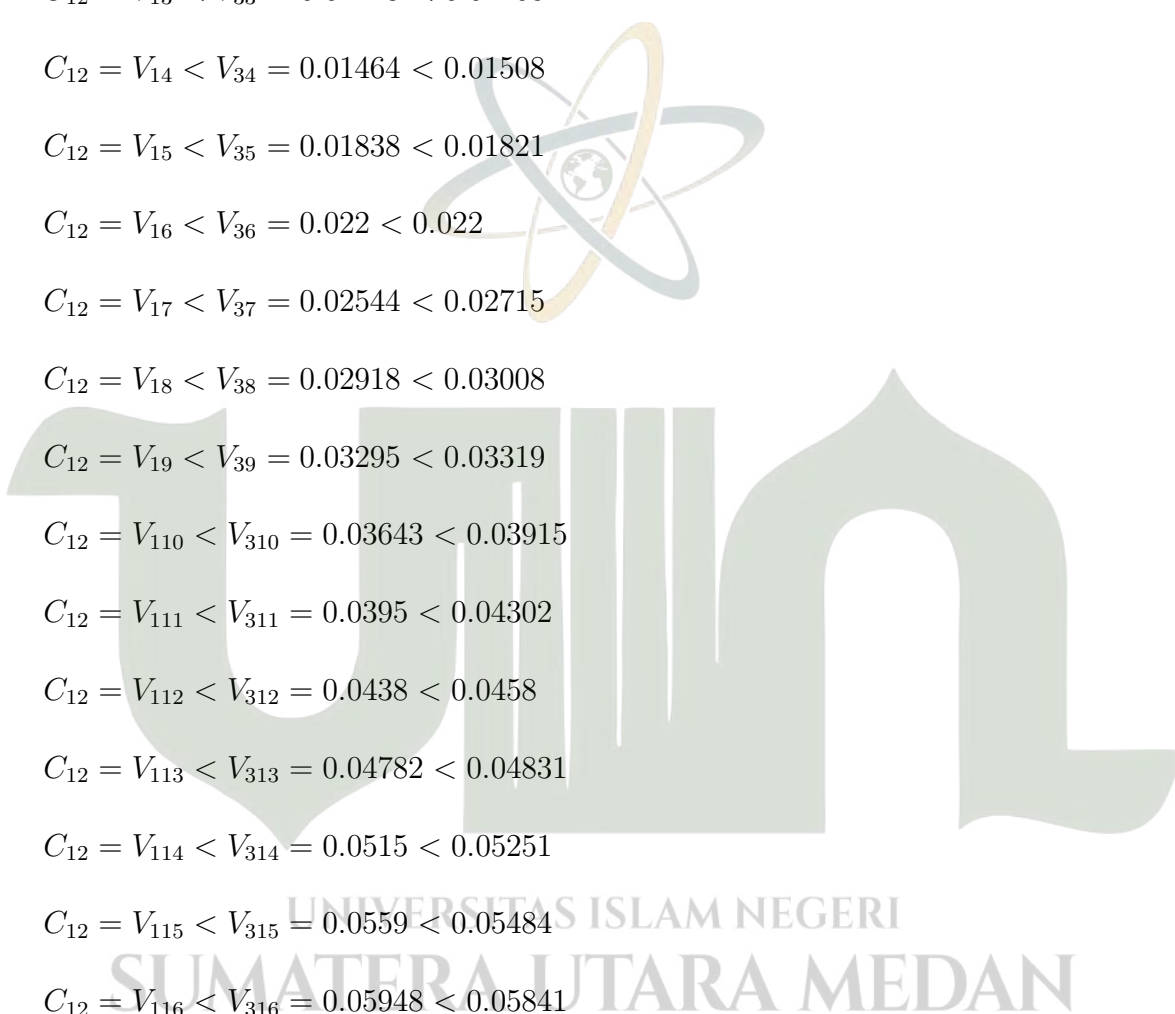
$$C_{12} = V_{112} < V_{312} = 0.0438 < 0.0458$$

$$C_{12} = V_{113} < V_{313} = 0.04782 < 0.04831$$

$$C_{12} = V_{114} < V_{314} = 0.0515 < 0.05251$$

$$C_{12} = V_{115} < V_{315} = 0.0559 < 0.05484$$

$$C_{12} = V_{116} < V_{316} = 0.05948 < 0.05841$$



$$D_{14} = V_{11} < V_{41} = 0.00372 < 0.00349 \quad D_{14} = \{5, 7, 8, 9, 11\}$$

$$C_{12} = V_{12} < V_{42} = 0.00743 < 0.00693$$

$$C_{12} = V_{13} < V_{43} = 0.01113 < 0.01039$$

$$C_{12} = V_{14} < V_{44} = 0.01464 < 0.01429$$

$$C_{12} = V_{15} < V_{45} = 0.01838 < 0.01889$$

$$C_{12} = V_{16} < V_{46} = 0.022 < 0.022$$

$$C_{12} = V_{17} < V_{47} = 0.02544 < 0.02574$$

$$C_{12} = V_{18} < V_{48} = 0.02918 < 0.02926$$

$$C_{12} = V_{19} < V_{49} = 0.03295 < 0.03319$$

$$C_{12} = V_{110} < V_{410} = 0.03643 < 0.03492$$

$$C_{12} = V_{111} < V_{411} = 0.0395 < 0.04025$$

$$C_{12} = V_{112} < V_{412} = 0.0438 < 0.0413$$

$$C_{12} = V_{113} < V_{413} = 0.04782 < 0.04685$$

$$C_{12} = V_{114} < V_{414} = 0.0515 < 0.04704$$

$$C_{12} = V_{115} < V_{415} = 0.0559 < 0.05193$$

$$C_{12} = V_{116} < V_{416} = 0.05948 < 0.05564$$



UNIVERSITAS ISLAM NEGERI
SUMATERA UTARA MEDAN

$$D_{21} = V_{21} < V_{11} = 0.00375 < 0.00372 \quad D_{21} = \{5, 7, 8\}$$

$$C_{12} = V_{22} < V_{12} = 0.00771 < 0.00743$$

$$C_{12} = V_{23} < V_{13} = 0.01149 < 0.01113$$

$$C_{12} = V_{24} < V_{14} = 0.0148 < 0.01464$$

$$C_{12} = V_{25} < V_{15} = 0.01804 < 0.01838$$

$$C_{12} = V_{26} < V_{16} = 0.0222 < 0.022$$

$$C_{12} = V_{27} < V_{17} = 0.02454 < 0.02544$$

$$C_{12} = V_{28} < V_{18} = 0.02911 < 0.02918$$

$$C_{12} = V_{29} < V_{19} = 0.03303 < 0.03295$$

$$C_{12} = V_{210} < V_{110} = 0.03643 < 0.03643$$

$$C_{12} = V_{211} < V_{111} = 0.03887 < 0.0395$$

$$C_{12} = V_{212} < V_{112} = 0.0455 < 0.0438$$

$$C_{12} = V_{213} < V_{113} = 0.04819 < 0.04782$$

$$C_{12} = V_{214} < V_{114} = 0.05454 < 0.0515$$

$$C_{12} = V_{215} < V_{115} = 0.05775 < 0.0559$$

$$C_{12} = V_{216} < V_{116} = 0.06161 < 0.05948$$



UNIVERSITAS ISLAM NEGERI
SUMATERA UTARA MEDAN

$$D_{23} = V_{21} < V_{31} = 0.00375 < 0.00374 \quad D_{23} = \{4, 5, 7, 8, 9, 10, 11, 12, 13\}$$

$$C_{12} = V_{22} < V_{32} = 0.00771 < 0.00733$$

$$C_{12} = V_{23} < V_{33} = 0.01149 < 0.01108$$

$$C_{12} = V_{24} < V_{34} = 0.0148 < 0.01508$$

$$C_{12} = V_{25} < V_{35} = 0.01804 < 0.01821$$

$$C_{12} = V_{26} < V_{36} = 0.0222 < 0.022$$

$$C_{12} = V_{27} < V_{37} = 0.02454 < 0.02715$$

$$C_{12} = V_{28} < V_{38} = 0.02911 < 0.03008$$

$$C_{12} = V_{29} < V_{39} = 0.03303 < 0.03319$$

$$C_{12} = V_{210} < V_{310} = 0.03643 < 0.03915$$

$$C_{12} = V_{211} < V_{311} = 0.03887 < 0.04302$$

$$C_{12} = V_{212} < V_{312} = 0.0455 < 0.0458$$

$$C_{12} = V_{213} < V_{313} = 0.04819 < 0.04831$$

$$C_{12} = V_{214} < V_{314} = 0.05454 < 0.05251$$

$$C_{12} = V_{215} < V_{315} = 0.05775 < 0.05484$$

$$C_{12} = V_{216} < V_{316} = 0.06161 < 0.05841$$



UNIVERSITAS ISLAM NEGERI
SUMATERA UTARA MEDAN

$$D_{24} = V_{21} < V_{41} = 0.00375 < 0.00349 \quad D_{24} = \{5, 7, 8, 9, 11\}$$

$$C_{12} = V_{22} < V_{42} = 0.00771 < 0.00693$$

$$C_{12} = V_{23} < V_{43} = 0.01149 < 0.01039$$

$$C_{12} = V_{24} < V_{44} = 0.0148 < 0.01429$$

$$C_{12} = V_{25} < V_{45} = 0.01804 < 0.01889$$

$$C_{12} = V_{26} < V_{46} = 0.0222 < 0.022$$

$$C_{12} = V_{27} < V_{47} = 0.02454 < 0.02574$$

$$C_{12} = V_{28} < V_{48} = 0.02911 < 0.02926$$

$$C_{12} = V_{29} < V_{49} = 0.03303 < 0.03319$$

$$C_{12} = V_{210} < V_{410} = 0.03643 < 0.03492$$

$$C_{12} = V_{211} < V_{411} = 0.03887 < 0.04025$$

$$C_{12} = V_{212} < V_{412} = 0.0455 < 0.0413$$

$$C_{12} = V_{213} < V_{413} = 0.04819 < 0.04685$$

$$C_{12} = V_{214} < V_{414} = 0.05454 < 0.04704$$

$$C_{12} = V_{215} < V_{415} = 0.05775 < 0.05193$$

$$C_{12} = V_{216} < V_{416} = 0.06161 < 0.05564$$



UNIVERSITAS ISLAM NEGERI
SUMATERA UTARA MEDAN

$$D_{31} = V_{31} < V_{11} = 0.00374 < 0.00372 \quad D_{31} = \{2, 3, 5, 15, 16\}$$

$$C_{12} = V_{32} < V_{12} = 0.00733 < 0.00743$$

$$C_{12} = V_{33} < V_{13} = 0.01108 < 0.01113$$

$$C_{12} = V_{34} < V_{14} = 0.01508 < 0.01464$$

$$C_{12} = V_{35} < V_{15} = 0.01821 < 0.01838$$

$$C_{12} = V_{36} < V_{16} = 0.022 < 0.022$$

$$C_{12} = V_{37} < V_{17} = 0.02715 < 0.02544$$

$$C_{12} = V_{38} < V_{18} = 0.03008 < 0.02918$$

$$C_{12} = V_{39} < V_{19} = 0.03319 < 0.03295$$

$$C_{12} = V_{310} < V_{110} = 0.03915 < 0.03643$$

$$C_{12} = V_{311} < V_{111} = 0.04302 < 0.0395$$

$$C_{12} = V_{312} < V_{112} = 0.0458 < 0.0438$$

$$C_{12} = V_{313} < V_{113} = 0.04831 < 0.04782$$

$$C_{12} = V_{314} < V_{114} = 0.05251 < 0.0515$$

$$C_{12} = V_{315} < V_{115} = 0.05484 < 0.0559$$

$$C_{12} = V_{316} < V_{116} = 0.05841 < 0.05948$$



UNIVERSITAS ISLAM NEGERI
SUMATERA UTARA MEDAN

$$D_{32} = V_{31} < V_{21} = 0.00374 < 0.00375 \quad D_{32} = \{1, 2, 3, 14, 15, 16\}$$

$$C_{12} = V_{32} < V_{22} = 0.00733 < 0.00771$$

$$C_{12} = V_{33} < V_{23} = 0.01108 < 0.01149$$

$$C_{12} = V_{34} < V_{24} = 0.01508 < 0.0148$$

$$C_{12} = V_{35} < V_{25} = 0.01821 < 0.01804$$

$$C_{12} = V_{36} < V_{26} = 0.022 < 0.0222$$

$$C_{12} = V_{37} < V_{27} = 0.02715 < 0.02454$$

$$C_{12} = V_{38} < V_{28} = 0.03008 < 0.02911$$

$$C_{12} = V_{39} < V_{29} = 0.03319 < 0.03303$$

$$C_{12} = V_{310} < V_{210} = 0.03915 < 0.03643$$

$$C_{12} = V_{311} < V_{211} = 0.04302 < 0.03887$$

$$C_{12} = V_{312} < V_{212} = 0.0458 < 0.0455$$

$$C_{12} = V_{313} < V_{213} = 0.04831 < 0.04819$$

$$C_{12} = V_{314} < V_{214} = 0.05251 < 0.05454$$

$$C_{12} = V_{315}, < V_{215} = 0.05484 < 0.05775$$

$$C_{12} = V_{316} < V_{216} = 0.05841 < 0.05841$$



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$$D_{34} = V_{31} < V_{41} = 0.00374 < 0.00349 \quad D_{34} = \{5\}$$

$$C_{12} = V_{32} < V_{42} = 0.00733 < 0.00693$$

$$C_{12} = V_{33} < V_{43} = 0.01108 < 0.01039$$

$$C_{12} = V_{34} < V_{44} = 0.01508 < 0.01429$$

$$C_{12} = V_{35} < V_{45} = 0.01821 < 0.01889$$

$$C_{12} = V_{36} < V_{46} = 0.022 < 0.022$$

$$C_{12} = V_{37} < V_{47} = 0.02715 < 0.02574$$

$$C_{12} = V_{38} < V_{48} = 0.03008 < 0.02926$$

$$C_{12} = V_{39} < V_{49} = 0.03319 < 0.03319$$

$$C_{12} = V_{310} < V_{410} = 0.03915 < 0.03492$$

$$C_{12} = V_{311} < V_{411} = 0.0430 < 0.04025$$

$$C_{12} = V_{312} < V_{412} = 0.0458 < 0.0413$$

$$C_{12} = V_{313} < V_{413} = 0.04831 < 0.04685$$

$$C_{12} = V_{314} < V_{414} = 0.05251 < 0.04704$$

$$C_{12} = V_{315} < V_{415} = 0.05484 < 0.05193$$

$$C_{12} = V_{316} < V_{416} = 0.05841 < 0.05564$$



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$$D_{41} = V_{41} < V_{11} = 0.00349 < 0.00372 \quad D_{41} = \{1, 2, 3, 4, 10, 12, 13, 14, 15, 16\}$$

$$C_{12} = V_{42} < V_{12} = 0.00693 < 0.00743$$

$$C_{12} = V_{43} < V_{13} = 0.01039 < 0.01113$$

$$C_{12} = V_{44} < V_{14} = 0.01429 < 0.01464$$

$$C_{12} = V_{45} < V_{15} = 0.01889 < 0.01838$$

$$C_{12} = V_{46} < V_{16} = 0.022 < 0.022$$

$$C_{12} = V_{47} < V_{17} = 0.02574 < 0.02544$$

$$C_{12} = V_{48} < V_{18} = 0.02926 < 0.02918$$

$$C_{12} = V_{49} < V_{19} = 0.03319 < 0.03295$$

$$C_{12} = V_{410} < V_{110} = 0.03492 < 0.03643$$

$$C_{12} = V_{411} < V_{111} = 0.04025 < 0.0395$$

$$C_{12} = V_{412} < V_{112} = 0.0413 < 0.0438$$

$$C_{12} = V_{413} < V_{113} = 0.04685 < 0.04782$$

$$C_{12} = V_{414} < V_{114} = 0.04704 < 0.0515$$

$$C_{12} = V_{415} < V_{115} = 0.05193 < 0.0559$$

$$C_{12} = V_{416} < V_{116} = 0.05564 < 0.05948$$



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$$D_{42} = V_{41} < V_{21} = 0.00349 < 0.00375 \quad D_{42} = \{1, 2, 3, 4, 10, 12, 13, 14, 15, 16\}$$

$$C_{12} = V_{42} < V_{22} = 0.00693 < 0.00771$$

$$C_{12} = V_{43} < V_{23} = 0.01039 < 0.01149$$

$$C_{12} = V_{44} < V_{24} = 0.01429 < 0.0148$$

$$C_{12} = V_{45} < V_{25} = 0.01889 < 0.01804$$

$$C_{12} = V_{46} < V_{26} = 0.022 < 0.0222$$

$$C_{12} = V_{47} < V_{27} = 0.02574 < 0.02454$$

$$C_{12} = V_{48} < V_{28} = 0.02926 < 0.02911$$

$$C_{12} = V_{49} < V_{29} = 0.03319 < 0.03303$$

$$C_{12} = V_{410} < V_{210} = 0.03492 < 0.03643$$

$$C_{12} = V_{411} < V_{211} = 0.04025 < 0.03887$$

$$C_{12} = V_{412} < V_{212} = 0.0413 < 0.0455$$

$$C_{12} = V_{413} < V_{213} = 0.04685 < 0.04819$$

$$C_{12} = V_{414} < V_{214} = 0.04704 < 0.05454$$

$$C_{12} = V_{415} < V_{215} = 0.05193 < 0.05775$$

$$C_{12} = V_{416} < V_{216} = 0.05564 < 0.06161$$



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SUMATERA UTARA MEDAN

$$D_{43} = V_{41} < V_{31} = 0.00349 < 0.00374 \quad D_{43} = \{1, 2, 3, 4, 7, 8, 10, 11, 12, 13, 14, 15, 16\}$$

$$C_{12} = V_{42} < V_{32} = 0.00693 < 0.00733$$

$$C_{12} = V_{43} < V_{33} = 0.01039 < 0.01108$$

$$C_{12} = V_{44} < V_{34} = 0.01429 < 0.01508$$

$$C_{12} = V_{45} < V_{35} = 0.01889 < 0.01821$$

$$C_{12} = V_{46} < V_{36} = 0.022 < 0.022$$

$$C_{12} = V_{47} < V_{37} = 0.02574 < 0.02715$$

$$C_{12} = V_{48} < V_{38} = 0.02926 < 0.03008$$

$$C_{12} = V_{49} < V_{39} = 0.03319 < 0.03319$$

$$C_{12} = V_{410} < V_{310} = 0.03492 < 0.03915$$

$$C_{12} = V_{411} < V_{311} = 0.04025 < 0.04302$$

$$C_{12} = V_{412} < V_{312} = 0.0413 < 0.0458$$

$$C_{12} = V_{413} < V_{313} = 0.04685 < 0.04831$$

$$C_{12} = V_{414} < V_{314} = 0.04704 < 0.05251$$

$$C_{12} = V_{415} < V_{315} = 0.05193 < 0.05484$$

$$C_{12} = V_{416} < V_{316} = 0.05564 < 0.05841$$



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Lampiran 7

Perhitungan Matriks *Concordance Index*

$$c_{14} = w_1 + w_2 + w_3 + w_4 + w_6 + w_{10} + w_{12} + w_{13} + w_{14} + w_{15} + w_{16}$$

$$\begin{aligned} c_{14} &= 0.00735 + 0.01471 + 0.02206 + 0.02941 + 0.0441 + 0.07353 + 0.0882 \\ &\quad + 0.09559 + 0.10294 + 0.11029 + 0.11765 = 0.70589 \end{aligned}$$

$$c_{21} = w_1 + w_2 + w_3 + w_4 + w_6 + w_9 + w_{10} + w_{12} + w_{13} + w_{14} + w_{15} + w_{16}$$

$$\begin{aligned} c_{21} &= 0.00735 + 0.01471 + 0.02206 + 0.02941 + 0.0441 + 0.06618 + 0.07353 \\ &\quad + 0.0882 + 0.09559 + 0.10294 + 0.11029 + 0.11765 = 0.77207 \end{aligned}$$

$$c_{23} = w_1 + w_2 + w_3 + w_6 + w_{14} + w_{15} + w_{16}$$

$$\begin{aligned} c_{23} &= 0.00735 + 0.01471 + 0.02206 + 0.0441 + 0.10294 + 0.11029 + 0.11765 \\ &= 0.4191 \end{aligned}$$

$$c_{24} = w_1 + w_2 + w_3 + w_4 + w_6 + w_{10} + w_{12} + w_{13} + w_{14} + w_{15} + w_{16}$$

$$\begin{aligned} c_{24} &= 0.00735 + 0.01471 + 0.02206 + 0.02941 + 0.0441 + 0.07353 + 0.0882 \\ &\quad + 0.09559 + 0.10294 + 0.11029 + 0.11765 = 0.70589 \end{aligned}$$

$$c_{31} = w_1 + w_4 + w_6 + w_7 + w_8 + w_9 + w_{10} + w_{12} + w_{13} + w_{14}$$

$$\begin{aligned} c_{31} &= 0.00735 + 0.02941 + 0.0441 + 0.05147 + 0.05882 + 0.06618 + 0.07353 \\ &\quad + 0.08088 + 0.0882 + 0.09559 + 0.10294 = 0.69853 \end{aligned}$$

$$c_{32} = w_4 + w_5 + w_6 + w_7 + w_8 + w_9 + w_{10} + w_{11} + w_{12} + w_{13}$$

$$\begin{aligned} c_{32} &= 0.02941 + 0.03676 + 0.0441 + 0.05147 + 0.05882 + 0.06618 + 0.07353 \\ &\quad + 0.08088 + 0.0882 + 0.09559 = 0.625 \end{aligned}$$

$$c_{34} = w_1 + w_2 + w_3 + w_4 + w_6 + w_7 + w_8 + w_9 + w_{10} + w_{11} + w_{12} + w_{13} + w_{14} + w_{15} + w_{16}$$

$$\begin{aligned} c_{34} &= 0.00735 + 0.01471 + 0.02206 + 0.02941 + 0.0441 + 0.05147 + 0.05882 \\ &\quad + 0.06618 + 0.07353 + 0.08808 + 0.0882 + 0.09559 + 0.10294 + 0.11029 \\ &\quad + 0.11765 = 0.96324 \end{aligned}$$

$$c_{41} = w_5 + w_6 + w_7 + w_8 + w_9 + w_{11}$$

$$c_{41} = 0.03676 + 0.0441 + 0.05147 + 0.05882 + 0.06618 + 0.08088$$

$$c_{41} = 0.33823$$

$$c_{42} = w_5 + w_6 + w_7 + w_8 + w_9 + w_{11}$$

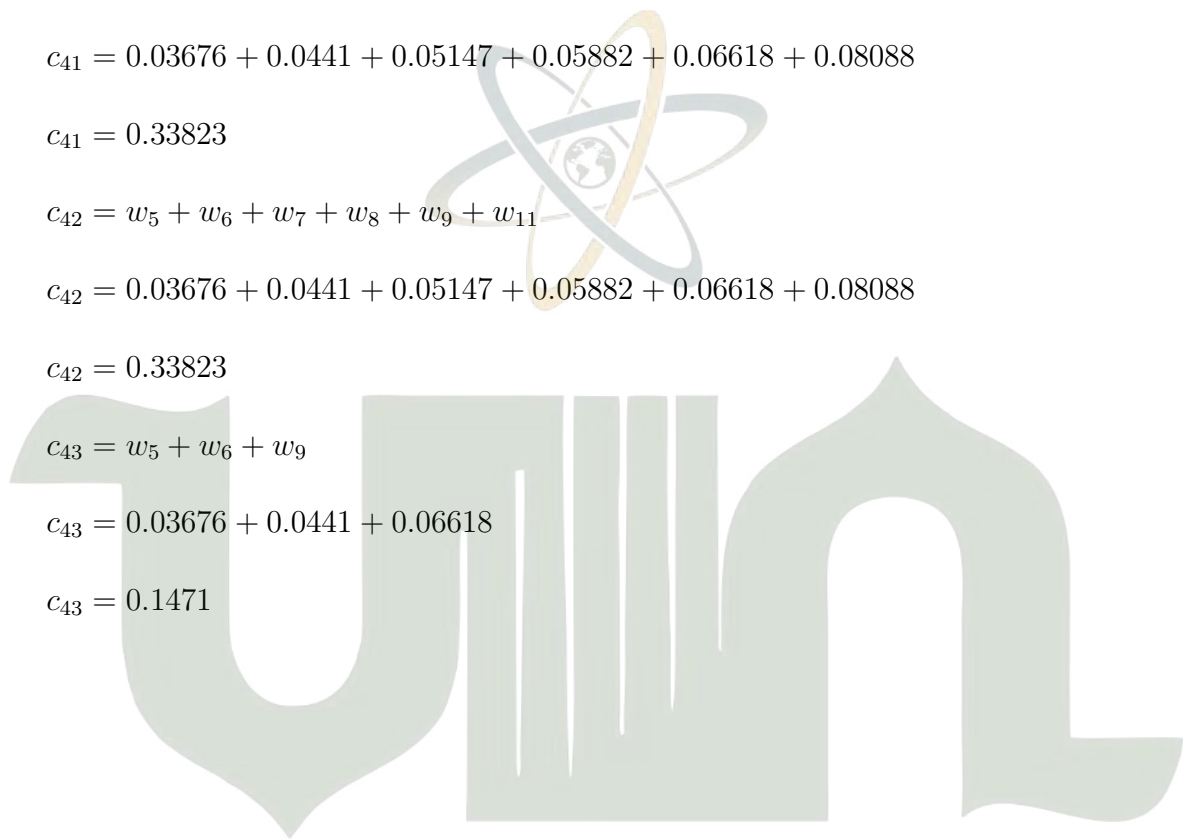
$$c_{42} = 0.03676 + 0.0441 + 0.05147 + 0.05882 + 0.06618 + 0.08088$$

$$c_{42} = 0.33823$$

$$c_{43} = w_5 + w_6 + w_9$$

$$c_{43} = 0.03676 + 0.0441 + 0.06618$$

$$c_{43} = 0.1471$$



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Lampiran 8

Perhitungan Matriks *Discordance Index*

$$d_{13} = \frac{\max\{|v_{1j}-v_{3j}|\}j \in D_{13}}{\max\{|v_{1j}-v_{3j}|\} \forall j}$$

$$= \frac{\max \left\{ \begin{array}{l} |0.00372 - 0.00374|; |0.01113 - 0.01108|; |0.01464 - 0.01508|; |0.02544 - 0.02715| \\ |0.02918 - 0.03008|; |0.03295 - 0.03319|; |0.03643 - 0.03915|; |0.0395 - 0.04302|; \\ |0.0438 - 0.0458|; |0.04782 - 0.04831|; |0.0515 - 0.05251| \end{array} \right\}}{\max \left\{ \begin{array}{l} |0.00372 - 0.00374|; |0.00743 - 0.00733|; |0.01113 - 0.01108|; |0.01464 - 0.01508|; \\ |0.01838 - 0.01821|; |0.022 - 0.022|; |0.02544 - 0.02715|; |0.02918 - 0.03008|; \\ |0.03295 - 0.03319|; |0.03643 - 0.03915|; |0.0395 - 0.04302|; |0.0438 - 0.0458|; \\ |0.04782 - 0.04831|; |0.0515 - 0.05251|; |0.0559 - 0.05484|; |0.05948 - 0.05564| \end{array} \right\}}$$

$$= \frac{0.0352}{0.0352} = 1$$

$$d_{14} = \frac{\max\{|v_{1j}-v_{4j}|\}j \in D_{14}}{\max\{|v_{1j}-v_{4j}|\} \forall j}$$

$$= \frac{\max \left\{ \begin{array}{l} |0.01838 - 0.01889|; |0.02544 - 0.02574|; |0.02918 - 0.02926|; \\ |0.03295 - 0.03319|; |0.0395 - 0.04025| \end{array} \right\}}{\max \left\{ \begin{array}{l} |0.00372 - 0.00349|; |0.00743 - 0.00693|; |0.01113 - 0.01039|; |0.01464 - 0.01429|; \\ |0.01838 - 0.01889|; |0.022 - 0.022|; |0.02544 - 0.02574|; |0.02918 - 0.02926|; \\ |0.03295 - 0.03319|; |0.03643 - 0.03492|; |0.0395 - 0.04025|; |0.0438 - 0.0413|; \\ |0.04782 - 0.04685|; |0.0515 - 0.04704|; |0.0559 - 0.05193|; |0.05948 - 0.05564| \end{array} \right\}}$$

$$= \frac{0.00075}{0.00446} = 0.16816$$

$$d_{21} = \frac{\max\{|v_{2j}-v_{1j}|\}j \in D_{21}}{\max\{|v_{2j}-v_{1j}|\} \forall j}$$

$$= \frac{\max\{|0.01804-0.01838|;|0.02454-0.02544|;|0.02911-0.02918|;|0.03887-0.0395|\}}{\max \left\{ \begin{array}{l} |0.00375 - 0.00372|; |0.00771 - 0.00743|; |0.01149 - 0.01113|; |0.0148 - 0.01464|; \\ |0.01804 - 0.01838|; |0.0222 - 0.022|; |0.02454 - 0.02544|; |0.02911 - 0.02918|; \\ |0.03303 - 0.03295|; |0.03643 - 0.03643|; |0.03887 - 0.0395|; |0.0455 - 0.0438|; \\ |0.047819 - 0.04782|; |0.05454 - 0.0515|; |0.05775 - 0.0559|; |0.06161 - 0.05948| \end{array} \right\}}$$

$$= \frac{0.00063}{0.0304} = 0.29605$$

$$d_{23} = \frac{\max\{|v_{2j}-v_{3j}|\}j \in D_{23}}{\max\{|v_{2j}-v_{3j}|\} \forall j}$$

$$= \frac{\max\{|0.01804-0.01838|;|0.02454-0.02544|;|0.02911-0.02918|;|0.03887-0.0395|\}}{\max \left\{ \begin{array}{l} |0.00375 - 0.00374|; |0.00771 - 0.00733|; |0.01149 - 0.01108|; |0.0148 - 0.01508|; \\ |0.01804 - 0.01821|; |0.0222 - 0.022|; |0.02454 - 0.02715|; |0.02911 - 0.03008|; \\ |0.03303 - 0.03319|; |0.03643 - 0.03915|; |0.03887 - 0.04302|; |0.0455 - 0.0458|; \\ |0.047819 - 0.04831|; |0.05454 - 0.05251|; |0.05775 - 0.05484|; |0.06161 - 0.05841| \end{array} \right\}}$$

$$= \frac{0.00415}{0.00415} = 1$$

$$d_{24} = \frac{\max\{|v_{2j}-v_{4j}|\}j \in D_{24}}{\max\{|v_{2j}-v_{4j}|\} \forall j}$$

$$= \frac{\max \left\{ \begin{array}{l} |0.01804 - 0.01889|; |0.02454 - 0.02574|; |0.02911 - 0.02926|; \\ |0.03303 - 0.03319|; |0.03887 - 0.04025| \end{array} \right\}}{\max \left\{ \begin{array}{l} |0.00375 - 0.00349|; |0.00771 - 0.00693|; |0.01149 - 0.01039|; |0.0148 - 0.01429|; \\ |0.01804 - 0.01889|; |0.0222 - 0.022|; |0.02454 - 0.02574|; |0.02911 - 0.02926|; \\ |0.03303 - 0.03319|; |0.03643 - 0.03492|; |0.03887 - 0.04025|; |0.0455 - 0.0413|; \\ |0.047819 - 0.04685|; |0.05454 - 0.04704|; |0.05775 - 0.05193|; |0.06161 - 0.05564| \end{array} \right\}}$$

$$= \frac{0.00138}{0.00597} = 0.23116$$

$$\begin{aligned}
d_{31} &= \frac{\max\{|v_{3j}-v_{1j}|\}j \in D_{31}}{\max\{|v_{3j}-v_{1j}|\} \forall j} \\
&= \frac{\max\left\{ \begin{array}{l} |0.00733 - 0.00743|; |0.01108 - 0.01113|; |0.01821 - 0.01838|; \\ |0.05484 - 0.0559|; |0.05841 - 0.05948| \end{array} \right\}}{\max\left\{ \begin{array}{l} |0.00374 - 0.00372|; |0.00733 - 0.00743|; |0.01108 - 0.01113|; |0.01508 - 0.01464|; \\ |0.01821 - 0.01838|; |0.022 - 0.022|; |0.02715 - 0.02544|; |0.03008 - 0.02918|; \\ |0.03319 - 0.03295|; |0.03915 - 0.03643|; |0.04302 - 0.0395|; |0.0458 - 0.0438|; \\ |0.04831 - 0.04782|; |0.05251 - 0.0515|; |0.05484 - 0.0559|; |0.05841 - 0.05948| \end{array} \right\}} \\
&= \frac{0.00107}{0.00352} = 0.30398
\end{aligned}$$

$$\begin{aligned}
d_{32} &= \frac{\max\{|v_{3j}-v_{2j}|\}j \in D_{32}}{\max\{|v_{3j}-v_{2j}|\} \forall j} \\
&= \frac{\max\left\{ \begin{array}{l} |0.00374 - 0.00375|; |0.00733 - 0.00771|; |0.01108 - 0.01149|; \\ |0.05251 - 0.05454|; |0.05484 - 0.05775|; |0.05841 - 0.06161| \end{array} \right\}}{\max\left\{ \begin{array}{l} |0.00374 - 0.00375|; |0.00733 - 0.00771|; |0.01108 - 0.01149|; |0.01508 - 0.0148|; \\ |0.01821 - 0.01804|; |0.022 - 0.0222|; |0.02715 - 0.02454|; |0.03008 - 0.02911|; \\ |0.03319 - 0.03303|; |0.03915 - 0.03643|; |0.04302 - 0.03887|; |0.0458 - 0.0455|; \\ |0.04831 - 0.04819|; |0.05251 - 0.05454|; |0.05484 - 0.05775|; |0.05841 - 0.06161| \end{array} \right\}} \\
&= \frac{0.0032}{0.00415} = 0.77108
\end{aligned}$$

$$\begin{aligned}
d_{34} &= \frac{\max\{|v_{3j}-v_{4j}|\}j \in D_{34}}{\max\{|v_{3j}-v_{4j}|\} \forall j} \\
&= \frac{\max\{|0.01821 - 0.01889|\}}{\max\left\{ \begin{array}{l} |0.00374 - 0.00349|; |0.00733 - 0.00693|; |0.01108 - 0.01039|; |0.01508 - 0.01429|; \\ |0.01821 - 0.01889|; |0.022 - 0.022|; |0.02715 - 0.02574|; |0.03008 - 0.02926|; \\ |0.03319 - 0.03319|; |0.03915 - 0.03492|; |0.04302 - 0.04025|; |0.0458 - 0.0413|; \\ |0.04831 - 0.04685|; |0.05251 - 0.04704|; |0.05848 - 0.05193|; |0.05841 - 0.05564| \end{array} \right\}} \\
&= \frac{0.00068}{0.00547} = 0.12431
\end{aligned}$$

$$\begin{aligned}
d_{41} &= \frac{\max\{|v_{4j}-v_{1j}|\}j \in D_{41}}{\max\{|v_{4j}-v_{1j}|\} \forall j} \\
&= \frac{\max\left\{ \begin{array}{l} |0.00349 - 0.00372|; |0.00693 - 0.00743|; |0.01039 - 0.01113|; |0.01429 - 0.01464| \\ |0.03492 - 0.03643|; |0.0413 - 0.0438|; |0.04831 - 0.04782|; |0.005251 - 0.00515| \\ |0.05193 - 0.05529|; |0.05564 - 0.05948| \end{array} \right\}}{\max\left\{ \begin{array}{l} |0.00349 - 0.00372|; |0.00693 - 0.00743|; |0.01039 - 0.01113|; |0.01429 - 0.01464|; \\ |0.01889 - 0.01838|; |0.022 - 0.022|; |0.02574 - 0.02544|; |0.02926 - 0.02918|; \\ |0.03319 - 0.03295|; |0.03492 - 0.03643|; |0.04025 - 0.0395|; |0.0413 - 0.0438|; \\ |0.04685 - 0.04782|; |0.04704 - 0.0515|; |0.05193 - 0.0559|; |0.05564 - 0.05948| \end{array} \right\}} \\
&= \frac{0.00446}{0.00446} = 1
\end{aligned}$$

$$\begin{aligned}
d_{42} &= \frac{\max\{|v_{4j}-v_{2j}|\}j \in D_{42}}{\max\{|v_{4j}-v_{2j}|\} \forall j} \\
&= \frac{\max\left\{ \begin{array}{l} |0.00349 - 0.00375|; |0.00693 - 0.00771|; |0.01039 - 0.01149|; |0.01429 - 0.0148| \\ |0.03492 - 0.03643|; |0.0413 - 0.0438|; |0.04685 - 0.04819|; |0.004704 - 0.005454| \\ |0.05193 - 0.05775|; |0.05564 - 0.06161| \end{array} \right\}}{\max\left\{ \begin{array}{l} |0.00349 - 0.00375|; |0.00693 - 0.00771|; |0.01039 - 0.01149|; |0.01429 - 0.0148|; \\ |0.01889 - 0.01804|; |0.022 - 0.0222|; |0.02574 - 0.02454|; |0.02926 - 0.02911|; \\ |0.03319 - 0.03303|; |0.03492 - 0.03643|; |0.04025 - 0.03887|; |0.0413 - 0.0455|; \\ |0.04685 - 0.04819|; |0.04704 - 0.05454|; |0.05193 - 0.05775|; |0.05564 - 0.06161| \end{array} \right\}} \\
&= \frac{0.00597}{0.00597} = 1
\end{aligned}$$

$$\begin{aligned}
d_{43} &= \frac{\max\{|v_{4j}-v_{3j}|\}j \in D_{43}}{\max\{|v_{4j}-v_{3j}|\} \forall j} \\
&= \frac{\max \left\{ \begin{array}{l} |0.00349 - 0.00374|; |0.00693 - 0.00733|; |0.01039 - 0.01108|; |0.01429 - 0.01508|; \\ |0.02574 - 0.02715|; |0.02926 - 0.03008|; |0.03492 - 0.03915|; |0.04025 - 0.04302|; \\ |0.0413 - 0.0458|; |0.04685 - 0.04831|; |0.04704 - 0.05251|; |0.05193 - 0.05484|; \\ |0.05564 - 0.05841| \end{array} \right\}}{\max \left\{ \begin{array}{l} |0.00349 - 0.00374|; |0.00693 - 0.00733|; |0.01039 - 0.01108|; |0.01429 - 0.01508|; \\ |0.01889 - 0.01821|; |0.022 - 0.022|; |0.02574 - 0.02715|; |0.02926 - 0.03008|; \\ |0.03319 - 0.03319|; |0.03492 - 0.03915|; |0.04025 - 0.04302|; |0.0413 - 0.0458|; \\ |0.04685 - 0.04831|; |0.04704 - 0.05251|; |0.05193 - 0.05484|; |0.05564 - 0.05841| \end{array} \right\}} \\
&= \frac{0.00547}{0.00547} = 1
\end{aligned}$$



UNIVERSITAS ISLAM NEGERI
SUMATERA UTARA MEDAN

Lampiran 9

Surat Izin Penelitian



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Jl. Williem Iskandar Pasar V Medan Estate 20371
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Nomor : B.631/ST.I/ST.V.2/TL.00/05/2022

25 Mei 2022

Lampiran : -

Hal : Izin Riset

Yth. Bapak/Ibu Kepala Kantor Kelurahan Rengas Pulau

Assalamualaikum Wr. Wb.

Dengan Hormat, diberitahukan bahwa untuk mencapai gelar Sarjana Strata Satu (S1) bagi Mahasiswa Fakultas Sains dan Teknologi adalah menyusun Skripsi (Karya Ilmiah), kami tugaskan mahasiswa:

Nama : Nabila Fazariani
NIM : 0703171007
Tempat/Tanggal Lahir : Medan, 03 September 1999
Program Studi : Matematika
Semester : X (Sepuluh)
Alamat : JL.MARELAN V Prs.II BARAT Gg.TRUBUS Kelurahan RENGAS PULAU Kecamatan MEDAN MARELAN

Untuk hal dimaksud kami mohon memberikan Izin dan bantuannya terhadap pelaksanaan Riset di Jl. Kapten Rahmad Buddin No. 21. Rengas Pulau, Kec. Medan Marelان, guna memperoleh informasi/keterangan dan data-data yang berhubungan dengan Skripsi (Karya Ilmiah) yang berjudul:

Faktor-Faktor Yang Mempengaruhi Pemilihan Sabun Mandi Dengan Menggunakan Metode Elimination Et Choix Traduisant La Realite II Di Kelurahan Rengas Pulau

Demikian kami sampaikan, atas bantuan dan kerjasamanya diucapkan terima kasih.

Medan, 25 Mei 2022

a.n. DEKAN
Wakil Dekan Bidang Akademik dan Kelembagaan



Digitally Signed
Dr. Abdul Halim Daulay, ST., M.Si
NIP. 198111062005011003

Tembusan:

- Dekan Fakultas Sains dan Teknologi UIN Sumatera Utara Medan

Lampiran 10

Rancangan Kuisioner

KUESIONER
FAKTOR-FAKTOR YANG MEMPENGARUHI PEMILIHAN SABUN MANDI
DENGAN MENGGUNAKAN METODE *ELIMINATION ET CHOIX TRADUISANT*
***LA REALITE II* DI KELURAHAN RENGAS PULAU**
(Studi Penelitian Pada Pemilihan Sabun Mandi Berdasarkan Kriteria)

Kepada Yth

Bapak/ Ibu/ Saudara.

Masyarakat Kelurahan Rengas Pulau

Di

Tempat

Assalaamu'alaikum warahmatullahi wabarakatuh

Dengan Hormat,

Dalam rangka penelitian untuk keperluan skripsi yang berjudul "Faktor-Faktor Yang Mempengaruhi Pemilihan Sabun Mandi Dengan Menggunakan Metode *Elimination Et Choix Traduisant La Realite II* di Kelurahan Rengas Pulau", bersama dengan ini saya:

Nama : Nabila Fazariani

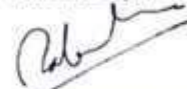
Fakultas/Universitas : Sains dan Teknologi/ Universitas Islam Negeri Sumatera Utara

Memohon bantuan kepada Bapak/Ibu/Saudara masyarakat Kelurahan Rengas Pulau untuk mengisi kuisioner yang disediakan dalam rangka mendukung penelitian ini. Tujuan dari penelitian ini adalah menerapkan Metode *Elimination et Choix Traduisant la Realite II* untuk memperoleh peringkat faktor-faktor pemilihan sabun mandi di Kelurahan Rengas Pulau. Jawaban yang obyektif akan sangat membantu penelitian ini. Segala bentuk jawaban Bapak/Ibu/Saudara akan dijaga kerahasiaannya. Atas perhatian dan bantuannya saya sampaikan terima kasih.

Wassalaamu'alaikum warahmatullahi wabarakatuh

UNIVERSITAS ISLAM NEGERI
SUMATERA UTARA MEDAN

Hormat Saya,



Nabilla Fazariani
NIM.0703171007