

WEB APPENDIX

A Clusterwise Bilinear Multidimensional Scaling Methodology for Simultaneous Segmentation and Positioning Analyses

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Supplementary Figures and Tables: MULTICLUS Analysis

FIGURE W1

MULTICLUS SOLUTION: DIMENSIONS I vs. II

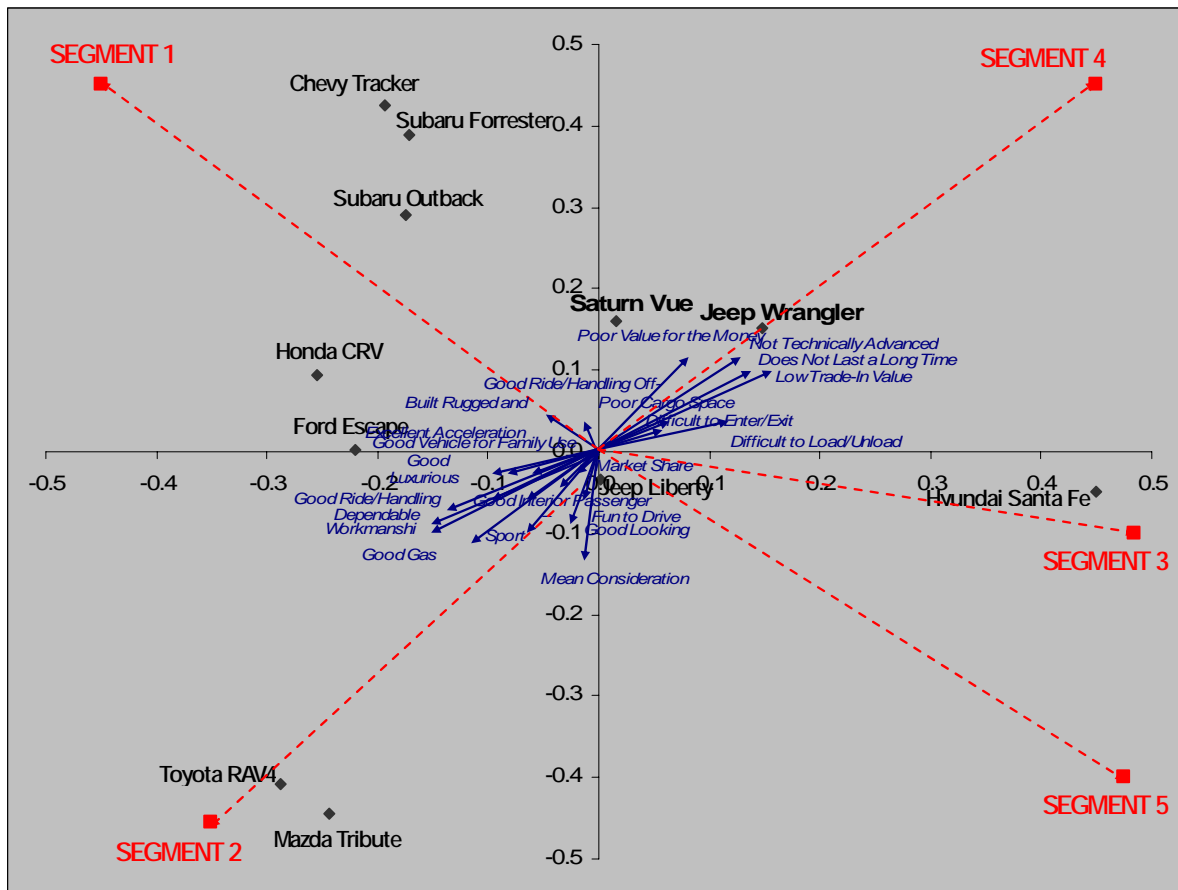


TABLE W1

MULTICLUS Results for the Small SUV Application

<i>R= Number of Dimensions</i>	<i>S=Number of Clusters</i>	<i>Number of Iterations</i>	<i>Log Likelihood</i>	<i>Number of Parameters</i>	<i>Akaike's Information Criterion</i>	<i>Bayesian Information Criterion</i>	<i>Consistent Akaike Information Criterion</i>	<i>Variance Accounted For</i>	<i>Entropy</i>
1	1	2	-4527.853	23	9124.705	9242.044	9265.044	0.046	1.000
1	2	20	-4385.374	36	8878.749	9062.409	9098.409	0.054	0.726
1	3	23	-4247.741	49	8642.482	8892.464	8941.464	0.057	0.869
1	4	22	-4232.299	62	8650.597	8966.901	9028.901	0.058	0.683
1	5	39	-4205.378	75	8635.757	9018.383	9093.383	0.087	0.690
2	2	24	-4139.583	48	8423.166	8668.046	8716.046	0.085	0.961
2	3	21	-3933.670	62	8053.341	8369.645	8431.645	0.161	0.892
2	4	34	-3927.840	76	8083.680	8471.407	8547.407	0.102	0.936
2	5	15	-3826.420	90	7922.841	8381.992	8471.992	0.106	0.999
3	3	77	-3828.528	74	7879.055	8256.579	8330.579	0.164	0.907
3	4	92	-3796.645	89	7860.290	8314.339	8403.339	0.156	0.937
3	5	48	-3661.448	104	7634.895	8165.470	8269.470	0.187	0.910
3	4	84	-3572.821	101	7448.642	7963.911	8064.911	0.201	0.937
*4	5	15	-3523.856	117	7398.712	7995.608	8112.608	0.242	0.915
5	5	25	-3499.933	129	7386.866	8044.982	8173.982	0.208	0.955

*** Selected as the most parsimonious solution**

TABLE W2**Attribute Correlations with MULTICLUS Dimensions**

<i>Attribute</i>	<i>Dimensions</i>			
	<i>I</i>	<i>II</i>	<i>III</i>	<i>IV</i>
Gas Mileage	-0.380	-0.373	-0.110	-0.492
Value for the Money	-0.275	-0.385	-0.289	-0.386
Workmanship	-0.510	-0.312	-0.185	-0.127
Good Ride/Handling	-0.476	-0.232	-0.384	-0.320
Easy to Load/Unload	-0.396	-0.116	-0.553	-0.051
Luxurious	-0.220	-0.225	-0.403	-0.249
Good Safety	-0.323	-0.116	-0.368	-0.354
Ride/Handling Off-Road	-0.049	0.125	-0.118	0.488
Built Rugged and Tough	-0.153	0.142	-0.148	0.426
Reasonably Priced	0.408	-0.085	-0.246	-0.714
Sporty	-0.207	-0.316	-0.176	0.527
Good Looking	-0.094	-0.289	-0.401	0.261
Good Vehicle for Family Use	-0.200	-0.086	-0.479	-0.366
Fun to Drive	-0.051	-0.206	-0.259	0.437
Interior Passenger Room	-0.110	-0.135	-0.552	-0.342
Easy to Enter/Exit	-0.197	-0.078	-0.559	-0.127
Dependable	-0.489	-0.273	-0.256	-0.056
Excellent Acceleration	-0.273	-0.090	-0.443	0.093
Cargo Space	-0.225	-0.096	-0.512	-0.305
Lasts a Long Time	-0.468	-0.333	-0.189	0.012
Prestigious	-0.331	-0.191	-0.295	0.052
Technically Advanced	-0.436	-0.366	-0.286	-0.143
High Trade-In Value	-0.527	-0.324	-0.214	-0.011
Mean Consideration	-0.011	-0.433	-0.769	0.497
Market Share	-0.072	-0.097	-0.576	0.207

TABLE W3

Canonical Correlations of Brand Coordinates of Clusterwise Dimensions with MULTICLUS Dimensions

<i>Factor 1</i>		<i>Factor 2</i>		<i>Factor 3</i>		<i>Factor 4</i>	
Canonical Correlation:							
0.929*		0.788*		0.528		0.412	
Canonical Coefficients:							
<i>Clusterwise</i>	<i>MULTICLUS</i>	<i>Clusterwise</i>	<i>MULTICLUS</i>	<i>Clusterwise</i>	<i>MULTICLUS</i>	<i>Clusterwise</i>	<i>MULTICLUS</i>
-0.052	-0.350	-0.835	0.600	0.974	-0.988	0.485	1.000
0.305	0.580	1.000	0.462	1.000	-0.810	-0.286	-0.995
0.340	1.000	0.434	-0.080	-0.694	0.125	1.000	0.887
1.000	0.092	-0.050	1.000	0.354	1.000	-0.582	-0.187

*p ≤ 0.05

TABLE W4**Predicted MULICLUS Utility Scores**

<i>Brand</i>	<i>Segment</i>				
	<i>I</i>	<i>II</i>	<i>III</i>	<i>IV</i>	<i>V</i>
Chevy Tracker	-0.490	-0.884	-0.349	0.165	-0.022
Jeep Wrangler	0.102	-0.405	0.430	0.257	0.588
Hyundai Santa Fe	-0.057	-0.655	1.446	0.195	1.228
Subaru Outback	0.147	-0.220	-0.415	-0.062	-0.588
Toyota Rav4	-0.571	0.685	-0.356	-0.004	0.294
Honda CRV	0.776	0.550	-0.385	-0.038	-0.575
Ford Escape	0.907	0.764	-0.327	-0.084	-0.607
Subaru Forrester	0.591	-0.172	-0.231	0.118	-0.343
Mazda Tribute	-0.580	0.791	-0.330	-0.078	0.222
Saturn Vue	-0.574	-0.542	-0.324	-0.250	-0.594
Jeep Liberty	-0.029	-0.065	0.302	0.314	0.795