

“The Last Ride”



Vehicle Model Segmentation Analysis

Marketing 381, Group Project #6

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1-Seat All Electric Motorcycle

Rank	Variable	VIF Statistic	Standardized Beta Coefficient	Interpretation
1	Gender** (most important)	1.967	-.512	The 1-seat all electric motorcycle is heavily skewed toward males.
2	Level of Education	3.948	-.264	The desire for the 1-seat all electric motorcycle is skewed to those with less education.
3	Age Category	1.985	-.228	The desire for the 1-seat all electric motorcycle is higher for those who are younger.
4	Gasoline emissions	3.835	.184	The desire for the 1-seat all electric motorcycle is higher for those who believe that gasoline emissions have an effect on global warming.
5	Size of home town	1.187	.109	The desire for the 1-seat all electric motorcycle is higher for those in a larger hometown.
6	Marital Status* (least important)	1.150	-.086	The 1-seat all electric motorcycle is slightly skewed toward unmarried individuals.

Data from table 1a in the Appendix - All data sig. values are <0.05

*(Dummy variable coded 0= unmarried and 1= married)

** (Dummy variable coded 0= male and 1=female)

Ranking: 1= most important 6= least important

Null Hypothesis (Ho): There is no linear relationship present among the independent variables and the dependent variable. (REJECT)

Alternate Hypothesis (Ha): There is a linear relationship present among the independent variables and the dependent variable. (ACCEPT)

- All independent variable sig values are <.05 signifying there is a low probability of the null hypothesis being true.

Marketing Implications:

- If Auto Concepts decides to move forward with the production of the 1-seat all electric motorcycle vehicle model, the target market should be Men who have a lower level of education, are young, and believe gasoline emissions have an effect on global warming.
- The most important demographics when determining the target market and who to target with promotions and vehicle features in order of significance are gender, education and age category, as the standardized beta coefficients are significantly larger than all other tested variables.
- The least important factors when determining the target market for the 1-seat all electric motorcycle are size of hometown and marital status. It is recommended to not invest the majority of promotion towards these two demographics.
- “Gender” is the most important variable, and is 48.4% more important than “Level of Education”.
- “Level of Education” is the second most important variable, and is 13.6% more important than “Age Category”
- “Age Category” is the third most important variable, and is 19.3% more important than “Gasoline Emissions”.

Interpretation of Adjusted R₂: (Refer to Table 1c of Appendix)

Adjusted R₂= .217

- The Adjusted R-squared value indicates the strength of relationship between the independent variables and dependent variables (1-seat all electric motorcycle) on a 0 to 1.0 scale.
- A .217 adjusted R-squared value signifies that there is a minor linear relationship present.
 - The R-squared value is not greater than 0.5 on the 1.0 scale therefore it is inappropriate to say there is a strong relationship present.

Untrimmed Data:

First the linear regression was run using a total of 9 independent variables, this resulted in untrimmed data. The independent variables tested are listed below:

- Age, gender, marital status, level of education, income, size of hometown, and number of people in the household. There were also 2 attitude focused independent variables: are you concerned about global warming, and do you think gasoline emissions contribute to global warming.
- After running all the independent variables the decision of keeping the variable or not is based on the sig value in the correlation table; this can be seen in table 1a of the appendix. If the sig value is GREATER than .05 we remove or “trim” that

independent variable from the data, and rerun the regression test with the remaining variables.

Trimmed Data:

After evaluating the sig values from the regression test, 3 independent variables were removed. These variables were:

- Income category, number of people in the household, and I am worried about global warming.
- These 3 variables had sig values that were greater than .05 therefore the independent variable is NOT statistically significant.
- All of the variables included in the table above (after trimming variables and removing them from the test) have a sig value of less than .05 making them statistically significant.

Interpretation of VIF (variable inflation factor):

- Because all independent variable outputs have a VIF of under 10, Multicollinearity is not a concern in our findings.
 - It is important to note that “Level of Education” (3.948) and “Gasoline Emissions” (3.835) have the highest amount of multicollinearity.
 - All other variables’ VIF statistics fall within a range of 1.1 to 1.99.

What is VIF?:

- VIF (Variance inflation factor) is used to assess and eliminate multicollinearity. If an independent variable does contribute to multicollinearity (VIF is 10 or higher), it needs to be removed from the data set. A standard VIF result we are looking for in our data is around 2.5. Nearly all independent variables fall around the sweet spot of 2.5 with none getting close to 10. For this reason we can be certain none of our independent variables are impacting each other and that multicollinearity is not a concern.

What is multicollinearity?:

- Multicollinearity occurs when two or more independent variables impact each other leading to less reliable statistical data because the independent variables are not just interacting with the dependent variable (the vehicle), but each other.

2 Seat Runabout Sport Electric

Rank	Variable	VIF Statistic	Standardized Beta Coefficient	Interpretation
1	Gasoline Emissions (most important)	4.113	-.623	The desire for the 2-seat runabout sport electric is <u>higher</u> for those who believe that gasoline emissions do not have an effect on global warming.
2	Worried About Global Warming	3.426	.415	Individuals who <u>are worried</u> about global warming find this model more desirable.
3	Size of Hometown	1.225	.374	The desire for this vehicle model is <u>higher for those in a larger hometown.</u>
4	Marital Status*	1.143	.313	This vehicle model's target market is skewed toward <u>married</u> individuals.
5	Gender**	2.044	-.172	This vehicle model's target market is skewed toward <u>males.</u>
6	Income	1.929	-.123	The desire for this vehicle model is higher for those with a <u>lower income.</u>
7	Age (least important)	2.361	-.112	The desire for this vehicle model is higher for those who are <u>younger.</u>

Data from table 2c in the Appendix - All sig. values are <0.05, therefore they are significant.

*(Dummy variable coded 0= unmarried and 1= married)

** (Dummy variable coded 0= male and 1=female)

Ranking: 1= most important 7= least important

Null Hypothesis (Ho): There is no linear relationship present among the independent variables and the dependent variable. (REJECT)

Alternate Hypothesis (Ha): There is a linear relationship present among the independent variables and the dependent variable. (ACCEPT)

- The model (from table 2d in appendix) sig value is $<.05$ signifying there is a low probability of the null hypothesis being true.

Marketing Implications:

- If Auto Concepts decides to move further with production of the 2-seat runabout sport electric vehicle model then the ideal target market would consist of younger men who do not believe gasoline emissions contribute to global warming, but are worried about global warming, have a lower income, live in a larger hometown, and are married.
- The most important demographics when determining the target market and when investing in promotions are; gasoline emissions contribute to global warming, and I am worried about global warming. This is because these two categories have a significantly larger standardized beta coefficient than all other variables.
- Since the two most important demographics are “gasoline emissions contribute to global warming”, and “I am worried about global warming”, in order to ensure promoting this model to the ideal target market, it is recommended that more data should be collected as to what individuals think contributes to global warming other than gasoline emissions. This will help better understand the target market's feelings and attitudes about global warming.
- “Gasoline Emissions” is the most important variable, it is 1.5 times or 33.4% more important than “Worried About Global Warming.”
- “Gasoline Emissions” , the most important variable, is 6 times or 82% more important than the lowest ranked variable “Age.”
- The least important demographics when determining the target market for the 2 seat runabout sport electric are income and age, since these two categories have the lowest standardized beta coefficient. It is recommended to not invest the majority of promotion to target towards these demographics.

Untrimmed Data:

First the linear regression was run using a total of 9 independent variables, this resulted in untrimmed data. The independent variables tested are listed below:

- Age, gender, marital status, level of education, income, size of hometown, and number of people in household. There were also 2 attitude focused independent variables: are you concerned about global warming, and do you think gasoline emissions contribute to global warming.
- After running all the independent variables the decision of keeping the variable or not is based on the sig value in the correlation table; this can be seen in table 2a of the appendix. If the sig value is GREATER than .05 we remove or “trim” that independent variable from the data, and rerun the regression test with the remaining variables.

Trimmed Data:

After evaluating the sig values from the regression test, 2 independent variables were removed. These variables were:

- Number of people in household AND level of education.
- These 2 variables had sig values that were greater than .05 therefore the independent variable is NOT statistically significant.
- All of the variables included in the table above (after trimming variables and removing them from the test) have a sig value of less than .05 making them statistically significant.

Interpretation of Adjusted R₂: (Refer to Table 2c of Appendix)

Adjusted R₂= .418

- The Adjusted R-squared value indicates the strength of relationship between the independent variables and dependent variables (2-seat Runabout Sport Electric) on a 0 to 1.0 scale.
- A .418 adjusted R-squared value signifies that there is some linear relationship present.
 - The R-squared value is not greater than 0.5 on the 1.0 scale therefore it is inappropriate to say there is a strong relationship present.

Interpretation of VIF Statistics:

- The VIF Statistic is a measure of the amount of multicollinearity among variables
- Multicollinearity must be avoided when testing regression because it violates the independence assumption of multiple regression.
- Multicollinearity is not a concern for any of the independent variables as none of the VIF statistics exceed a value of 10.
 - It is important to note that “Gasoline Emissions” (4.113) and “Worried About Global Warming” (3.426) have the highest amount of multicollinearity.
 - All other variables’ VIF statistics fall within a range of 1.1 to 2.4.

2 Seat Runabout Hatchback

Rank	Variable	VIF Statistic	Standardized Beta Coefficient	Interpretation
1	Age Category (most important)	2.372	-0.607	Age is the most significant of the independent variables indicating the desire for this vehicle is higher for younger people (x more important)
2	Gasoline Emissions	4.860	0.581	There is a higher desire for the vehicle from those who are concerned with gasoline emissions
3	Level of Education	5.293	0.387	There is greater desire for the vehicle amongst those with a higher level of education
4	Gender	2.088	-0.380	This vehicle model's target market is skewed towards males
5	Worried About Global Warming	4.342	-0.303	There is greater desirability from those who are less concerned about global warming
6	Income (least important)	2.069	-0.184	There is greater desirability for the vehicle amongst those with a lower income

Data from table 3b in the Appendix - All sig. values are <0.05, therefore they are significant.

*(Dummy variable coded 0= unmarried and 1= married)

** (Dummy variable coded 0= male and 1=female)

Ranking: 1= most important 6= least important

Null Hypothesis (Ho): There is no linear relationship present among the independent variables and the dependent variable. (REJECT)

Alternate Hypothesis (Ha): There is a linear relationship present among the independent variables and the dependent variable. (ACCEPT)

- All independent variable sig values are <.05 signifying there is a low probability of the null hypothesis being true.

Marketing Implications:

- If Auto Concepts decides to move further with production of the 2-seat runabout hatchback vehicle model then the target market should consist of younger men with a higher level of education and a lower income who are concerned about gasoline emissions but less concerned about global warming
 - Because the target market believes that gasoline emissions do contribute to global warming but aren't as worried about global warming, we recommend further research into the target markets feelings about global warming as well as what they believe contributes to it
- The most important demographics when determining the target market and when investing in promotions are the age category, the concern about gasoline emissions, and the level of education. This is because these two categories have a significantly larger standardized beta coefficient than all other variables.
 - "Age Category" is the most important variable and is 4.3% more important than the second ranked variable "Gasoline Emissions"
- The least important demographics when determining the target market for the 2 seat runabout hatchback are those who are worried about global warming and income levels. Since these two categories have the lowest standardized beta coefficient, it is recommended to not invest the majority of promotion to target towards these demographics.
 - "Income Levels" is the least important variable and is 69.7% less important than the most important variable "Age Category"

Untrimmed Data:

The linear regression was run using a total of 9 independent variables, which resulted in untrimmed data. The independent variables tested are listed below:

- Age, gender, marital status, level of education, income, size of hometown, and number of people in household. There were also 2 attitude focused independent variables: are you concerned about global warming, and do you think gasoline emissions contribute to global warming.
- After running all the independent variables the decision of keeping the variable or not is based on the sig value in the correlation table; this can be seen in table 3a of the appendix. If the sig value is GREATER than .05 we remove or "trim" that independent variable from the data, and rerun the regression test with the remaining variables.

Trimmed Data:

After evaluating the sig values from the regression test, 2 independent variable was removed. These variable was:

- Hometown Size and Marital Status
- These variables had a sig value that was greater than .05 therefore the independent variables are NOT statistically significant.
- All of the variables included in the table above (after trimming variables and removing them from the test) have a sig value of less than .05 making them statistically significant.

Interpretation of Adjusted R₂: (Refer to Table 3c of Appendix)

Adjusted R₂ = 0.492

- The Adjusted R-squared value indicates the strength of relationship between the independent variables and dependent variables (2-seat Runabout Hatchback) on a 0 to 1.0 scale.
- A 0.492 adjusted R-squared value signifies that there is some linear relationship present.
 - The R-squared value is not greater than 0.5 on the 1.0 scale therefore it is inappropriate to say there is a strong relationship present.

Interpretation of VIF Statistic:

- The VIF Statistic is a measure of the amount of multicollinearity among variables
- Multicollinearity must be avoided when testing regression because it violates the independence assumption of multiple regression.
- **Multicollinearity is not a concern** for any of the independent variables as none of the VIF statistics exceed a value of 10.
 - It is important to note that Level of Education (5.293), Gasoline Emissions (4.860), and Worried about Global Warming (4.342) have the highest amount of multicollinearity.
 - All other variables' VIF statistics fall within a range of 2.0 to 2.4.

4-Seat Economy Diesel Hybrid

Rank	Variable	VIF Statistic	Standardized Beta Coefficient	Interpretation
1	Age Category (most important)	2.387	.396	The desire for this vehicle model is higher for those who are <u>older</u> .
2	Income Category	2.063	.337	The desire for this vehicle model is higher for those with a <u>higher income</u> .
3	Size of home town	1.208	.278	The desire for this vehicle model is higher for those in a <u>larger hometown</u> .
4	Gasoline emissions	3.983	.152	The desire for this vehicle model is higher for those who <u>believe</u> that gasoline emissions <u>have an effect</u> on global warming.
5	Gender**	2.103	.131	This vehicle model's target market is skewed toward <u>females</u> .
6	Number of People in Household	1.628	.120	The desire for this vehicle model is higher for those with a <u>higher number of people in households</u> .
7	Level of Education	4.232	.108	The desire for this vehicle model is higher for those with a <u>higher education</u> .
8	Marital Status* (least important)	1.598	-.078	This vehicle model's target market is skewed toward <u>unmarried</u> individuals.

Data from table 4b in the Appendix - All sig. values are <0.05, therefore they are significant.

*(Dummy variable coded 0= unmarried and 1= married)

** (Dummy variable coded 0= male and 1=female)

Ranking: 1= most important 8= least important

Null Hypothesis (Ho): There is no linear relationship present among the independent variables and the dependent variable. (REJECT)

Alternate Hypothesis (Ha): There is a linear relationship present among the independent variables and the dependent variable. (ACCEPT)

- The model sig value is $<.001$, therefore there is a linear relationship present since the sig value is $<.05$ based on a 95% level of confidence. (Refer to Table 4d of Appendix)

Marketing Implications:

- If Auto Concepts decides to move further with production of the 4-seat economy diesel hybrid vehicle model then the target market should consist of older women who have higher income and education levels, larger household and hometown size, and do believe gasoline emissions contribute to global warming and are not married.
- The most important demographics when determining the target market and when investing in promotions is age and income. This is because these two categories have a larger standardized beta coefficient than all other variables.
 - “Age” is the most important variable, and is 14.9% more important than “Income”.
- The least important factors when determining the target market for the 4-seat economy diesel hybrid are marital status and level of education. It is recommended to not invest the majority of promotion to target towards these demographics.
 - Marital status is 80.3% less important than “Age”.

Untrimmed Data:

The linear regression was run using a total of 9 independent variables, which resulted in untrimmed data. The independent variables tested are listed below:

- Age, gender, marital status, level of education, income, size of hometown, and number of people in household. There were also 2 attitude focused independent variables: are you concerned about global warming, and do you think gasoline emissions contribute to global warming.
- After running all the independent variables the decision of keeping the variable or not is based on the sig value in the correlation table; this can be seen in table 4a of the appendix. If the sig value is GREATER than .05 we remove or “trim” that independent variable from the data, and rerun the regression test with the remaining variables.

Trimmed Data:

After evaluating the sig values from the regression test, 1 independent variable was removed. This variable was:

- “I am worried about global warming”.

- This variable had a sig value that was greater than .05 therefore the independent variable is NOT statistically significant.
- All of the variables included in the table above (after trimming variables and removing them from the test) have a sig value of less than .05 making them statistically significant.

Interpretation of Adjusted R₂: (Refer to Table 4c of Appendix)

Adjusted R₂= .493

- The Adjusted R-squared value indicates the strength of relationship between the independent variables and dependent variables (4-seat economy diesel hybrid model) on a 0 to 1.0 scale.
- A .493 adjusted R-squared value signifies that there is some linear relationship present.
 - The R-squared value is not greater than 0.5 on the 1.0 scale therefore it is inappropriate to say there is a strong relationship present.

Interpretation of VIF Statistics:

- The VIF Statistic is a measure of the amount of multicollinearity among variables
- Multicollinearity must be avoided when testing regression because it violates the independence assumption of multiple regression.
- Multicollinearity is not a concern for any of the independent variables as none of the VIF statistics exceed a value of 10.
 - It is important to note that Level of Education (4.232) and Gasoline Emissions (3.983) have the highest amount of multicollinearity.
 - All other variables' VIF statistics fall within a range of 1.2 to 2.4.

5-Seat Economy Gasoline

Rank	Variable	VIF Statistic	Standardized Beta Coefficient	Interpretation
1 (most important)	Age Category	1.203	.468	The desire for this vehicle model is higher for those that are older.
2	Gasoline Emissions	2.365	.186	People who believe gasoline emissions contribute to global warming have a higher desire for the model.
3	Size of Hometown	4.115	-.170	The desire for this vehicle model is higher for those living in smaller hometowns.
4	Income	2.024	-.140	Individuals with lower income find this model more desirable.
5	Worried about Global Warming	1.157	-.123	Individuals who are less worried about global warming find this model more desirable.
6	Gender**	1.946	.104	Women find this vehicle model more desirable.
7 (least important)	Number of people in Household	3.425	.084	Individuals with a larger number of people in their household find this model more desirable.

Data from table 5b in the Appendix - All sig. values are <0.05, therefore they are significant.

** (Dummy variable coded 0= male and 1=female)

Ranking: 1= most important 7= least important

Null Hypothesis (Ho): There is no linear relationship present among the independent variables and the dependent variable. (REJECT)

Alternate Hypothesis (Ha): There is a linear relationship present among the independent variables and the dependent variable. (ACCEPT)

- The model sig value is $<.001$, therefore there is a linear relationship present since the sig value is $<.05$ based on a 95% level of confidence. (Refer to Table 5d of Appendix)
 - The F Value of the model is 47.968, signifying there is a very low probability of the null hypothesis being true.

Marketing Implications:

- If Auto Concepts decides to move further with production of the 5-seat economy gasoline vehicle model then the target market should consist of women who have lower incomes, a larger household size, do believe gasoline emissions contribute to global warming, live in smaller hometown sizes, and are not necessarily worried about global warming.
- The most important demographic when determining the target market for the 5-seat Economy Gasoline model is Age Category, which is 2.5 times more important than the second most important variable, gasoline emissions.
- The least important factor when determining the target market for the 5-seat economy gasoline is number of people in the household, which is 82.06% less important than Age Category.
- An interesting finding of the 5-seat Economy Gasoline's target market is that while they believe gasoline emissions contribute to global warming they are less worried about the impact of global warming. (This will not decrease potential sales even though they believe gasoline contributes to global warming).
 - This counterintuitive finding may be because of the older age category of the target market, as older individuals are less likely to be worried about the impacts of global warming.
 - It may be of interest to conduct more marketing research into discovering why the target market of the 5-seat economy gasoline model is not worried about global warming.

Interpretation of Adjusted R-squared: (refer to Table 5c of Appendix)

Adjusted R-squared= .248

- The Adjusted R-squared value indicates the strength of relationship between the independent variables and dependent variable (5-seat economy gasoline model) on a 0 to 1.0 scale.
- A .248 adjusted R-squared value signifies that there is some linear relationship present.
 - The R-squared value is not greater than 0.5 on the 1.0 scale therefore it is inappropriate to say there is a strong relationship present.

Interpretation of VIF Statistics:

- The VIF Statistic is a measure of the amount of multicollinearity among variables
- Multicollinearity must be avoided when testing regression because it violates the independence assumption of multiple regression.
- **Multicollinearity is not a concern** for any of the independent variables as none of the VIF statistics exceed a value of 10.
 - It is important to note that Size of Hometown (4.115) and Number of People in Household (3.425) have the highest amount of multicollinearity.
 - All other variables' VIF statistics fall within a range of 1.2 to 2.4.

Appendix
1-Seat all Electric Motorcycle
Untrimmed
Table 1a - 1c
Untrimmed 1a

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	6.808	.525		12.974	<.001		
	Size of home town or city	3.840E-7	.000	.105	3.492	<.001	.816	1.226
	Age category	-.026	.004	-.261	-6.178	<.001	.415	2.410
	Level of education	-.195	.048	-.259	-4.093	<.001	.185	5.392
	Gasoline emissions contribute to global warming.	.141	.044	.195	3.230	.001	.204	4.901
	Gender	-1.308	.098	-.528	-13.356	<.001	.475	2.107
	Marital status	-.401	.135	-.102	-2.957	.003	.625	1.600
	Number of people in household	.033	.045	.026	.736	.462	.613	1.631
	Income category	2.804E-6	.000	.068	1.740	.082	.481	2.079
	I am worried about global warming.	-.064	.053	-.069	-1.212	.226	.229	4.365

a. Dependent Variable: Desirability: 1 Seat Motorcycle Electric

Trimmed 1b

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	6.676	.481		13.876	<.001		
	Size of home town or city	3.969E-7	.000	.109	3.663	<.001	.842	1.187
	Age category	-.023	.004	-.228	-5.938	<.001	.504	1.985
	Level of education	-.199	.041	-.264	-4.878	<.001	.253	3.948
	Gasoline emissions contribute to global warming.	.133	.039	.184	3.443	<.001	.261	3.835
	Gender	-1.268	.095	-.512	-13.374	<.001	.508	1.967
	Marital status	-.338	.115	-.086	-2.937	.003	.870	1.150

a. Dependent Variable: Desirability: 1 Seat Motorcycle Electric

1c

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			Sig. F Change
						F Change	df1	df2	
1	.511 ^a	.262	.257	1.061	.262	58.606	6	993	<.001

a. Predictors: (Constant), Marital status, Age category, Level of education, Size of home town or city, Gender, Gasoline emissions contribute to global warming.

b. Dependent Variable: Desirability: 1 Seat Motorcycle Electric

1d

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	395.882	6	65.980	58.606	<.001 ^b
	Residual	1117.954	993	1.126		
	Total	1513.836	999			

a. Dependent Variable: Desirability: 1 Seat Motorcycle Electric

b. Predictors: (Constant), Marital status, Age category, Level of education, Size of home town or city, Gender, Gasoline emissions contribute to global warming.

2 Seat Runabout Sport Electric:

Table 2a - 2d

Untrimmed 2a

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.474	.580		4.263	<.001		
	Size of home town or city	1.699E-6	.000	.373	13.973	<.001	.816	1.226
	Gender	-.560	.108	-.181	-5.168	<.001	.475	2.107
	Marital status	1.509	.150	.307	10.074	<.001	.625	1.600
	Number of people in household	.005	.049	.003	.104	.917	.613	1.631
	Age category	-.015	.005	-.117	-3.113	.002	.415	2.410
	Level of education	.080	.053	.085	1.517	.130	.185	5.392
	Income category	-6.998E-6	.000	-.137	-3.927	<.001	.481	2.079
	I am worried about global warming.	.439	.058	.380	7.532	<.001	.229	4.365
	Gasoline emissions contribute to global warming.	-.594	.048	-.656	-12.283	<.001	.204	4.901

a. Dependent Variable: Desirability: 2 Seat Runabout Sport Electric

Trimmed 2b

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3.253	.280		11.604	<.001		
	Gender	-.532	.107	-.172	-4.984	<.001	.489	2.044
	Marital status	1.536	.127	.313	12.132	<.001	.875	1.143
	Age category	-.014	.005	-.112	-3.032	.002	.424	2.361
	Income category	-6.277E-6	.000	-.123	-3.656	<.001	.518	1.929
	I am worried about global warming.	.480	.052	.415	9.295	<.001	.292	3.426
	Gasoline emissions contribute to global warming.	-.564	.044	-.623	-12.733	<.001	.243	4.113
	Size of home town or city	1.701E-6	.000	.374	13.988	<.001	.816	1.225

a. Dependent Variable: Desirability: 2 Seat Runabout Sport Electric

2c

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			
						F Change	df1	df2	Sig. F Change
1	.650 ^a	.422	.418	1.172	.422	103.639	7	992	<.001

a. Predictors: (Constant), Size of home town or city, I am worried about global warming., Gender, Marital status, Income category, Age category, Gasoline emissions contribute to global warming.

b. Dependent Variable: Desirability: 2 Seat Runabout Sport Electric

2d

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	996.356	7	142.337	103.639	<.001 ^b
	Residual	1362.403	992	1.373		
	Total	2358.759	999			

a. Dependent Variable: Desirability: 2 Seat Runabout Sport Electric

b. Predictors: (Constant), Size of home town or city, I am worried about global warming., Gender, Marital status, Income category, Age category, Gasoline emissions contribute to global warming.

2 Seat Runabout Hatchback Gasoline Hybrid

Untrimmed

Table 3a

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.073	.673		3.080	.002		
	Size of home town or city	-7.911E-7	.000	-.140	-5.611	<.001	.816	1.226
	Gender	-1.479	.126	-.384	-11.768	<.001	.475	2.107
	Marital status	.318	.174	.052	1.830	.067	.625	1.600
	Number of people in household	-.147	.057	-.074	-2.572	.010	.613	1.631
	Age category	-.096	.005	-.619	-17.725	<.001	.415	2.410
	Level of education	.465	.061	.396	7.591	<.001	.185	5.392
	Income category	-1.137E-5	.000	-.178	-5.503	<.001	.481	2.079
	I am worried about global warming.	-.441	.068	-.306	-6.520	<.001	.229	4.365
Gasoline emissions contribute to global warming.	.657	.056	.583	11.710	<.001	.204	4.901	

a. Dependent Variable: Desirability: 2 Seat Runabout Hatchback Gasoline Hybrid

Trimmed

Table 3b

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.090	.674		3.101	.002		
	Size of home town or city	-8.086E-7	.000	-.143	-5.778	<.001	.832	1.202
	Gender	-1.463	.125	-.380	-11.665	<.001	.479	2.088
	Age category	-.095	.005	-.607	-17.493	<.001	.422	2.372
	Level of education	.453	.061	.387	7.455	<.001	.189	5.293
	Income category	-1.175E-5	.000	-.184	-5.686	<.001	.483	2.069
	I am worried about global warming.	-.436	.068	-.303	-6.454	<.001	.230	4.342
	Gasoline emissions contribute to global warming.	.655	.056	.581	11.691	<.001	.206	4.860

a. Dependent Variable: Desirability: 2 Seat Runabout Hatchback Gasoline Hybrid

Model Summary

Table 3c

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			
						F Change	df1	df2	Sig. F Change
1	.704 ^a	.496	.492	1.362	.496	139.281	7	992	<.001

a. Predictors: (Constant), Gasoline emissions contribute to global warming., Gender, Size of home town or city, Income category, Age category, I am worried about global warming., Level of education

b. Dependent Variable: Desirability: 2 Seat Runabout Hatchback Gasoline Hybrid

ANOVA

Table 3d

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1809.086	7	258.441	139.281	<.001 ^b
	Residual	1840.689	992	1.856		
	Total	3649.775	999			

a. Dependent Variable: Desirability: 2 Seat Runabout Hatchback Gasoline Hybrid

b. Predictors: (Constant), Gasoline emissions contribute to global warming., Gender, Size of home town or city, Income category, Age category, I am worried about global warming., Level of education

4 seat economy diesel hybrid

Untrimmed

Table 4a

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-4.327	.623		-6.942	<.001		
	Size of home town or city	1.477E-6	.000	.282	11.306	<.001	.816	1.226
	Age category	.056	.005	.391	11.194	<.001	.415	2.410
	Level of education	.155	.057	.143	2.739	.006	.185	5.392
	Gasoline emissions contribute to global warming.	.191	.052	.183	3.676	<.001	.204	4.901
	Gender	.473	.116	.133	4.065	<.001	.475	2.107
	Marital status	-.446	.161	-.079	-2.774	.006	.625	1.600
	Number of people in household	.218	.053	.118	4.109	<.001	.613	1.631
	Income category	1.964E-5	.000	.333	10.258	<.001	.481	2.079
I am worried about global warming.	-.092	.063	-.069	-1.463	.144	.229	4.365	

a. Dependent Variable: Desirability: 4 Seat Economy Diesel Hybrid

Trimmed

Table 4b

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-4.086	.602		-6.793	<.001		
	Size of home town or city	1.454E-6	.000	.278	11.205	<.001	.828	1.208
	Age category	.057	.005	.396	11.385	<.001	.419	2.387
	Level of education	.117	.050	.108	2.324	.020	.236	4.232
	Gasoline emissions contribute to global warming.	.158	.047	.152	3.373	<.001	.251	3.983
	Gender	.467	.116	.131	4.009	<.001	.475	2.103
	Marital status	-.439	.161	-.078	-2.728	.006	.626	1.598
	Number of people in household	.221	.053	.120	4.168	<.001	.614	1.628
	Income category	1.989E-5	.000	.337	10.424	<.001	.485	2.063

a. Dependent Variable: Desirability: 4 Seat Economy Diesel Hybrid

Table 4c

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			
						F Change	df1	df2	Sig. F Change
1	.705 ^a	.497	.493	1.259	.497	122.201	8	991	<.001

a. Predictors: (Constant), Income category, Gender, Size of home town or city, Number of people in household, Marital status, Gasoline emissions contribute to global warming., Age category, Level of education

b. Dependent Variable: Desirability: 4 Seat Economy Diesel Hybrid

Table 4d

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1550.696	8	193.837	122.201	<.001 ^b
	Residual	1571.935	991	1.586		
	Total	3122.631	999			

a. Dependent Variable: Desirability: 4 Seat Economy Diesel Hybrid

b. Predictors: (Constant), Income category, Gender, Size of home town or city, Number of people in household, Marital status, Gasoline emissions contribute to global warming., Age category, Level of education

5 Seat Economy Gasoline

Table 5a

Untrimmed:

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.571	.624		.915	.360		
	Size of home town or city	-7.324E-7	.000	-.170	-5.601	<.001	.816	1.226
	Age category	.055	.005	.463	10.862	<.001	.415	2.410
	Level of education	.069	.057	.077	1.215	.225	.185	5.392
	Gasoline emissions contribute to global warming.	.134	.052	.156	2.569	.010	.204	4.901
	Gender	.279	.117	.095	2.392	.017	.475	2.107
	Marital status	.006	.161	.001	.036	.971	.625	1.600
	Number of people in household	.119	.053	.078	2.239	.025	.613	1.631
	Income category	-7.339E-6	.000	-.152	-3.829	<.001	.481	2.079
	I am worried about global warming.	-.169	.063	-.155	-2.705	.007	.229	4.365

a. Dependent Variable: Desirability: 5 Seat Economy Gasoline

Trimmed:

Table 5b

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.235	.303		4.083	<.001		
	Size of home town or city	-7.326E-7	.000	-.170	-5.650	<.001	.829	1.206
	Age category	.055	.005	.468	11.087	<.001	.423	2.365
	Gasoline emissions contribute to global warming.	.159	.048	.186	3.333	<.001	.243	4.115
	Gender	.304	.114	.104	2.662	.008	.494	2.024
	Number of people in household	.127	.045	.084	2.843	.005	.865	1.157
	Income category	-6.759E-6	.000	-.140	-3.645	<.001	.514	1.946
	I am worried about global warming.	-.134	.055	-.123	-2.419	.016	.292	3.425

a. Dependent Variable: Desirability: 5 Seat Economy Gasoline

Table 5c

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			Sig. F Change
						F Change	df1	df2	
1	.503 ^a	.253	.248	1.260	.253	47.968	7	992	<.001

a. Predictors: (Constant), I am worried about global warming., Age category, Number of people in household, Size of home town or city, Income category, Gender, Gasoline emissions contribute to global warming.

b. Dependent Variable: Desirability: 5 Seat Economy Gasoline

Table 5d

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	533.058	7	76.151	47.968	<.001 ^b
	Residual	1574.842	992	1.588		
	Total	2107.900	999			

a. Dependent Variable: Desirability: 5 Seat Economy Gasoline

b. Predictors: (Constant), I am worried about global warming., Age category, Number of people in household, Size of home town or city, Income category, Gender, Gasoline emissions contribute to global warming.