**Final Presentation**

1. **Select a problem or business issue to apply your market segmentation to. This may be a particular brand, a category of product or services, or a particular industry that you create the market segmentation for. Be sure to state your business problem.**

I conducted a clustering segmentation analysis to determine factors that influence the likelihood of a respondent being a registered voter.

Business Problem: I was recruited by a major political party to analyze who should be targeted as a likely voter, based mainly on variables relating to news consumption and social engagement.

1. **Select your target population that you are going to segment. Many times this just turns out to be the U.S. adult population 18 years of age or older (the entire NCS data set). Other times it might be something different such as adults aged 18-24 years or women 18-49 or people with digital tablets or frequent movie goers or tequila drinkers – the list is pretty endless. If you are feeling adventurous, you might take on a trend analysis in addition to your market segmentation – I am providing you with all four quarters of 2012 NCS data. Be sure to tell me what your target population is and why you picked it.**

The target population will be all of the registered voters in the NCS data set. The specific target population is a variable that I have imported into SAS as “regyes”. This variable comes from a question that asks if the respondent is registered to vote.

1. **Clean and prepare the variables you are going to use in your segmentation system. HOW ADD THE DRIVER (OTHER 2 VARS TO THE EQUATION) – This includes both driver variables in the statistical procedures as well profile variables. Please produce a frequency listing of all the variables you are using for the analysis so that I can see that the data are clean.**

| **Are you registered to vote?** | | | | |
| --- | --- | --- | --- | --- |
| **reg** | **Frequency** | **Percent** | **Cumulative Frequency** | **Cumulative Percent** |
| **no** | 5152 | 20.97 | 5152 | 20.97 |
| **yes** | 19421 | 79.03 | 24573 | 100.00 |
| **Frequency Missing = 866** | | | | |

| **I trust information I read in newspapers** | | | | |
| --- | --- | --- | --- | --- |
| **trust** | **Frequency** | **Percent** | **Cumulative Frequency** | **Cumulative Percent** |
| **disagree a lot** | 8665 | 38.63 | 8665 | 38.63 |
| **disagree a little** | 7748 | 34.54 | 16413 | 73.17 |
| **neither agree nor disagree** | 1871 | 8.34 | 18284 | 81.51 |
| **agree a little** | 3595 | 16.03 | 21879 | 97.53 |
| **agree a lot** | 553 | 2.47 | 22432 | 100.00 |
| **Frequency Missing = 3007** | | | | |

| **It is important to be well-informed** | | | | |
| --- | --- | --- | --- | --- |
| **inform** | **Frequency** | **Percent** | **Cumulative Frequency** | **Cumulative Percent** |
| **disagree a lot** | 322 | 1.32 | 322 | 1.32 |
| **disagree a little** | 555 | 2.28 | 877 | 3.60 |
| **neither agree nor disagree** | 3864 | 15.87 | 4741 | 19.47 |
| **agree a little** | 8751 | 35.93 | 13492 | 55.40 |
| **agree a lot** | 10861 | 44.60 | 24353 | 100.00 |
| **Frequency Missing = 1086** | | | | |

| **Do you think in the next 12 months the American economy will be better off or worse than it is now?** | | | | |
| --- | --- | --- | --- | --- |
| **econ** | **Frequency** | **Percent** | **Cumulative Frequency** | **Cumulative Percent** |
| **disagree a lot** | 1874 | 8.27 | 1874 | 8.27 |
| **disagree a little** | 4351 | 19.21 | 6225 | 27.48 |
| **neither agree nor disagree** | 10396 | 45.90 | 16621 | 73.38 |
| **agree a little** | 5221 | 23.05 | 21842 | 96.43 |
| **agree a lot** | 809 | 3.57 | 22651 | 100.00 |
| **Frequency Missing = 2788** | | | | |

| **In terms of your political outlook, how conservative do you consider yourself to be?** | | | | |
| --- | --- | --- | --- | --- |
| **pol** | **Frequency** | **Percent** | **Cumulative Frequency** | **Cumulative Percent** |
| **disagree a lot** | 3741 | 15.90 | 3741 | 15.90 |
| **disagree a little** | 5702 | 24.23 | 9443 | 40.12 |
| **neither agree nor disagree** | 8924 | 37.92 | 18367 | 78.04 |
| **agree a little** | 3421 | 14.54 | 21788 | 92.58 |
| **agree a lot** | 1746 | 7.42 | 23534 | 100.00 |
| **Frequency Missing = 1905** | | | | |

| **If I feel strongly about an issue, I would participate in a civil protest** | | | | |
| --- | --- | --- | --- | --- |
| **protest** | **Frequency** | **Percent** | **Cumulative Frequency** | **Cumulative Percent** |
| **disagree a lot** | 4661 | 19.22 | 4661 | 19.22 |
| **disagree a little** | 4111 | 16.95 | 8772 | 36.17 |
| **neither agree nor disagree** | 8416 | 34.70 | 17188 | 70.87 |
| **agree a little** | 4567 | 18.83 | 21755 | 89.70 |
| **agree a lot** | 2497 | 10.30 | 24252 | 100.00 |
| **Frequency Missing = 1187** | | | | |

| **It is more important to do your duty than to live for your own enjoyment** | | | | |
| --- | --- | --- | --- | --- |
| **duty** | **Frequency** | **Percent** | **Cumulative Frequency** | **Cumulative Percent** |
| **disagree a lot** | 1744 | 7.19 | 1744 | 7.19 |
| **disagree a little** | 3780 | 15.58 | 5524 | 22.76 |
| **neither agree nor disagree** | 8895 | 36.66 | 14419 | 59.42 |
| **agree a little** | 6020 | 24.81 | 20439 | 84.23 |
| **agree a lot** | 3827 | 15.77 | 24266 | 100.00 |
| **Frequency Missing = 1173** | | | | |

| **I am willing to volunteer my time for a good cause** | | | | |
| --- | --- | --- | --- | --- |
| **cause** | **Frequency** | **Percent** | **Cumulative Frequency** | **Cumulative Percent** |
| **disagree a lot** | 656 | 2.70 | 656 | 2.70 |
| **disagree a little** | 1310 | 5.40 | 1966 | 8.10 |
| **neither agree nor disagree** | 5166 | 21.28 | 7132 | 29.37 |
| **agree a little** | 8941 | 36.82 | 16073 | 66.20 |
| **agree a lot** | 8207 | 33.80 | 24280 | 100.00 |
| **Frequency Missing = 1159** | | | | |

| **I like to pursue a life of challenge, novelty, and change** | | | | |
| --- | --- | --- | --- | --- |
| **novel** | **Frequency** | **Percent** | **Cumulative Frequency** | **Cumulative Percent** |
| **disagree a lot** | 1085 | 4.49 | 1085 | 4.49 |
| **disagree a little** | 2519 | 10.42 | 3604 | 14.90 |
| **neither agree nor disagree** | 9521 | 39.37 | 13125 | 54.27 |
| **agree a little** | 7158 | 29.60 | 20283 | 83.87 |
| **agree a lot** | 3902 | 16.13 | 24185 | 100.00 |
| **Frequency Missing = 1254** | | | | |

| **I get more and more of my news from the internet** | | | | |
| --- | --- | --- | --- | --- |
| **internet** | **Frequency** | **Percent** | **Cumulative Frequency** | **Cumulative Percent** |
| **disagree a lot** | 5149 | 21.55 | 5149 | 21.55 |
| **disagree a little** | 2661 | 11.14 | 7810 | 32.69 |
| **neither agree nor disagree** | 5603 | 23.46 | 13413 | 56.15 |
| **agree a little** | 6007 | 25.15 | 19420 | 81.30 |
| **agree a lot** | 4468 | 18.70 | 23888 | 100.00 |
| **Frequency Missing = 1551** | | | | |

| **I tend to trust the information on websites that I have heard a lot about** | | | | |
| --- | --- | --- | --- | --- |
| **web** | **Frequency** | **Percent** | **Cumulative Frequency** | **Cumulative Percent** |
| **disagree a lot** | 4817 | 20.17 | 4817 | 20.17 |
| **disagree a little** | 3364 | 14.08 | 8181 | 34.25 |
| **neither agree nor disagree** | 8536 | 35.73 | 16717 | 69.98 |
| **agree a little** | 5241 | 21.94 | 21958 | 91.92 |
| **agree a lot** | 1929 | 8.08 | 23887 | 100.00 |
| **Frequency Missing = 1552** | | | | |

| **I rely on radio to keep me informed** | | | | |
| --- | --- | --- | --- | --- |
| **radio** | **Frequency** | **Percent** | **Cumulative Frequency** | **Cumulative Percent** |
| **disagree a lot** | 7218 | 30.14 | 7218 | 30.14 |
| **disagree a little** | 4712 | 19.67 | 11930 | 49.81 |
| **neither agree nor disagree** | 6159 | 25.72 | 18089 | 75.53 |
| **agree a little** | 4293 | 17.92 | 22382 | 93.45 |
| **agree a lot** | 1569 | 6.55 | 23951 | 100.00 |
| **Frequency Missing = 1488** | | | | |

| **I rely on TV to keep me informed** | | | | |
| --- | --- | --- | --- | --- |
| **tv** | **Frequency** | **Percent** | **Cumulative Frequency** | **Cumulative Percent** |
| **disagree a lot** | 3459 | 14.42 | 3459 | 14.42 |
| **disagree a little** | 3280 | 13.68 | 6739 | 28.10 |
| **neither agree nor disagree** | 6174 | 25.74 | 12913 | 53.84 |
| **agree a little** | 7351 | 30.65 | 20264 | 84.50 |
| **agree a lot** | 3718 | 15.50 | 23982 | 100.00 |
| **Frequency Missing = 1457** | | | | |

| **For information the first place I look is the internet** | | | | |
| --- | --- | --- | --- | --- |
| **first** | **Frequency** | **Percent** | **Cumulative Frequency** | **Cumulative Percent** |
| **disagree a lot** | 3532 | 14.69 | 3532 | 14.69 |
| **disagree a little** | 1486 | 6.18 | 5018 | 20.87 |
| **neither agree nor disagree** | 4507 | 18.75 | 9525 | 39.62 |
| **agree a little** | 6441 | 26.79 | 15966 | 66.42 |
| **agree a lot** | 8073 | 33.58 | 24039 | 100.00 |
| **Frequency Missing = 1400** | | | | |

| **I read print news less because of the internet** | | | | |
| --- | --- | --- | --- | --- |
| **print** | **Frequency** | **Percent** | **Cumulative Frequency** | **Cumulative Percent** |
| **disagree a lot** | 6148 | 25.69 | 6148 | 25.69 |
| **disagree a little** | 2772 | 11.58 | 8920 | 37.27 |
| **neither agree nor disagree** | 5605 | 23.42 | 14525 | 60.70 |
| **agree a little** | 4902 | 20.48 | 19427 | 81.18 |
| **agree a lot** | 4504 | 18.82 | 23931 | 100.00 |
| **Frequency Missing = 1508** | | | | |

1. **Be sure in your segmentation system to pick at least two sets of questions that measures two different constructs so you have to apply a factor analysis to the set of questions so that you can demonstrate your knowledge of factor analysis. Once that is done, the next step is to do a factor analysis of the set(s) of questions that you selected that measures a latent, unobserved construct.**
   1. **List out the questions that you selected to do the factor analysis on:**

* Abstract Construct 1 – civengage – measures someone’s engagement in the community & government
  + Protest – If I feel strongly about an issue, I would participate in a civil protest
  + Duty – it is more important to do your duty than to live for your own enjoyment
  + Cause – I am willing to volunteer my time for a good cause
  + Novel – I like to pursue a life of challenge, novelty, and change
* Abstract Construct 2 – intnews – measures how much news someone gets from the internet
  + Internet – I get more and more of my news from the internet
  + Web – I tend to trust the information on websites that I have heard a lot about
  + Print – I read print news less because of the internet
  + First – for information the first place I look is the internet
  1. **Tell me what latent unobserved construct you think they measure**

The first abstract construct, civengage, measure how much people engage in the community & political causes, and the second abstract construct, intnews, measures how much people engage in the internet and get their news from the internet.

* 1. **Decide which extraction technique to use and why**

Will be using PCA factor analysis because of the corresponding of the factors and the correlation of factor scores

* 1. **Decide which rotation technique to use and why**

Will be using Varimax rotation, because the ultimate goal of the project involves clustering analysis and Varimax does a better job of producing well segmented clusters

* 1. **Run the factor analysis**

| 1. **Eigenvalues of the Correlation Matrix: Total = 8 Average = 1** | | | | |
| --- | --- | --- | --- | --- |
|  | **Eigenvalue** | **Difference** | **Proportion** | **Cumulative** |
| **1** | 2.75768915 | 1.22423057 | 0.3447 | 0.3447 |
| **2** | 1.53345858 | 0.64689702 | 0.1917 | 0.5364 |
| **3** | 0.88656156 | 0.06420387 | 0.1108 | 0.6472 |
| **4** | 0.82235769 | 0.17853730 | 0.1028 | 0.7500 |
| **5** | 0.64382039 | 0.09707161 | 0.0805 | 0.8305 |
| **6** | 0.54674878 | 0.08374929 | 0.0683 | 0.8988 |
| **7** | 0.46299949 | 0.11663513 | 0.0579 | 0.9567 |
| **8** | 0.34636436 |  | 0.0433 | 1.0000 |

| **Variance Explained by Each Factor** | |
| --- | --- |
| **Factor1** | **Factor2** |
| 2.7576892 | 1.5334586 |

Chart, scatter chart

Description automatically generated

| **Rotated Factor Pattern** | | |
| --- | --- | --- |
|  | **Factor1** | **Factor2** |
| **protest** | 0.11265 | 0.58755 |
| **duty** | -0.15661 | 0.53946 |
| **cause** | 0.03319 | 0.72433 |
| **novel** | 0.21286 | 0.66636 |
| **internet** | 0.85975 | 0.03798 |
| **web** | 0.76309 | 0.06734 |
| **print** | 0.80437 | 0.02029 |
| **first** | 0.78845 | 0.07788 |