

How Do I Run a Cluster using Correspondence and Crosstab to select Statements?

Cluster analysis is a targeting tool. It is used to segment respondents into distinct groups, using a selection of variables e.g. attitudinal questions. A cluster analysis groups respondents together so they are as similar as possible within groups, yet as different as possible between groups.

We normally use 10-20 attitudinal statements for the Cluster analysis. **It is important to choose the right attitudinal statements to include.**

Below is a simple illustration of how cluster groups respondents into similar attitudinal or behavioral types.

1 =	definitely agree				
2 =	tend to agree				
3 =	neither				
4 =	tend to disagree				
5 =	definitely disagree				
		Resp 1	Resp 2	Resp 3	Resp 4
	I enjoy junk food	1	5	1	4
	Health food is for fanatics	1	5	1	5
	Take regular exercise	5	1	5	2
	Eat less fat these days	4	2	5	2

In this example we are going to segment the Mobile Phone market using TNT+, Correspondence and Cluster. We want to target 'young, trendy and fashion conscious' people to launch our new Mobile Phone Brand.

Source: GB TGI Q3 2013 (April 2012-March 2013)

STAGE 1

You need to identify the attitudinal statements that you wish to use to segment the mobile phone market. You do this by using Correspondence and if necessary crosstab reports.

Step 1

For your **Table/Base**, enter the target you are trying to understand e.g. All Adults, for this example we input **Mobile Phone Users**.

Step 2

Next enter your columns; normally these will be the brands from the market that you are planning to segment. In this example we are using mobile phone brands owned. Enter each brand as a separate column (ideally with short titles). Avoid using 'other / unknown brand' selections.

Step 3

For your **rows, input lifestyle statements for Correspondence.**

Step 4

Click on the 't' in the top left corner, then click **Send to... Correspondence...** Click on **ok** to **TBC file** export box, give the file a name e.g. Mobile Phone Market and save it. When **Correspondence** launches click on **Next** and then click on the **Stats** button, this will show the **rows sorted by %inf**. This shows you the most influential attitudinal questions in your market. Print out the top 20 or 30 statements and mark up the ones you want to use, as in the example below.

Rows (Top 20)	
I Couldn't Live Without The Internet On My Mobile Phone	4.0
If I AM Going To Be Able To Use A New Technology Product,Somebc	2.1
I Want To Get To The Very Top In My Career	1.8
I Cannot Do Without Mobile Communication	1.6
I Like To Go To Trendy Places To Eat And Drink	1.5
I Love To Buy New Gadgets & Appliances	1.5
I Would Like To Set Up My Own Business One Day	1.5

Step 5

Mark the statements you want to include using the following rules

- Only include those questions that you intuitively agree with
- As cluster uses positive and negative answers, do not only pick the positive technology statements
- Do not include questions you do not understand or that you do not find relevant or useful
- If a question keeps recurring, with a similar meaning e.g. I get a good deal of pleasure from my garden and friends ask my advice about gardening, only use them both if you think gardening is relevant to the result.
- Each question is treated equally, so only include the questions that are important

Do not restrict yourself to one correspondence analysis for shortlisting purposes. For example many years ago we did a consultancy for a new product launch and we needed to understand attitudes to technology, financial security and the number of different financial products owned.

We ran a mixture of correspondence analyses and crosstabs to shortlist the key lifestyle statements as above. We then ran the cluster analysis, the brand launched and was over-subscribed.

The input is vital and worth spending the time on. Choose only the best correspondence and crosstab runs and highlight the statements that are relevant to the market, especially those that keep coming top in the different analyses and shortlist them. Each question is treated equally, so just choose the most valuable questions.

STAGE 2

We have identified the most influential statements for the **Mobile Phone market**; we are now going to use the same statements to create the cluster analysis to segment the market.

Step 6

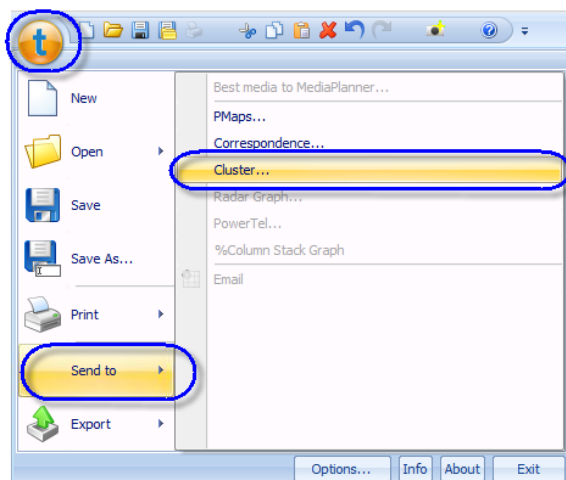
Input the chosen statements into TNT+. Input **Mobile Phone Users** into the **Table** and the **lifestyle statements for cluster** into the **Rows**.

Make sure you select the statements from **Lifestyle Statements for Cluster**. Input the statements in the same order as you selected them, this avoids missing any out.

Leave your columns blank.

Step 7

Once you have entered your table and rows, Click on the 't' in the top left corner, then click **Send to... Cluster...**



Save the TBR file and give the cluster a description name. Now you are ready to create your cluster analysis, click on 'Run Cluster Analysis'.

Once your cluster is complete it will be automatically saved to your **TNT+ Own Codes**. Most clients normally prefer to look at the 4, 5 or 6 cluster solutions.

Step 8

Standardised Scores

These are the default statistics displayed – these are indices which enable you to compare the mean scores for a particular cluster group with the mean scores for all respondents, for each question under examination.

This report is the most helpful for providing a consistent comparison across all cluster solutions.

Solution Statistics								
Select Solution:		6 Cluster Solution		Select Statistic Type View:				Standardised Scores
/	Variable	TOTAL	CLU1	CLU2	CLU3	CLU4	CLU5	CLU6
	Respondent Count	21944	2260	3485	5882	5935	1978	2404
1	I Want To Get To The Very Top In My Career	7.25	4.12	-2.18	0.08	-2.47	-5.13	
2	I Spend A Lot On Clothes	11.70	-0.27	-4.23	3.46	-0.92	-7.48	
3	I Wear Designer Clothes	11.58	0.74	-4.35	3.12	-1.20	-7.27	
4	I Love To Buy New Gadgets & Appliances	6.47	5.98	-2.08	0.50	-3.28	-8.41	
5	I Buy New Products Before Most Of My Friends	8.85	4.00	-3.20	1.60	-2.87	-7.60	
6	I Would Like To Set Up My Own Business One Day	6.27	5.92	-2.03	-0.38	-3.25	-5.48	
7	I Like Innovative Cars	5.87	4.14	-1.56	0.50	-1.66	-7.83	
8	I Tend To Spend Money Without Thinking	6.45	0.29	-2.27	1.96	-0.72	-5.07	
9	I Like To Listen To New Bands	6.13	3.71	-2.12	1.00	-1.28	-7.29	
10	I Spend A Lot Of Money On Toiletries/Cosmetics	9.89	0.20	-3.84	3.57	-1.27	-7.77	
11	Like To Stand Out In A Crowd	7.23	4.13	-3.22	0.95	-1.59	-4.77	
12	My Car Should Catch People's Attention	7.44	1.95	-3.00	2.26	-1.16	-6.84	
13	When I Need Info The First Place I Look Is The Internet	2.79	4.50	2.03	-0.45	-16.65	-4.13	
14	I Like To Keep Up With The Latest Fashions	9.55	1.40	-3.94	3.13	-0.37	-8.20	
15	Computers Confuse Me, I'll Never Get Used To Them	0.01	-5.94	-0.54	2.12	4.20	1.67	
16	I Use My Credit Card Mostly For Business	3.10	-0.59	-1.48	1.68	-0.43	-2.17	
17	The Point Of Drinking Is To Get Drunk	7.92	0.74	-2.71	2.13	-2.23	-5.24	
18	I Get A Good Deal Of Pleasure From My Garden	-1.41	-1.68	0.14	-0.30	1.40	3.70	

For this example we have chosen **6 cluster solutions**. We can see that each score has either a positive or a negative value. A positive score indicates that members of a particular cluster group are more likely than average to agree with a statement, while a negative score indicates the opposite.

As we are targeting 'young, trendy and fashion conscious' people, to identify which cluster group best explains our target, we look for **positive** scores next to the statements that reflect these people.

For example, if we look at **CLU1 (Cluster Group 1)**, the following statements have high scores that relate to our market

I spend a lot on clothes **11.70**

I wear designer clothes **11.58**

I spend a lot of money on toiletries/cosmetics **9.89**

This tells us the statements are particularly important to Group 1; the higher the score, the more discriminatory power it has. A score can be high for two reasons either because it is a long way from the mean or because it is highly representative of a cluster group.

Step 9

Now launch TNT+ and load the same survey that you created the cluster in e.g. GB TGI Q3 2013 (TAM13). Input the preferred cluster solution as columns and the following as rows in separate reports; **Demographics, Lifestyle Statements and Mobile Phone Brands**.

0 Tables		6 Columns		0 Rows	
Title					
1	6 Cluster Solution:	Cluster 1			
2	6 Cluster Solution:	Cluster 2			
3	6 Cluster Solution:	Cluster 3			
4	6 Cluster Solution:	Cluster 4			
5	6 Cluster Solution:	Cluster 5			
6	6 Cluster Solution:	Cluster 6			