HOW DO I Interpret a Correspondence Analysis?

This document helps you to understand the brands within a market using **Correspondence Analysis statistics**. For this example, we have used the 'Mobile Phone' market e.g. **Mobile Phone Brands.**

Correspondence analysis is a statistical technique for examining the relationship between variables. It is often used to understand brands in a market, but it will answer whatever "questions" you throw at it. The end result is a pictorial representation of a crosstab, showing data plotted according to correlation. It is a quick method of summarising a lot of data. Each factor summarises the relationships.

Source: TJD17 GB TGI 2018 Q2 (January 2017-December 2017).

In order to understand **figure 1** or describe the 'Mobile Phone' market, **you must look at the stats**. Click on the '**Stats**' button and then right hand click on the heading '**Factor 1**' and select **Sort Descending (figure 2)**. **This will sort Factor 1 by ABS score.**

The correspondence program plots the brands and lifestyle statements on a graph. It shows **Factors 1** as the '**X-axis**' (left to right) and **Factor 2** as the '**Y-axis**' (top to bottom).

In order to understand what the factors are, we need to examine which lifestyle statements are important to each factor; this is done by using the statistics. The statistics are used to get the describing words for explaining the chart.

Figure 1

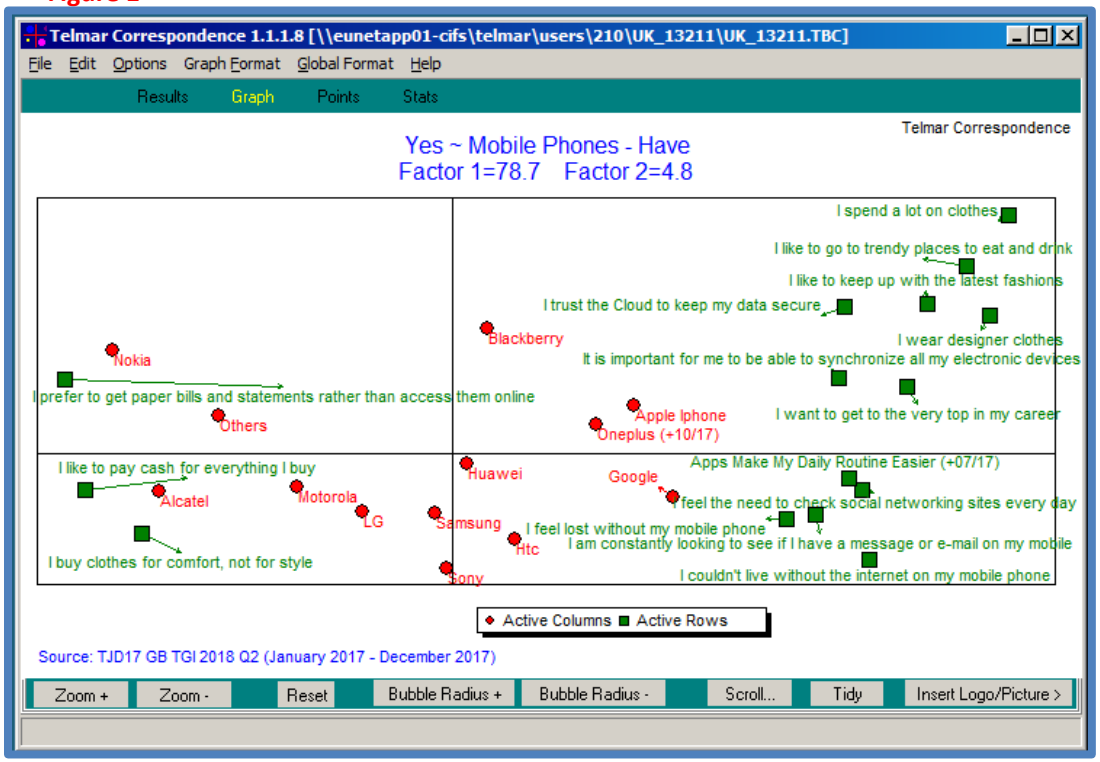
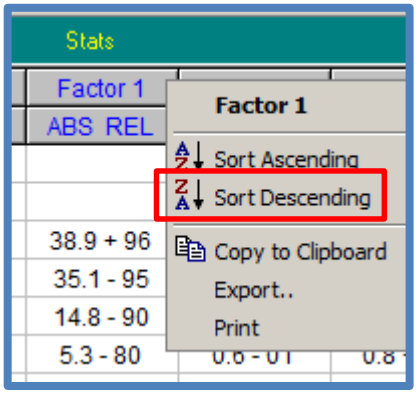


Figure 2



Factor 1 Explained:

ABS –

This helps you understand the influence of a brand or lifestyle statement on this factor. You can interpret the **ABS score** like %Col in SurveyTime. In this example, Apple iPhone contributes **38.9%** towards Factor 1's results **(figure 3)**.

REL -

This score determines which side of the graph the brand or lifestyle statement will appear on. For Factor 1, "-" appears on the left and "+" appears on the right. The **REL score** also explains which factor best explains the brand or lifestyle statement. We look at these scores horizontally. In this example, we can see that Factor 1 best explains Apple iPhone; the REL score is +96, the highest score for Apple iPhone compared to the other 5 factors **(figure 3)**.

%Inf -

This shows how much influence a brand or lifestyle statement has on the analysis. We usually sort by **%Inf** prior to a **Cluster analysis** to determine the most influential statements for a market. In this example, 'I couldn't live without the internet on my mobile phone' has the most influence on the mobile phone brand market, it has the highest **%Inf at 1.4**, compared to the other statements used in this analysis **(figure 4)**.

Factor 2 Explained:

Right hand click on the heading '**Factor 2**' and select **Sort Descending**. **This will sort Factor 2 by ABS score**.

Nokia and **Apple iPhone** have the **highest ABS scores** compared to the other brands for **Factor 2 (22.6 and 19.8).** They correlate with the rows (lifestyle statements) directly below e.g., **'I enjoy reading newspaper most days'** and **'If I trust a brand, I buy it without looking at the price'** **(figure 5)**.

Figure 3

Description		Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6
Based on Audience	% Inf	ABS REL	ABS REL	ABS REL	ABS REL	ABS REL	ABS REL
Columns (+)							
Apple Iphone	31.8	38.9 + 96	19.8 + 03	2.7 - 00	0.0 + 00	0.1 - 00	0.5 - 00
Google	2.4	1.0 + 31	0.3 - 01	10.4 + 17	11.2 + 15	17.2 - 13	3.6 + 02
Oneplus (+10/17)	2.1	0.5 + 19	0.1 + 00	13.9 + 27	6.2 + 10	6.3 + 06	18.3 + 13
Htc	2.1	0.3 + 13	4.5 - 10	11.0 + 21	0.1 - 00	9.4 + 08	55.1 - 39
Blackberry	2.3	0.0 + 01	3.4 + 07	34.9 + 61	1.6 - 02	1.9 + 02	0.1 + 00
Huawei	1.1	0.0 + 01	0.0 - 00	2.0 + 07	0.9 + 03	2.6 - 04	2.9 + 04

Figure 4

Results Graph Points Stats

Description		Factor 1
Based on Audience	% Inf	ABS REL
Rows (Top 20)		
I couldn't live without the internet on my mobile phone	1.4	1.7 + 93
I like to go to trendy places to eat and drink	1.2	1.3 + 91
I feel the need to check social networking sites every day	1.2	1.4 + 97
I buy clothes for comfort, not for style	1.1	1.3 - 96

Figure 5

Description		Factor 1	Factor 2
Based on Audience	% Inf	ABS REL	ABS REL
Columns (+)			
Nokia	29.2	35.1 - 95	22.6 + 04
Apple Iphone	31.8	38.9 + 96	19.8 + 03
Blackberry	2.3	0.0 + 01	3.4 + 07
Others	13.1	14.8 - 90	2.8 + 01
Oneplus (+10/17)	2.1	0.5 + 19	0.1 + 00
Rows (Top 20+)			
I enjoy reading newspaper most days	0.8	0.9 - 85	1.7 + 10
If I trust a brand, I buy it without looking at the price	0.1	0.0 + 13	1.6 + 54
I spend a lot on clothes	1.0	1.1 + 88	1.5 + 07
Celebrities influence my purchase decisions	0.6	0.6 + 83	1.4 + 11
I have expensive tastes	0.6	0.5 + 73	1.4 + 12
I would not change the newspaper I read	0.8	0.9 - 87	1.3 + 08
I read the financial pages of my newspaper	0.4	0.4 - 74	1.3 + 15
I like to go to trendy places to eat and drink	1.2	1.3 + 91	1.3 + 05