

## **Survey Analysis Factsheet**

### **What to Look for When Commissioning an Analysis**

When commissioning a survey analysis there are several things to look out for. This will help ensure that the survey you have spent time and money on delivers the information it was supposed to. It is very easy to get a bad analysis because there are many organisations offering analysis without the skills to deliver it. This list of things to ask should enable you to commission an analysis with confidence.

#### **Ask for the Delivery Format**

You would be surprised how many companies offering survey analysis actually just hand you back hundreds of pages of tables. Anyone that has experienced this knows that wading through pages of tables is an exhausting and generally fruitless task. If your business needs information quickly so it can act immediately, then this is going to be of no help whatsoever.

The delivery format should be in the form of a report with key points laid out in plain English. Whoever has analysed it should also be able to pull together the information and give you a diagnosis of what they have found. If you are not going to receive this then walk away. Our reports are normally around 100 pages long with full commentary, chapters, chapter summaries with key points and a chapter dedicated to conclusions. The advantage of doing things this way is that you can either read the whole document or skim read the key points. This way there is no need to spend hours on wading through pages of tables.

## **Ask What the Primary Analysis Software the Organisation uses**

This is a lot more critical than it seems. There are few fully-fledged software packages that provide the necessary range of tests to provide a quality analysis. SPSS and Minitab are widely used and provide a good range of statistical techniques to analyse data. SAS, which we use, is even better but requires years of experience to master properly and is several times more expensive than the competitors. It is, however, the industry standard application for statistical analysis.

There are some packages that claim to be able to let people with no knowledge analyse surveys. This is not only stupid but dangerous as it is easy to produce erroneous results. One package called 'snap' offers exactly this<sup>1</sup>. It is cheap program that produces attractive tables but little else. Recently they have offered some statistical techniques in newer versions. One of these techniques is something called 'Cluster Analysis'. No one without a Masters Degree in statistics or a heavily statistically based subject is competent enough to do a quality cluster analysis. Why?

Well it so happens that cluster analysis relies on the density of the data, how correlated the variables are, how many outliers there are and numerous other factors. To be aware of all this requires the analyst to be skilled to an appropriate level. This is true of every statistical technique that all have their quirks and banana skins waiting to trip up the inexperienced analyst. Beware.

## **Ask How the Questionnaire will be Analysed**

A questionnaire designed for your organisation is unlikely to be the same as one used anywhere else. You will have questions you regard as mission critical and want answers. A good analyst will be able to find a technique right for answering your questions.

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<sup>1</sup> Snap actually has some use in reading data in to the computer but it is not a serious analysis tool. You will never meet a real statistician using this to analyse data.

Any comment from your potential analyst company along the lines of “We usually just...” should be an indication straight away something is up. This flags up something akin to ‘factory analysis’. This means the company involved is likely to feed your numbers into a machine and won’t see any of the data until the printer chugs out a load of tables (probably with attached  $p$ -values they don’t understand). Analysis like this is a waste of time and will probably tell you very little.

### **Ask for the Qualifications of the Analyst**

A good analyst will be competent with statistics. If an analyst is not competent with statistics how can they quote their results as statistically valid?

### **Get a Proposal from Them**

A proposal should state all of the information listed above and give a costing for everything. The proposal should be as clear as possible and look as if it is been designed to address your requirements.

Ironically, an analyst of good quality will find it difficult to say exactly what techniques they will use before they have the data in front of them. However, they will have a very good idea. This is because the quality of the data needs to be tested to see if using a certain statistical procedure is valid or not. Despite questionnaire questions normally having a five-point scale, you would be surprised how often some questions end up having a very small range of answers! A good analyst will be able to adapt their analysis accordingly.

## **Your End of the Bargain**

This is actually a very important issue. The analyst should be allowed input into the design of the questionnaire and sample *before* the survey is used. Without a shadow of a doubt the best analyses are based on surveys that have been designed to be analysed effectively.

If you can, get the analyst to come and meet you and talk over the questionnaire design. You can set out your wants and needs and they can advise on the best way of getting that information. They should be able to advise you on the scales used and if the sample is large and representative enough to fulfil its purpose.

## **And Finally....**

This list is as a result of meeting clients who have outsourced analysis before coming to us and found it doesn't measure up to their needs. It's very easy to spend a lot on survey analysis and find you haven't got anything out of the exercise. This does not have to happen.

Remember this is your questionnaire and your organisation will have to rely on the results. It is best you get a professional to do it. After all, would you take your car to be repaired by someone that knows nothing about cars or rely on a medical diagnosis from someone that is not a health care professional? Why then would you risk having your data analysed by someone that knows nothing about data analysis?

If you would like to know more about survey analysis call us on 0131-336-4132 (+44 131 336 4132 outside the UK), email us at [enquires@stat-info.co.uk](mailto:enquires@stat-info.co.uk) or visit our website at <http://www.stat-info.co.uk> and fill out the enquiry form.

## Summary

- Ask for the delivery format – make sure you will get a written report
- Ask what the primary analysis software the company uses is – SPSS, Minitab and SAS are the best for survey analysis
- Ask how the questionnaire will be analysed – a good quality analyst will be able to fit specific techniques to your survey data
- Ask for the qualifications of the analyst – make sure they are statistically competent
- Get a proposal – this should detail the work and the expected cost
- Make sure you get advice from the analyst during the questionnaire development in order to produce the best quality analysis possible