When is using spreadsheets to measure collaborative relationships not "free"?

Executive Summary

People often think spreadsheet-based assessments are "free".

However, whilst spreadsheets can be a good way to get started on basic surveys, they are never "free".

They incur hefty tangible and intangible costs – typically doubling the time needed for an individual assessment – and these costs expand even further as assessment activity scales-up.

Spreadsheets therefore end-up preventing the scaling-up of assessment activity:

- They introduce additional complexity.
- They're not designed or optimised for creating or filling-out assessment forms.
- They create significant additional "administrative" tasks.
- People can end-up blaming the process and not the spreadsheet.
- etc, etc.

Most of all, spreadsheets create limited "headroom" for value-adding effort, leading to workarounds being found, and attention being diverted away from what really matters.

All of this limits how many assessments can be run and how thoroughly the assessment process is embedded in the business.

When trying to successfully measure collaborative relationships, the relationships themselves end up suffering – a very high price to pay for a "free" tool.

Introduction

"*Why not use spreadsheets to measure collaborative relationships? Spreadsheets are free!*" – a statement we hear pretty much every time we begin to discuss assessments with people.

And, taken at face value, such a statement might seem reasonable enough…

…but are spreadsheets ever truly "free"? And, either way, are there circumstances in which using them to measure collaborative relationships not only *isn't* free, but limiting, costly and counterproductive instead?

We think there are.

To be clear from the outset, we've got no axe to grind with spreadsheets:

* They're excellent for what they're intended for.
* We've used spreadsheets ourselves since the early 1980s.
* They can be a good way to get started with assessments, and may remain suitable for basic, "trivial" assessments that focus on quantitative data.

It's just that spreadsheets are almost always a false economy in our experience when used for assessments that aim for any or all of the following:

* A degree of complexity.
* Going beyond quantitative data.
* Adaptability over time – in coverage, purpose or both.
* Scalability.

And one or more of these factors is almost always involved when measuring the subtle things that typically benefit from being assessed in a collaborative relationship.

But first, let's look at the (understandable) reasons why spreadsheets might seem to be "free".

Why spreadsheets are seen as "free"

For starters, pretty much every desktop computer has spreadsheet software (typically Excel). Whilst there's usually a licence cost involved, it's a one-off payment, it's relatively cheap, and it's already been paid.

So, straight away, there's no new upfront software cost for people filling out an assessment spreadsheet, or for the person who developed it in the first place.

This person will typically be an enthusiastic Excel user who has taken it upon themselves to "just get something done" (often looking to bypass internal IT in doing so). So – in this spirit – they will often make their spreadsheet freely available (the RMM spreadsheet from A|D|S is a good example). We'll come on to how easy-to-use, robust and adaptable such spreadsheets generally are, but so far so good – at least on upfront cost.

There's then the apparent convenience of the spreadsheet – it's familiar, it's flexible, "deployment" simply involves emailing it directly to assessment participants, and replies can remain as private as the person receiving them wants, so confidentiality seems assured (even though email is never wholly secure).

But perhaps most of all, a major part of any assessment process is to generate reports (to in turn serve the purpose behind the assessment). And, if a spreadsheet (forgive the pun) excels at anything (including in comparison to "prettier" assessment front-ends, like SurveyMonkey®), surely it's reports – aggregating and manipulating data, customising formulae, producing graphs, etc? Well, yes, up to a point…

…but how easy is it to collate data to generate reports when you have a high number of parameters being measured, a high number of assessment participants, or both? What about when the kind of data being collected is qualitative as well as (or instead of) quantitative? What about when you need the kind of searching or adaptability only really possible with a database? (A question that should incidentally also be asked of SurveyMonkey®.)

And so on…

It's through asking such questions that the costs of running assessments in spreadsheets start to reveal themselves – both inherent tangible costs, and the hidden costs of the limitations imposed.

The tangible costs of using spreadsheets

To begin with, spreadsheets really aren't optimised for assessment forms, which means it's complicated to get even relatively basic forms working, and even then they usually don't look great (as demonstrated in this video, including at 6:31, where even an Excel expert trips-up…!).

Whilst spreadsheets do have some form validation capability – checking for incorrect values within a cell, etc – it takes a fairly high level of know-how to set it up. Accordingly, either the spreadsheet author spends considerable time learning about and tinkering with advanced features (a list of topics an Excel user needs to have mastered for even relatively "day-to-day" Excel use makes this point), or their spreadsheet offers respondents little help in avoiding "mistakes" and missing out questions, etc.

The respondent experience is then usually further compromised and hampered by a combination of (i) spreadsheets' inherent limitations and (ii) the limitations of the spreadsheet author's expertise:

- Instructions are usually buried in separate worksheets or small hover-over comments on individual cells: all-important context and guidance information is usually not obvious or readily accessible.
- Non-numerical data is hard to capture: cells often don't resize to accommodate written comments, line breaks are difficult to add, etc.
- As the spreadsheet is usually emailed round, it's all too easy to open it from email, fill it out, save and close it… and then lose it, because unless it's been saved to a specific location, it only ever existed in a temporary file directory.
- Different versions of spreadsheet software behave differently, which can be an issue when the spreadsheet author and respondents have different versions (or even different software altogether).
- etc, etc.

All these issues can contribute to increasing the effort for the respondent and reducing the quality of their responses, which somewhat defeats the purpose.

And dealing with these issues can then create significant additional "administrative" tasks – especially checking the data and resolving any "mistakes" – which reflects the fact that spreadsheets are data-driven and not process-driven.

The time spent is virtually doubled (**see Figure 1**):

Figure 1: Typical assessment tasks (showing "necessary" vs spreadsheet time spent)
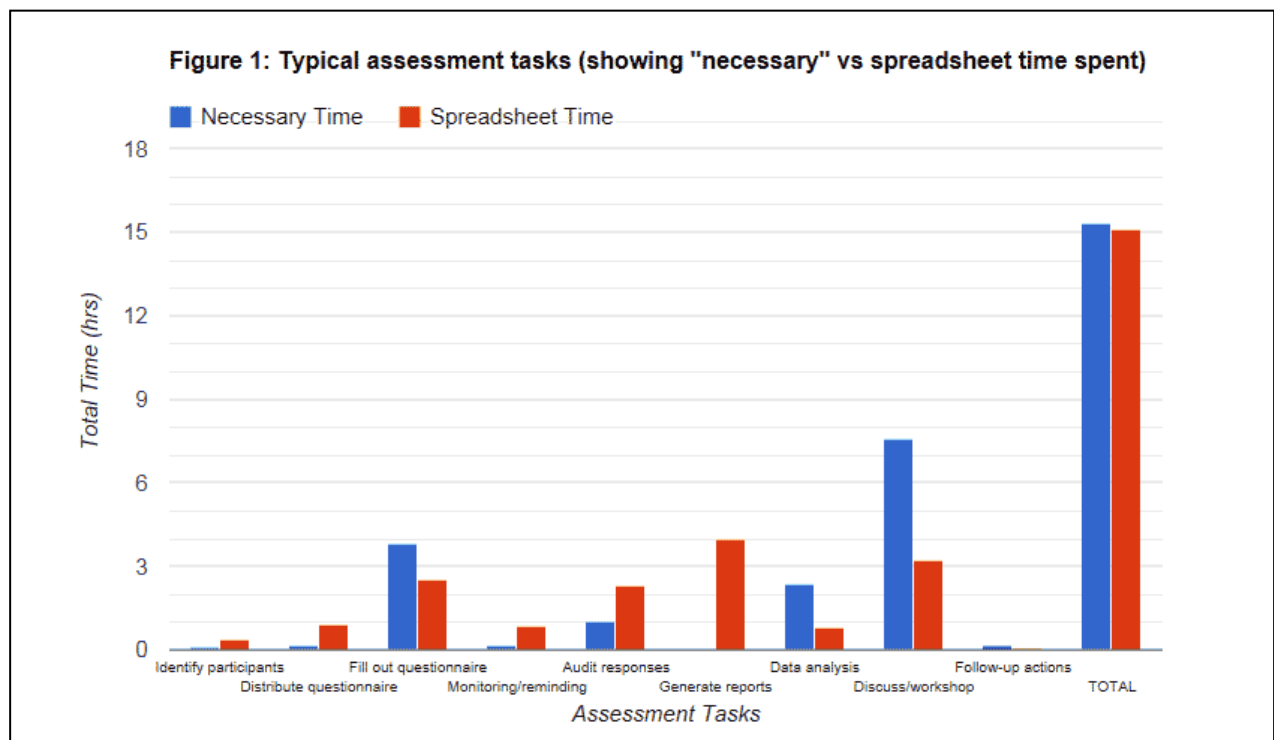
- Distributing the spreadsheets to respondents is often a significant task.
- Chasing-up responses is a manual process.
- Collating the data usually involves manually copying and pasting from individual responses into a "master" spreadsheet (which contains the report formulae and graphs, etc) – i.e. because spreadsheets are inherently single-user, so a multi-user "environment" needs to be "simulated" in this way.
- Where an assessment is repeated, there are frequently spreadsheet versioning "conflicts".
- When changes need to be made to the assessment spreadsheet, there are often complex "knock-ons" to track down and deal with, and these often only become obvious after the spreadsheet is put to use and "rogue" data appears (all often made worse by cells being "protected").
- etc, etc.

All of this incurs tangible costs – tangible costs which multiply to man weeks per annum, as assessments grow in either complexity, number of respondents, or both – and someone has to pick up that tab (*see Figure 2*).

Figure 2: Increasing burden of spreadsheets
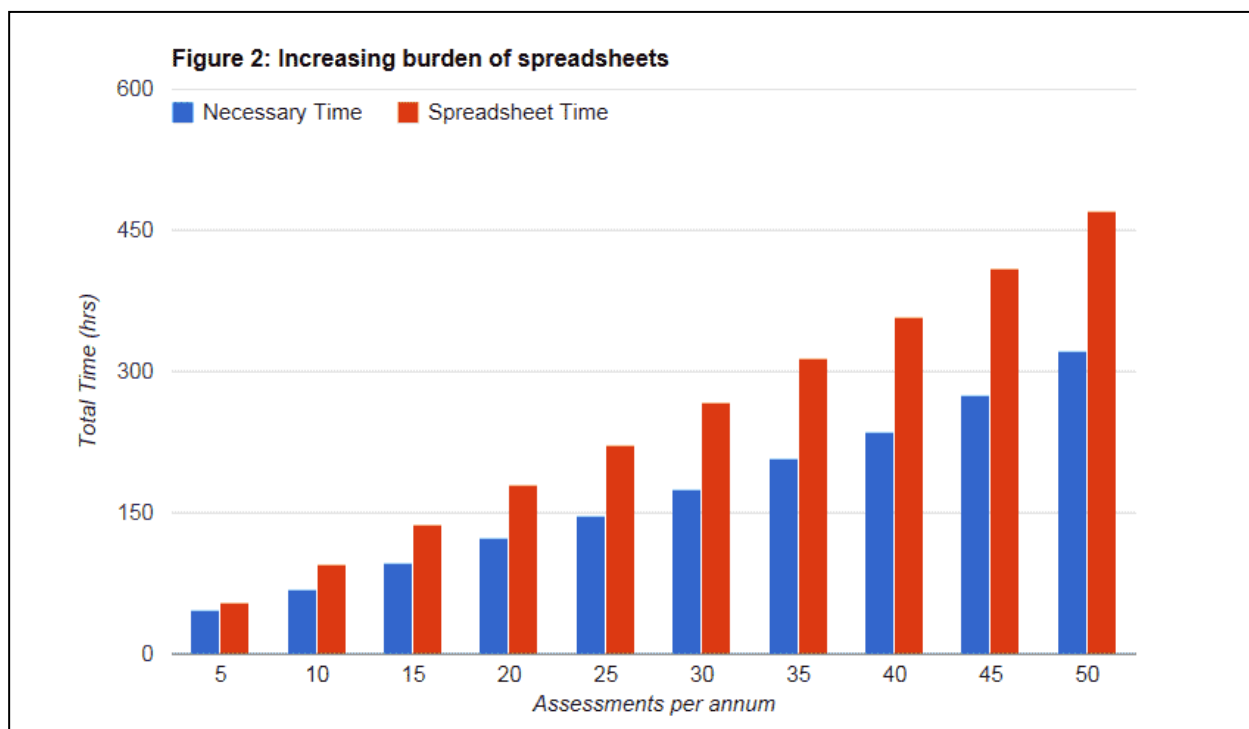
Of course, when the assessment process is run internally, that "tab" might seem invisible – e.g. if someone is spending hours copying and pasting data, or chasing-up responses, they're being paid anyway, so where's the problem?

But whilst that might seem to some to still preserve the notion that spreadsheets are "free", isn't it more a case of abdicating collective responsibility for overall corporate spending?

The problem is perhaps worse when paying someone to run the process, where we've found that one of two things is likely to happen: either (i) costs will go up to cover the additional administrative burden, or (ii) the process will be compromised in some way. Examples of such compromises include:

- The administrative tasks diverting time away from interpreting the data and running any post-assessment follow-up meeting or workshop (i.e. you may end up paying someone primarily to manage a spreadsheet, rather than what they've been principally engaged to do!).
- Workarounds being found that reduce richness – e.g. artificially limiting the number of participants or consolidating their feedback into one set of data.

At this point, not only is it not "free", but the spreadsheet has started to define and limit the assessment process it supposedly supports… and this is when we start encountering the hidden – and arguably "true" – costs of using spreadsheets to measure collaborative relationships.

The hidden costs of using spreadsheets

Contrary to the idea that spreadsheets are a "free" way of carrying out assessments, we've so far already seen that there are tangible costs and tradeoffs. But even if these are acknowledged (and even if any internal costs aren't seen as "free"), what's to say that spreadsheets still aren't cheaper than any alternatives?

For basic, trivial assessments involving exclusively quantitative data, a relatively small number of participants and run infrequently, this may still be true. However, in most cases when measuring something as important and subtle as a collaborative relationship, assessments shouldn't be basic or trivial, exclusively quantitative, limited to a small number of participants or run infrequently!

And, more than that, any judgement of the relative cost of spreadsheets to alternatives must factor in hidden costs.

We've already drawn attention to the poor experience that spreadsheets often give assessment respondents:

- How will this affect their willingness to repeat the process?
- Will they realise that any problems they've encountered are due to the spreadsheet, or just blame the process?
- Does emphasising that a spreadsheet is "free" make respondents more or less willing to attach high value to the process and what it is measuring?

But these examples are only the tip of the iceberg of how spreadsheets can compromise the success of measuring collaborative relationships:

- The elapsed time needed to "manually" distribute spreadsheets, then chase-up, wait for and collate responses often extends to weeks and months. How does this fit with the often fluid and fast-changing environment that collaborative relationships sit within, and where responsiveness is often critical?

- What about when there's a requirement to analyse data beyond the reports built in to the spreadsheet – whether that's a new metric that needs tracking, or the need to compare spreadsheets (both within and across individual relationships)?

- How easy is it to evolve and develop the process and reports?

- How easy are data comparisons to do when, in the best-case scenario the data is buried within spreadsheet files on a network (which itself means they're only accessible over the Intranet, and probably organised in different ways by different people)…?

- …and in the worst-case scenario – at least for data that there is no sensitivity in accessing and using for comparisons – those files remain with the person that ran the process, who may not even be a colleague?

- Indeed, how dependent is everything upon the person that wrote the spreadsheet? What if all the formulae are locked and hidden? What happens if the process needs to change, but in a way that is beyond that person's expertise? What if that person leaves?

But most of all (and reflecting **Figure 2**), the hidden costs of a spreadsheet-based approach are in the limited "headroom" the necessary additional time and effort create for running assessments.

This limited "headroom" is soon encountered as assessment activity scales up (**see Figure 3**), directly limiting how many relationships can be assessed, how many of those relationships can be assessed on a repeated basis, and how frequently those repeat assessments can be run.

Figure 3: Limits imposed by spreadsheets
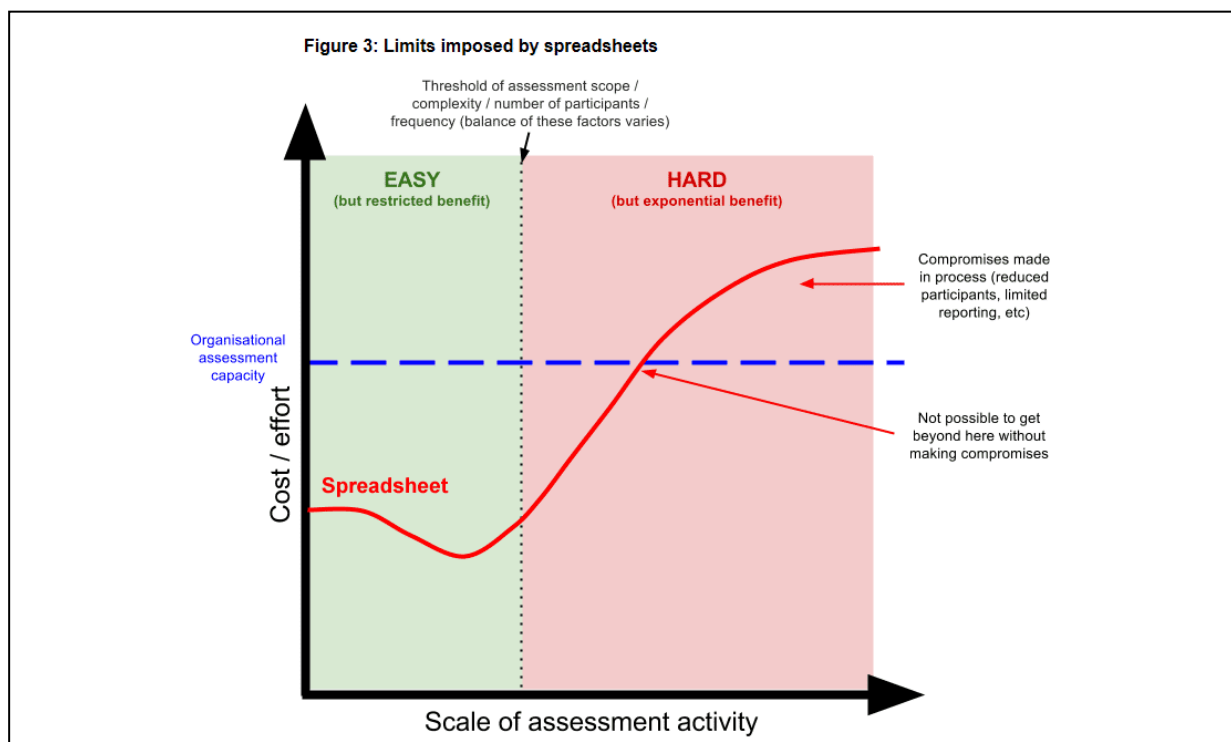
However, it is usually only through repeat assessments that the true benefits of measuring collaborative relationships become apparent:

- On a "basic" level, there are then comparison points and the ability to measure progress.
- More subtly, the parties now know each other and the process, such that a more frank and productive exchange of views is possible, with genuine change resulting.

So, once again, rather than serving the assessment process it supposedly supports, the spreadsheet significantly defines, limits and compromises it. But, by the time this has become an issue, there's a real danger that people will already be locked-in:

- A spreadsheet-based approach will have become familiar: change from the familiar is always an effort.
- Even if the constraints have become obvious, how can the "costs" of adopting an alternative be justified if everyone has so far been led to believe that measuring relationships is "free"?

Unwittingly, then, adopting spreadsheets to measure collaborative relationships may well ultimately significantly "hobble" the effectiveness of those relationships, which seems a very high price to pay for a "free" tool...?

Conclusion

Spreadsheets are never wholly "free", but they *can* be a good option for one-off (or infrequent), low value surveys – probably focused on quantitative data, and with limited participants.

However, in most cases, this isn't the profile of assessments that measure collaborative relationships.

For these assessments, a spreadsheet may serve as a useful proof of concept and possibly even as a reasonable way of getting started. It also has some advantages that any alternative approach needs to be mindful of, and these include familiarity, flexibility and confidentiality.

But if you start down a spreadsheet-based route, actively prepare to switch to something more purpose-built, because spreadsheets come with a high risk of lock-in, are significantly limited in what you can do with them, and create a long list of things that you can't do, leading to workarounds being found, and time and effort being diverted away from what really matters...

...all of which will be increasingly damaging and counterproductive when trying to scale-up assessments in complexity, number and frequency, and to really deliver the benefits of measuring collaborative relationships.

Collaborative relationships are vital. Assessing and measuring them is crucial to their success. Why risk compromising that success for such a short-sighted and short-term perspective of what is "free"?