

The Joy of Data: Are We There Yet?
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[updated: Tuesday, December 3, 2024]

"It's not the destination but the journey."
---Ralph Waldo Emerson (1803-1882)

Introduction:

A recurring issue in business analytics is knowing when “enough is enough”. That is, it is important to discern when you should consider stopping doing an analysis of the data. Stopping “too soon” risks leaving some important questions unanswered and richer analytical techniques unused. Continuing an analysis “too long” can result in asking questions that are either too general or too granular in nature, and risks being inefficient with your time. Sometimes as a business professional, stopping an analysis is simply just a matter of time because you have other things to do, lack of knowledge regarding analytical techniques, or lack of skills with different and emerging data and computing technologies.

The following are some questions to ask yourself when considering “when to stop.” If the answer is “Yes” to each of the questions, then you might consider stopping your analysis.

Descriptive Analytics

Is this the limit of the boss’s, client’s, or audience’s understanding?
“A picture is worth a thousand words” – Does your visualization tell the story?

Diagnostic Analytics

Have you ruled out, or controlled for, any possibility of randomness or chance?
Have you looked at the data from multiple perspectives and tested each one?

Predictive Analytics

Have you incorporated, or controlled for, any other measurable factors?
Have you considered where in the model some aspects might be non-linear?

Prescriptive Analytics

What is needed to operationalize the results from the prior analysis?
Will the built-in algorithms in Excel be good enough or do I need to write a program?

Bottom line: The first tenet to remember at each step is to ask “Did I answer the boss’s, client’s, or audience’s question in an appropriate and satisfactory manner?” If so, you are done. The second tenet to remember is that no question is ever fully answered, no analysis is ever complete, and there are always more analytical techniques and software applications to learn.