

The Story Trumps the Data

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“Big Data” is all the rage in management, and human capital analytics. Rapid consolidation among HR software and service providers, and the aggregation of HR services such as recruitment, succession planning, assessment, surveys, etc. will soon produce human capital data at an unprecedented scale. The promise of mining those data to discover correlations and relationships is mind-boggling and will no doubt spawn a dizzying array of human capital analytics services and products.

So, it may be valuable to take a moment to remember some fundamental rules about data and decisions. The history of finance is a great source of valuable reminders. One is that in every epoch of new data, it is often the “story” -- not the data -- that endures.

How are great stories constructed? Writers have lots of “data,” such as characters, literary devices, settings, imagery, etc. Consider the massive amount of material that J.K. Rowling, author of *Harry Potter*, compiled in her legendary writing marathons at obscure UK coffee shops, storing snippets of paper in shoe boxes, etc. How does such material get organized into novels? It may surprise you to know that authors construct large spreadsheet-like charts to organize their ideas. You can see pictures of the charts for several great literary works on the web at this site: <http://imgur.com/a/cqWsj>.

Lacking an organizing discipline and structure (a “spreadsheet for the story”), even the greatest literary elements never coalesce.

Is “story” important in finance? The [Economist reports](#) on a video game called “Bite Club,” which teaches financial principles to low and middle-income consumers, casting them as owner of a nightclub for vampires, in which you “rake in money by getting your customers the blood-type they want, while socking away enough cash for retirement (a long one —you’re undead).” The “story” is often the best way to engage people to learn.

Beyond teaching financial principles, the “storyline” embedded in financial principles themselves is often powerful.

The formula for “Net Present Value” artfully combines the ideas of the timing of cash inflows and outflows, and how to equalize them across time, using the “discount rate.” Having data to calculate NPV is useful, but it is the logic that endures. A popular story in the 1980’s told of the son of a Japanese corporate patriarch who graduated from a Western university with new management models. Upon his return, the son proudly used the net present value formula to analyze several investments. The father listened patiently, and then said, “You obviously must leave this company because you are meant for greater things. I see that you can predict future interest rates.” Of course, the interest rates were not perfect, nor did they need to be. The NPV formula doesn’t require perfect interest rates to be valuable. Indeed, even perfect data on cash inflows, outflows, their timing and the interest rate is useless, without the right story line to put it all together.

The story trumps the data.

Can a finance formula actually create organizational change? Consider the power of the concept of Return on Equity (ROE), in shaping the growth of General Motors in the early 20th century. The equation is often called the “DuPont” Return on Equity formula. Why? [Donaldson Brown](#) was among the first to apply ROE and other standard accounting formulas in the DuPont corporation. Donaldson Brown joined DuPont in 1909 as an explosive salesman, authored a report that showed the power of the ROI formula in 1912, and by 1918 helped the Treasurer execute DuPont’s acquisition of a large stake in General Motors, and he was one of the first to bring economists and statisticians to the treasurer’s office. By 1924, Donaldson Brown was on the General Motors executive committee, working with Alfred Sloan to create one of the first large corporations to be managed centrally. One key to balancing centralized control and unit-level autonomy was the “story” embedded in the ROE formula.

As Paul Ingrassia writes in the book [Comeback](#) (pp. 154-155):

“Under Sloan and Brown, GM’s policy was to earn 20 percent return on equity even if the plants ran at only 80 percent of capacity. This ‘standard volume’ approach controlled critical decisions about capital investment, pricing, the size of the labor force, and sales forecasts. ...‘Forecasts,’ Brown wrote, ‘provide the basis for financial control.’ ... Inflated sales forecasts encouraged large capital investments that couldn’t be repaid and still provide the required 20 percent return on equity.”

The power of the ROE story line can be seen in the standard way that the formula is calculated:

$$\begin{array}{ccccccc} \boxed{\begin{array}{c} \text{Return on} \\ \text{Equity} \end{array}} & = & \boxed{\frac{\text{Profits}}{\text{Equity}}} & = & \boxed{\frac{\text{Profits}}{\text{Sales}}} & \times & \boxed{\frac{\text{Sales}}{\text{Assets}}} & \times & \boxed{\frac{\text{Assets}}{\text{Equity}}} \\ & & & & \textit{Margin} & & \textit{Asset} & & \textit{Leverage} \\ & & & & & & \textit{Productivity} & & \end{array}$$

A Pete Ramstad and I observed in [Beyond HR](#) (chapter 2), the genius of putting sales and assets into this formula is in the clarity with which an organization can communicate how different parts contribute to the broader goal.

- Equity (Investment) is used to acquire assets. (the ratio of assets to equity being leverage)
- Assets are used to generate sales (the ratio of sales to assets being the asset productivity)
- The sales generate the profits (the ratio of profits to sales being the margin)

In the General Motors example above, the formula showed how sales forecasters should be held accountable for the implications of those forecasts not only for sales, but for the changes in assets, equity and profits needed to generate a 20 percent return. Data was important, but it was the storyline in the formula that was the change-agent.

Is there an equivalent to “return on equity” when it comes to human capital? We don’t yet have the formula, but relationships between things like leader quality, employee engagement, employee turnover, employee service behaviors, customer responses and financial results provide tantalizing hints that such formulas exist. I have written about the power in “retooling” human capital issues to fit the metaphors of well-known stories such as supply-chain and portfolio risk optimization.

Integrated human capital management systems promise a deluge of Big Data, some actionable and some not. Similarly, in the early 20th century, the numbers to populate the ROE formula existed before the formula, but it was that ROE story that changed corporate and management history.

As with the history of finance, in the history of human capital analytics, it will be the “story” that distinguishes blind data mining from insightful evidence-based decisions.

If the human capital equivalent of ROE is to be found, it seems likely to emerge through partnership between finance and human resources. This will require breaking down traditional boundaries. It will require accepting data imperfections in the interest of creating organizational learning.

Yet, if the original insight to apply return on equity arose from the mind of a former explosives salesman, breaking down traditional barriers may be the best way to search for insights among the coming deluge of human capital information.

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