If your data whispers what you gut screams, cover your ears.

Introduction

Biases on decision making process are known to be deal breakers, so it makes sense that experienced senior managers would take advantage of massive amounts of data being collected to balance their own views, avoid group thinking and take the best decisions, but an excessive amount of data gathered under the lenses of confirmation bias can reinforce the common sense in the room, and build an overconfident wrong assumption that will, most likely, crash and burn.

Case Study: shifting business based on data

In the early 2000s the internet was spreading throughout the world, and lots of people was asking themselves if we ever would read books and take notes on paper again. In Brazil, this decade was really promising, with economy growing 5% annually[1] and social policies bringing people to classes A and B. The Pulp and Paper industry in Brazil knew that, against common sense, this economic and technological scenario would actually increase paper sales, similarly to what happened in the developed countries when personal computers first came (chart 1)[2].

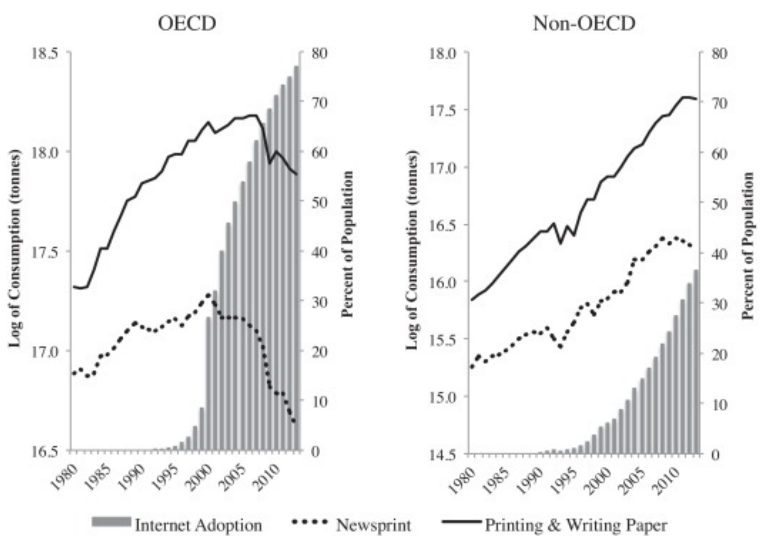

Chart 1 - Paper consumption 1

Based on this assumption, the local management of a multi-national company decided to move forward with a green field mill project that was on hold for more than 10 years. The mill, rough worth around 1 Billion USD, would be an integrated site, producing pulp and paper for writing and printing out of *Eucalyptus* wood from their own forest. However, other companies also see this market gap and several initiatives starts, and the managers from our multi-national company foresee a market flooded with Brazilian pulp and decides to exchange assets with another big player, letting the pulp mill go in exchange of keeping the paper production, a long-term market priced pulp supply contract and an older mill.

Based on previous observations, the seasoned local and foreign managers and VPs knew that Brazilian markets would absorb their production due to the arriving profit and technology, and the raw dried cellulose pulp would be cheap, once a lot of new mills was being build.

The mill was ready in 2009, a bad year for markets, and Brazil never recovered from the world economic crisis. Already in 2012, the mill started raising their inventories and warehousing costs sky-rocketed. What was the problem?

One possibility is that the 20 years experience each of those executives that took that decision had in that same company tuned on their "I've seen it all" felling. In other words, they were seduced by the confirmation bias, and not capable of escaping the group thinking phenomena.

Conclusion

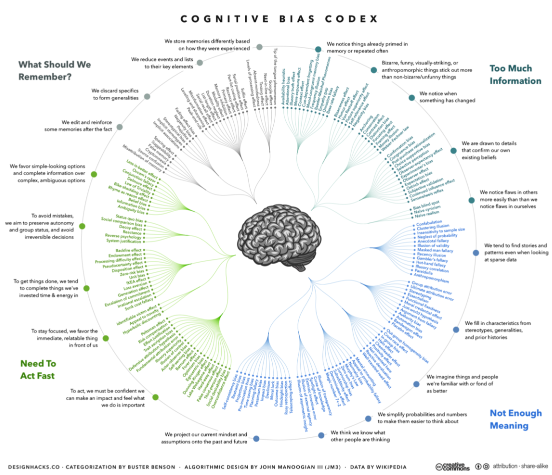

Figure 1 - Some known cognitive biases 1

There are hundreds of identified cognitive biases (figure 1)[3] and the subject is being discussed for decades already. One could think that data would help foresee those misconceptions, but instead, data can be a trap if it is used to reinforce the biased decision we made well before analyzing the charts.

---

[1] The Economist. (2009, November 12th). Brazil Takes off.

[2] Craig M.T. Johnson. (2016, December). Global paper Market forecasts to 2030 under future internet demand scenarios. Journal of Forest Economics December 2016. Volume 25, pages 14 – 28.

[3] Wikipedia. (2018, January). List of Cognitive Biases. https://en.wikipedia.org/wiki/List_of_cognitive_biases.