

Yes, Alternative Data Is Useful Beyond Next Quarter's Results



Michael Molnar

Contributor [Hedge Funds & Private Equity](#)

I discuss how investing and markets are changing.

Say you are forecasting revenue for a company a year or two from now. You open your financial model and multiply an estimate of units sold times the price per unit. Fairly simple. But what is driving the number of units sold and price? In other words, what are the core drivers of those drivers? Typically, they include intangible factors like customer loyalty. Unfortunately, these critical inputs are often a guess by most analysts today. That may soon change, however, as creative users of [alternative data](#) figure out ways to analyze such factors and, in the process, discover a host of new, longer-term, applications for this data.

To understand how alternative data can be useful beyond common applications in short-term forecasting, I recently caught up with Abraham Thomas, Co-Founder of [Quandl](#). Quandl was one of the first alternative data providers and a leading company in the space (acquired by NASDAQ [NDAQ](#) **+1.1%** in 2018). We discussed short and long-term use cases as well as many other topics facing users of alternative data. Below is a summary of our conversation (note: the conversation has been condensed and edited for clarity).

*Note: Years ago before moving to Wall Street, I was at a think tank focused on this question of how to model intangible drivers of financial outcomes. We used system dynamics models in our research but we lacked alternative data as the industry did not yet exist. See [Managing for shareholder value: intangibles, future value and investment decisions](#), *Journal of Business Strategy*, 2004.*



Alternative data can help clever investors understand the short and long-term drivers for a company's performance

Michael Molnar

What drove you to start Quandl?

Abraham Thomas

It was born out of personal frustration. I was always trying to make data driven decisions. That's great in theory but, in practice, 80% or more of your time is just looking for data, verifying, merging and structuring it. You spend 5% of your time actually thinking, analyzing or taking action. And this was my life. This was life for many, many people.

One day, my cofounder, Tammer Kamel, and I were having beers and he said, “Wouldn't it be great if there was just a single website that just did all of this stuff?”

And I said, “Oh, that's a really cool idea. We should build that.”

It was totally a case of solving our own pain point. As it evolved, we quickly realized that there's so much more data out there in the world. Gathering, structuring, vetting and delivering it in a single location for others to use worked really well.

Michael Molnar

Let's bring this to life. How are people getting value out of alternative data?

Abraham Thomas

Here's an early example that is still very relevant today. Early on, we were trying to figure out how to predict car sales for the U.S. auto industry. Then, we had this brainwave: every time you buy a new car, you have to buy insurance.

So, we reached out to partner with a bunch of insurance companies. We asked them to tell us how many policies they get for new cars every single day, by make and model. Once you put together a sufficient number of partners, you can extrapolate to get a really accurate estimate of daily new car sales. The result is that you have an early read on the monthly sales published by car companies, weeks in advance.

That's kind of a classic early example of alternative data and one which doesn't require a lot of math. It's a nice, very clear-cut story that continues to have power today.

Michael Molnar

Got it. Here you have immediate insights into sales. How might that data be used to help beyond having an edge into the next quarter's results?

Abraham Thomas

This first application just described started several years ago and was just about predicting car sales. But you could also slice the data by things like regions (where are cars selling?) or demographics (who is the buyer?). If you knew, for example, that a certain model was being bought by young, affluent, urban professionals and another car was being bought by retirees then you could use that information depending on the question you are trying to answer. It's more than just how many cars are sold, but who's buying them and where.

This can lead to insights to deeper questions like loyalty. For example, if you've tracked this data over time, you can see loyalty trends. Say a person has a BMW and they're buying a new car. Are they likely to go from a 3-Series to a 5-Series? Or, are they likely to go from a BMW to Mercedes...or an Audi or a Tesla?

Even though our data is aggregated and anonymized, you can see how a certain brand's loyalty is trending over time. That's the kind of thing that

doesn't necessarily show up in monthly or quarterly sales, but can be a driver of sales over a multi-year horizon.

What's interesting is the original application for auto sales data is fairly uniform across investors. Everybody's looking at predicting or understanding monthly sales. But interest in things like loyalty are more driven by specific investors focused on a particular question. Now you're bringing the portfolio manager's creativity and understanding of the industry into it. This is valuable to a lot of the fundamental and discretionary investors.

Michael Molnar

Can you give another example in a different industry?

Abraham Thomas

Let's discuss airlines. Here, you can look at online booking activity in a few different ways.

You can look at the prices on airline sites because the prices go up and down based on how many seats are remaining. You can also partner with some of the travel agencies, aggregators or search engines to figure out what people are searching. This can give you some short-term insights. If people are searching and clicking on certain flights, that gives you a read on how many seats are going to be filled and at what prices.

But there's much more interesting long-term insights as well. For example, customer loyalty. Some people will fly certain airlines almost no matter what.

Some people are price sensitive, others are not. Some people have high loyalty, some people don't.

You can plot these elasticity curves. For example, a budget airline probably has very price-sensitive customers so their seats are strongly tied to their pricing online. A more full-service, traditional airline, may have brand loyalty. And so that tells you something about pricing power for the different airlines.

If you are an airline industry analyst, you probably have a fairly sophisticated financial model, which includes price elasticity as one of those factors. And now you can actually directly measure, rather than just guesstimating that input.

One last thing. The beauty of air travel is that people are often buying tickets for travel three months, six months, 12 months into the future. There's an expectations component to it which is pretty rare to find. If you are trying to figure out what's happening with the economy as a whole in terms of actual dollars of future intent, it's hard to get. This data provides an interesting insight. I find that kind of cool.

Michael Molnar

How has the alternative data industry changed from when you started?

Abraham Thomas

There have been a few changes. One is that a lot of the low-hanging fruit have been plucked. There are still some, but it's harder to find datasets which draw a simple, straight line to alpha.

Another change is the amount of supply that has come to market. The truth is most of that data is simply not that relevant to investors. It might be good data, meaning it's clean and structured, but it just doesn't have any useful information content.

Given this, funds have become more rigorous and selective. We have evolved in that direction as well. We used to see several hundred new data vendors or partners every quarter. Now we filter those down until maybe one or two make it to the market because most of it is not that relevant.

Sometimes this can manifest in a lot of people saying, "Oh, there's so much data out there, but it's all junk." And in some sense, they are right. Maybe 99% of it is junk, but 99% of *everything* is junk. But that one percent can have big value.

Michael Molnar

Agreed. Some people do simple analysis and say there is no value to a dataset. Maybe, but what do people mean when they say that? What analysis is driving that conclusion? Data can have value at different times in the market and certain data combinations may be very useful when one of those pieces of data in isolation may not be. What are your thoughts?

Abraham Thomas

This is worthy of a one-hour discussion in its own. I have so many thoughts.

I'll give you a fascinating example. This one is quite recent. So a lot of local businesses have closed due to the pandemic. You might ask yourself, where

are they closing these doors? Your initial naive assumption might be, well, the pandemic has hit less affluent and lower income areas, so maybe that's where they're closing down the stores.

Actually it turns out to be exactly the opposite. Because in the affluent areas most people have the privilege and the luxury of working from home. And so they're not picking up their morning coffee. Whereas in the less affluent areas, people still have to go to work. And so they still walk past the Dunkin Donuts and pick up their coffee. So sales actually fell by the most in relatively prosperous areas of the country.

It kind of jumps out to you if you take a dataset of consumer transactions where you have zip code level data and then you cross it against the census income by zip code. This is a kind of insight that you don't get from either data set alone.

Michael Molnar

Given an example where a user failed with alternative data, for whatever reason. What happened? What's was the learning?

Abraham Thomas

First, I define failure as you failed to make money. If you're an investor, that's what you care about. But the way it plays out tends to be quite different for systematic or quantitative investors versus say fundamental or discretionary investors.

For a systematic investor, they will embark on using your data if they find some sort of signal in the data that is not priced in by the market. As time goes by, the secret spreads and the value of the signal typically decays. It may become table stakes so you may still have to use it so that you're not at a disadvantage over others, but the alpha signal decays. So if you expect a data set to generate alpha for decades on end, you're setting yourself up for failure.

For discretionary investors, there are a couple of challenges. One challenge is that it is hard to know what's priced in. Because these investors have such a holistic view of analyzing companies, it can be hard for them to know which of these facts are being priced and appreciated by the market.

The other challenge is that what drives a stock changes over time. A classic example here is Tesla. First, it was all about understanding if they could produce enough vehicles to meet expectations. Then, the focus was on the uptake of new models. Then, on progress in China. All of these questions are valid at different points in time and having the right data can help you answer all of them. However, if you are focused on question A but the market is actually is focused on question B, your data-driven answers will be irrelevant. That is a danger. Having great data is necessary but not sufficient.

Michael Molnar

Data can do a lot of things, but one thing it can't do is know the right question to ask. Perhaps it's the one area that well-trained humans still have a clear advantage over machines.

Abraham Thomas

Absolutely correct.

Michael Molnar

You sold Quandl to NASDAQ in 2018. Selling a company that you started is always a tough decision. You had great momentum, so what drove you to sell?

Abraham Thomas

Everybody knows the NASDAQ stock exchange, but NASDAQ also has a huge franchise selling technology services, solutions and data. Quandl had a great brand, customers and technology infrastructure. NASDAQ was looking to get more involved in alternative data which is how they came to look at us.

We asked ourselves, if we continue on staying independent, what would we do next? We probably would be investing a lot more in sales and marketing to expand our footprint globally. Well, NASDAQ already has a presence everywhere in the world. Quandl could fast forward three years into the future just by hooking into those resources. So that made a lot of sense. And best of all was the fact that their type of customer were the same as ours. We just had different products to sell them. It's a cliché, but it really did feel like the whole was greater than the sum of the parts.

Michael Molnar

Abraham, I really appreciate you taking the time. I enjoyed it.

Abraham Thomas

It was a lot of fun. Thank you.