



Microsoft: The four stages of analytical life: HRBI at Microsoft

*Business insight (BI) sits at the heart of what Microsoft does. When speaking to analysts about the company's new reorganisation – OneMicrosoft – to align with its new strategy in September 2013, Steve Ballmer, then chief executive officer, explained how the leadership team had spent six months, 'not beating out what a reorganisation looks like, but really fundamentally honing the strategy, the strategy first and foremost of focusing in on high-value activities. There are actually high-value activities and low-value activities. Although sometimes you'll find that somebody's low-value activity is somebody else's high-value activity.'*¹

Microsoft has a history of analytically establishing and hitting high value. In the last six years, revenues are up 66%, representing an 8.8% compound growth rate. At \$191 billion, cash returned to shareholders over the last decade dwarfs the figures returned by competitors, including Apple.²

From human capital analysis to human capital reporting

Ballmer attributes Microsoft's success to a number of things: great products, a clear business model, and 'having incredible talent'. Indeed, Ballmer went on record to suggest that, 'this is something I actually think I understand probably better than almost anybody on the planet.'³ One of the key individuals playing a role in Ballmer's grasp on Microsoft's talent is Dawn Klinghoffer, the Senior Director of HR Business Insights at Microsoft.

A mathematician by background, Klinghoffer joined Microsoft over a decade ago, initially contributing to, and subsequently now leading, a team of 30 people with skills in statistics, psychology, finance and a whole host of other capabilities all underpinned by analytics which Microsoft brings to bear in its HR Business Insight. 'Microsoft is very data-driven,' she says, 'so pretty much everyone wants to understand every type of aspect of our data, and that's what our team specialises in.'

Ballmer himself was keen to understand his talent through the eyes of data and was rarely disappointed.

'What I'm most proud about,' reflects Klinghoffer, 'is that if the CEO comes to my office, 95% of the time he asks a question, I am able to give him an answer based on the data that we have. That was not the case ten years ago. [...] We have built a function where I feel I am able to be nimble in getting data, enabling us to

make decisions in a really agile and accurate way.'

The leadership team regularly uses Klinghoffer's and her team's skills.

'Because our CEO relies so much on data it makes our role critical. We get involved with lots of big projects where data is key to decisions, even down to the latest re-orgs that were announced this summer, which meant that we were providing lots and lots of cuts of data. This involved looking at things and asking, "if we arranged things this way, what would that mean from a people perspective?" I'd like to think this helped making decisions on where we wanted to go. Our data is very much support for the strategy leads to make decisions.'

Human capital reporting the Microsoft way

Sitting under Lisa Brummel, CHRO at Microsoft, the HR function has a direct line to the CEO and comprises line HR teams and four centres of expertise (COEs). Within Talent and Organisational Capability there is a centralised college staffing function, and under Compensation and Benefits sits the Global HR Operating Team. HR Business Insights is a separate COE, which, Klinghoffer points out, 'really highlights the investment that HR and Microsoft have made in the function.'

Human Resources Business Intelligence (HRBI) has a research and analytics team that owns the Microsoft wide Poll, where employees are surveyed once a year on engagement, the Exit Survey, which gathers insights on people who have left the company, attrition analysis involving more predictive modelling,

movement analysis, leadership paths and quality of hire.

Getting the analytical foundation steps in place

There is a separate team that is focused on Microsoft-wide standard reporting, tools and processes which partners with the Research and Analytics team. This is the largest remit of HRBI. This includes ownership of the HR data warehouse, and reporting tools that HR as well as managers access to get at reports such as attrition, diversity and staffing.

The HR function at Microsoft has itself been through a transformation in the autumn of 2013, and one of the areas focused on was centralising reporting and analytics.

'One of the teams I lead,' highlights Klinghoffer, 'is completely focused on supporting the reporting and analytics needs of the line organisations, so the Engineering, Business and Corporate functions are supported with any ad hoc reporting/analysis needed to run their businesses.'

It is quite an empire. There is a person on the team that partners closely with the Legal and Corporate Affairs function (LCA) and any data/analytics that is needed to support their work. Another is focused solely on a special project Klinghoffer and her team recently worked on with the Global HR Operations team in the way Microsoft manages employee data. She also has an HR data privacy expert which partners with LCA on privacy standards and guidelines specifically around employee data. Klinghoffer's team also owns the business management

function for HR as a whole and the HR planning process, the resource model used to allocate human capital within the disciplines of HR, and partners closely with finance on the expenses needed to support various HR programmes.

Wielding this analytical power is an art Klinghoffer has honed over the 13 years she has been working at Microsoft.

'It can be overwhelming for people to look at piles of data and figure out how you are going to get any information out of it – particularly when you are in professions where data analysis is not a core competency.'

This, for Klinghoffer, means focusing on a business problem by gathering insights with a view to taking action. This sounds simple but requires a deep level of analytical understanding and the processes involved across four different stages. Each of these stages resonates strongly with the four analytical steps of the Valuing your Talent Framework (VTF).

Stage 1: Data collection

This stage clearly resonates with the input analytical step of the VTF. In short, Microsoft has an enviable grasp of the size and nature of its workforce. 'What is really important to take away is you don't need a ton of data to be able to make traction,' observes Klinghoffer. Much depends on what is under analysis and what you want to do with it – or more accurately, the level of the claims you'd like to make and the significance of investment made on the back of it. 'Obviously the more data you have the richer your insights can be.' For

example, when exploring recruitment and retention issues, Klinghoffer's team have data from 90,000 hires stretching back over nine years to work with.

Small companies need to be careful about making judgements without a lot of data. For Klinghoffer, 'you must have critical mass of a population in order to have a strong point of view: we generally don't like taking a big stand on less than 50, [and] you should ideally have 100 hires for any given group.' She continues, 'for this type of analysis to be meaningful, you need to be able to somehow differentiate the talent and the outcomes they have been able to achieve since they were hired.' This is not necessarily easy for new or small companies.

What little data you do collect has to be high quality. 'The best place to source this data is from your accurate and complete processes and systems, and the HR data warehouse that contains all the related data,' although Klinghoffer acknowledges many companies have not reached the rigor of Microsoft's warehouse.

'When I speak at external events the two problems people have right now is the quality of data and lack of data. People don't even have a database that houses all of the HR data, and they don't even know where to get some of this stuff.'

Microsoft has benefited from taking a long view, a long time ago:

'We thought we have a lot of HR data on individuals so we better create a data warehouse so we have one place to go, and we've had this in place for about 13 years. When I speak externally I would say around 75% of the companies I speak to do not have a data warehouse.'

Stage 2: Applying definitions

Definitions play a key role in deriving meaningful insights relating to the effectiveness of investments in the workforce. Again, much depends on what is under analysis. For example, Klinghoffer highlights the importance to data collection of being able to differentiate between different types of activities across different populations when establishing, for example, Quality of Hires (QoH).

'At Microsoft "early attrition" is less than two years due to the high relative investment of a new hire – recruiting costs, signing bonus/stock, relocation, less productive ramp-up time of a new hire, on-boarding assistance from teammates, interview loop time, opportunity cost of another good hire that may have stayed, etc. We estimate cost of attrition at 150% of salary.'

There are other data points to consider, although, 'any company should be able to discern their ROI from a new hire [and from there] what is the break-even period.' Ultimately companies can build their own QoH data sets using, 'a combination of both hard data if available (for example, reviews, sales, retention), or soft, that any company can theoretically roll out (for example, hiring manager or peer survey) or a blend.'

Stage 3: Analyse

Questions inevitably come in waves, as, 'once you begin the analysis, you will most certainly generate additional questions.' Again, it is difficult to draw general points from this stage because specific issues require specific

questions, which in turn are aligned with different techniques. Companies will inevitably approach different analytical questions through the different lenses of the VTF. Klinghoffer again uses the example of QoH.

'If you hire across geographies, different professions, or a variety of experience levels, you probably have some variation in the quality of your hires. What kind of variation do you have? Is there any connection to your business's opportunities or pain points?'

Clearly, there are parallels here with the VTF's third analytical step, output measures, which seek to establish the outputs generated by HR's activities.

Klinghoffer offers two important caveats regarding the analysis stage. The first observation turns on the utility of analytics. 'QoH is not useful at an individual level – it is the source or multiple traits of the hire that is important, not the individual performance.'

The second concerns the much-trumpeted notion of predictive analytics.

'Remember, this QoH analysis will not necessarily predict how an employee will perform long-term, based on the time periods of the definition. This also will not predict attrition [although] we have done some other work on that front. We actually hired somebody from the marketing sciences area from T-Mobile and she had done a lot of predictive work around mobile customers and whether they'd switch carriers, and she's using the same underlying philosophy to create some models for us in our world. [...] We've definitely contributed to the organisation making better decisions based on data.'

Stage 4: Take action

As the VTF advocates, there is a cyclical pattern from human capital analysis, to its reporting and finally through to its ultimate valuation. Taking action on the basis of BI is closely linked with its analysis, and critically, how executives understand and derive insight from analytics. For Klinghoffer, the visualisation of data has had an enormous impact.

'Where we learn the most is around how we are able to instantly understand and process the data without having to weed through the numbers.'

The HRBI team are now playing a central role in the decisions and activities the HR team is involved in.

'Data gets involved in pretty much every programmatic decision we make in HR. If we are going to change our performance management system, we do tons of analysis and the data really helps drive that decision. Any type of benefit changes we make we do extensive analysis. We have used data to explore whether we are paying our top performers the right amount of money. We spend a lot of time on quality of hire – the people we have hired. We examine them across a scale from a high-quality, medium quality or low-quality hire.'

This is not simply analysis for analysis's sake. There is a clear move to map outputs and impact to the inputs of, in this case, recruitment.

'We look at the data to measure the level of investment in different populations based on what the data says. We have done analysis on attrition helping Microsoft to understand what types of people are leaving and do we want to go in

and do anything about keeping those populations. So, when we are looking at decisions as an HR function, data is absolutely part of those decisions.'

Things have certainly moved on. Reflecting on over a decade of experience in HR analytics, Klinghoffer observes:

'Ten years ago we would have shown people their data and they would have said, "This isn't right." We have had to go in and fix the data so when we show them something it is right. Now everyone has an HR scorecard and uses it to make decisions, and metrics are so easy now to create and get people to rally behind them. People understand now what they didn't ten years ago, and the importance of making the quality of their data better.'

The ultimate test of the value of these techniques and interventions lies in their utility for other customers. Microsoft has not only honed its analytics to enable its own internal processes, it has also monetised its BI in its software developments, itself a reflection of Microsoft's shift to a software and enterprise-led delivery of services. HRBI has a central role to play in this process, as Klinghoffer has experienced at first hand: 'When people are creating these kinds of products one of the first things they think about is people data because there's tons of data, and it's where people go first to see if they can get it to work. We constantly eat our own dog food at Microsoft. We are always being asked by product groups at Microsoft to work with us to help build their data and products to see how it looks. It's a win-win for us. We get to use these new cool products like Power View and Excel. We've been using Power View for a few

years now. I got to present the demo to Bill Gates eight years ago. It was because we have great data which resonates with people, so I feel I am at the right place because I get to be involved with these types of project.'

The CEO of Microsoft, and the institutional investors behind him, see the future of the company lying in who wins the battle for the digital ecosystem taking shape in the second decade of the twenty-first century. This ecosystem will involve a number of products designed to enable the decisions of those in HR as well as other executive roles. If Klinghoffer's experience is anything to go by, HRBI will be at the heart of this new ecosystem.

References

1. Ballmer, S. (2013) Microsoft Financial Analyst Meeting, 2013, Bellevue, Washington, September 19, 2013
2. ibid
3. ibid

This case study was written by Dr Anthony Hesketh, Senior Lecturer at Lancaster University Management School. The original version of this case study can be found in the report *Managing the value of your talent: a new framework for human capital measurement* (CIPD, 2014).