

The 10 golden rules of HR analytics (crowd version)

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“The people analytics revolution is gaining speed” according to the Bersin by Deloitte report on global human capital trends. Organizations that feel fully capable to apply HR analytics doubled from 4% to 8%. Organizations that somewhat feel capable to apply HR analytics increased from 24% to 32%. And I am happy to see that my country (the Netherlands) is at the top of the list (together with India, Italy, and Australia) that values HR analytics the most as important or very important. So yes, more organizations are actually stepping up.

But you can also look at the same statistics and ask yourself, “What is still holding back the larger part of all organizations?” You do not have to wait until you have the ‘best’ data, the ‘best data scientists, the ‘best tools, or the ‘biggest’ budget (would be nice though), but you can learn while doing. There are many things you can do to get started. You can ask for help from a vendor that helps you to kick-start your analytical practice. You can ask for help from other departments in your own organization. For larger organizations, there are likely people already working on advanced analytics but in a different domain like marketing. You can also partner with universities that have the analytical capability to perform analyses on your data

And an easy way to get informed and inspired is simply checking out all the experts that are writing about it on social media. Please read my previous posts for more references but this time I limit myself to two. First I strongly recommend you to follow [David Green](#) (IBM) on social media when you are interested in HR analytics. You will find all practitioners, bloggers, trends, articles, and events related to HR analytics via his excellent posts. Secondly, I urge you to read the blog of [iNostix](#), recently acquired by Deloitte, our analytical partner, on all the latest developments on HR analytics.

About the title

I would like to express my gratitude to many of you who took the time and effort to provide me with feedback and ideas based on the previous versions of the 10 golden rules and other posts. I used some of your thoughts and merged them into this version. So this version is not solely based on our experience anymore but also on the wisdom of the crowd. That is why I think it is only fair to call this the 10 golden rules of HR analytics (crowd version).

Some examples

Then some of you asked me to provide examples of our research. This makes of course a lot of sense. Only talking about pitfalls and best practices is nice but examples really show the opportunities of HR analytics. Please accept that I can't share the outcomes and related benefits. Nevertheless, I hope the list of some of our research questions gives more flavor and guidance on the questions that can be answered by HR analytics.

- What HR factors (e.g. engagement, leadership, individual and team characteristics, competencies, and skills) are impacting client satisfaction, sales, net growth, and the quality of our offerings?
- What clusters of client-facing employees exist, looking at sales and client satisfaction? And what can we learn from these clusters and their people characteristics?
- What factors are driving employee engagement worldwide?
- How is diversity within teams positively influencing our business goals (financial and customer satisfaction) and to what extent?
- What people characteristics influence average handling time within our call centers? And can you optimize handling time and call quality at the same time?
- Can we predict successful hires based on our selection data, resulting in hires that are more likely to perform and stay with our organization?
- How effective is our vitality program in terms of reducing short and mid-term absenteeism?
- What circumstances are influencing short and mid-term absenteeism?
- What leadership characteristics have a positive impact on business goals including engagement?
- How is the notion of a shared purpose between employees and our organization contributing to engagement and business performance?

Now, after these examples, let us dive into the 10 golden rules of HR analytics (crowd version). Of course, there are some 'oldies' but please keep on reading, because I added some new insights, and rules 9 and 10 are new. I sincerely hope this post provides you with some food for thought and that it motivates those who haven't started yet to take that first step.

Rule 1 – Go beyond statistics

HR analytics is about having a 'smarter' look at your data. Typically you combine HR and business datasets and apply some analytical techniques to find relationships in your data that can be used to make more informed decisions. Traditional statistics like ANOVA, correlations, or regression analyses do the job pretty well in most cases. But I would advise you to go beyond statistics and explore other data mining techniques like random forest decision trees (K-nearest neighbor) or clustering (K/G-means). These techniques can be, depending on your data and business question, faster, more intuitive, and more actionable. In other words, do not limit yourself to the 'classical' set of techniques. Try others as well,

experiment, and learn. Check below for a nice overview of possible (not all) approaches (iNostix by Deloitte).

Rule 2 – Only do business-relevant research

Please focus your research on what is really important to your business. What keeps them awake? What are their opportunities? How do they define success? What are the most important key performance indicators of your business? The answer of course can vary per business from customer satisfaction, safety, revenues, costs, quality, absenteeism, risk management, employee satisfaction, leadership development to diversity. To find the right question you simply have to talk to your business first and ask them lots of questions. They are perfectly capable of expressing their worries and opportunities for their business. It is up to you to find the interesting topics that relate to the workforce. Also, ask your business leaders if they are willing to change their views based on the research. They have to be committed to acting on the insights, even if the insights do not fit their agenda. So stay close to the opportunities and threats of your business and you have the best chance to immediately prove the added value of HR analytics.

Rule 3- Create actionable insights

Creating insights means nothing if your organization will not use them. In my opinion, creating insights is actually the easy part because it is a technique that can be learned or outsourced. Like repeatedly stated, the process of creating insights is about using analytics in combination with experience and intuition. You need them all to interpret the outcomes and to make the right decision. Using analytics can be much more difficult because this deals with human beings having to understand the possibilities of analytics, accepting unexpected or counter-intuitive study outcomes, having the courage and will to act on it, and being persistent in the implementation of your actions over time.

Strong consultancy skills, talking the language of your business, storytelling, intuitive visualizations, and simplicity are some key ingredients to ‘sell’ your insights to your customer. And if you are successful in doing so, you can start thinking about what actions to take. Interesting is to think about

where the responsibility of your analytical department ends? Is this right after delivering the insights, after providing the right actions, or after evaluating the effects of the actions? In our case, the budget and the responsibility for the actions, or interventions if you will lie within the business. They should follow up on the actions and evaluate them periodically. Having said that we are thinking about increasing our effort in the first year after research to provide more support on evaluations and... to remember our business on their initial commitment.

Rule 4 – Experiment and try new tools

Related to “go beyond statistics” I encourage you to experiment more with the different modern, powerful and cool (cloud-based) tools that are available. SAS, SPSS, R et cetera are great and very useful. But as mentioned in one of my previous posts ([The next big thing in HR analytics](#)) there are more tools available on the market that more and more are merging powerful data mining techniques, data transformation techniques, strong data visualizations with a user-friendly self-service interface. Although coding can be minimized by using these types of tools you will still need an expert to use it. I am not in favor of ‘black box’ analytics. You should always be able to understand the choices behind the models and be able to export code to check or optimize your model. Nevertheless, these new tools allow you to explore your data more quickly and speed up your time-to-insight. Some tools are even suitable to show to your business because of the powerful user interface. We are currently using [BigML](#) and are starting to look into [Watson Analytics](#) (IBM). But there are more tools out there, just check out the Gartner Magic Quadrant 2016 on advanced analytical platforms. I expect Gartner to include more tools in 2017 like BigML, Dataiku, Dato, H2O, Rapid Insight, Skytree, and TIBCO.

Rule 5 – Do involve legal & compliance

We do not start any project without approval from legal and compliance. Furthermore, we show legal our results before going to our business. Of course, the anonymity of individual data is key. And in our case, various types of data like health or email data are out of the limit. But another very important aspect of this type of research is the goal or intention of the research. What are you going to investigate and with what purpose? The end results will be evaluated against the initial goal of the research. In our experience, legal is a true partner in our analytical journey. We are challenged and supported on issues like the anonymity of data, the latest (international) legislation on privacy, contracts with vendors, and their compliance with local and European regulations. Our advice is to get legal on board as soon as possible.

Rule 6 – Create a clear process

Doing analytics should not be underestimated. Analytics, although you can start small, demands discipline and it may take a while before you agree on the research question and model, before you receive the right data, before you connect the datasets and before you checked data quality and clean the data. These steps take approximately 75% of the whole research project. Once this is done you can relatively quickly run the models and interpret the results. A wise thing to do is not to give a final delivery date before you received all the datasets (we had one painful experience). And do plan some extra time for analyses after receiving the first results. You probably want to do some extra analyses before you finalize your results and go to the business. We recognize four steps in our approach.

Rule 7 - Preach & Teach

Teaching the HR community about the principles of HR analytics is of course very important and also fun. We use workshops, summer courses, and social media (internal) to preach and teach on HR analytics. Currently, we are preparing our first HR analytics Lab. The idea is to invite a specific HR business line or group of experts (e.g recruitment) and to ask them what they would like to know. During the Lab session, we will explore the (prepared) data with the help of BigML and experiment and explore the data together. This will suit two goals, creating immediate insights and creating more awareness and knowledge of the opportunities of HR analytics. I will let you know next time if we were successful. Then do not forget to train your analytical team. Again, we learn a lot from summits, social media, reading the latest books and articles, and last year we decided to attend some lectures on data mining and algorithms. Besides this, we participate in several roundtables or boards focussed on HR analytics where we share thoughts, views, and best practices with peer organizations. All this keeps us up to date on the latest trends in HR analytics. Don't forget to share your research results, besides with your customer, with relevant HR experts within recruitment, talent development, reward, learning, and so on. Preach the benefits of analytics to everyone who might benefit or wants to hear it.

Rule 8 – It is about a balanced blend of skills

Based on my experience as a practitioner, only those organizations that manage to create and maintain a balanced blend of different relevant capabilities will be successful in HR analytics. You need to create a team that understands your business challenges, HR processes, and IT (hardware and software). And last but not least your team should have impeccable analytical and consultancy skills. By the way 'your team' can also consist of external resources from a vendor. An overarching capability that is important to do analytics is curiosity and having an inquiring mindset. This is true not only for your analytical department but also for the rest of HR. And you will need a few integrators or translators that are able to combine all perspectives above and create a common understanding of HR analytics within your organization. All these capabilities are captured in the HR analytics capability wheel. For more details on the HR analytics wheel please read my previous post "[A practitioner's view on HR analytics](#)" (also by [Auke IJsselstein](#)).

Rule 9 – Towards Fact-based HR

Building on the previous rule. Implementing HR analytics is important but of course only a part of the puzzle if you want to create a fact-based HR organization. For me, a fact-based HR organization means doing the utmost to evaluate and prove the effectiveness of your HR products and policies when it comes to supporting your business goals. Recruiters should investigate if their hires are still successful

with the company after a few years. Learning specialists should wonder if their training interventions are actually contributing to the learning goals and business performance. Reward specialists should think about the effect of reward and benefit plans on engagement, attrition, and individual performance. HR business partners should continuously be working on the question “Is our workforce fit-for-purpose when it comes to achieving business success”. The answers to all these questions can lie within HR analytics but not often also by simply measuring and evaluating key performance indicators, calculating cost versus benefits (ROI), collecting new relevant data, or starting a project on strategic workforce planning. This intrinsic curiosity and fact-based thinking is not the dominant culture of current HR organizations. We need a revolution in HR to move the needle towards a more data-driven way of working.

Rule 10 – Ready for enterprise analytics

It is not about HR analytics but about enterprise analytics. How can advanced analytics best support your organizational goals? In some organizations, it is perfectly fine to have a decentralized perspective of advanced analytics with local data, local scientists, and local or cloud-based IT platforms. But for some organizations, it might be extremely useful to move from a decentralized (domain-driven) perspective towards an enterprise perspective on advanced analytics. The enterprise-wide view on advanced analytics allows the organization to share and integrate data (for example from HR, finance, marketing, and clients), combine analysts, and build a joined corporate IT platform (‘Analytics at Work’ by Davenport, Harris and Morison). My expectation is that larger organizations will move to some form of enterprise analytics because of the economics of scale and increased opportunities to find insights because of a truly enterprise-wide data cube.

Contributors

Besides all the excellent peers and experts that influenced me, I want to conclude with a list of people that took the time and effort to provide me with some great comments and constructive feedback on previous posts in the past via LinkedIn. Although I might not have used all suggestions (freedom of the author) all your remarks made me think. The least I can do is mention you in this post as a way of saying thank you. Remember this is the crowd version! So many thanks to Dirk Jonker (Focus Orange), Raja Sengupta (Quantta Analytics), Jeff Higgins (Human Capital Management Institute), Hazel Williams (The Nottingham Trent University) Ivy Zhang (Columbia University), Gene Tange (PearlHPS Inc.), Sam Rédele (Data Science Ghent & Fishtail), Daniel Ajiwe (KPMG), Adam Hall (Willers Towers Watson), Kuldeep Singh (Senior HR professional), Jehan Gonsal (ForeThought Research), Jonathan Frampton (Baylor Scott & White Health), Klaas Toes (ROI Institute Europe), Arun Krishnan (nFactorial Analytical Sciences), Richard Coonen (APG), Julia Smith (ServiceNow), Praful Tickoo (Genpact), Stephan Forrest (Cambridge flexible learning), Richard Wortley (code360), Andrew Marritt (OrganizationView), Audrey Ciccone (Analytics Perspective). My sincere apology if I missed someone.

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The post "The 10 golden rules of HR analytics (crowd version)" was first published by Patrick Coolen

here <https://www.linkedin.com/pulse/10-golden-rules-hr-analytics-crowd-version-patrick-coolen/>

About Patrick Coolen

I am a true believer in making HR more evidence-based and data-savvy in order to improve decision-making. I am a senior manager and thought leader with experience in people analytics, continuous listening, organizational design, survey management, employee experience, employee engagement, HR management information, and strategic workforce planning in a global corporate organization. I am a frequent speaker on People/ HR analytics and strategic workforce planning summits and conferences (e.g. Unleash, Tucana, HRCoreLab, PAFOW). I am also a Ph.D. candidate focussing on the adoption and internalization of workforce analytics.

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