HR ANALYTICS: IT'S NOT A FAD IT'S THE FUTURE

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EXECUTIVE SUMMARY

Human resource (HR) analytics is touted as having the potential to bring great value to general managers' and HR leaders' decision making on human and organization capital by supplementing intuition and experience with evidence. Yet, it currently risks becoming another management fad because HR analytics too often takes an "inside-out," HR-centric, academic approach — governed by a Center-of-Expertise (CoE) that is distant from the business. A shift toward an "outside-in" approach, with a focus on actionable, high-impact analytics, is needed. This development is accelerated by technology, which is rapidly consolidating the analytics landscape. This enables HR analytics to be taken out of HR and become part of existing end-to-end business analytics, where human resources is just one element in the value chains analyzed. This leads to more business-relevant findings and impactful interventions, as illustrated in two cases.

"Far better an approximate answer to the right question, which is often vague, than an exact answer to the wrong question, which can always be made precise."

— John W. Tukey, Mathematician, 1962

INTRODUCTION

Half a century later, Tukey's point is as relevant as ever. It helps explain why HR analytics risks becoming a management fad instead of a tool that provides powerful insights for general managers and HR leaders making key decisions about talent, incentive structures, organization design, allocation of training budget, etc. to support value creation and the business strategy. Management fads exist. Some fads become institutionalized within companies (e.g., MBO, matrix management, core competence, etc.). Other fads fade (e.g., time management, zero-defects, T-groups, etc.). They are shiny new ideas that get attention but don't endure (e.g., learning organization, Japanese management, one-minute manager, re-engineering). That HR analytics is one of the latest emerging fads is a paradox in itself. The promise of analytics is great: replacing fads with evidence-based initiatives, providing data-based decision making, bridging management academia and practice, prioritizing the impact of HR investments, bringing rigor to HR, and supplementing HR intuition with objectivity. Large parts of HR analytics are, however, not new. People have talked about HR metrics, utility analysis, HR scorecards, HR ROI, personnel economics, and evidence-based management for years without a large, noticeable step change in the business impact of HR. So far, the published evidence supporting the alleged value of HR analytics is actually quite slim — it is currently based more on belief than evidence and is most often published by consultants with a commercial interest in the HR analytics market. Organizations rarely share the same success stories of business impact. Instead, they typically share cases with turnover prediction (even if turnover is not an issue) or projects with a similar narrow HR focus. Rigorous analyses of loads of data on the wrong questions often have little practical value. Yet HR analytics tops most conferences this year (greatly helped by the many HR technology and consulting firms that see a major future business opportunity in selling data and statistics capabilities to a function that is short on both). While many management academics dream of seeing what they do finally become the center of the HR profession, we predict that HR analytics in its current form will not add real value to companies. We agree with those who argue that HR analytics is being taken over by other functions that are more mature in their analytics journey (in particular, finance, IT, and marketing) and that this will happen sooner rather than later. We also agree that this is actually a good thing. Just as the analytics of other functions need to transcend their own functional boundaries, HR analytics needs to evolve and transcend HR. It will only become relevant when it takes an "outside-in" approach, leaving HR to become integrated into existing end-to-end business analytics. In this paper, we highlight the factors contributing to HR analytics, in its existing form, becoming a management fad; consider how HR analytics can deliver value as part of end-to-end analytics; and present two cases that illustrate these findings.

WHAT CONTRIBUTES TO HR ANALYTICS BECOMING A MANAGEMENT FAD?

HR analytics, in its current form, runs the risk of being a fad that fades. Here is a list of analytic pitfalls that will contribute to making it a fad:

a) Lack of analytics about analytics. One colleague made a vehement case that HR work required more analytics and that rigorous analytics was the wave of the future for HR. We asked him a simple question: "What is your data that suggests that analytics is critical for the future?"

Some who are enamored with analytics are not using analytics to justify analytics. They are analytical hypocrites who call for analytics, but do not use analytics to justify the use of analytics.

b) Mean/end inversion or data fetish. Some are enamored with analytics, thinking that more data (or "Big Data") is always better. It is not about data; it's about gathering and analyzing data for informed decision making. What separates distinguished academics — like Daniel Kahneman, who writes of his work on cognitive biases and how they can distort decision making in his bestselling book "Thinking, Fast and Slow"— from less distinguished colleagues in academia is not more or "bigger" data, but the right data. The right data can include qualitative data or other data that is not readily available — and information gleaned from asking the right questions and interpreting the results and implications the right way. Analytics for the sake of analytics is not helpful.

Analytics too often starts with data when it should start with business challenges (hence, all the analytics cases linking survey data to turnover because the data is readily available, even though it does not yield new, insightful or value-adding results). HR succeeds by adding value to business decisions — by informing how to make business decisions that intervene and create business success, not just by validating existing knowledge in practice.

Think of the efficiency/effectiveness discussion in HR this way: HR analytics is often preoccupied with "doing things right" with an "inside-out" HR perspective. We focus on questions regarding recruitment assessments, the ROI of our training programs, and the efficiency of our onboarding. Yet it may create disproportionately more value when HR analytics applies an "outside-in" perspective and "does the right things." For example, we could focus on ways to help transform the organization's culture so we can better deal with market consolidation and expected acquisitions over the next three to five years. We could ask big questions, such as, "How can we grow critical technical talent faster, cheaper, better than the market to realize our growth strategy in a booming market and differentiate ourselves from the competition?"

c) Academic mindset in a business setting. Some companies — such as Google, Shell, Aramco, PepsiCo, and HSBC — are investing heavily in human capital analytics as a way to bring more theory and rigor to the practice of management. One leading company in fast-moving consumer goods hired some well-trained theorists and researchers who set about to predict turnover, consistent with published studies in the academic literature. After enormous effort, they were able to explain more than 70% of the variance in retention of human capital. But when they shared their results, a thoughtful observer said, "so how serious is the problem of regrettable losses in the company?"

The researchers responded that the company had less than 2% regrettable losses for the key positions and top levels. The academics led with theories about what they had studied, not with questions about business challenges facing this company. This company was facing challenges of global market penetration, product innovation in declining markets, an activist investor

who wanted to force management changes, and a culture of working within silos rather than collaboration. But the theory-based academics started their human capital work with a theory they were testing (turnover of firm-specific assets), not with a deep understanding of business challenges. So even though academia and the accumulated science are enormous (and underutilized) resources for management practice, not understanding the differences between academia and practice — or academia and actionable analytics — may actually undermine the value of HR analytics. Academics like to create assumptions that allow them to test null hypotheses and offer incremental insights on theory. Business leaders face complicated problems that require integrated solutions. Academics like precision; business leaders require practical "good-enough" solutions. Academics start with theory; business leaders start with real challenges. Academics like to reflect; business leaders have to act.

d) HR analytics runs from an HR Center-of-Expertise (CoE). Recent evidence suggests that chief human resources officers with a clear business focus are still few and far between (and hence, receive a premium on pay). Practical experience tells us that HR CoE's with an "outside-in" approach and deep business understanding are even rarer. HR analytics CoE's will often use big data to discover insights that they will "push" out to the businesses. This is a bit like shooting a gun in the air and hoping a bird flies over. Dust Bowl empiricism was popular with the advent of multivariate statistics, when statisticians were seeking statistical relationships without a clear theory guiding their analyses. But when analytics are push-not-pull, they risk the liabilities of Dust Bowl empiricism and rarely yield business value. Just as Kahneman's distinguished work was more about his focus than the amount of data, impactful HR analytics is more about strategic business focus than random patterns in big data.

e) A journalistic approach to HR analytics. Politics and power are real phenomena in any organization. The philosopher Foucault noted that "power is knowledge," referring to the fact that power, in part, decides what knowledge creation will focus on, or that "history is written by the victors." HR analytics can be misused to maintain the status quo and drive a certain agenda. When you know what story you want to tell, you often go looking for data to support it (e.g., requests to "validate the effects of our training"). Just as academia suffers from publication bias, findings showing no effect, or even value-destroying effects of HR processes or initiatives, are sometimes withheld. In many cases, these require substantial energy devoted to stakeholder management (but are often among the most value-adding HR analytics findings). This is similar to findings generated by various "think tanks" where the particular focus and interpretation are guided by a particular framework with the purpose of advancing particular points of views. HR should aspire to the ideal expressed by the Scottish novelist Andrew Lang in 1937: "I shall try not to use statistics as a drunken man uses lamp-posts, for support rather than for illumination."

HR analytics departments need future funding to exist. Thus, they must balance good and bad news about the HR organization, and choose their battles. There are still several HR initiatives around that are based more on belief than evidence. (For example, one of the authors recently encountered a company that uses handwriting analysis in selection during recruitment.) This is why HR analytics needs to link company-specific findings to published research, and always cite what the external and independent research finds on the investigated topic. This also highlights a big difference between HR analytics and independent academic research, and the value the latter brings to the former. One positive lesson that HR analytics can learn from journalism is clear storytelling. If you cannot tell your story, including implications and recommendations, in one slide (regardless of study complexity and the amount of data used), the odds of getting executive buy-in are slim. Very good HR analytics work often fails because it adopts the academic communication style and loses its business audience. (Other times, failure results from attempting to show all the work done, even though it is not relevant for sharing. Effort really does not score you any points; only results and insights count.)

OUR SUGGESTIONS FOR MOVING HR ANALYTICS FROM FAD TO AN ONGOING PART OF MANAGEMENT DECISION MAKING

On the positive side, we also see a number of things pushing HR analytics in the right direction in terms of focus, setup, change management, and capabilities in HR.

a) Start with the business problem. HR analytics should not start with data or a preconceived approach to business problems, but with a business challenge. This point is often noted in the analytics discussion and is actually the application of the "outside-in" thinking to this particular area of HR, as illustrated in Figure 1. This highlights that analytics and data are really only smaller and integrated parts of the overall diagnostic framework — means and not ends. We also recommend that analytics focus on the three to five big-ticket issues for the business. This means resisting the temptation to continuously pursue many smaller and less value-adding issues (e.g., turnover prediction, learning ROI, simple survey linkage analytics, etc., that are not core for a business issue). Ask yourself: What are the biggest challenges facing our business over the next three to five years, and how can HR support the business in these areas? That is typically the best starting point for actionable analytics.

b) Take HR analytics out of HR. This may sound drastic, but when HR analytics matures, it initially starts cooperating more with other departmental teams (finance, operations, etc.). It eventually becomes part of cross-functional/end-to-end analytics, looking at human capital elements across the entire value-chain. HR analytics must transcend HR issues and become part of existing cross-functional business analytics, just as the analytics from other functions must transcend their functional areas. Analytics typically only yields truly new insights when multiple fields and perspectives are combined (investors, customers, technology, human capital, safety, etc.), so any functional denomination prior to "analytics" is really just a sign that it has not yet matured enough to just be a natural part of "analytics." Most HR analytics functions are some years away from this and perhaps need to be matured to some extent within the HR function first. (This maturation can be accelerated by importing business analytics talent to run HR analytics. It is often easier to teach business analytics professionals HR than to teach HR professionals statistics and analytics.) Technology is also driving the integration of functional analytics. Historically, data platforms were limited so that each function (HR, finance, etc.) or line of business typically got its own — and, correspondingly, developed its own — reporting team and, subsequent-

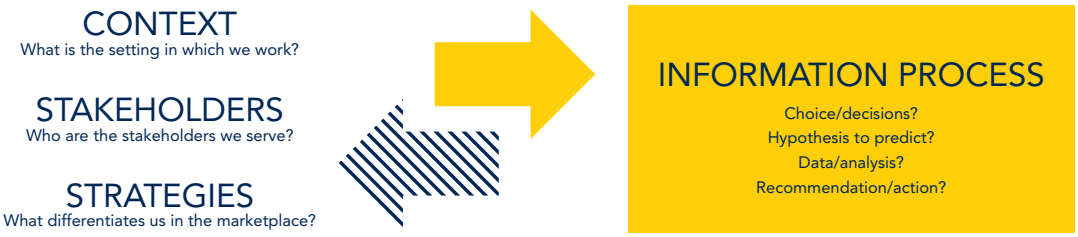
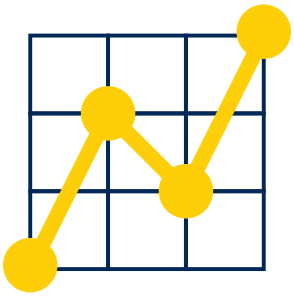


Figure 1: Information for decision-making: The process starts with these key questions on context, stakeholders, and strategies. The information process starts with 4 questions: What choices do we need to make? What can we discover and test? What data can we collect and analyze? Which actions do we now recommend?

ly, analytics team. The future belongs to the cloud, real-time data, as well as to cross-functional/line of business "enterprise" platforms. Among other things, these allow businesses to reduce costs by operating fewer platforms and systems, which paves the way for cross-functional, end-to-end analytics.

It is time for HR to join the party and "get a seat at the analytics table" rather than just sitting at its own HR analytics table. This also solves the talent issue in HR analytics, since people with statistical analytical capabilities and business understanding typically do not gravitate toward HR.



Nevertheless, there may be some practical data privacy hurdles to overcome with an end-to-end analytics set-up, as HR data is distinct from data used by other analytics teams. Balancing HR data privacy concerns, increased regulation, and legislation with the business value of insights gained from anonymized data analyses is an issue of growing concern. However, it is a practical issue that can be overcome. (Finance analytics teams face separate challenges, as the right aggregation of data actually can give them inside-trader status.)

c) Remember the "human" in human resources. HR analytics forgot about the H in HR. Data and evidence do not change anything, as neither people nor organizations are completely rational. Sometimes, this information just makes it harder to change the status quo. At best, HR analytics provides input for management discussions that can elevate the decision quality, but there is rarely a straight line from data and analyses to action. We can learn a lot from the traditional change management literature and from Festinger's findings on cognitive dissonance. These highlight the observation that for most people, given the choice between existing beliefs and new data showing beliefs are misguided, people will choose their own belief system and reject the data. (In Festinger's research, when the members of a UFO cult realized there would be no apocalypse on Earth or associated messiah on a spaceship coming to save them on the predicted date, they concluded it was actually because they had been so strong in their faith — instead of reaching the logical, yet more painful, conclusion based on the data: that their belief system just might be wrong.) The tendency to reject data that threatens existing beliefs is strong if people have invested time/effort/identity in projects or ideas — as with most HR initiatives, which typically have a proud sponsor or owner, often a senior leader, who may not particularly like findings from HR analytics casting doubt on the value of the initiative. This is why data and evidence from HR analytics often have little impact. It is not just about science and data; it is about activism and having a point of view — about intervention and change. HR analytics findings are products that have to be sold to have any impact. This is easier if HR analytics also includes qualitative data, intuition, and experience, and, most of all, if it works on co-creating a coherent story with the key stakeholders. And this story should always start with the business challenge.

d) Train HR professionals to have an analytical mindset. Let's be honest. Most HR professionals are not attracted to HR because of the opportunity to work with data and analytics as part of their role. There is, however, a growing appetite among HR professionals to acquire analytical capabilities, in particular when they experience firsthand how it helps them support their businesses. There are few courses in HR analytics, and those that exist may be superficial. A course in HR analytics would include the deployment of a diagnostic framework (see Figure 1); basic training in statistics and science methodology (or perhaps just a recap for some); change management; and storytelling.

It is important to be realistic. We typically see a 20-60-20 split between groups of HR professionals that get it, those that can be taught, and those that will never get it. We recommend that you focus on the first two groups, and supplement training with hands-on

projects and closer cooperation with academics. In addition, we would argue that 80 percent of analytics is similar across functions/lines of business. The majority of analytics training should ideally be cross-functional, and only a smaller part of the training should be HR specific (or specific for other functions/lines of business).

TWO CASE STUDIES SHOWING THE VALUE OF EMBEDDING HR ANALYTICS IN BUSINESS ANALYTICS

In the following, we will illustrate two cases of HR analytics being successfully integrated in business analytics and leading to impactful interventions on offshore drilling performance optimization and technical talent development, respectively:

Case 1: Leadership quality, crew competence, and outcomes on safety, operational performance, and customer satisfaction.

An offshore drilling organization experienced considerable variance in performance between similar drilling rigs operating under similar conditions, and at the same time faced the challenge of growing 40 percent within a four-year period. Top management, including the CHRO, was interested in answering these questions:

1) What explains variance in performance between rigs?

2) How can that knowledge effectively be deployed to new rigs brought into operation?

3) How can the results be used to help convince prospective clients that the company will deliver on promised performance standards while growing considerably in a hot market?

Business analytics — using qualitative and quantitative data, experience from the business, and offshore leaders' intuition about what drives performance — found strong and significant links between customer satisfaction (via the company's commercial Customer Relationship Management [CRM] system) across units in the company fleet and leadership quality (measured via a yearly people survey); crew competence (documented according to the industry standards and requirements); safety performance (from the company's safety system); environmental performance (spills documented in the company's Health, Safety, and Environment [HSE] system according to the offshore industry standards); and outcomes on operational performance (via the company's operational Business Intelligence system). The findings were integrated in an end-to-end value chain analysis and compiled into one coherent story: Customer satisfaction is about operational performance (in this case, drilling performance/uptime), but other factors also matter for company success. Leaders assessed by their direct reports more positively on various standard leadership tasks have lower crew turnover. Lower turnover is associated with higher crew competence (fewer new people to train). This, in turn, is related to better safety performance, fewer spills, and fewer maintenance hours outstanding (i.e., the time it takes to fix stuff), which impacts customer satisfaction. The recommended action was to focus on leadership quality (training and selection), crew competence (training budget and controls), and maintenance hours outstanding across the fleet by placing these on unit scorecards, and then communicating the findings throughout the company to all leaders and employees, as well as existing and prospective clients.

Even though advanced statistical methods were used (logistical regression models on longitudinal data), the presentation of findings just showed the r-squared values between the different elements. Of course, this was not for an academic audience. The presentation was to support storytelling for a technical business audience, emphasizing the importance of co-creating the story with the many stakeholders. The analytics were part of a change management process.

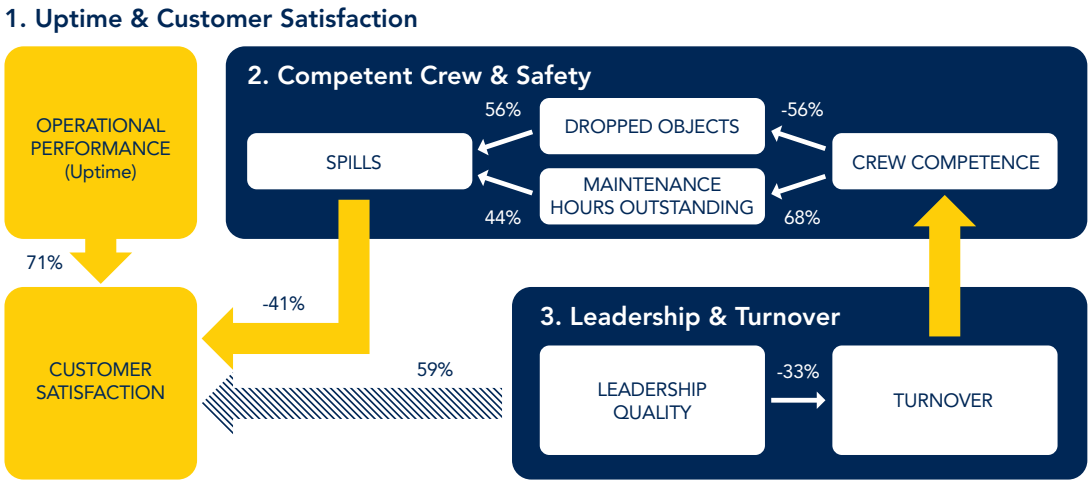


Figure 2: HR analytics in offshore drilling. Percentages shown are the squared correlations (i.e., amount of variance explained). Often, HR analytics only link leadership quality and turnover (Box 3), while a broad analytics approach, as shown above, looks at the entire value chain.

Case 2: ROI and Strategic Impact of Technical Trainee Acceleration Program

The same offshore drilling company had challenges filling lead specialist positions due to industry talent shortage and growth. It had experimented with a strategic initiative to develop technical talent for the senior specialist target positions. Business analytics was used to identify that the company graduate program for specialist trainees showed desirable results on key outcomes compared to the trainees' peer group (see Table 1 and Figure 3). In addition to showing simple training ROI, the findings fed into a strategic talent discussion (build/buy/borrow). The company decided to double the graduate program intake to sustain its growth plans. Again, simple statistics were used to support the story (see Table 1 and Figure 3). In this case, it was also the co-creation of the story — backed by data and analytics — and analytics was treated like a change management process that paved the way for the results to have a positive business impact.

KPI	Specialist Trainees	Peer Group	Difference
Retention after 5 years	63%	60%	3% better retention
Time to develop into lead specialist	6.6 years	10.2 years	3.6 years less
Total cost per person prior to lead specialist position	1,882,500 USD	2,850,000 USD	967,500 USD per trainee
Performance average in lead specialist position 2010–11	3,3/3,5	3,2/3,2	+2%/6% performance

Table 1: Outcome of specialist trainee program compared to peer group

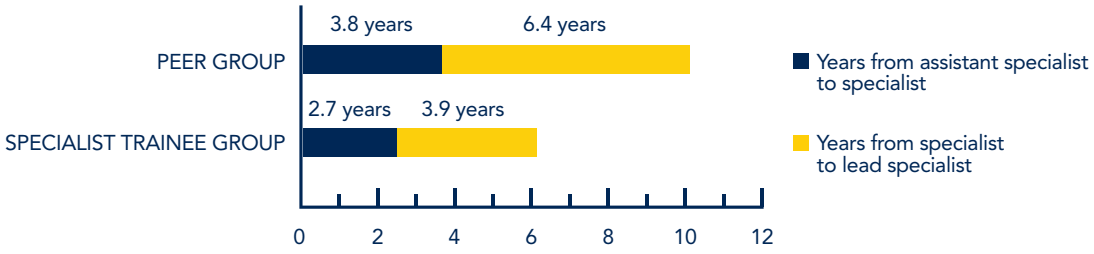
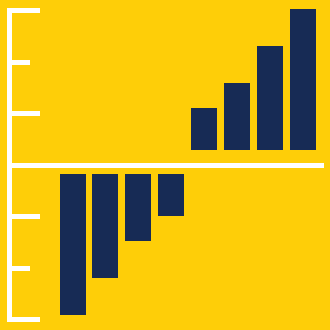


Figure 3: Development time to target position



CONCLUSION

As soon as we question the analytics movement, we risk being labeled as troglodytes who live in the past and are out-of-step with modern HR. We disagree. The HR field is littered with good ideas that have not been institutionalized. We hope that our recommendations offer a way to make HR analytics a realistic and ongoing part of improved HR impact. Analytics offers a powerful, new tool for all those entering the HR field.

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