

Human Resources Data Is Useless – Unless You Use It

Five Ways to Increase the Value of HR Data



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The field of human resources has a reputation of being unempirical. The function of HR is fundamentally about maximizing the performance of people. To do this effectively, companies need to have some way to measure, predict, and influence employee productivity. Because this involves measurement and prediction, it is largely a mathematical problem. So, one might expect HR to be a highly mathematical field – but it's not. Why is this? This paper takes a look at this issue and how we can change it.

Revolutionizing the Reputation of HR with Data

HR does not have a reputation as a data-driven function, despite having much to gain from using mathematical methods to understand and predict human behavior. Historically, many inherently analytical HR tasks such as workforce planning, headcount management, and compensation were often managed by groups outside of HR such as finance and procurement. These processes are increasingly being moved into HR, but the analytical skills of HR departments have not necessarily kept up. HR processes are also generating masses of valuable data as a result of the growing use of HR technology. But relatively little HR data ever gets used to guide business decisions. The failure to use HR data to make better people-related decisions is bad for companies and bad for employees. HR needs to become a function that is respected and valued for its business-relevant data. Achieving this goal will require overcoming five distinct challenges.

Business leaders do not think they need HR data to make better business decisions. Most HR-related business decisions are decisions about people. This includes deciding how many people to employ, who to hire and promote, how to manage people, and how to invest in people through compensation, rewards, and development. Most people believe they are better at understanding people and making people-related decisions than they are.¹ People will not use data to make decisions if they do not think they need

it. One step to increasing use of HR data is to make leaders aware of what they do not know about people and their workforce.

HR data is difficult to collect. Many variables associated with HR can be difficult to measure. Companies often lack effective tools to collect and manage data about who they employ and what they employ them to do. When this data is collected, it is often collected using nonstandardized, inconsistent methods. In addition, a lot of the criteria used to make HR decisions are associated with abstract and hard-to-measure concepts such as job performance, engagement, or potential. Advances in technology are reducing many historical barriers to HR data collection. But companies must use these technological advancements effectively to realize their benefits.

HR data is difficult to interpret. Raw HR data is not inherently meaningful from a business perspective. Its value comes from using it to understand, predict, and influence business-relevant outcomes. For example, employee engagement data by itself is relatively uninteresting to a business leader.² What makes it valuable is understanding the relationship between employee engagement and more financially relevant variables such as employee turnover, customer service levels, and workforce productivity.³ A key part of making HR data meaningful is helping leaders interpret it in the right context.

1. Emily Pronin, Daniel Y. Lin, and Lee Ross, "The Bias Blind Spot: Perceptions of Bias in Self Versus Others," *Personality and Social Psychology Bulletin*, March 2002, 28(3): 369–381.
2. Greta Roberts, "[Employee Engagement? It's Just a Meaningless, 'Feel Good' Business Metric](#)," TNLT.com, January 2016.
3. Anthony J. Rucci, Steven P. Kim, and Richard T. Quinn, "The Employee-Customer-Profit Chain at Sears," *Harvard Business Review*, 1998.

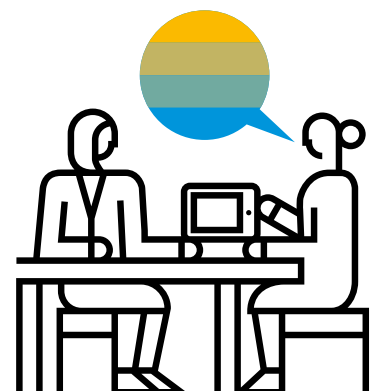
HR data is difficult to access. Historically, a lot of HR data has been locked away in files, folders, and databases that are not readily available to decision-makers. People will not use data unless they can see it. Fortunately, advances in cloud-based and mobile technology are making HR data easier to access when it is needed by business leaders.

HR data is too sensitive to analyze. HR data can show patterns that may not always put companies in the best light. For example, HR data may suggest that a company has a history of unfairly treating certain demographic groups. It may surface differences between employee performance, compensation, or potential that can trigger emotional responses and difficult conversations. Or it may cast doubt on the leadership skills of company executives by surfacing issues related to employee retention and trust. Part of increasing the use of HR data is ensuring leaders are equipped and confident in their ability to constructively address the facts it may uncover.

There are valid reasons that HR has a reputation as a nonempirical field that makes relatively little use of data. But there is no reason to accept this reputation as something that cannot change. Businesses depend on people to make money, and money is about numbers. The best way for HR to engage business leaders is to discuss relationships between numbers about people and numbers about money. The more leaders see empirical relationships between HR practices and business outcomes, the more they will appreciate the field of HR overall.

Employees are a company's greatest resource, but they also provide its greatest potential liability.⁴ Fully enhancing the value that people provide while managing the risks they pose requires analytical thinking similar to the way companies manage other expensive assets. The good news is that HR data contains a lot of numbers that can fuel more effective business decisions, actions, and conversations about people. We just need to make better use of this data.

HR has not historically been a data-driven function, but it's not staying this way. HR professionals who don't embrace HR data increase the risk of falling behind.



4. Jesal Shethna, "[Why Are Employees the Most Valuable Intangible Assets](#)," EDUCBA.com, May 2017.

Good Leaders Can Make Bad Decisions: Illustrating the Value of HR Data

A primary goal of HR is to help companies maximize the return on investment in people. Companies spend a lot of money on people, who often account for 50% or more of a company's ongoing operating costs. Given how much people cost, one might expect business leaders to be obsessive about ensuring people-related decisions are as accurate as possible. But they aren't. One can find countless examples of smart business leaders making incredibly stupid decisions when it comes to people.⁵ Why is this and how can we change it?

There are two basic ways people make decisions: based on data or based on intuition. The advantage of intuition is that it is quick, free, and easy to understand. The disadvantage of intuition is that it is often wrong and frequently biased. Data-based decisions tend to be more accurate and less biased than intuition. But data-based decisions typically take longer, require some level of cost, and may require using mathematical concepts that are hard to understand. If we want business leaders to invest the time and resources needed to make data-based HR decisions, we must make them aware of what they are losing by overrelying on their intuitions and failing to leverage HR data.

The best way to make leaders aware of the value of HR data is to analyze data from their own organizations and show them benefits gained from being more empirical and less intuitive. Such analysis requires resources. So how do we get resources to conduct this sort of analysis? We can start by making leaders more aware of how bad our intuitions can be when making decisions about people. The research literature is full of data-based examples showing how often business leaders' HR decisions and assumptions about people are flawed. Here are a few.

PROMOTION DECISIONS

Promotion decisions massively impact business performance and organizational culture. When a company promotes someone, it increases their influence on how the company operates and implicitly endorses their behaviors as being acceptable and desirable. Yet data-based research has shown that promotion decisions are heavily influenced by characteristics that have nothing to do with business intelligence or cultural competence – most notably, an employee's height and gender.⁶ When leaders make promotion decisions based on intuition rather than data, they tend to favor people who are tall and male. The intuitive preference to promote tall men might make sense if you are running a men's professional basketball team, but it is not a good practice for other forms of business.

5. John Hollon, "The Stupidus Maximus Award Honoring Bad Management," *Workforce Management*, April 2008.

6. Timothy A. Judge and Daniel M. Cable, "The Effect of Physical Height on Workplace Success and Income: Preliminary Test of a Theoretical Model," *Journal of Applied Psychology*, 2004, (89): 428-441.

COMPENSATION DECISIONS

Companies spend billions of dollars on annual merit increases. Most companies make some effort to allocate this money using a “pay for performance” philosophy where greater investment is made in people who contribute more to the organization. In recent years, some companies have decided to move away from pay for performance to instead give everyone the same increase regardless of performance. The intuitive argument is that it is easier to give everyone the same amount since people’s motivation is not significantly affected by small differences in pay (such as receiving a 2% increase versus a 1.5% increase). However, data-based research has shown this intuitive argument is wrong. People’s motivation and sense of appreciation is significantly impacted by knowing that they received more than their peers based on their contributions, even if the absolute differences in the increases are small.⁷

MANAGEMENT DECISIONS

A critical part of leadership is attracting, developing, and retaining high-performing employees. Yet many leaders fail to understand the nature of job performance. This starts by failing to understand

which jobs in the company are the most important. Leaders often overlook the criticality of lower-level roles, not realizing that small differences in the performance of these roles can have a pivotal impact on overall company performance.⁸ Leaders also tend to misinterpret the nature of high performance itself. Intuitively, leaders tend to think high-performing employees are like solid-performing employees, just more effective. From a mathematical perspective, this can be described as viewing performance as a linear, normally distributed variable. But in many jobs, performance is distributed in a nonlinear, exponential fashion where the highest-performing employees are categorically different from their peers.⁹

Their behaviors are qualitatively different and their impact is categorically more powerful. Problems arise when leaders intuitively assume high-performing employees are a slightly better version of solid-performing employees. At best, leaders fail to fully use the power these performers bring to the organization. At worst, high performers become frustrated at being constrained by management methods that fail to recognize their value, and they quit.

7. John Schaubroeck, Jason D. Shaw, Michelle K. Duffy, and Atul Mitra, “An Under-Met and Over-Met Expectations Model of Employee Reactions to Merit Raises,” *Journal of Applied Psychology*, 2008, (93): 424-434.

8. John W. Boudreau and Peter M. Ramstad, “Where Is Your Pivotal Talent?” *Harvard Business Review*, April 2005.

9. Ernest O’Boyle Jr. and Herman Aguinis, “The Best and the Rest: Revisiting the Norm of Normality of Individual Performance,” *Personnel Psychology*, 2012, (65): 79-118.

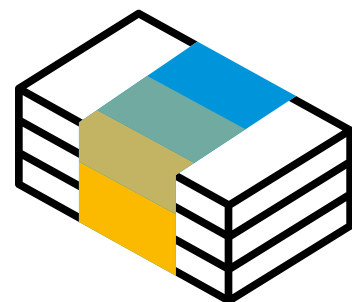
ORGANIZATIONAL RESTRUCTURING DECISIONS

A major role of leadership is determining how to structure and build an organization to support the needs of the business. This includes decisions to acquire, restructure, and downsize organizations. These decisions tend to focus on financial numbers with relatively little attention given to HR data beyond headcount costs. Many leaders assume that organizational restructuring decisions that make sense from a data-based financial perspective will work out from a human perspective. Yet most acquisitions and restructurings fail to deliver the financial results on which they were based.¹⁰ One of the main reasons they fail is that the employees affected by these business decisions did not act the way leaders intuitively assumed they would. Empirical research has demonstrated the value of using methods for conducting acquisition and restructurings that put more emphasis on people-related issues.¹¹ In sum, if leaders want to be successful in building their organizations, they should place far more emphasis on looking at HR data as well as financial data when making acquisition and restructuring decisions.

THE NEED TO COMPLEMENT INTUITION WITH DATA

These examples above show how HR data can help leaders make more effective people-related business decisions. They are just a fraction of the examples found in the empirical research literature. The more leaders are aware of the dangers of relying solely on intuition to make people decisions, the more open they will be to supporting use of data-based HR methods. It is important to stress that the role of HR data is not to replace leadership intuition but to augment it. Leaders did not become leaders by making bad decisions. Leaders' intuition about people, although often flawed, can also be highly accurate. It reflects accumulated knowledge and experience gained from years of working with others. Furthermore, data-based decisions are not infallible even if they tend to be more accurate. In sum, the goal is not to replace intuition with data. The goal is to find the ideal balance between intuition and data.

The best way for HR to engage business leaders about HR data is to discuss relationships between numbers about people and numbers about money.



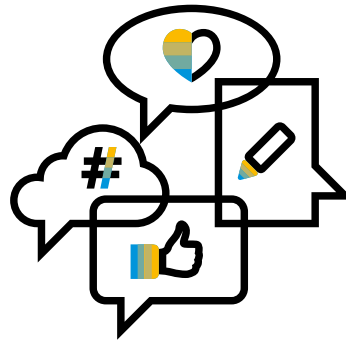
10. Harry G. Barkema and Mario Shchijven, "Toward Unlocking the Full Potential of Acquisitions: The Role of Organizational Restructuring," *Academy of Management Journal*, 2008, 51.

11. Susan Cartwright and Cary L. Cooper, "The Role of Culture Compatibility in Successful Organizational Marriage," *Academy of Management Perspective*, May 1993, 7.

Increasing Access to HR Data: We Only Use the Information We Have

There is an old joke often told in statistics classes about a man standing under a streetlight at night looking for his keys. A passerby asks where the man dropped them, and the man responds, “Over there in the alley.” So, the passerby asks, “Then why are you looking for them here?” The man says, “Because it is too dark to see them in the alley. I’m looking where the light is.” The point of this joke is that our ability to solve problems using statistics is limited by the data we have available. Historically, this has been a major challenge when it comes to making data-driven decisions in HR. We cannot use data that we do not have.

Advances in technology are making it much easier to collect HR data than was possible in the past. The [table](#) on the next page provides a summary of different types of HR data, why this data has been traditionally difficult to collect, and how technology can be used to overcome these historical barriers to data collection.



People won't use data to make decisions if they don't think they need it. Make leaders aware of what they don't know about employees to increase use of HR data.

Different Types of HR Data and the Role of Modern Technology in Making Them Usable

Data Category	Why It Is Hard to Collect	How Technology Can Help
Operational data describing tangible employee characteristics such as job codes, salary and benefits, tenure, demographic characteristics (age, gender, and others), work location, and reporting structures	Data was either never collected at all or collected but stored on hard-to-access files (such as spreadsheets) or on multiple operational HR systems with different databases and job codes.	Cloud-technology HR systems enable easier collection of data directly from employees at the time of hire and better access and maintenance of the data over time.
Employee interest and experience data such as skills, qualifications, and career interests	If collected at all, this data tended to be stored using unstructured forms such as resumes or placed in difficult-to-access files and stand-alone recruiting and career development systems.	Integrated cloud-technology HR platforms enable the ability to collect structured attribute data at different phases of the employee lifecycle (onboarding, training, and others) and analyze it through a single system.
Employee attitude data such as job satisfaction, engagement, and confidence	Data was collected through time-intensive annual or periodic surveys and often stored on stand-alone databases.	Mobile and cloud technology enable the use of short “pulse” surveys embedded into operational work activities, allowing for a less-intrusive, more-ongoing collection of data.
Subjective performance data such as ratings of performance or potential, peer feedback, “360 survey” ratings, or other data about how employees are perceived by people they work with	Data primarily collected through individual manager performance reviews tended to be of questionable accuracy; peer feedback data tended not to be captured at all.	Continuous performance management and talent review technology enables ongoing collection of more-complete performance data and more-reliable evaluations based on group input.
Objective performance data such as attendance, collaboration, productivity, sales, customer service, and other performance metrics that do not depend on ratings or evaluations	Data was stored in multiple systems and databases that were difficult to access and lacked data standardization.	Integrated cloud platforms enable the ability to link data across different operational systems for attendance, collaboration, sales, customer service, production, and more.
Work environment data such as job-assigned schedules and shifts, reporting structures, team composition, training resources, and other variables that define the nature of where a person works	Data was stored in multiple systems and databases that were difficult to access and lacked data standardization.	Integrated cloud platforms enable the ability to link data across different HR systems including scheduling, learning management, and reporting structures.
Financial outcome data such as business unit revenue, operating costs, and revenue per employee	Financial data was stored in systems that were neither linked nor aligned to HR systems.	Integrated cloud platforms provide the ability to link financial and HR data so it can be analyzed in one solution at different levels of regional and functional granularity.

The move to integrated cloud technology platforms is having a positive impact on the ability to access and use different forms of HR data. It is also leading to greater standardization and normalization of data across different sources. Rather than having to manually assemble data from multiple databases stored in various systems and on-premise locations, companies can now automatically pool multiple types of data into a single cloud-based data lake. The challenge is that companies must move to cloud-technology systems to gain these benefits.

Another area enhancing the availability of HR data is the growing use of mobile and social technology to support candidate relationships, talent management, and learning. HR is shifting away from fixed “one-time” hiring methods and annual, time-bound periodic talent management processes toward more ongoing relationship management, collaboration, feedback, and assessment. This shift is generating far richer and more-robust data reflecting candidate and employee attitudes, performance, and potential. Looking forward, we can expect to see the move to the Internet of Things to generate ever-greater levels of HR data. For example, you can link traditional HR data with data collected through wearable technology or sensors used to monitor the quality of work products.

The amount of HR data available to guide business-related people decisions is only going to increase. We have already reached a point where the challenge is frequently not about getting access to data but learning how to manage and use it. If companies want to benefit from the

advantages of greater HR data, they need to invest in building technology that enables them to access and analyze it. And they need to build expertise within their HR departments to guide how data is used. The more HR departments effectively take advantage of the growing amounts of data available, the more business leaders will come to appreciate the value of HR data.

HR departments also must become skilled at managing employee concerns regarding data privacy. Data, when used correctly, becomes information. Information is power, and to quote Spider-Man’s Uncle Ben, “With great power comes great responsibility.” It is also true, then, that with great data comes great responsibility. To manage the challenges of HR-data governance, HR professionals should actively forge relationships with data management and privacy experts from the legal and information technology departments.

Finally, and perhaps most important of all, HR professionals must guide the use of data based on a clear understanding of its relevance to business issues. The value of data depends on using it to answer meaningful questions. As we gain greater access to data, we need to become more skilled at understanding what types of data provide the most value for guiding critical business decisions.¹² Revisiting the joke from the start of this section, we are reaching a point where we can shine the “streetlight” wherever we want. We need to know where to look in order to know where to shine the light of HR data.

12. “[100 Critical Human Capital Questions: How Well Do You Really Know Your Organization](#),” SAP SuccessFactors paper, 2014.

Increasing the Visibility of HR Data: People Must See It to Use It

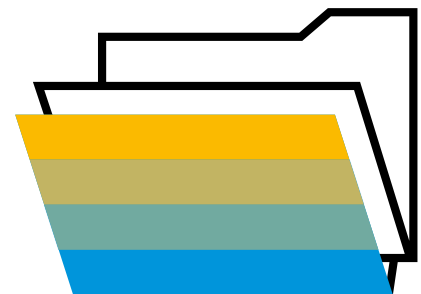
Leaders must be able to see HR data if they are to use it to guide their decisions. Unfortunately, a lot of HR data is kept in reports, databases, and systems that are not easily accessible by business leaders. Often, this data is not even easily accessible by HR professionals. If someone wants to use this data, they must get access to the right system or ask someone from HR or IT to run a report that may take several days to return. When the data finally arrives, it may not be presented in an easily interpretable format and may already be out of date. Given how hard it is to even see a lot of HR data, it is not surprising that this data is rarely used to guide decisions.

Advances in technology are increasing the accessibility and interpretability of HR data. Modern cloud and mobile solutions for human capital management technology have functions that can pull data out of complex reports and present it on dashboards using interactive, easy-to-interpret tables, graphs, and charts. The following are examples of three ways this technology is increasing the visibility and use of HR data.

DATA THAT'S RELEVANT WHEN LEADERS MAKE DECISIONS

The best time to show leaders HR data is when they are making decisions relevant to that data. SAP has developed two products that exemplify this concept. The [business beyond bias](#) functionality found in SAP® SuccessFactors® solutions uses HR data to create more inclusive and equitable cultures. Bias is a result of making compensation, staffing, and promotion decisions based on employee characteristics such as gender or physical appearance that are not relevant to actual job performance. The best way to reduce bias is to focus leaders on job-relevant data when they are making these decisions. This enables companies to stop bias before it happens. The functionality of business beyond bias does this by embedding data into tools used for talent management decisions that focus leaders on specific criteria relevant to the decision. This helps decrease the influence of implicit biases and provides immediate feedback showing whether decisions suggest evidence of potential bias.

HR data is often hidden in files and databases not readily available to decision-makers. But cloud-based mobile technology is making it accessible.



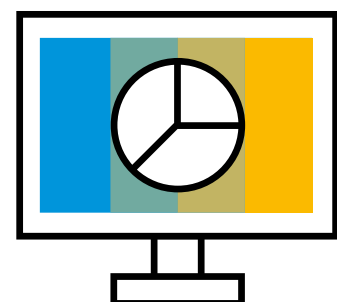
In addition, [SAP Digital Boardroom](#) focuses on displaying HR data to facilitate more-effective conversations and enable more-effective senior executive decisions. SAP Digital Boardroom consolidates HR data across the entire enterprise and displays it alongside other enterprise data such as finance, operations, sales, and marketing in business-relevant contexts. It also enables leaders to drill down and look at data based on regions, functions, or demographic groups. Having HR data displayed alongside other operations data provides executives with a more comprehensive picture of the organization. It also changes the nature of leadership meetings. Historically, the agenda for many executive-level meetings was split based on function. Finance would talk first, followed by sales, then by HR, and so forth. Each functional leader would come equipped with their own set of data. Consolidating all this data into one interactive display enables leaders to move away from talking about each function in isolation to talking about how the functions can collaborate to address broader business issues. Currently, in companies, the HR leaders might talk about decreasing turnover, finance leaders about increasing revenue, and sales leaders about growing account opportunities. By integrating this data into one display, all three leaders can instead jointly discuss the impact of turnover on account opportunities and its subsequent impact on revenue.

Christian Schmeichel, the COO for Global HR at SAP, shared another interesting and unexpected positive outcome of SAP Digital Boardroom: it accelerated leadership decision-making. When different functions each had their own data reports, certain data would inevitably not align, and time would be spent debating over whose data was more accurate. SAP Digital Boardroom surfaces data irregularities so they are addressed prior to starting senior executive meetings. When the meetings start, different functional executives all operate from one single source of truth. This means time is spent talking about what to do based on the data instead of debating the accuracy of the data.

DATA THAT'S ACCESSIBLE WHEN LEADERS ARE INTERESTED

Few business leaders have an inherent interest in HR data by itself. They are interested in HR data when it impacts things they care about (such as profit and growth). The challenge is how to get HR data in front of leaders precisely when it is relevant to their interests. This includes providing tools so leaders can quickly drill down to the regional or functional level of data that is specifically relevant to their area of business operations. Mobile technology is helping to address this challenge.

With SAP Digital Boardroom, executives work from a single source of truth, so time is spent deliberating issues instead of debating data accuracy.



The value of having accessible HR data is illustrated by the following story. After moving to a cloud-based, mobile-enabled HR reporting system, a regional sales leader complained during a meeting that the organization was at risk of missing its revenue targets because its sales representatives were quitting. He said it was because the organization was not paying its reps enough. The HR leader at the meeting asked what made him say this. The sales leader replied, “I just lost two reps this quarter. We clearly have a turnover problem.” The HR leader suggested they look at turnover data for that leader’s specific region and function using an HR reporting tool available on both of their smartphones. After a few minutes looking at the data, the sales leader realized that turnover in the region had decreased over the past year and that the two reps leaving was an anomaly. The ability to present HR data in real time during the moment of the conversation quickly redirected the sales leader’s thinking. Imagine how this might have played out if the HR leader had said, “Let me file a request to HR and IT for a report with turnover data in your region, and we can schedule a meeting in two weeks to review it.” Or even worse, imagine if the HR leader had no way to access the turnover data at all.

DATA THAT’S READY WHEN LEADERS TAKE ACTION

There are times when it makes sense to use HR data to call attention to people issues that could impact the organization. Significant increases in turnover, substantial decreases in employee

engagement, or growing signs of pay inequity are examples. In the past, HR departments would analyze HR data to spot these sorts of changes and schedule meetings with leaders to discuss the data. While this method can be effective, it is time-consuming. It also increases the risk of failing to quickly identify and address changes before they impact business performance.

Technology is helping companies keep business leaders informed of relevant changes in HR data – without overwhelming them with information. For example, some HR technology solutions enable companies to set triggers that automatically inform managers if HR data reaches certain thresholds. A notice might pop up on a leader’s mobile phone if workforce turnover increases by more than 3% in their region. The notice can also include links so leaders can dive deeper into the data if desired. These features automatically call attention to relevant HR data without forcing leaders to sift through lengthy reports.

Technology is allowing companies to collect vast amounts of HR data. To be useful, companies must enable business leaders to use this HR data without being overwhelmed by it. Happily, the same technology that enables collecting massive amounts of HR data can also enable displaying the right data at the right time to the right leader. All it takes is using this technology effectively. This also poses its own set of challenges, but these are challenges of technology adoption, not data access.

Understanding HR Data: The Importance and Risk of Context

Peter Howes, a pioneer in HR data analytics, has said that a little data in the wrong context is often worse than no data at all. If people misinterpret data, it strengthens their beliefs in the accuracy of something that is not true. This is a risk when sharing HR data with business leaders.

Consider the following story. As a result of a financial downturn, a large company had to rapidly reduce total workforce costs. Senior leaders were given spreadsheets showing salary and headcount for different departments. They identified a team working on a new but noncritical product that had relatively high workforce costs. Eliminating this team was an easy way to remove costs based on HR data showing job titles, functions, and salaries. But the leaders never looked at data showing the capabilities of the people on the team. Shortly after letting the team go, the company discovered it had eliminated several highly skilled engineers. These employees were on this team because of their high performance and creativity. Several of the employees possessed unique skills critical to the company's business operations. A few months later, the company had to rehire these employees as consultants at rates far greater than what they were paid as full-time employees. And their sense of company commitment had been lost.

It might look like the leaders in this story made a poor decision. But these leaders were not stupid people. They were smart people who made a confident decision based on accurate data interpreted the wrong way. What they lacked was the additional data needed to fully understand the context of their decision and its impact, both positive and negative. Part of the art of using HR data is presenting it in a way that leads people to

draw appropriate insights and conclusions. This is about providing data in the right context coupled with effective analytical interpretation. To illustrate this concept, consider the following five stories that demonstrate ineffective to highly effective uses of HR data.

PRESENTING HR DATA WITHOUT ANY BUSINESS CONTEXT

Jenny Dearborn, author of the book *Data Driven*, tells a story that illustrates the risk of presenting HR data without any business context. Early in her career, she shared data with a business leader indicating how many people in his organization had completed various training programs. Rather than responding positively, the leader said that all this data told him for sure was that dozens of people in the company spent hundreds of hours sitting in training classes instead of getting actual work done. The leader did not say that training was a waste of time. But he made it clear that this HR data was not valuable unless it could be linked to business-relevant data such as sales productivity.

PRESENTING HR DATA WITHOUT ENOUGH BUSINESS CONTEXT

Hiring freezes are a common method used to control costs. From a financial perspective, this makes a lot of sense. By stopping hiring, companies swiftly reduce growth in operating costs caused by salary. What leaders implementing hiring freezes do not see is the financial losses they create. This starts with wasting the months of time spent recruiting skilled candidates, only to tell them they cannot be hired. The best candidates usually have multiple offers, so when a company implements a hiring freeze, it is giving many of its top candidates to other companies.

In many cases, these are direct competitors. Employees are hired because companies need people to generate revenue and run efficient operations. The revenue and efficiency that would be gained by hiring employees is delayed and potentially lost forever when a hiring freeze goes into effect. The problem with hiring freezes is not that they never make sense; the problem is that they are usually implemented based solely on HR data showing the cost saved by eliminating new hires. They do not consider contextual HR data showing the financial gains that new hires generate.

PRESENTING HR DATA WITH THE RIGHT AMOUNT OF CONTEXT

A major challenge for business operations is determining the right number of employees to hire to maximize profit and growth without generating excessive workforce costs. This is particularly true in low-margin industries such as retail, where small differences in operating costs can make the difference between profit and loss.

A retail organization made creative use of HR data to determine the optimal number of store managers to hire in a region. Historically, the company strived to keep costs low by hiring store managers only when there was an existing vacancy within the region. This meant the company did not hire new store managers until an existing store manager quit. An intrepid HR leader observed that when a store manager quit, the morale of employees in the store usually suffered, turnover increased, and sales declined. Pressure was also placed on adjacent store managers to cover the store until a replacement manager was hired, and consequently, the performance of adjacent stores suffered as well. The HR leader used store sales

and turnover data to demonstrate that the cost incurred by waiting to hire store managers until after an existing manager quit was greater than the cost of employing an extra “floating” store manager who could immediately step in and run a store when a manager left. This scenario illustrates the benefits of looking beyond simple HR data such as staffing and salary and incorporating contextual data that illustrates how people impact broader business operations.

PRESENTING HR DATA WITH CONTEXT PLUS ANALYTICAL INSIGHTS

Some HR data needs no explanation. Business leaders do not need much guidance to understand the impact of HR data revealing that high performers are quitting at twice the rate of low performers, for example. The best data has what statisticians sometimes jokingly refer to as “interocular significance” – its meaning hits you right between the eyes. However, not all HR data lends itself to such easy interpretation. The last few years have seen tremendous growth in the use of machine learning and advanced nonlinear mathematical modeling methods to draw analytical insights from HR data sets that might otherwise be overlooked.

Analytical methods such as machine learning do not magically turn HR data into meaningful information. The data must meet certain conditions related to data quality and sample size. It must also be tied to business metrics and presented in the right context. But given these preconditions, advanced analytical methods can greatly enhance the value of HR data. Consider this illustration from a project done to develop staffing assessment tools to predict sales performance in shoe stores. The company observes that better salespeople

tended to be socially confident (they initiate conversations) and personable (they are interested in learning about others). Based on this, the company favored hiring candidates who are socially confident and personable. After the company amassed data on several thousand hires, they used non-linear mathematical models to determine the optimal fit between candidate characteristics and sales. The analysis confirmed that good salespeople tend to be socially confident and personable. However, the absolute best salespeople are socially confident but not very personable. These rare, unpersonable, socially confident individuals sell the most shoes because they are highly task focused. They are not striking up conversations with customers to learn about them; they are starting conversations to sell them shoes. Without advanced analytics, the company could never make this realization and modify its hiring profile.

PRESENTING HR DATA WITH EXPERT INTERPRETATION

The highest level of data interpretation combines multiple sources of data, mathematical modeling methods, and the skills, intuition, and knowledge of subject-matter experts.¹³ Analytical techniques such as machine learning can identify patterns in data that people could never see. On the other hand, people can make inferences based on data that no machine learning algorithm could ever consider. This was illustrated in a project monitoring and analyzing turnover data for a chain of

hotels. Turnover in one hotel suddenly increased over a very short amount of time. A range of HR data was examined to explore whether something had changed in terms of how candidates were being selected and managed. The initial data analysis failed to provide any clear insights. At this point, the data experts working on the project asked to talk with the hotel staff. One of the hotel managers commented that the local bus company had changed its routes. A bus that used to stop in front of the hotel now stopped a half mile down the street in front of another competing hotel. It quickly became clear that the turnover had nothing to do with what the hotel was doing. It was a result of external factors impacting the commuting time of employees in the hotel who relied on public transportation to get to work. No amount of advanced data analysis would ever have led the company to this simple insight that was obvious to a person familiar with the actual hotel and its employees.

A little HR data can be a dangerous thing. But it can also be a powerful force for good. The key lies not in the data itself, but in ensuring the data is placed in the right context and interpreted in the right way at the right time. The best interpretations of data often come from combining cutting-edge, highly complex mathematical analysis with old-fashioned human knowledge, curiosity, and experience.

13. "[How to Build an HR Analytics Center of Excellence: Harnessing Workforce Data to Drive Strategic Decision-Making](#)," SAP SuccessFactors white paper.

Managing Sensitive HR Data

HR data often contains sensitive information about employees and the organizations they work for. Part of using HR data is managing potential risks related to its sensitive nature. These risks tend to fall into three broad categories.

DATA PRIVACY

HR data contains information that could be misused if it fell into the wrong hands. There are many reasons to ensure HR data is handled in a careful and confidential manner. Many countries impose strict requirements around how and where HR data must be stored, who can access it, and when it must be destroyed. The General Data Protection Regulation, or GDPR, recently enacted by the European Union is just one example of a variety of stringent laws and rules to ensure HR data is not used inappropriately. Anyone working with HR data should pay careful attention to these regulations, lest they violate laws that can often result in significant financial penalties – not to mention violating the trust of their employees.

CULTURAL CONCERNS

Increasing the transparency of HR data may reveal organizational characteristics that could create difficult conversations within the company. Foremost is the potential to uncover inequitable trends related to compensation and staffing. Leaders and managers must be educated on how to appropriately respond when people call out data that suggests potential unfairness and inequity in employee treatment.

LEGAL EXPOSURE

HR data may surface patterns that could put the company at legal risk. Foremost is the risk of

uncovering trends that could be used as evidence of potential discrimination based on gender, age, or ethnicity. When dealing with such data, it is wise to consult corporate counsel and take precautions that minimize the potential of becoming a target of legal actions.

THE RISKS OF IGNORING SENSITIVE HR DATA

The risks associated with HR data are real, but they are also manageable. This starts by educating the people handling HR data on how to properly protect its confidentiality and security. It continues by controlling who sees HR data and ensuring it is used only for appropriate purposes. Finally, it is important to educate leaders in the company on how to effectively discuss patterns in the data so they lead to constructive change and avoid destructive criticism.

Some companies are so afraid of the risks inherent in HR data that they use it only for the most minimal required reporting. These companies fail to leverage the wealth of valuable information found in HR data. Even worse, their fear of exposing sensitive data serves to perpetuate inappropriate practices rather than identifying and addressing them. When it comes to HR data, companies have two basic choices. One is to hide data in the hope that any inconvenient truths it contains will never come to light. However, the growing number of corporate scandals occurring in the media suggest this strategy is ultimately bound to fail. The other approach is to use HR data to better understand the world as it is, problems and all, and use the data to develop methods to improve the world for the better. This approach requires a bit more risk taking up front, but is far more likely to lead to positive outcomes over the long term.

Building Momentum for the Use of HR Data

For decades, people have talked about the need for HR to become more analytical, empirical, and evidence based. Of course, saying what you should do and actually doing it are two different things. The previous sections in this paper addressed challenges that prevent HR data from being used to guide business decisions. This last section provides ideas on how to start creating more analytical-oriented HR functions. This discussion is divided into three themes: what to do first, who to choose as your partners, and what not to do.

WHAT TO DO FIRST

What should we do first? This is a common question companies ask about HR analytics. The answer to this question depends on where the company currently is in terms of analytical expertise, technological resources, and leadership culture. It is much easier to create momentum around the use of HR data if you work in a company that puts a strong emphasis on data and analytics in general. Such companies are more likely to have leaders who are receptive to the use of data, as well as technology and expertise that lends itself to collecting and analyzing data. But, regardless of whether your company is or is not analytically oriented, you can still benefit from starting in any of the following ways.

Examine an existing business problem that can be addressed using HR data. This is the ideal way to build the credibility of HR data as a tool for business leaders. It starts with identifying a

business challenge that is tied to HR topics but is not an HR issue. Begin by looking at the strategic objectives the company's business leaders are trying to accomplish. For example, how is the company planning to drive profit and growth over the next year? Then, ask the business leaders responsible for these objectives how much they will require hiring new talent, retaining critical talent, or getting people to do things in the future that are different from what they did in the past.

Virtually every major strategic objective depends on getting people to do new things that the company was not doing in the past. This sort of change can always be linked back to HR topics such as staffing, retention, engagement, and development. Once you make this connection, then you can explore how the use of HR data could inform the way the company addresses these changes. For example, companies focused on growth often struggle with finding, developing, and retaining talent to support expanding business operations. HR data lends itself to understanding what sort of talent is needed, where to find it, and how to engage and develop it. Conversely, companies struggling with cost control may be interested in HR data looking at reducing turnover costs or increasing employee productivity. Almost every major business operation can be supported by use of HR data, provided you can collect the data and then show the link between the data and business outcomes.

Draw insights from existing HR data. This is a somewhat risky approach, but it can be a relatively low-cost way to demonstrate the potential value of HR data. This approach starts by identifying what HR data is readily available and then conducting analyses to find insights in this data that will be interesting to business leaders. Examples include showing relationships between workforce costs and financial performance, trends in employee turnover or time to hire, or employee development and workforce productivity. If done right, this analysis can enlighten business leaders to the value of including HR data when managing business operations. The risk is that business leaders may not be interested in HR data unless it ties directly to the major strategic objectives they are pursuing.

Build a business case for better HR data.

The most difficult spot to start from is when the organization lacks technology to effectively collect HR data. You cannot analyze data you do not have. Companies in this situation may benefit by calling attention to things they do not know could be addressed by HR data. For example, ask leaders whether the turnover of high-performing employees is greater than the turnover of average employees. Or ask if the money spent on training and compensation is generating positive results in terms of employee engagement, performance, and retention. The goal is to get leaders to appreciate what they do not know but could know if the company invested in tools to collect better HR data.

The first of these three approaches is likely to be the most effective. But any of the approaches can lead to generating more interest in HR data overall.

CHOOSE YOUR PARTNERS

Conducting HR analytics requires having people who understand how to collect, analyze, and use HR data. HR organizations that do not have a history of being data driven may struggle to find people with the skills needed to manage and interpret HR data. The following are a few ways to address this challenge.

Build your own internal HR data analysts. Many HR organizations employ analytically minded individuals, even though they may not always be in analytically oriented roles. These people may treat the request to work on an analytical project as a major development opportunity. Look around and see if any of these people exist in your organization. If you decide to use internal talent to build your own data analytic expertise, make sure you provide them with adequate time to both do the work and develop the additional analytical skills they might need.

Partner with analytically minded functions.

Most financial departments employ data analysts of one sort or another. The same is true for many sales operations, marketing, and IT functions. Reach out to these departments and explore whether they might be willing to collaborate on work to make better use of HR data. A benefit of this approach is that it can facilitate linking HR data to operational business data from these other functional areas.

Use consultants and vendors. There are growing numbers of consulting companies and technology vendors that specialize in HR data analytics. Use these external parties as a resource, and encourage internal HR staff to learn from them. The level of expertise of consultants and vendors who specialize in HR analytics is likely to exceed any expertise that might be available within your company. Additionally, external partners have a vested interest in making the project a success and demonstrating its value to business leaders, as this often leads to more work for them.

WHAT NOT TO DO

You only get one chance to make a first impression. This old saying is true for business initiatives as well as people. If your first foray into HR analytics is successful, then it will be far easier to get resources and support for additional projects. The opposite is true as well. An interesting article called “How to Fail at HR Analytics in 7 Easy Steps” describes several major pitfalls to avoid.¹⁴ A general theme of the article is starting small and growing with demand. It is very risky, not to mention difficult, to get funding and build out a large analytics function and then scramble to justify its cost.

Another bit of advice on what not to do is even simpler: do not do nothing at all. HR has not historically been a data-driven function, but it is not staying this way. HR professionals who do not embrace and encourage the use of HR data run the risk of being left behind. They may soon find themselves underskilled and underappreciated in an increasingly digitalized world dominated by data-driven practices. That is the risk of doing nothing. But the opportunities that come from doing something are even greater. HR data calls attention to the value of HR expertise. And the more the expertise of HR is recognized and used, the better the world of work will become for all of us – employees, leaders, and HR professionals alike.



LEARN MORE

For more information about embracing the benefits of data in HR, visit us [online](#).

¹⁴. Mark Berry, “How to Fail at HR Analytics in 7 Easy Steps,” *HR Magazine*, December 2015.

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