Can You Provide the Current Trends in HR on People Analytics?

Kiki Wang  
*Cornell University*

Justin Taylor  
*Cornell University*

Follow this and additional works at: https://digitalcommons.ilr.cornell.edu/student

Thank you for downloading an article from DigitalCommons@ILR.

Support this valuable resource today!

This Article is brought to you for free and open access by the ILR Collection at DigitalCommons@ILR. It has been accepted for inclusion in Student Works by an authorized administrator of DigitalCommons@ILR. For more information, please contact catherwood-dig@cornell.edu.

If you have a disability and are having trouble accessing information on this website or need materials in an alternate format, contact web-accessibility@cornell.edu for assistance.
Can You Provide the Current Trends in HR on People Analytics?

Abstract
[Excerpt] People analytics is an increasingly hot topic and many companies are working to gain insight through this emerging field. Business leaders are asking how analytics can help drive better decision-making in order to improve business results. Among these questions, turnover prediction and succession planning are two key areas that HR professionals identify as high value. Since there isn’t a one-size-fits-all solution to these questions, we compiled our most noteworthy insights and put forward several steps that an organization should follow in order to create its own internal models.

Keywords
Human Resources, analytics, predictive analytics, business leaders, HRBP, turnover, succession planning, data, variables, job embeddedness, organizational fit

Comments
Suggested Citation

Required Publisher Statement
Copyright held by the authors.
Executive Summary

Research Question
Can you provide the current trends in HR on people analytics? What predictive analytics are helping HR organizations drive better decision-making and business results?

Introduction
People analytics is an increasingly hot topic and many companies are working to gain insight through this emerging field. Business leaders are asking how analytics can help drive better decision-making in order to improve business results. Among these questions, turnover prediction and succession planning are two key areas that HR professionals identify as high value. Since there isn’t a one-size-fits-all solution to these questions, we compiled our most noteworthy insights and put forward several steps that an organization should follow in order to create its own internal models.

Best Practices for HR Analytics Teams
Companies that are successful in leveraging data analytics share a lot in common, regardless of the question they hope to answer. Below are three critical traits that can be observed in successful people analytics teams.

- **Able to gather and interpret complex data**
  Not all HR professionals are statistical experts or have sufficient business knowledge to leverage the data that exists. Successful teams not only collect meaningful data, but they draw valuable conclusions through an analytical mindset, strong business sense and solid HR expertise. Whether a business partner, generalist or expert in a particular area, HR professionals vary a lot in their ability to properly handle complicated data. So, it is valuable to set apart a team of HR analysts that have a strong foundation in research design and business acumen.

- **Draws connections between data and larger business strategies**
  HR analytics must make sense to those outside of the HR community. Top-level management needs to see the value analytics has to the mission of the organization and how it can support the organizational business strategy. Thus, successful analytics teams not only gather and interpret HR data, they also effectively communicate this information to those outside of their team. Remember that describing the data itself is not the end goal of HR analytics. It is important to discover your employees’ needs and their motivations behind the data in order to translate this into custom HR initiatives and programs. This is the ultimate value of a good analyst.

- **Uses multiple models to generate reliable predictions**
  Just as there is no “one-size-fits-all” strategy for every company, there is no one model that can find everything HR wants to predict. Employees in different locations and at different ages may have different competencies, behavior patterns and motivations. Therefore, HR professionals should look into a variety of approaches to build accurate models. They should have a portfolio of multiple models for predicting different aspects of human capital across different clusters of employees.
Many studies point to potentially predictive variables, but no single variable shows guaranteed generalizable significance across businesses. Because of this, we have compiled a categorical list of variables that are likely to show predictive significance within an organization when considering turnover. A good analyst will be able to craft models that use or exclude these variables appropriately in order to find the story unique to your business. See our references for further reading on these.

- **Demographic variables:** age, location, education level
- **Job-related variables:** years of service, wage, benefit, cost center, performance score, the interaction between number of dependents and years of service, compensation changes from year to year, and the length of time in the job without a promotion
- **Intrinsic variables:** work satisfaction, organizational commitment and organizational justice, career selection criteria and job embeddedness
- **Communication patterns:** phone use while away from work, and ratio of phone vs email
- **Subjective factors:** personality type and co-worker relationships
- **Unexpected incident:** shock

### Succession Planning Insights from Three Case Studies

- **Dow Chemical** – Dow uses a custom modeling tool to segment the workforce into five age groups and 10 job levels. They then calculate future head count by segment and level for each business unit. These detailed predictions are aggregated to yield a workforce projection for the entire company. Dow can engage in “what if” scenario planning, altering assumptions on internal variables such as staff promotions or external variables such as political and legal considerations.
- **Pfizer** – Understanding the competency level and development needs of employees is the very first step of a good succession plan, and HR analytics can facilitate this process. Pfizer has found that providing line managers with self-service tools, which give access to learning metrics about their organization, has driven greater levels of accountability around developing their immediate reports.
- **General Electric (GE)** – GE launched an internal app for employees to search training opportunities, open positions and even a mentor. An internal algorithm then makes recommendations matching employee and company needs. Because of this approach, employees are developing and progressing within the company in a way that feels more organic.

### Conclusion

HR analytics is still relatively new and continues to evolve as the business landscape changes. Publicly available, generalizable and scientifically validated models are not prevalent. In order to remain relevant and lead in an industry, HR professionals that are highly trained in analysis and those skilled at communicating these insights must take care to create and validate meaningful models that will improve the quality and impact of business strategy. Analysts need to build multiple models from different perspectives to make accurate predictions. Until this field matures it may take time and involve trial and error to figure out the most effective model for your company, but a company with good analytic models will gain strategic advantage over the company that fails to invest their time.
Appendix A

General Notes on Listed Variables:
The categories of variables in the executive summary are organized from the most to the least common, as found during our research on turnover prediction models. HR analysts should look into these variables and test to see which might be significant in their specific work environment.

Variable Details:
1Job Embeddedness – Simply put, job embeddedness is a concept that groups relational and organizational variables (ranging from relationship ties and perceptions about organizational fit to beliefs about the cost of leaving) in order to explain why a person remains working in the same place.

2Shock – A precipitating event (e.g., a fight with the boss or an unexpected job offer).
Sources Reviewed


