



Paper

The path towards predictive analytics

Peter Reilly, Principal Associate

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When something in management practice becomes popular it suddenly seems harder to define. It has happened before with talent management and the various forms of business process redesign. It is now also happening to HR analytics. Expert practitioners in the analytics field want to distinguish this activity from many other related tasks. For them, HR analytics uses multiple data sources (people and business) as a business problem-solving or risk-mitigation exercise. It tests hypotheses based on the examination of existing evidence both internal and external and seeks to offer predictive solutions. It is not, say these aficionados, about reporting HR data on turnover or absence as these are backward-looking, static facts. It is not about data systems or data definitions and integrity, though these are often (but not always) pre-requisites for doing complex analysis.

If one were to look at the current raft of conference programmes a whole variety of topics are on the menu, with associated case study examples. Yet, few of these contributions will truly reflect HR analytics, as defined above. Does this matter? In one sense not. The material at these conferences on quality management information, new ways of reporting (dashboards, visualisation methods and the like) measuring employee engagement, talent statistics, etc are all important subjects and should be viewed as such. Indeed, some organisations may get no further than reporting current workforce statistics and doing this selectively and concisely, but imaginatively, is a worthwhile goal to aim for.

These topics may well have links to HR analytics and indeed involve more time and resource, but we should not kid ourselves that they are solving business problems. For example, knowing how to construct an employee engagement measurement scale is a necessary step before connecting to other data items but is not an end in itself. Being able to describe clearly who your top performers are and what the aggregate turnover rate was in the last five years is very useful, but would be much more powerful if you can say what the turnover rate was for your high performers compared with the average and what were the main causes of resignation amongst this elite group. HR analytics comes into play when you predict future turnover based on certain future assumptions and set out the impact it would have on business performance.

So being precise about the HR analytics term not only illustrates how you are stretching data to good use but it is offering something really helpful to your business colleagues. This may impact on their decision making and demonstrate to them that HR has a value beyond doing the administrative basics well.

We thus need a term that separates out the high end of analytical work, and if HR analytics is or has become too generic, then we will have to call it 'predictive analytics' as Peter Howes of Success Factors in fact does.

So what sorts of benefit can one see from proper HR (predictive) analytics? Some of the questions we have seen answered include:

- What HR practices are associated with encouraging organisational innovation?

- (If you have a choice) which locations are likely to combine the best workforce and business conditions?
- What are the cost/benefits of flexible deployment, internal mobility and such like and what does analysis suggest is the optimum level of people rotation?
- In understanding labour costs, can one take the elements most susceptible to change and model the effect of their reduction on business performance?
- Is there a reliable link between employee engagement and productivity, and which ways can the latter be raised through engagement interventions?
- What people related issues do we need to focus on to improve sales?
- Is there a connection between leadership training (and even socialisation) and safety performance?
- How do you measure organisational culture and what is the relationship between it and organisational performance?
- What are the main people related risks to organisational performance, what impact would they have and how can one mitigate them?
- Can one prove that manager selection impacts subsequent team performance? Which management characteristics have most positive effect?

Some may be daunted by this list of questions either because they lack the data or the skills to be able to answer them. The standard response to this concern is to steadily build the ability to perform the necessary tasks by improving the comprehensiveness and integrity of your data, by investing in suitable technology to manipulate these data and by hiring/developing (probably hiring) staff competent to do the analysis. However, there is an alternative view that this process takes too long and relies too much on the faith of the business to fund the changes without a guaranteed return. Those that take this view say it is better to pick a pressing business issue and get sufficient data to have a stab at addressing the problem and then present interim results back to colleagues with the aim of getting support and resources to finish the job.

To progress towards predictive analytical work, both of these approaches require:

- Growing understanding of the business challenges relating to people.
- Improving knowledge of external environment both in its impact on your own organisation (eg legislation or labour market change) and in terms of new research insights.
- Turning more to standardised reporting and dashboards, avoiding time-consuming ad hoc reporting.

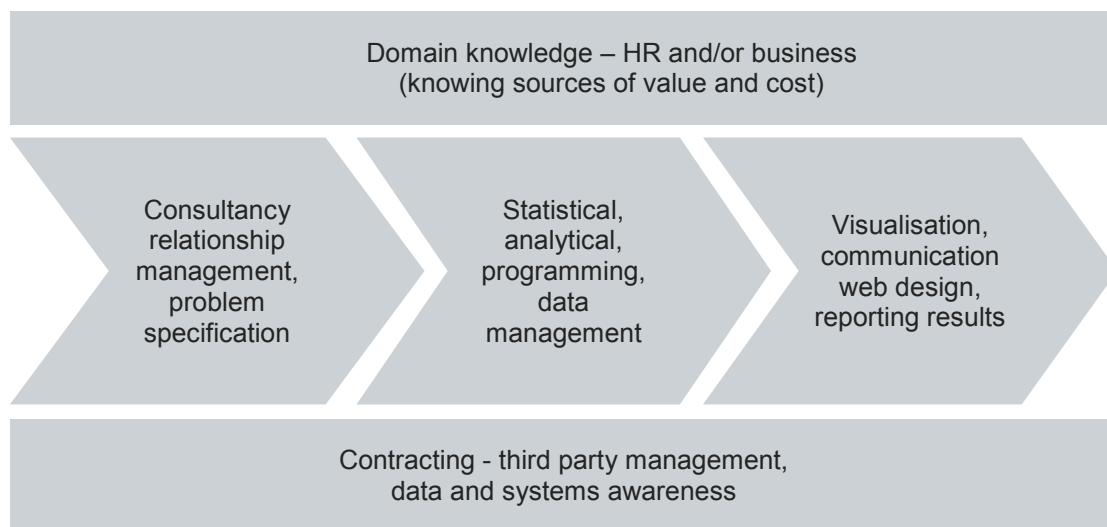
- Pushing the use of self-service tools that allow managers obtain their own data and run their own reports.
- Prioritising the strategic business issues rather than the urgent but less important
- Building capability:
 - In the analytics team, increase technical competence but also improve problem specification.
 - Create cross-functional communities of practice so that one can agree definitions, have access to a wider range of data sets, learn from others and share insights.
 - Create an 'intelligent customer' profile so that HR business partners and their clients know better how to identify issues which are susceptible to analytical intervention.
- Developing the use of sophisticated communication tools to lead to better 'story telling' in conveying the results of your analytical exercises to a wide audience.

At [an IES HR Network event](#), Paul Smith, at the time HR Director for LV= General Insurance, outlined the typical movement towards predictive analytics from simply reporting. He made it clear that one of the critical aspects of successful journeying towards predictive analytics is to build the team's capability.

As Figure 1 indicates, the requirements are broad and, in a larger team, require the deployment of a range of specialists with important management coordination. A smaller team requires a number of generalists who can call on outside expertise for some of the most sophisticated (statistical) tasks. How much some of these skills are needed depends on your operating model – how much work is outsourced (this depends on the extent of contract management skills) or passed to other business functions (eg to communications or Information Technology).

However, even if work is undertaken outside HR, there must be at least some awareness of the tasks undertaken. Take reporting: an external communications team can assist with the messaging and make outputs visually attractive, but the HR community must make the mind-set switch to seeing that the point of the exercise is to influence actions. Too often reams of paper or megabytes of data are simply pushed at customers leaving them to make their deductions of what is important. If you know the business, you can save them this trouble by identifying the key points and then use quality communication techniques to ensure the message best reaches home. If customers want specific data sets you can send them these as required, but the standard reporting should be kept to the absolute minimum.

Figure 1: Range of skills needed for HR Analytics



Source: Institute for Employment Studies

The final step in building HR analytics competence is to conduct an evaluation of your performance. This is, of course, good practice in itself to aid learning, but may also serve to demonstrate the value of the work and, if you have been successful in solving some business problems or highlighting workforce risks, then getting some kudos and business buy-in to your efforts is an extra bonus.

The evaluation could review:

- Examples of demonstrable success:
 - solving business problems;
 - giving insight;
 - identifying risk; and
 - adding value, covering costs.
- Customer satisfaction with needs met (not wants).
- The extent to which you are building expertise in key business areas of interest (eg safety, productivity, sales).
- Skills in your team across the spectrum described above.
- A move towards having 'intelligent customers' through training, coaching, etc.
- Greater data quality and consistency; agreed definitions.
- Appropriate systems and processes.

Conclusion

HR analytics, properly described, has the potential to add a lot of value to organisational understanding of the link between people and organisational performance. It is not an easy task to build the capability to add insight in this way and requires investment in data management, systems and especially staffing. It also requires discipline to ensure that giving attention to these sorts of challenging tasks is not compromised by spending too much time on other worthy activities. Finding a language and process to distinguish between the different types of contribution that management reporting and analytics can make to organisational success is important precisely so as to allow the time and space to tackle the difficult but rewarding predictive challenges reported above.

Peter Reilly, Principal Associate

If you are thinking about how HR analytics could be applied and bring improvements to your organisation, please feel free to get in touch and discuss this with us.

Call 01273 763 400 or email peter.reilly@employment-studies.co.uk

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T: 01273 763400

E: penny.tamkin@employment-studies.co.uk