

Big Data - Intuitive Lessons for HR Managers

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"Big Data" has emerged as the new buzz word in management and industry, who look to tame the volume, velocity and variability of massive data to reveal hitherto insights, which would provide organizations with a competitive edge. After all, analysis and insights from big data is what has been the genesis of large number of service and product organizations. Trend patterns emerging from user actions have resulted in crafting highly personalized user experience and the new wave of advertising. This has been leveraged successfully by the large web based startups like Amazon, Facebook, Google and Yahoo.

The buzz around big data is enough to make sensible people head for the hills! Terms in the Hadoop bestiary like HDFS, Mapreduce, Pig, Zookeeper, Hive, Mahout, Sqoop, Flume are enough to deter most HR professionals from testing these waters. However, just as driving a car requires some overall coordination, sensitivity to traffic behavior and a clear sense of what is the intended destination and not a degree in automobile engineering or a minute understanding of the workings or mechanism of the vehicle, grappling with big data needs skills which are not so difficult.

So what competencies are required to become a true big data master? Since the differentiation emerges from the speed of the insights provided, agility is a key requirement. However, what to look for necessitates a high level of domain understanding, an ability to build correlation with strategic outcomes for the organization, an innate curiosity and an entrepreneurial bent of mind. If retail analytics have established a correlation between diaper and beer sales, resulting in retail outlets bundling these products together, can HR not find similar patterns? Surely, it is not too much to ask for from HR practitioners? Not really. Most HR functions are sitting on goldmines of large employee data and each function within HR can independently explore what insights could be gleaned from the volume, velocity and variety of data accessible to them. The variety aspect of the data

would refer to the multiple sources of data, which does not necessarily fall into neat relational structures. Moreover, experienced practitioners have an intuitive understanding of which levers in their operations could produce strategic outcomes for the business and the organization. All it requires is a questioning bent of mind, to challenge existing paradigms of efficiency and effectiveness and evaluate the impact of these initiatives through the arsenal of big data.

It is also important to understand the critical difference between correlation and causality. Therefore, a word of caution on the tendency to find "spurious correlations". For instance, a phenomenal correlation of 99.79% exists between US spending on science, space and technology with suicides by hanging, strangling and suffocation ! Or how about a 66.6% correlation between films Nicholas Cage appears in with the number of people who drown by falling in a pool! It would be extremely imprudent to establish causality in these cases and take strategic decisions driven by these correlations. ! However, it is equally not important to establish or even explain the causality to appreciate the correlation . This is where a rich domain understanding becomes relevant to connect the dots- prudently!

Too much to digest? Let me share a few illustrative examples. A discussion with a recent assessment firm indicated that they were offering services to a large number of organizations for filtering the large volume of campus recruits applying to organizations. A sharp campus recruitment head then took it upon himself to link the assessment scores (available from a different data source), to performance on the job and retention of the campus hires (available in the organizations performance management system). Some extremely interesting insights emerged from the data trend, which were useful for the organization to sharpen its recruitment strategy for better organizational outcomes.

I could share a personal example of how a Talent Acquisition function I was part of, was actually working

blindly against non-validated perceptions and biases which were actually counter-productive to the organizations' interests. The business head had given us a mandate to improve quality of hire, with a clear directive to increase the intake from top tiered organization. The rationale behind this mandate seemed intuitive, with talent at top tiered organization having gone through sufficient screening process to ensure high caliber talent. Additionally, having worked at these top tier organizations, the assumption was that these hires would produce non-linear outcomes in terms of quality of performance and productivity. The Talent Acquisition function took affirmative action and congratulations were generously awarded by all, when the intake of talent from these top tier organizations was increased from 23% of lateral hires to 78% of lateral hiring. Naturally, this came at a significant increase in the salary cost. However, reviewing the hiring data of over 5000 hires over a couple of years, correlating with performance and retention indicated that there was no significant correlation of pedigree of company hired from with the performance. What this meant was that with no significant productivity increase, we had, in effect, increased the cost base for the organization by 5% and actually got appreciation for it! Naturally, corrective strategies were applied and hiring was then focused on increasing Tier hire, but within the same salary grids applicable to the larger organization and no deviations in cost allowed.

An interesting example from another top IT services firm has been how they have been using the data from their pre-boarding gamification platform. Insights from how offered candidates engaged with the organization through the pre-boarding gamification activity provided a heads-up to the Talent Acquisition function about which candidates were likely to abort. Proactive recruitment was therefore initiated only for these high risk cases and this contributed to overall utilization level increasing and bench strengths reducing,

making this firm a frontrunner on these metrics, with some of the best statistics in the industry.

Fundamental to all these examples is the strong feedback loop used to link data streams to build powerful and actionable insights. The purpose of Big Data is not to generate more data but to produce actionable outcomes. Examples cited here are not necessarily restricted to the domain of talent acquisition. For instance, HR Managers could be encouraged to look at trends within performance management systems, link with reward and recognition or correlate with training interventions and retention statistics. Depending on the business problem critical to the specific organization, HR managers should start use the "drivetrain approach" in conjunction with a model assembly line and this can be used to link a predictive model to actionable outcomes. Can HR managers consider performance metrics of certain teams or business units to provide recommendations to other business functions on HR interventions which will result in improved business outcomes, much akin to the recommendation engine of Ecommerce sites? So instead of waiting for best practice sharing on a knowledge site, can some proactive data mining throw up these nuggets? A lot of HR decisions are based on lag data and maybe the time has come for us to get into predictive indicators for our decision making. We can all start with asking simple questions around "What objectives is our HR function trying to achieve? What levers do we have at our disposal to achieve this objective?"

All of us would be amazed at the possibilities which emerge from these simple questions.

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