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GET EXPERT INSIGHTS ON

# The Future Of Data & Analytics in HR

**BY EPICENTER**

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*“Communication is the key to  
successful relationships and  
data is the medium”*

## INTRODUCTION

How do you make decisions in your daily life? Do you trust your gut feelings or arrive at a conclusion following evidence-based logic?

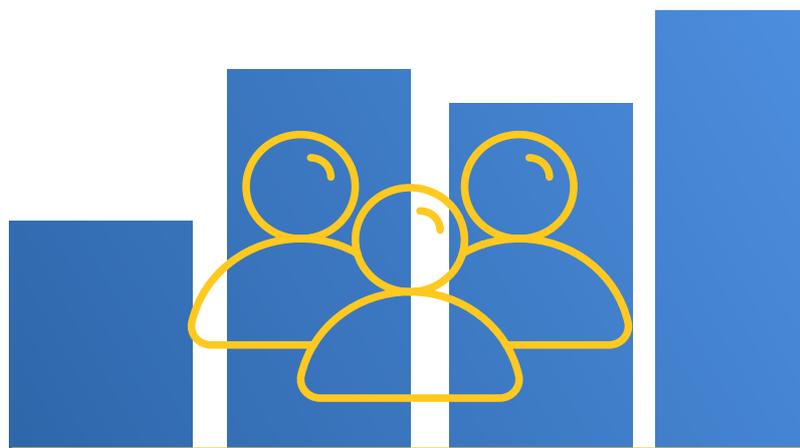


***While personal decision-making processes sway between the logical mind and the emotional heart, businesses acknowledge data and analytics as a trusted and effective method of steering decision-making and actions towards the best possible outcome.***

Naturally, some business functions have focused on data and analytics more than others.

For example, Finance and Sales functions, which have long been predisposed to numbers, were early adopters of data and descriptive analytics, which enables them to move towards more advanced methods of analyses. On the other hand, HR functions fall behind in the data and analytics department. For an HR professional, without the merit that often comes with data and analytics, efforts can go unnoticed and not duly commended.

If we think about a business as a family unit, Finance and Sales functions are like the over-achieving golden child while HR is the sibling struggling to be recognised.

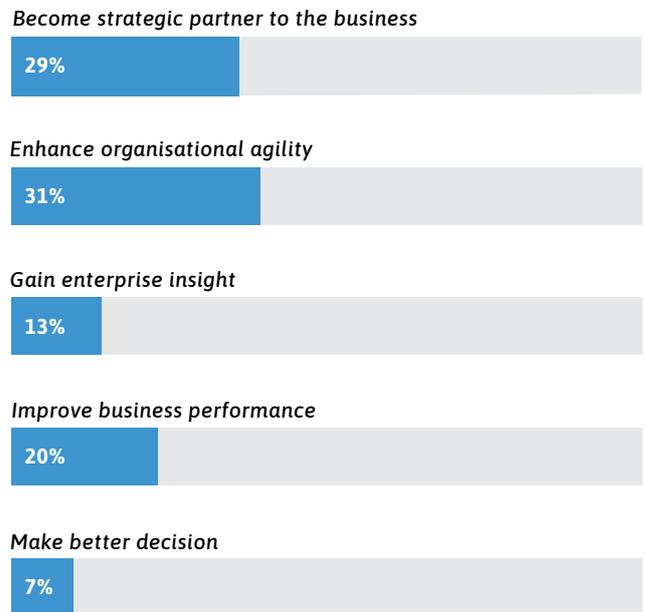




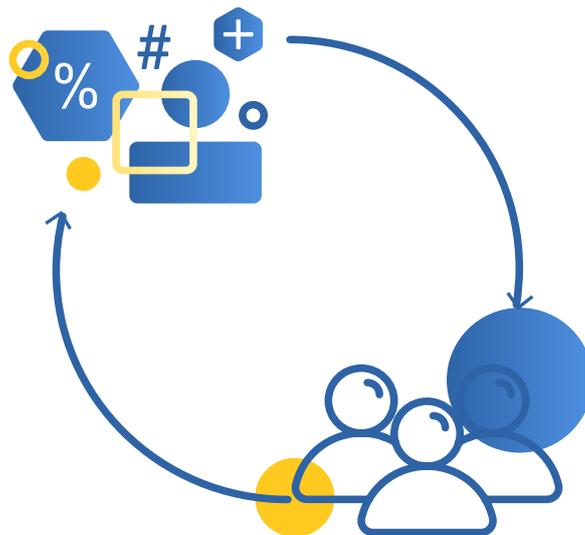
**To uphold their rightful seat in the boardroom, HR could focus on providing accurate data insights**

with regards to talent organisation and successional planning. When crafting overall organisational strategies, HR functions are often lower on the pecking order or completely uninvolved as they are viewed as subservient to the other functions in the organisation. What many do not take into consideration is that the data that flows between HR and other business functions must be bi-directional to ensure HR maintains its symbiotic relationship within the organisation. This symbiotic relationship makes data integration vital to organisations and can deepen the overall usage of data in organisations.

Figure 1. "HR holds a symbiotic data relationship with other functions "



Source: Oracle. (2019). HR Analytics Moves Boldly into Advanced Analytics with Collaboration from Finance.



For example, one way to gauge employee productivity is by combining headcount data from HR and sales and cost data from Finance to arrive at input and output numbers for specific employees or teams. If needed, individual expenses could also be tracked to particular HR categories. Both functions need the others' data set to arrive at a more progressive analysis as opposed to using data from individual functions. Communication is the key to successful relationships and data is the medium. Sibling rivalry is very real, but for a business to go far, all functions would need to cooperate and forge ahead together. A collaborative effort can help both functions to align themselves and be more involved with the overall organisational strategy.

For HR to have a more inclusive and equal role, businesses would have to introduce a new application for HR data into an already complex internal system landscape. Business applications are often sourced from various vendors, isolated to serve a designated function and have highly customised individual integrations. Introducing an HR data application into such a system landscape would require reformatting existing integrations and customising an additional integration framework for data to flow to and from the new application.

Imagine placing two individuals in a room who do not share a common language and expecting them to hold a productive conversation – it will not happen. Tools or guidance is needed to help them communicate. Different functions have varying responsibilities and unique ways of using data, resulting in different data models within organisations.

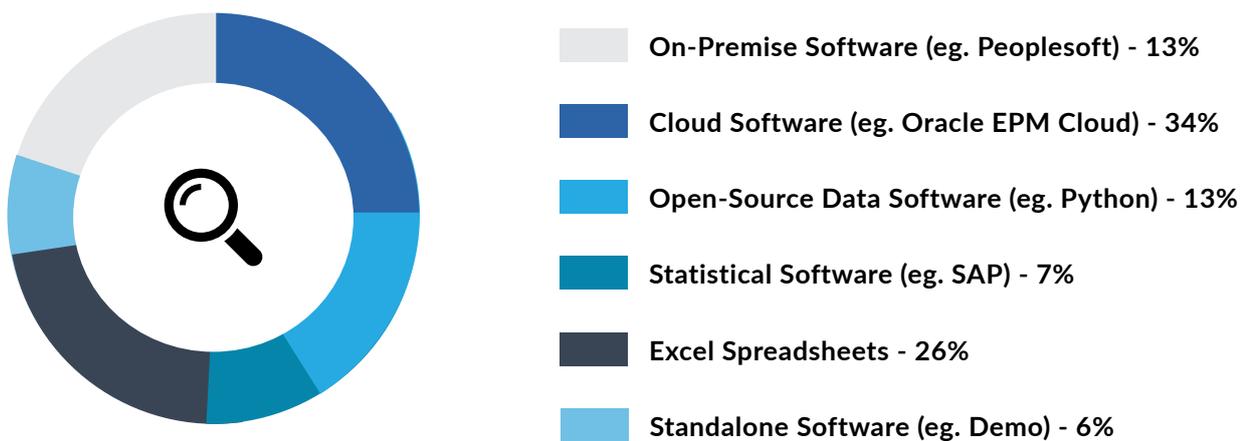
To allow data to flow between functions for a general understanding and alignment to business strategy within an organisation, all data models would have to be reconfigured to ensure that all functions use a standardised data model. But are organisations willing to give the importance that is due to HR and put in the effort to further assimilate them into the organisation through data integration? Would organisations gain a competitive advantage from adopting an analytical approach to HR? How can HR functions elevate themselves to be recognised as a source of relevant and reliable data for organisations?

***“Communication is the key to successful relationships and data is the medium”***

## Moving from On-Premise Systems to the Cloud

Perhaps the answer to many organisations' multi-application woes lies in the cloud.

Figure 2. Tools Used for Analytics in HR and Finance



Source: Oracle. (2019). *HR Analytics Moves Boldly into Advanced Analytics with Collaboration from Finance*.

Think of the cloud as a sort of guardian or helper for the child alongside the parents – a translator, a family therapist, an expert of all cultures. This do-it-all individual can help overburdened parents. The cloud offers the potential for organisations to ease themselves of infrastructural responsibility and reduce costs related to business applications. And many businesses are embracing the hefty benefits. According to LogicMonitor, 80% of companies will adopt cloud solutions by 2020, and on-premise solutions are expected to decrease by 10% and will only be responsible for 27% of all workloads by 2020.

Furthermore, an organisation that entrusts its infrastructure with a reliable cloud provider can reduce up to 35% of Total Ownership Costs (TCO) costs on three fronts:

### *35% total ownership costs reduction, on three fronts*

**High, initial purchase costs of on-premise systems**

**Unplanned maintenance and incidental costs**

**Varied capital costs associated with the running of on-premise**

Arguably, the most significant variable that inhibits organisations from diversifying internal applications to achieve maximum efficiency is the associated and unpredictable costs of maintaining on-premise applications.

For software vendors, after selling a one-off license for the application to the customer, they are no longer held liable for upkeep or maintenance, leaving customers with a significant amount of work and risk. Applications often require customised integrations to be introduced into the existing system landscape. The need for customisation and its associated costs for a single application within an organisation are then multiplied by the volume of applications that exists in the organisation leading to a limit in the number of applications an organisation can adopt due to cost pressures.

Customisation requires the constant re-programming of the application when faced with new versions of the software. The process of coding is also cost-heavy, time-consuming, risky and demands a specific skillset only possessed by IT professionals, disallowing scalability and administrative ease.



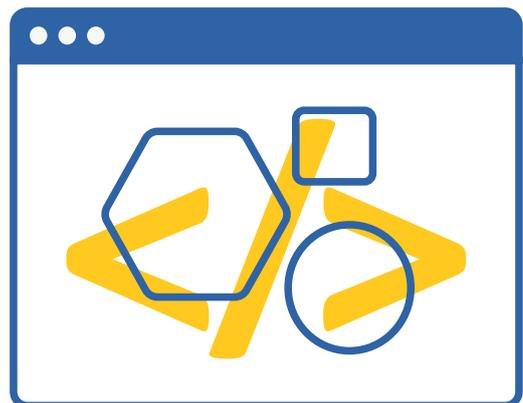
The truth is, there is no ready-to-use application which, by default, meets 100% of the needs in any organisation. Applications should be adaptable to suit a business' values and processes. On the other hand, a company must also be flexible in adjusting their operations to the best practices as dictated by applications. Despite the clear trend towards the cloud, some businesses still favour on-premise systems. What on-premise systems do well is creating a single on-premise application that essentially allows all departments in a company to "speak the same digital language". However, organisations that integrate cloud platforms and on-premise applications have certain advantages, for instance, they can;

- ✓ Exchange data and understand each other
- ✓ Have the power to obtain best-of-breed applications
- ✓ Benefit from the latest updates through continual R&D
- ✓ Profit from the reduced TCO associated with a migration to the cloud

Sticking with on-premise applications can provide safety and comfort. However, a move to the cloud can surely broaden an organisations' horizons – there's a reason why in our increasingly globalised world, many are travelling outside of their birthplaces, seeking more significant experiences to add into their life.

The cloud is what aeroplanes were to people at the beginning of the 20th century. In essence, it provides organisations with the possibilities of unexplored potential in the application and technological space outside of what is already known. So how can organisations withstand cost pressures yet still reap the benefits of various enterprise applications in the cloud?

*"Applications should be adaptable to suit a business' values and processes"*





**Modern cloud vendors often focus on long-term relationships with customers vis a vis the one-time profit that individual software vendors used to seek.**

To ensure that customers have the best experience possible and gain benefits with cloud systems, vendors are focused on offering continued service by fully supporting and ensuring that future updates are compatible without application breakage or additional integration work. Modern Software as a Service (SaaS) products offer cost-effective methods of configuring business needs to an application to meet the individual business requirements of organisations through:



#### **A Configuration Screen**

A simple user interface that non-programmers can set-up and alter their systems at their convenience, preventing the need for additional IT staff to cover skill shortages



#### **Configuration Templates**

Readily available connectors or pre-configured templates can be plugged in to reduce implementation times and enable easy set-up



#### **Integration Framework**

Combines applications from different management areas into a single system, prevents overlap of data, automates maintenance and smooth upgrades, necessitates little tweaking, has a shared infrastructure and low costs through economies of scale

## SIGNIFICANCE OF DATA IN HR



**Despite being overlooked often, HR functions of organisations are inextricable from all other business functions and central to an organisation's overall functionality.**

HR provides the necessary human capital needed to maintain the daily activities of individual business functions and the organisation as a whole.

**Figure 3. Integrating HR and Finance data is a top priority**



Source: Oracle. (2019). *HR Analytics Moves Boldly into Advanced Analytics with Collaboration from Finance*.

Being the master source of all employee data required in other systems within the organisation, the data must be of the highest standard of accuracy. Perhaps other sibling functions within an organisation can begin to appreciate that they are ultimately dependent on HR for the human capital and resources they possess to execute their work fully – HR is the provider of the human cement that holds the bricks of an organisation together.

The relationship between talent, cost and financial performance is one which an organisation cannot afford to leave unrecognised. For example, poor management of the workforce and talent will lead to high turnover costs that, in turn, results in a measurable decline in business performance. On the contrary, introducing data and analytics into HR functions allows organisations to forecast headcount and budgeting needs better, improve talent allocation and meet talents needs amongst other benefits, all of which can take the business even further.

In the talent, cost and financial performance relationship mentioned above, HR and Finance functions would have to share a standard set of data to foster strategic cooperation. While data and analytics may prove to be a game-changer for HR functions, issues abound in a standard integration system. Is there another option for cross-functional cooperation with accurate data?

## INTEGRATING AND RETAINING QUALITY DATA

With a dedicated, central integration hub, an organisation will be able to strengthen its data quality. If data is the medium of communication between HR and other functions within an organisation, then quality data is the equivalent of effective communication.

After all, communication is not useful unless the receiver understands it. The key to quality data begins with ensuring accurate user entries, guided by business rules, into source systems. Some areas in HR where accurate and consistent data is necessary include payroll, recruiting and onboarding, resource allocation, analytics, administration, retention. A quality data-driven HR can:

- 1** *Gain a competitive advantage in the procurement of outstanding talent*
- 2** *Accurately evaluate the business impact on people*
- 3** *Maintain the overall satisfaction level and effectiveness of employees*
- 4** *Support leadership decision making in matters concerning employees*
- 5** *Make processes and operations more efficient and effective*

*If data is the medium of communication between HR and other functions within an organisation, then quality data is the equivalent of effective communication.*



Quality data is not only necessary for HR to communicate with other functions within an organisation.



***HR can use quality data to set themselves apart and to deliver business value to the leadership of an organisation.***

Management relies on HR analytics to make sound decisions with regards to human capital. HR analytics can be especially crucial for the reduction of involuntary employee attrition. By having accurate data, employers in an organisation can monitor employees' performance regularly and take actions to retain employees who are at a high risk of involuntary attrition, thereby reducing employee turnover and enhancing employee experience in the organisation.

Data quality is strengthened and maintained by smart algorithms in integration systems by reducing manual errors incurred during data processing. The system monitors and reports error logs, thus eliminating the need for manual inspections that are relatively unreliable. The smart algorithm uses retroactive machine learning and trains itself on available data to be able to foresee anomalies or patterns in new data it receives or mines for user-required data.

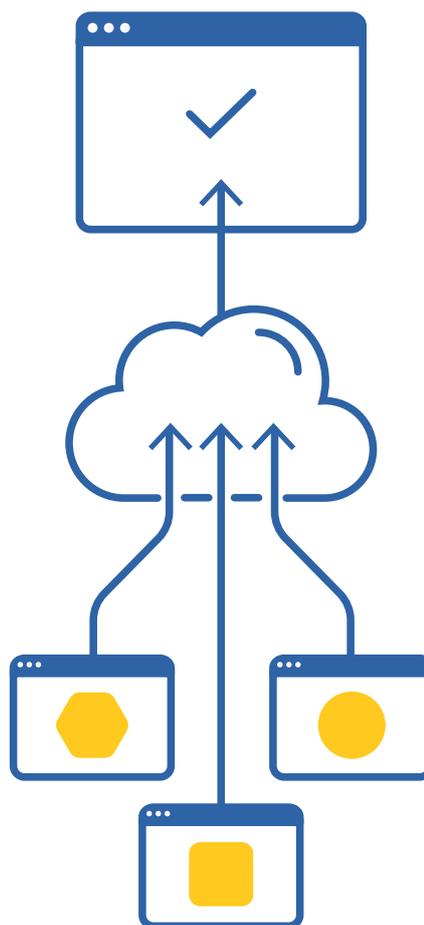
Gone are the days when you would find yourself deep in a dusty basement, unearthing boxes of paperwork from the bygone years because of some forgotten piece of information someone needed from years ago. The retroactive element is additional support provided by smart algorithms in integration systems to strengthen the efficiency of applications further. While HR is not known to be at the forefront of adopting the latest technology, HR departments within organisations should seek to capitalise on the continued strong development of smart algorithms to replace manual labour with next-level automation strategies.

Also, system landscapes should be integrated for data to be synced to ascertain the consistency of information available across the business landscape. Here, smart algorithms also assist in correlating data between functions for user purposes and can provide surprise correlations efficiently for strategic use. Different functions in an organisation often make use of the same data, such as personal details. By adequately integrating applications and ensuring quality data in the cloud, one can circumvent the use of outdated data and enhance cross-functional relationships.

## BE IN CONTROL OF YOUR DATA FLOWS

For larger companies, dealing with different applications for varying business processes is unavoidable and expected to increase in the future due to the proliferation of SaaS products. Each application entails a unique custom integration for data to flow between individual applications. This results in numerous data trails and flow patterns. Such tedious and repetitive procedures greatly hinder auditing practices – auditing personnel would have to familiarise themselves with each application and custom integration and act as a “translator” between applications that speak different digital languages.

A human is only so capable of juggling a limited number of balls in the air and tracking a finite number of variables before it becomes too overwhelming. Even the “super parents” out there need a helping hand from a nanny or their in-laws now and then. But are there “nanny services” for applications aside from pure manpower? In short, yes – an integration hub in the cloud connects all applications within an organisation. As mentioned earlier, these integration frameworks allow individual applications to be integrated into a global system landscape. An integration framework lets data flow seamlessly between applications while offering reporting and monitoring capabilities that enable easy access to online audit trails.



In such an integration hub, data flows bi-directionally. Legacy systems will feed new applications with necessary data to incorporate them into the system landscape or as part of a process to phase out legacy systems. New applications will also supply updated data to legacy systems, ensuring that other systems fed by the legacy systems receive accurate and up-to-date information.

While the introduction of additional applications and the process of migrating data can sound complicated, an integration hub facilitates the execution of both activities with ease. As mentioned before, user-friendly configuration screens allow non-programmers to set-up applications and alter them to their needs. With regards to data migration, the flow of data to and from various applications makes the integration hub the intersection of all data – the contents of numerous applications are concentrated in the integration hub, making it the single source of data truth.

***Truth is elusive. Instead of having pieces of data truth spread across applications, the integration hub gradually consolidates data through interactions with different systems, hedging against data loss or overlap.***

## STAYING CURRENT WITH YOUR HRIS ACROSS YOUR LANDSCAPE

One of the biggest challenges of technology, in general, is staying up to date with the latest changes and improvements, be it with hardware or software. For organisations, the tricky part of upgrading applications is in ensuring that all the other parts of the HRIS ecosystem, such as downstream systems, reporting and integrations, continue to function in tandem with the new updates. While proper testing and modifications for a large part still require manual execution, the cloud and its easy-to-use configuration interface provides a laundry list of advantages:

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The power of control is shifted from an external IT expert to an internal user

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HR personnel gains independence and eliminates third parties

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Business applications will follow the modern trend of having users in complete control of alterations as in private applications

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Users will have full access anytime and anywhere to personal and job-related information

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Applications in the cloud regularly receive automated updates.

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Organisations will be making use of the latest versions of each application, be able to maintain a competitive advantage and reap ROI

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Integration system receives prompted upgrades to maintain the integrity and smooth functioning of the system

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Removal of the menial and time-consuming task of manually updating applications, allowing employees to focus their time on their work



## CONCLUSION

Instead of always playing catch-up, HR functions are quickly evolving to pull equal weight in an organisation as other functions do through the increasing usage of data and analytics. Integration frameworks in the cloud provide a perfect step-up for HR functions to be involved in data analysis and offer up data-backed recommendations to management with regards to all issues involving talent and employees. Businesses that choose to adopt an integration hub will be at the forefront of an inevitable data evolution in Human Resource Management (HRM) without much expenses involved. With little risk, the cloud majorly rewards organisations with a stronghold over their data integration, data integrity and data flow – all of which are increasingly crucial as organisations look to scale and management decisions are progressively based on hard numbers and factual evidence.

An integration framework will not only advance data and analytics in HR. It will also facilitate cross-functional data usage and exchange for a general enhancement in data and analytics across the board to enable all functions to provide greater business value.