

People-based Business Intelligence: from HR efficiency to business trend analysis

**A practical guide to delivering meaningful
people-based information**

By Keith Rodgers
Webster Buchanan Research, July 2008



www.websterb.com

Published in association with Computers In Personnel



www.ComputersInPersonnelHR.com

Contents

Executive Summary	3
Introduction	5
Part One: From Reporting to Business Intelligence	7
1.1 The evolution of business intelligence.....	7
1.2 What people-based business intelligence delivers	8
1.3 Business intelligence in action: the impact of employee turnover.....	10
Part Two: The Foundations for Business Intelligence	12
2.1 Centralised HR data management	12
2.2 Tools for analysing data	12
2.3 Targeted information.....	13
2.4 Extending data beyond HR	14
End Notes	16
Disclaimer and Copyright Notice	16

Executive Summary

This Briefing Paper explores the concept of people-based business intelligence, an emerging approach to people management that moves reporting and analysis away from inward-looking HR metrics into a broader business context. Made possible by a combination of software tools, process automation and evolving people management priorities, business intelligence gives organisations greater insight into their employee base and helps propel Human Capital Management up the boardroom agenda.

The Briefing Paper argues that:

- Senior management teams struggle to get the information they need about their employees because so much reporting is rooted in the inner workings of the HR department. While operational HR indicators have an important role to play, people-based business intelligence provides a deeper insight into underlying trends, meaning and business context.
- People-based business intelligence transforms the scope of HR reporting and analysis. Measures range from operational efficiency ('How fast are you recruiting?') to effectiveness ('Are you recruiting the right people?'); from cost assessment to trend analysis; and from ad hoc 'what if?' analysis to strategic workforce planning
- While some components of people-based business intelligence software have been available for the best part of a decade, take-up has been relatively slow. Adoption levels are likely to increase, however, with the emergence of easy-to-use software tools, context-rich management dashboards and distribution mechanisms such as employee portals. Business intelligence capability is also starting to be offered as a hosted service, where the provider takes on the IT burden of running the software and the customer accesses it over the internet
- One prerequisite for people-based business intelligence is an effective data management strategy, pulling together people-related information and centralising access to it. Many organisations will look to use their HR Management System as the 'central source of truth' for people-related activities, inside and outside the HR department. Taking this approach doesn't simply improve business intelligence: it also helps simplify complex, multi-function activities such as onboarding
- Traditional approaches to software projects tend to focus on automation ahead of business intelligence, partly because automation tackles highly visible inefficiencies. As a result, business intelligence initiatives are often relegated to a second phase of implementation – and frequently forgotten in the face of more pressing day-to-day priorities. Webster Buchanan Research believes that the two components should go hand-in-hand: automation, after all, generates much of the data needed for

effective business intelligence, which in turn gives organisations greater insight into their operational efficiency

- While improvements in software provide the platform for business intelligence, some HR functions lack the necessary analytical skills to make the most of the outputs. In the future, service providers are likely to step in to offer these skills as an additional outsourced service

Introduction

When Webster Buchanan Research carried out a recruitment survey earlier this year, several questions about metrics gave a good insight into the way HR directors and managers think. Our findings demonstrated that recruitment reporting is still largely centred on traditional HR-specific metrics such as time/days to hire, rather than business-centric measurements. Less than a quarter of respondents (23%) said they report on the direct cost of recruitment today, for example, and just 6% on indirect costs (for example, in HR/line managers' time). Only a third of respondents report on the business impact of unfilled vacancies, including the impact on productivity.

Although respondents to the survey were committed to changing the way they report – over a quarter expect to start reporting on the business impact of unfilled vacancies this year – the results demonstrate that much people management reporting is still rooted in the inner workings of the HR department, rather than assessing its impact on the broader business.¹

Establishing this link between traditional people-related metrics and broader business drivers is fundamental to any Human Capital Management strategy. As the HR function strives to find a voice at board level, the ability to present employee-related issues in a relevant context for senior management is becoming increasingly important – a way of thrusting people-related issues to the top of the agenda and reinforcing HR's business credentials. This combination of business context and board level relevance is what Webster Buchanan Research terms 'People-based Business Intelligence' – sometimes called HR Business Intelligence. It's about making better use of the rich sources of data that the HR function has at its fingertips, both for HR's own benefit and for the broader business.

None of this is to demean the stature of classic HR reporting. Metrics such as days-to-hire are key indicators of HR operational efficiency, while absenteeism statistics and other data provide useful comparators, both to measure against historical performance and to compare with external benchmarks. But people-based business intelligence takes this kind of analysis to another level and provides a deeper insight into the underlying trends and meaning. It doesn't just measure absenteeism rates, for example – it measures what absenteeism costs the business in terms of bottom line profit, employee morale, opportunity cost and so forth.

Much of this impact analysis depends on an organisation's ability to tie together different pieces of information. For example, most organisations retain data relating to employee performance, built around individual performance appraisals and departmental performance against target. Likewise, information about salaries, bonuses, and benefits are readily available, albeit often in different systems. The problem is that many

¹ See 'Recruitment 2008: From marketing theory to the practicalities of web-based hiring', a survey published in March 2008 by Webster Buchanan Research, available at www.websterb.com/hcinsider

organisations struggle to link the different sets of data together to ensure that compensation is closely tied to individual and group performance.

Part of the issue here is cultural, although this is slowly changing as people management rises up the corporate agenda and demand for better information grows. Part of it is about how effectively organisations manage their data, which tends to be scattered between spreadsheets, HR management systems, finance systems, specialist applications, filing cabinets and in many cases, employees' heads. This too is changing, thanks to the emergence of a new generation of affordable, easier-to-use software applications and tools. And part of it is about how well equipped organisations are to analyse data when they actually get their hands on it.

This combination of changing HR philosophies, new technology enablers and practical solutions to skills shortages provides the platform to deliver effective business intelligence.

Part One: From Reporting to Business Intelligence

1.1 The evolution of business intelligence

Of all the elements that can help HR deliver 'strategic value' to an organisation, business intelligence ranks at or near the top of the list. If you accept that your workforce is one of your organisation's biggest assets, the ability to provide senior management with meaningful information about the best way to leverage it has to be a priority. Whether you're calculating costs, analysing individual employee value, digging into the factors behind absence or assessing the best way to recruit and retain high-performers, HR business intelligence is critical.

Yet for all its obvious value, many HR functions still struggle to provide deep-level business insight. In some respects, this is simply the continuation of historical trends. While the finance function has a long analytical pedigree centred on revenue and cost, HR's role has traditionally been focused on meeting regulatory requirements, administering people-related processes and providing counsel. From a business intelligence perspective, its role until comparatively recently was largely confined to managing overhead and providing rudimentary insight into operational efficiency, with only the most basic means of measuring people-related value. As a result, while some high-performing HR functions now provide sophisticated business intelligence, a large number of organisations lack both the tools and the analytical skills needed to provide business insight.

This emphasis is reflected in the way organisations approach HRIT projects, which still tend to be heavily focused on automation rather than business intelligence. The priority for most projects is to improve the management of HR processes and transactions, whether that's replacing a core HR Management System or automating processes such as recruitment or absence management. The business intelligence components tend to be limited to setting up standard reports and occasionally building a custom report to meet specific senior management needs, with more sophisticated analysis pushed back into a future 'Phase Two'.

There's nothing wrong with focusing first on automating people-intensive manual processes, particularly as they typically deliver the efficiencies you need to make a business case for HRIT investment. And it's perfectly reasonable to automate before you analyse: there's little point trying to dig down into the underlying causes of absence, for example, if you don't have a mechanism in place to capture data about which employees are actually sick, on vacation or taking maternity leave. But what tends to happen is that the more advanced business intelligence components - the 'Phase Two' - never quite happen.

Ideally, process improvements and business intelligence should go hand-in-hand – the implementation can be phased, but they need to be seen as two parts of the same project. This is partly a question of good practice: you need to have insight into how efficiently automated processes are running, which requires some kind of analytical capability. Just as important, as we outline in Part Two, easy access to relevant data is what paves the way for more effective business intelligence – and automating processes helps organisations shift data from paper forms, standalone spreadsheets and disparate software applications into a central database where it can be more readily analysed.

This close inter-relationship is reflected in the way that software developers bundle business intelligence software in with the transactional and process management capability of their HR Management Systems, usually through a combination of standard reports and tools for custom analysis. In some cases, vendors also offer more sophisticated business intelligence tools, which go beyond standard HR reports to provide drill-down analysis of costs, causes and trends. Generic business intelligence tools evolved out of the finance function and were traditionally numbers-driven – and that meant they weren't always easy for business managers to deploy. But as we outline in Part Two, recent generations of people-related analytical software have placed much more focus on usability within the HR function and lines of business.

1.2 What people-based business intelligence delivers

Reporting and analysis techniques are often divided into two types – operational reporting and strategic analysis. Operational reports are those that help organisations understand how efficiently their business is being conducted – assessing factors such as the cost of hire or departmental attrition rates, and sometimes comparing them with industry benchmarks. Typically, these analytics measure day-to-day activities.

Strategic analysis is about helping managers understand trends, interpret meaning and carry out planning and modelling. This may take the form of specific HR tasks such as compensation planning, where managers use IT tools to assess the impact of introducing new benefits across the organisation. Alternatively, it may relate to broader business activities. A company that's considering launching into a new market sector, for example, will want to understand what skills and competencies it can pull from its existing employee base, and how much hiring or retraining will be required.

In practice, of course, the lines between these different types of analysis are often blurred – especially as operational data informs strategic decisions. A more useful approach, therefore, is to define people-based business intelligence from the perspective of your people management priorities. These fall into broad categories of:

Statutory/regulatory HR and payroll reporting, covering everything from workforce diversity to P60s.

Operational efficiency This covers the efficiency of the internal HR function - for example, measuring how quickly employee enquiries are handled. But it also includes people-related business processes across the wider organisation, such as recruitment, where 'days to hire' metrics are impacted by the behaviour of line managers.

One key factor in managing operational efficiency is to ensure the metrics are relevant. While benchmarks are commonly used in HR and payroll as a means of comparing corporate performance against 'world-class' or 'industry standard' metrics, these can be misleading if taken in isolation, since the factors that impact performance vary from company to company. If you take two notional organisations with the same headcount, operating in the same industry and comparable geographies, the number of HR and payroll FTEs required will be influenced by considerations such as the degree of automation (How many processes are still handled manually? How widely is self-service used? Are the handoffs between HR, Payroll and Finance automated?). Likewise, if you compare HR performance between organisations, you need to take account of differences in the way responsibilities are split between HR, Payroll, Finance and other functions.

Operational effectiveness, where the actions of the HR function are analysed in the context of their bearing on the business – what Webster Buchanan Research terms 'Workforce Business Impact Analysis'. If 'days-to-hire' is an HR efficiency metric, recruitment effectiveness might be measured in terms of the quality of people hired. Alternatively, days-to-hire averages might be broken down into the relative importance of particular employees. If you discover that it takes 30 days to hire a front-desk receptionist but 120 days to fill a senior position in sales, it casts new light on your recruiting effectiveness.

Cost analysis Although basic metrics such as HR and payroll FTE ratios are widely used, much people management cost analysis is still fairly rudimentary. In Webster Buchanan's recent survey on recruitment, less than a quarter of respondents (23%) said they report on direct costs such as adverts or agency fees, with another 29% planning to do so within 12 months. Just 6% report on indirect costs (e.g. time spent by HR managers or line managers), although 29% plan to do so in the coming year. And measurement of time to productivity for new hires is even poorer, with only 1% of interviewees reporting on it at the time of the survey, 39% planning to do so within a year and 53% looking to long-term².

Trend and root cause analysis This relates to drill-down analysis, and is designed to uncover the meaning behind individual statistics. Absence,

² See 'Recruitment 2008: From marketing theory to the practicalities of web-based hiring', a survey published in March 2008 by Webster Buchanan Research, available at www.websterb.com/hcinsider

again, is a good example. Different kinds of absence hit some organisations harder than others – it's usually easier to replace a receptionist or administrator with temporary cover than to fill in for a product manager, salesperson or specialist IT expert. So while the cost of absence is a key indicator, it's also important to know the business impact. Is absenteeism affecting productivity? Is it impacting customer satisfaction? It may not necessarily be the employees with the worst attendance records who need addressing: it could be those whose absence hits the organisation the hardest.³

Multi-dimensional analysis One common piece of feedback from organisations that have invested time and resource into people-related analysis is that you often don't know just how much rich intelligence you can unearth until you start doing it. With the right tools, organisations can pull together pieces of information that might otherwise never have been linked. This might be the result of deliberate policy – such as comparing revenue per employee in the context of region, function, department, or seniority. But it might be accidental – if you contrast age and seniority across different departments, for example, you might stumble across business units where looming retirement will leave gaping holes in the senior management tier in two to three years' time. These findings can trigger actions that will have a significant business impact, such as building a comprehensive succession plan.

Workforce planning In most budgeting and planning exercises, human capital is typically viewed from two perspectives – how much it costs, and whether there's sufficient resource in place to fulfil forecast business activities. In reality, of course, the equation is more complex, and every business outcome is heavily influenced by skills, competencies, experience, motivation levels, and quality of management.

Strategic planning software adds the human capital element to traditional financial and sales planning. By making projections and carrying out 'what if?' analysis, organizations can make more informed tactical decisions about individual employee development, succession planning, and recruitment. Scenario-based compensation planning also allows companies to assess the cost of growth and test different compensation packages.

1.3 Business intelligence in action: the impact of employee turnover

Measuring the impact of voluntary employee turnover is a great example of how business intelligence can be investigated at multiple levels. In a high-turnover environment such as retail or a customer service call centre, single percentage point reductions in retention rates can have a significant impact both on operational performance and the bottom line. But even if they're

³ See 'Sickness Cycles', a report published in February 2007 at Webster Buchanan's Human Capital Insider <http://www.websterb.com/articles.php?ID=e84be8c5410f0f8f>

able to measure turnover accurately – and given the difficulty many large enterprises have in establishing current headcount, that in itself shouldn't be taken for granted – most organisations have tended to assess it in relation to historical patterns and industry norms.

While it's useful to know whether turnover rates are climbing or falling, this kind of information is really only an indicator that problems exist, and – if the information is broken down by geography or business unit – of where those problems occur. Equally important is to find out which types of employee turnover cause most pain to the business, so that retention programmes can be prioritised. One approach is to take a selection of employees from different parts of the business and build an impact profile for each of them, assessing:

- **Total cost of recruiting** a replacement comprising
 - Direct external expenditure (advertising charges, agency fees etc)
 - Internal costs (e.g. cost of HR and management resource allocated to recruitment)
 - Opportunity cost where relevant (e.g. in diverting a sales manager's time from customer-facing work to recruitment)
- **Training costs**, including cost of structured training, plus an allocation for the management and peer-level resource required for "on the job" education
- **Allocation for reduction in productivity** Productivity usually declines as soon as an employee resigns and begins to work out their notice period.

The broader business impact assessment would include:

- **Direct business impact** For example, the departure of a senior manager in product design may slow a development project and delay product release, impacting sales and marketing strategy and delaying revenue generation
- **Loss of employee knowledge and experience** This is hard to put a figure on, but it should be possible to factor in the impact on tangible outputs (such as sales), and perhaps measure softer factors such as customer or partner relationships on a sliding scale of risk
- **Impact on team morale**

The end result will be a series of comparative analyses looking at multiple impact factors, which provide a context for targeting retention initiatives. As with each of these kinds of analytical exercises, the aim is to provide indicators and parameters – it's not necessarily a comprehensive audit.

Part Two: The Foundations for Business Intelligence

2.1 Centralised HR data management

Conventional wisdom has it that the quality of any output is determined by the quality of the input, and the analytics market is no exception. Without an effective data management strategy, you can deploy the smartest business intelligence tools – but you may well end up analysing the wrong information.

One of the first steps in any business intelligence strategy is to get better control over your people management data. Inevitably, some of this will be unstructured knowledge – the kind of information that's locked away in filing cabinets, sits in your employees' heads or is buried deep in your email archives. As we indicated in Part One, process automation plays a critical role here by turning manually-held information into digital form. By automating your recruitment, training management and absence processes, for example, you can generate a wealth of information for both individual employee performance management and trend analysis.

This information then needs to be stored centrally – or at least be accessible from one central location. One potential starting point is to make your HR Management System the central repository for all people-related data – since this is the place where basic employee records are held, it makes sense to build a complete employee picture around it. The software applications that feed this store don't of course need to be part of the same HRMS: you can use a broad range of best-of-breed systems and services, as long as they're sufficiently integrated to automatically update the central repository.

2.2 Tools for analysing data

Once you're able to post all the relevant HR data in a central repository, it becomes much easier to get insight into both operational and strategic issues. Many operational reporting needs can be met with the standard reports that come bundled with HR Management Systems. In addition, specialist business intelligence tools – provided by both traditional HR software vendors and third party business intelligence providers – provide more sophisticated multi-dimensional and trend analysis capability of the kind described in Part 1.2. Some vendors also provide specialist software for employee planning, modelling and 'what-if' analysis.

While business intelligence capability has traditionally been provided as in-house applications and tools, some vendors now offer HR business intelligence as a hosted service. In this set-up – frequently referred to as 'software as a service' – the provider takes responsibility for running and managing the actual software, which the customer accesses over the internet and uses as if it were an in-house tool.

How effectively these reporting tools can be deployed depends on a number of factors. Firstly, ease of use and a good user interface are critical. Many older generations of business intelligence tools were designed with IT or subject matter experts in mind, and proved too complex for HR or line managers. Even with training these tools can sometimes be harder to handle than expected: training works best if it's followed quickly by repeat usage, but users sometimes find that the time between learning and using is interrupted by a lengthy software implementation.

The design of the reporting software is particularly important when you make repeated queries during an analytical exercise and want to be able to reset the parameters or change your view of the data. For example, you may start by looking at absence costs at a business unit level, on a three-month basis; depending on what you discover, you might then drill down a level to an individual department, and change the view to span an entire year; next, your research could take you to an individual employee record. Some people-based business intelligence software packages are more flexible in their approach to this kind of analytical exercise than traditional business intelligence tools, allowing users to view data graphically and drill down using simple 'point and click' techniques.

Secondly, regardless of how good your tools are, you'll also need in-house analytical capability. You don't need a PhD in statistics to be able to use these tools – but you do need an analytical mindset. Going forward, some vendors are likely to offer this analytical capability as a service in its own right, using their own tools and knowledge of the HR market to interpret data provided in confidence by your organisation.

2.3 Targeted information

Since the early days of the modern finance function, when barely comprehensible financial reports were sent to managers and then left largely unread, making management analysis relevant to non-finance professionals has been a major issue. The same is true of Human Capital Management analytics - data needs to be relevant and presented in a context that line managers can readily understand.

Working out what data should be sent is a two-way process that requires fairly ruthless management. It's important to encourage feedback from across the organisation, but choice needs to be limited to keep the process manageable – asking users what kind of reports they'd like can easily lead to unwieldy wish lists. Building a business case for analytics adoption in part rests on replacing today's ad hoc reporting (where it occurs) with more efficient, less resource-hungry alternatives. Ultimately, HR managers will be treading a delicate line between distributing data according to generalised role definitions and providing tailored information.

Information dissemination has become far easier with the emergence of corporate intranets and more recently, employee portals. As the portal

evolves into the daily focal point for individuals – the place where they log on to software applications and access their own choice of internal and external information feeds – it becomes the logical place to present analytical data relevant to their roles. By doing so, analytics come to be seen as a core part of day-to-day operations, not a separate activity – and the more that analytical data is woven into operations the better.

This approach has long been prevalent in call centres, where real-time data on call response activity is presented in graphical format to employees as an incentive to improve team performance. In the people management field, some organisations are taking similar steps for absence management, presenting employees with up-to-date information on how much holiday they've taken and how many days they've been off sick. In some cases, the value is less in the information than in the broader message: if employees know sickness is being monitored closely, they're less likely to abuse the system.

At a management level, dashboards are becoming an increasingly common fixture, providing everyone from board-level directors to line managers with up-to-date, graphical information on the key metrics that interest them, along with the ability to click on summary findings and drill down for more detailed information. Again, what sets these tools apart is partly the quality of the user interface, and partly the relevance. It must be made easy for managers to configure their own dashboard so that it displays the information they need, from real-time operational data to longer-term trends.

Finally, while the software framework is a significant component of the analytical framework, organisations also need to foster a learning culture, where performance analysis is carried out to enhance overall capability, not merely as a means of appraising or rewarding individuals. This requires a shift in culture away from a blame mentality towards an environment where poor results – or mistakes – are seen as the basis for learning and moving forward. For some organisations, making this mindset shift may be as big a challenge as introducing the analytical tools and processes that support it.

2.4 Extending data beyond HR

In addition to easing reporting, one advantage of building an HR data repository is that it provides a 'central source of truth' for people-related data. Numerous corporate systems need data relating to employees, contractors and candidates – from payroll to front-desk security – and it's often duplicated, resulting in unnecessary data entry and quite frequently, incompatible records.

This is what adds much of the complexity to disciplines such as onboarding. A term used to describe all the activities triggered between the time when a candidate accepts a job and the time they become productive as an employee, onboarding covers everything from induction courses and IT

system access to the issuing of office equipment and security passes. The same data management problems also impact the reverse process after an employee is terminated, when IT systems and email privileges need to be updated instantly. By using the HR Management System as a single repository feeding other systems, organisations can make these changes quickly and efficiently.

Not all of the data required for HR business intelligence resides in the HRMS, of course, and as their business intelligence capability grows, organisations will typically look to additional data sources. Depending on the kind of analysis that you're looking to do, you may want to pull information from in-house financial, supply chain and operational systems, as well as outsourced services and external sources such as industry benchmarking data.

Historically, many organisations have preferred to move this data out of their operational systems into an offline repository where they can carry out analysis without impacting day-to-day activities - usually a data warehouse, or a series of smaller data 'marts' designed for specific analytical projects. Building a warehouse can be a sizeable task, not least because data comes in different formats and needs to be cleaned before it's analysed. While the process has got easier over the years thanks to the emergence of pre-built metrics and better tools, it shouldn't be underestimated. In some cases, organisations prefer to take a more pragmatic approach and simply carry out separate analytical initiatives on their HR, finance and operational databases.

While broadening the analytical effort beyond HR may increase the IT effort, it does have significant advantages. Once organisations begin to assess data extracted from different departments, the boundaries between HR analytics and others (such as customer management analytics) begin to blur. Customer satisfaction metrics, for example, become essential tools for measuring the effectiveness of customer-facing employees. This merger of metrics has important implications for the HR function. Rather than being seen as an administrative operation, it comes to be associated with the flow of business-critical information, and is seen to play a core role at the heart of the organisation.

End Notes

About the Authors

Webster Buchanan Research is a market research company specialising in effective business management and the supporting role of technology. Our primary focus is on People Management, Multi-country Payroll, Customer Relationship Management, and Financial Management. Webster Buchanan is based in London, San Francisco, and Hong Kong. For more information and copies of recent research reports, visit www.websterb.com.

About the Sponsor

Computers In Personnel is a leading provider of software and services for people and data management. Recognising that effective people and data management are critical drivers to organisational success, it provides a broad range of software, outsourcing services, data management capability and knowledge-based services. CiphR is a richly-functional web-enabled HR management system that helps organisations manage all aspects of people management, from recruiting and training to people data analysis. CiphR Decisions, its HR business intelligence tool, uses sophisticated data warehousing and Microsoft analysis services, allowing you to mine and manipulate people-related information. For further information visit www.ComputersInPersonnelHR.com

Disclaimer and Copyright Notice

The information contained in this paper is intended to provide an overview of a particular topic. Facts presented and information provided by organisations referred to in this paper have been verified to the best of Webster Buchanan Research's knowledge. Webster Buchanan Research is not responsible for any errors or omissions, or for the results obtained from the use of this information.

The information contained in this paper is provided on the strict understanding that Webster Buchanan Research is not engaged in rendering professional advice and services of any description. As such, the paper should not be used as a substitute for consultation with professional advisers.

All information in this paper is provided "as is," with no guarantee of completeness, accuracy, timeliness, or of the results obtained from the use of this information and without warranty of any kind express or implied including but not limited to warranties of performance merchantability and/or fitness for a particular purpose. In no event will Webster Buchanan Research or its related partnerships or corporations, or the partners' agents or employees, be liable to anyone for any decision made or action taken in reliance on the information in this paper or for any consequential special or similar damages. Participation in this research project by named individuals or organisations does not in any way imply any endorsement on their part of the products or services offered by the project sponsor(s).

This paper is copyright. Except as permitted by the Copyright Act, no part of it may in any form or by any electronic mechanical photocopying recording or any other means be reproduced stored in a retrieval system or be broadcast or transmitted without the prior permission of Webster Buchanan Research.