

Research report
July 2014



VALUING YOUR
TALENT

Managing the value of your talent
A new framework for human capital measurement

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RSA

The RSA is an enlightenment organisation committed to finding innovative practical solutions to today's social challenges. Through its ideas, research and 27,000-strong fellowship it seeks to understand and enhance human capability so we can close the gap between today's reality and people's hopes for a better world.

Author

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Preface

As has been observed by more and more commentators, we are unequivocally in the 'age of talent', but of course people have always mattered – in social, financial, and business terms. Yet despite all the rhetoric of people being our most important assets, and despite much research and previous attempts, we have so far failed to agree the common language, the basic definitions, and the practices reporting on this most critical of all assets. We are asking more profound questions of all businesses, about how they look after and develop their people, and about the diversity of their workforces. There is also increasing focus on how capabilities and attitudes of people align to the purpose, and values of an organisation – in other words its culture. These questions are critical to many stakeholders, including leadership teams and boards, which must properly understand the value of their people to create sustainable and responsible businesses for the future. This research is the result of a major collaborative effort across the finance, HR, and management professions to build on past work and make a concerted effort to advance this agenda, to find a common language and framework, to share practices and experiences, and promote a genuine movement for change. This is the beginning of the journey and we want to engage and share far and wide, to allow challenge and further contribution to head towards a common destination.

**Peter Cheese, Chief Executive,
Chartered Institute of
Personnel and Development**

Managing the Value of your Talent is a groundbreaking piece of work which creates a common framework for measuring the value of people that can be used by business leaders, investors and other stakeholders. Now more than ever, understanding and investing in your workforce – the lifeblood of any company – is vital in shaping an organisation's sustainable growth. This framework provides a much-needed approach to systematically focusing on the factors that enable organisations to cultivate, measure and ultimately unlock the value that people bring to any business. *Managing the Value of your Talent* explores the use of analytics to better understand the impact staff can have on a company's growth. With easy-to-read case studies that help you to understand the practicalities and see the framework in action, *Managing the Value of your Talent* provides a common and effective approach to measure progress that is meaningful for managers, investors and employees alike.

**Ann Francke, Chief Executive,
Chartered Management
Institute**

Over the past 30 years the drivers of business value have changed dramatically. Consequently, the market capitalisation of businesses has moved from 80% being accounted for on the balance sheet to 80% now being off balance sheet. Of course people have always been important, but this change in the balance of value means that both business managers and owners are actively looking for good metrics to respectively help them maximise the effectiveness of their people and the long-term prospects of the business. *Managing the Value of your Talent* represents the first step in building these metrics by providing a framework which focuses on the cost and impact of people, their development, and their productivity. This will be followed by the development of metrics and tools supporting the framework. We look forward to continuing this important work in combination with our partners at the CMI and the CIPD.

**Charles Tilley, Chief Executive,
Chartered Institute of
Management Accountants**

Contributors and acknowledgements

Written by Anthony Hesketh of Lancaster University Management School, this report represents the collective views, perspectives and opinions of the individuals of each of the different research partners as well as the over 70 professionals in over 50 organisations interviewed by Anthony for Valuing your Talent. These different views have not always been compatible and, at times, have been vociferously debated between the research team. We have, however, been united in our ultimate aim of providing those with the responsibility of managing people with a useful framework that will serve as a placeholder for current and future thinking about human capital and its ongoing development inside our organisations.

We should personally like to thank all of the respondents who contributed to Valuing your Talent. While not all are quoted in the report, each individual has made a contribution to the development of what follows. We should also

include here the very many people contributing to the Valuing your Talent Challenge.

We should also like to thank the administrative teams of the respective institutes for working tirelessly to bring together a number of very busy people on a regular enough basis to keep the momentum of the project moving forward. Nicola Peachey deserves a special mention here for overseeing all of the administration for the project management team.

Anthony would like to personally thank members of the research collective for all of their very hard work over the duration of the project and especially in the period leading up to its conclusion. He would also like to acknowledge the flexibility of colleagues at Lancaster University Management School and Copenhagen Business School enabling him to change his various commitments to accommodate the expanding scope of *Managing the Value of your Talent*.

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Alison Morris Assistant Director, UKCES

Nita Clarke Director, IPA

Executive summary

Managing the Value of your Talent

Talent draws on 70 interviews across the HR and finance functions of over 50 organisations. Three key objectives have guided the development of this research:

- To better understand how developing and managing people releases and drives value – for this we will explore existing best practice, drawing on a range of case studies across different sectors and sizes of organisation.
- To define much more clearly the basic people metrics to promote agreement and consistency in how such measures are used.
- Building on these practices we will develop a broad framework against which executives, employees, the investment community and other wider stakeholders can assess how businesses of all kinds are developing their people and organisations to enable sustained and higher levels of performance.

Main findings

- New thinking in finance and strategy emphasises the materiality of people in organisations today and locates human capital at the heart of integrated thinking on business models. Businesses should place people centrally in strategy, and create systems and processes which allow employees to grow and share their knowledge and skills more effectively.
- Finance and HR must work more closely together to enable greater understanding of the value of human capital to the organisation. A common business language is needed which illustrates that people are material, not intangible assets, and gives managers and leaders a clear understanding of how their workforce creates value for the business.
- Leaders and managers need simple and effective tools to measure their human capital management capability, and understand the direction of travel of their people. The framework we've developed is the first step in creating such an instrument for business.
- Engagement is a key part of human capital management. We need to understand in greater detail the relationship between people and business, and more research should investigate how organisations utilise employee engagement data alongside strategic investments in human capital, and the possible impacts on business performance.

Valuing your talent in the age of people

- We are moving from a world dominated by all things financial to the age of people. Even though talent is recognised as ‘the asset that drives the value of all the others’, we still understand little about the value of this ‘most important asset’ on which the companies comprising the FTSE 100 alone annually spend over £200 billion.
- In the present context of concern and expectation about corporate cultures, about how organisations operate, and how they develop and manage their increasingly diverse workforces and ways of working, we urgently need to reach a consensus on more consistent measures and frameworks that provide the visibility that all stakeholders – both within and without the organisation – need to draw conclusions about the sustainable development of the ‘other capital’.
- Three professional bodies representing the accounting, management and HR professions – CIMA, the CMI, and the CIPD together with the RSA – have collaborated on the Valuing your Talent (VyT) research project. The work, which is being supported and sponsored by the UK Commission for Employment and Skills (UKCES), was designed to help employers better understand the impact their people have on the performance of their organisation and as a result make better people management and workforce investment-related decisions.
- There are at least four major contemporary themes driving the people agenda to prominence (Table 1).

Table 1: Drivers of the people agenda

People’s attitudes to work and organisations have changed at a much faster pace than the organisational structures and managerial processes used to accommodate their talents. Organisations recognise that they need to evolve their employee value propositions if they are to successfully compete in the war for talent.

A new integrated form of thinking is required at senior level to strategically align people requiring a different skillset from that which has served executives to date, with a new onus on leaders to translate people issues into their strategic and financial planning. People and the resources they represent are viewed as a critical element requiring integration with strategy, accompanying business models and the wider resources available to companies.

Understanding and articulating the traction against the implementation of new people-oriented integrated strategies is the new challenge facing boardrooms. The rise of social electronic media and its by-product – ‘big data’ and its analysis, or ‘analytics’ – has captured attention and generated a new set of challenges for managing organisational data.

An alternative view, however, presents the management of people as a craft without which companies would lose the discretionary effort of their employees, which research has continuously demonstrated makes a material difference to business outcomes.

Increases in data availability will blossom, and so must business capability

- The increased availability of people-related data in terms of content, volume and the speed at which it becomes available is the main reason why the previous analyses examining the value of people by Denise Kingsmill in the UK and the recently aborted project by the ANSI and SHRM in the US now need to be revisited.
- Analytics can be defined as the extensive use of data, statistical and quantitative analysis, explanatory and predictive models, and fact-based management to drive decisions and actions. The new analytical element lies in our ability to make sense of previous events, and make predictions based on the statistical patterns within the now vast volumes of information that companies now have access to. The analytical techniques themselves are not new but the scale of the data they are applied to is.
- Methodological problems accompany the new 'talent analytics' that executives are attempting to fathom. While it is easy to make predictions, their accuracy has been called into question. *Managing the Value of your Talent* represents an attempt to conceptually and operationally clear away the thickets, weeds and deadwood of the rhetoric and frankly sometimes spurious claims made on behalf of talent or workforce analytics.

People analytics has the potential to unlock employee value

- Human capital is defined as people's competencies, capabilities and experience, and their motivations to innovate. Human capital also relates to

the extent to which people are aligned with and support an organisation's governance and risk management, their ability to understand, develop and execute an organisation's strategy, as well as their motivation for improving processes, goods and services.

- VyT starts at the point where current research finishes, focusing on *capabilities* for producing outcomes rather than the individual knowledge, skills, abilities or other resources themselves and includes the idea of capacities, the potential for action, to differentiate the potential from the action or consequence it may produce.
- The Integrated Reporting Initiative (or IR) has identified a number of people-related issues deemed to be material to the organisation's ability to create value for itself. An integrated approach to understanding how companies create value places especial importance on the relative ability of a company to transform various forms of capital. Of the six capitals identified, three capitals – intellectual, social and human – are explicitly people-related.
- There is an increasing sense of moving beyond the traditional understanding of merely the financial capital structure of a firm – where accountants examine capital structure comprising the different sources of finance a firm uses to fund its operations – to examining what we refer to as the *structural capitals of the firm*, which emphasise not just financial resources but also closely examines the collective resources represented by the combined capitals comprising both tangible and intangible resources.
- The concepts and diagnostic tools we have constructed will be of benefit to organisations

of all sizes. We have attempted to be as inclusive as possible, drawing on data from organisations across a wide spectrum of industrial sectors, and with a global reach, with interviews taking place with individuals based in the USA, mainland Europe, Asia, Australasia, as well as with companies in the UK. We also have a wide spread of roles including chairmen, CEOs, CFOs, CHROs, finance directors, operations directors as well as analysts from leading investment houses and senior partners from each of the 'Big Four' accountants. We have also explored issues with not-for-profit organisations, small and medium-sized organisations and the public sector.

- We recognise we are on a journey and we will continue to take an open, collaborative approach to the continued evolution of the concepts, framework and tools. What we have developed so far is a start point. The more people and organisations that engage, utilise and challenge our work to date, will help us to evolve this vital direction in the understanding and transparency for all organisations and stakeholders.

Executives recognise the value of placing people at the centre of business strategy

- Taking a perspective on the role of human capital in shaping strategy and determining the sequence of events in which investments in it would take place is a recurring theme for our executive interviewees.
- Contrary to popular perception, many senior executives do not begin with the numbers and work backwards, but move through what might be described as a *clarity–enablement–imperative–traction*

model, which involves clear thinking on strategy, the role to be played by human capital in enabling it, and the roll-out of people-related activities. Then, and only then, do executives put a clear set of metrics in place to understand traction against the course set by the leadership team.

Completing the talent equation for performance: functions differ in their view of what constitutes ‘performance’ and where the links are, but we need to progress this agenda and create more of a common language

- There is now a vast literature exploring the link between talent and organisational performance. The ultimate aim of this body of work has been to prove what most of us instinctively already know to be true: that there is a positive relationship between the ways in which we manage our people and their capacity to drive the performance of the companies for which they work.
- What at face value appears to be a relatively straightforward analytical assumption soon runs into significant analytical challenges represented by

a lack of clarity as to what precisely constitutes talent, on one side of the equation, and what precisely constitutes performance, on the other.

- Where some researchers point to a growing body of ‘scientific’ methods we can use to ‘measure’ the relationship between people and organisational performance, others have suggested there is in fact much more heat than light emitted by the now voluminous outpourings of academic research papers, books, and reports from academics, consulting houses and think tanks. Most executives remain highly sceptical of such techniques.
- As the field has developed, researchers are increasingly using proxies of performance in their analysis as opposed to pure financial data. In the majority of instances, these proxies are not related to financial performance at all but instead use individuals’ subjective perceptions of the performance outcomes of the business such as ordinal ratings scales. Such techniques make those with responsibility for the regulation of the financial reporting industry nervous.

Table 2: The challenges of using talent analytics

Much has been made of the infancy of analytics in this space and the extent to which many organisations have still yet to overcome the challenges of pulling together its building blocks: their data.

Analytics represents an enormous opportunity not yet being used in the same way as other organisational functions.

New and emerging economies of data require organisations to know the point at which they need to start making decisions on the basis of their analytical findings rather than debating its veracity.

The challenge then is primarily one of standardisation, enabling executives to feel that they have the requisite quality of data on which to rest and align their insights on the impact of their various talent-related interventions.

Building analytical capability is just step one on a long and challenging journey

- There is evidence of a high level of variation both between and within organisations, which, in turn, has left organisations with a complex and daunting set of analytical challenges from which to draw conclusions about the impact of their human capital strategy on the performance of their organisation.
- Although there is certainly an interest in analytics, the experience of many suggests they are encountering headwinds inside their organisations over issues relating to:
 - The basic foundations necessary for analytics, including issues such as inadequate data management strategies and their underpinning systems are largely absent.
 - Leadership's sponsorship, engagement with, and oversight of analytics projects are critical to their success.
 - There can be no analytical insight without first securing data maturity.
 - The wide variation and complexity of analytics across organisations requires their initial mapping and

subsequent integration with overarching strategy and underpinning business model.

- Furthermore, we do not yet have common definitions of terms for even the most fundamental of data for human capital which constrains the dialogue and understanding. Headcount is a classic example of this issue, where the definition of how we count heads accommodating part-time, contingent, contract and other elements that make up the modern workforce needs to be called out.

We found that there are four levels of data maturity (see Table 3), and four levels of analytical maturity.

- There are four levels of analytical maturity:
 - **Data:** those organisations with a more mature analytical approach are highly specific about the data points they require and why and build systems enabling them to access, capture, store and codify data in line with their analytical requirements.
 - **Information:** as data is categorised, more information becomes available on specific human-capital-

Table 3: The four levels of data maturity

Regulatory	data organisations collect because they have to
Categorised	data do not constitute an asset until they are pulled down and stored on a requisite system and are ready for analysis
Aligned	organisations with mature systems in place have established in advance the analytical questions they require answering and have collated and codified their data to enable future data collection, analysis and modelling, and communication and reporting
Applied	organisations recognise specific 'target' or 'dependent variables' that they wish to explore in terms of what other ('independent') variables can 'explain'

related activities revealing patterns, complementarities and disparities. At this stage, analysis remains largely unsophisticated due in part to a lack of maturity in approaches to data capture and analysis. There tends to be more questions than answers.

- **Analysis:** this stage of maturity very much represents the crossing of the Rubicon from data collection and description to rising levels of sophisticated analysis of human-capital-related metrics. The emphasis shifts away from cost management and benchmarking to the location and exploration of ways to develop value-creation through people. More mature analytics fuses data from within the organisation with data from without the function, organisation and beyond.
- **Insight:** as understanding develops over time, those organisations with mature data systems in place can map the impact of particular variables on the overarching strategic intent of the business but remain mindful of the underlying complexities and dangers of an over-reliant approach on analytics.

- How organisations populate their human-capital-related data points is largely determined by a combination of decisions made by the managers and executives responsible and contextual circumstances.
- Over time, organisations build analytical profiles enabling them to understand the impact of human capital strategy on the performance of the human resources function, and ultimately, the organisation as a whole. We identified five such profiles:

- **Reactive:** this level is typified by an almost complete absence of data and its analysis
- **Aligned:** the primary aim is ensuring data consistency or its 'standardisation'.
- **Targeted:** this is the point at which the Rubicon is crossed where analytics are put to work to produce business-specific reports 'targeted' on particular issues.
- **Integrated:** this is the point at which executives possess genuine control of and insight from human-capital-related analytics and can relate these to the different functions across the organisation and integrate these with overarching strategy and business models.
- **Valued:** this additional level can be seen as a lens through which the contribution of human-capital-related analytics can be optimised and viewed from different perspectives across the business as a whole.

The Valuing your Talent Framework – a new methodology for measuring and understanding human capital metrics

- The Valuing your Talent Framework is a diagnostic assessment tool that combines the latest thinking on human capital analytics. And the evidence from our respondents suggests they might find it useful in thinking through their talent-related issues.
- At the heart of the model are the four value drivers contributing to the execution of an organisation's business model.
- To chart a pathway through the minefield of what has now become human capital analytics, we propose the '3x3' – comprising three sets of three

key issues that executives must keep under review in terms of the human capital analytical operations they manage (Figure 1).

- **Framing:** initially all executives are faced with three overarching phases of analytical projects.
- **Analysing:** then comes the analysis of the data, bringing with it a whole host of additional questions. Again, one can point to an additional three overarching phases here, which lie beyond the simple reporting of descriptive data.
- **Evaluating:** ultimately, the model can be used in three different ways in human capital strategy-making.

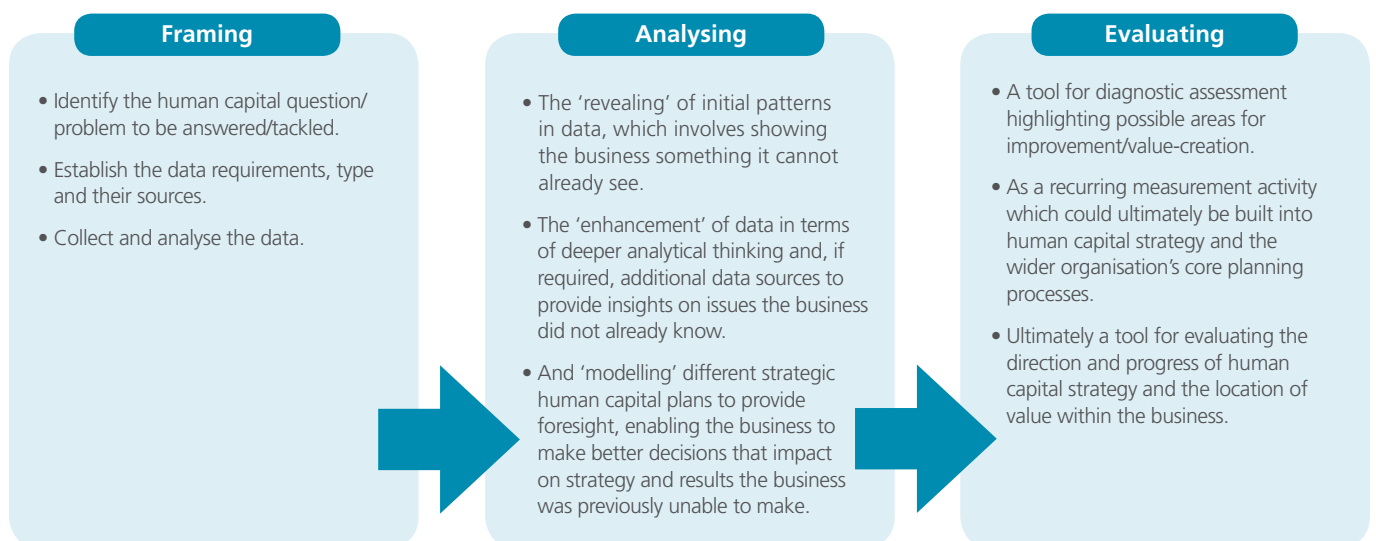
Challenges organisations face when using human capital analytics

- The search for the fundamental factors each organisation needs to put in place in order to drive the performance of their people has revealed even more underlying factors, the connection between which is

often much more complicated than originally envisaged. Unsurprisingly, human capital analytics have also run into these same complex underlying issues:

- There is a tendency to focus on costs when describing the activities of talent-related activities. There is a 'how low can you go' mentality, with many viewing the costs of people as akin to the running costs of a car: far from representing the 'engine' of the machine, people are viewed as representing the 'petrol' which is to be sourced as cheaply as possible.
- There is also the challenge of converting the value of human capital into the language of the boardroom: 'talking in Excel, not in PowerPoint'. The language of the boardroom is strategy, which converses in finance. This requires human capital analytics to engage in part with the same currency of the financial fundamentals the rest of the business is evaluated by.

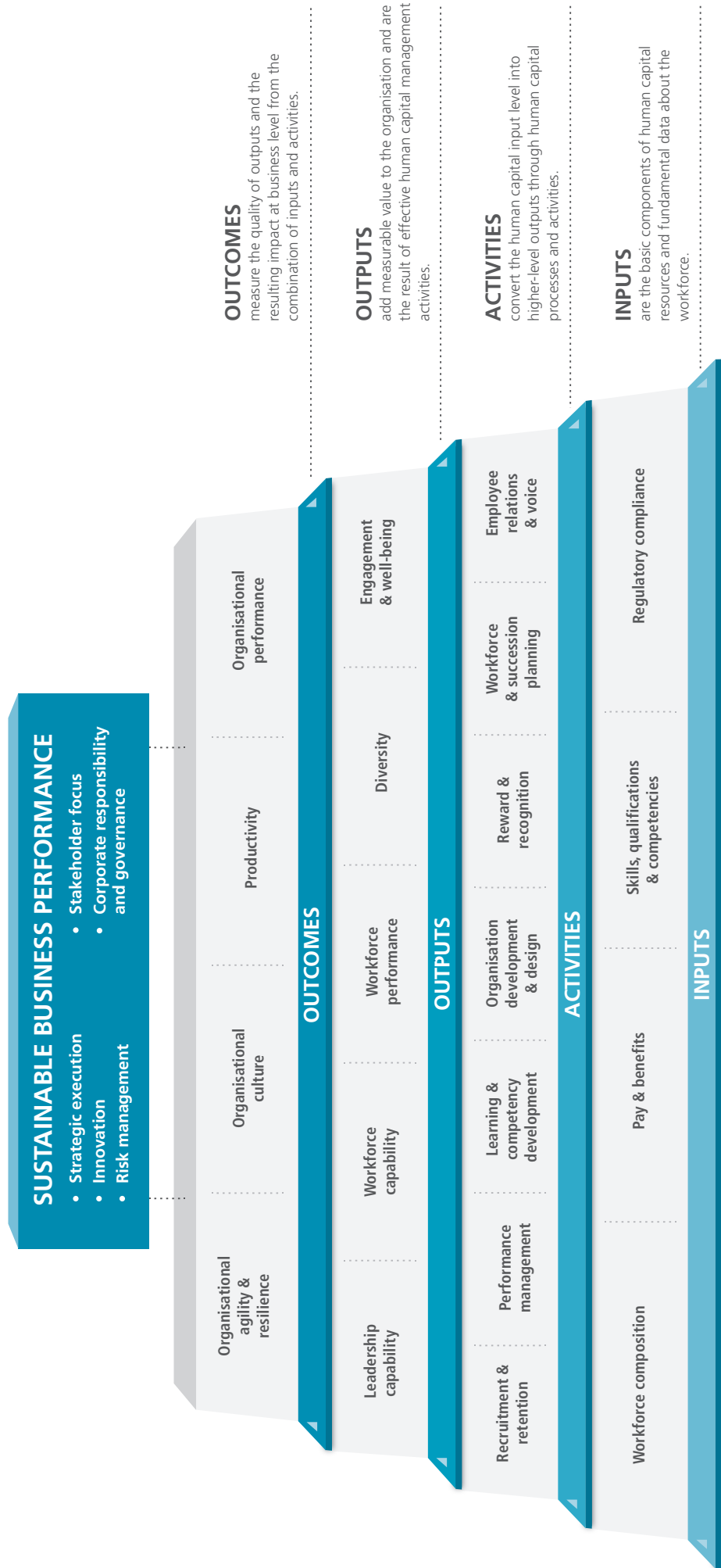
Figure 1: Executive approach to human capital analytics



The Valuing your Talent Framework

The *Managing the Value of your Talent* report includes, in the appendix, definitions of indicative metrics for the various boxes and levels of the framework.

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- Viewed in isolation, single measures are of little use. Benchmarking data provides useful comparative data but, ultimately, organisations need to be clear about how their people are performing relative to the talent base found in those competitor organisations that analysts would include in their peer group.

Conclusion: the end of the beginning?

- Executives require a ‘new licence to operate’ in which people and their talents join financial capital as the primary assets through which modern organisations conduct their business at new levels of transparency, which is increasingly required by investors, consumers, employees and other wider stakeholders.
- Leaders need to fully understand and explicitly set out the role of human capital – under which we include the social and relational and intellectual capitals of the entire workforce – in enabling their organisations to deliver on their strategic aims. Given the centrality of understanding strategy to wider employee motivation, the importance of the clear articulation of strategy, the business model and talent’s role in delivering it, hardly needs labouring.
- As organisations’ strategies and business models evolve, so too must the sophistication of their understanding of the enabling role played by their talent. As the calls for enhanced transparency from potential as

well as current employees grows louder, so too will the onus on organisations and their leaders to demonstrate their competitive advantage in the currency of talent and its development.

Far from being an exercise in statistics, human capital analytics will in future play a fundamental role in enabling organisations to better understand, develop and articulate these employee value propositions and their traction in meeting the simultaneous and converging requirements across multiple stakeholders.

- In a new and transparent world where human capital is seen as material to the success of the business, organisations are now under enormous pressure from wider society to demonstrate their level of commitment – and by this we also emphatically mean their investment – in their people. Actions speak louder than words and while there are those who push back against additional levels of reporting as superfluous bureaucracy, administration and red tape, in the new age of people it is no longer enough to say people are our greatest asset; organisations need to demonstrate their commitment to their people. In the new and merging ‘economies of experience’, employees and their talents are increasingly flexible and portable. Consequently, organisations are, and increasingly will be in the future, called upon by wider stakeholders to demonstrate the health of the relationship with their people.

1 Moving from financial capitalism to the age of people

'There are only two things in business,' Charles Tilley, chief executive of the Chartered Institute of Management Accounting, informs us: *'money and people'*. For Paul Polman, chief executive of Unilever, the two things driving his business are, *'brands and people'*. For CEOs the world over, it is simpler still: talent is currently their number one issue.¹

We appear to be moving from a world dominated by all things financial to the age of people. A company's workforce and their talents have become *'the asset driving the performance of all the others'*.² When companies such as Facebook are prepared to pay \$19 billion for a company with just 55 employees run on as little as \$60 million of funding, might it be fair to suggest that the knowledge-based economy dominating discussions before the crash has returned with a vengeance? Might we be witnessing the transition to a knowledge-valued economy where the differential value of talent is now celebrated?

With such opportunities come new challenges. Unlike the inanimate items we find on a company's balance sheet, the collective talents of our people are the only assets literally capable of self-improvement. The stakes are fantastically high: the UK's FTSE 100 alone spends over £200 billion a year on people.³ How then are we to understand how well we are doing in achieving the optimal performance from what many CEOs label their 'most important asset'?

To address this primary question, the three professional bodies representing the accounting, management and human resources professions – CIMA, the CMI, and the CIPD together with the RSA – have collaborated on the Valuing your Talent (VyT) research project. The work, which is being supported and sponsored by the UK Commission for Employment and Skills (UKCES), is designed to help company leaders better understand the impact their people have on the performance and growth of their organisation and as a result make more effective people management and workforce investment-related decisions.

We are not in the business of reinventing wheels. There are already substantial and important precedents in place exploring the impact people or human capital makes to the performance of our organisations.⁴ In what follows, we draw from these existing works, pausing to acknowledge points of departure and where we think recent changes – most notably the implications of the financial crash, current thinking about strategy, business models and the advent of 'big data' and its 'analytics' – require that we look at the management of talent from a new perspective. This is not in any way to undermine previous writings. In many ways, what follows represents an attempt to ride on these giants' shoulders. Nevertheless, the data obtained from the executives we have spoken to across a wide spectrum of organisations suggest the practice and analysis of human capital

management has evolved and this points to the need for a fresh examination. We have identified four broad overarching themes driving the ascendancy of people issues, each of which organisational leaders need to address head on if they are to recruit and maximise the performance of the talent they so highly prize.

1.1 The war for transparency

First, people's attitudes to work and organisations have changed at a much faster pace than the organisational structures and managerial processes used to accommodate their talents. If the 1980s were largely about what sins organisations committed on their people through downsizing programmes and mass unemployment, the 1990s reflected how the balance of power swung to those talented individuals who successfully managed their portfolio careers across the organisations who coveted their knowledge so much that they created a war for their talents.⁵ Even the financial stringencies brought about by the crash of 2008 did little to shake the firm conviction among business leaders that their talent base was too valuable an asset in the medium to long term to disband in a bid to offset costs in the short term. Capitalism, it seems, has evolved.

In the new age of people in which 'the workforce of one' dominates, companies have to offer distinctive employee value propositions where not just economic returns have to meet with existing and potential employees' expectations, but the company's culture, values, products

and the processes involved in making and getting them to market must also comply with potential employees' increasingly stringent modes of evaluation.⁶

A new 'economy of experience' is evolving in which employees expect to be engaged by interesting work, stimulating colleagues and products whose creation meet the highest of ethical standards while simultaneously demanding new levels of transparency from their existing and potential employers as organisations come to terms with the new transparency enabled by new waves of big data on new social media platforms.⁷ In this new age of people there is no choice for organisations but to choose to embrace the new demand for transparency or they risk seeing the vacuum they leave behind being filled by the quickly multiplying, no-holds-barred 'glass door' websites and other social media platforms where, increasingly, the future of companies' brand value precariously lies.

It is hardly surprising, then, that a recent study of 280 CEOs across 21 countries concluded, *'our results indicate that there is a virtuous circle of transparency, whereby companies which meet customer, employee and shareholder expectations and embrace transparency as a core value, find that transparency becomes a key driver of success and a source of major competitive advantage.'*⁸ The same report went on to suggest that increased transparency will unlock talent in the future, *'but we will have to improve our ability to measure and promote the value that comes from people – because it takes longer sometimes before the value coming from people becomes apparent, and we have to overcome the current emphasis on the short term.'*⁹

Examining ways of understanding and promoting better techniques of leading and reporting such transparent and sustainable performance through our people represents a central thrust of *Managing the Value of your Talent*. This becomes all the more significant for senior leaders when we acknowledge that there is emerging evidence to suggest those companies who disclose more information relating to their people enjoy lower costs of equity capital.¹⁰ The people issue is not just in the ascendancy; it would appear to be financially material too.

1.2 The need to integrate the sum of the parts

The growing importance of the people agenda turns on the breaking down of functional silos in general, and the rise to prominence of human capital issues in the finance function in particular. Achieving clarity and a deep understanding of a company's strategy and the working mechanics of its underpinning business model requires a corresponding level of clarity and depth of the role played by people. The long-held view that finance directors are from Mars and HR directors are from Venus is not only unhelpful but also inaccurate.

Just how inaccurate can be revealed in a recent investigation of 313 senior executives for the accounting profession which discovered 65% of CEOs saw the CFO as the natural lead for talent management performance.¹¹ Senior executives in the finance and HR functions understand the importance of working closely together, even if many in middle management do not. Other research has clearly indicated how relationships between executives across different functions can simultaneously create and represent enhanced competitive

advantage for their companies, most notably the so-called 'golden triangle' between the CEO, CFO and CHRO.¹²

Nevertheless, questions remain about how functional silos can be broken down to explore how executives and their charges can better work together to serve the overarching aims of the organisation. With recent research concluding executives attribute the missing of financial targets and a failure to innovate to ineffective human capital management, which in turn, they think, is mainly due to a lack of information to support decision-making, strategy formulation and investment evaluation, something clearly needs to be done.¹³

This weakness has been partly addressed by the advent of the Integrated Reporting Initiative (or IR), comprising a global coalition of regulators, investors, companies, standard-setters, the accounting profession and NGOs (non-government organisations). Perhaps the defining hallmark of the executive cadre is the capacity to view the organisation as an integrated and collective whole. This vantage point not only enables the recipient to establish how the whole exceeds the sum of its parts, but also affords those with such an integrated view of the organisational system an ability to see value where others cannot. The implications for the HR function are profound.

For our specific purposes here, the fundamental concepts underpinning IR incorporate a number of people-related elements into its reporting framework. Just how central people are perceived to be to value-creation is underlined by three of the so-called six 'capitals', which 'provide insight about the resources and relationships used and affected by an organisation', being clearly people-oriented.

Central to our interests, of course, is *human capital*, which is defined as, '*people's competencies, capabilities and experience, and their motivations to innovate*'.¹⁴

Human capital also relates to the extent to which people are aligned with and support an organisation's governance and risk management, their ability to understand, develop and execute an organisation's strategy, as well as their motivation for improving processes, goods and services. The definition offered by the IR Initiative also includes under human capital the capacity to lead, manage and collaborate. This expansive definition of human capital is complemented by two additional people-related capitals.

Intellectual capital comprises an organisation's knowledge-based intangibles including intellectual property (for example, patents, copyrights, software, and so on), and its 'organisational capital' such as tacit knowledge, systems, procedures and protocols.¹⁵ *Social and relationship capital* is reflected in the relationships, culture, values and behaviours shared by employees, together with their stakeholder relationships and intangibles associated with the brand and reputation the organisation has developed over time and effectively constitutes '*an organisation's social licence to operate*'.¹⁶

Integrating into the strategy and business model of the wider business this triumvirate of people-related capitals, or what we hereafter label *human capital management*, highlights two challenges *Managing the Value of your Talent* (hereafter, *MVyT*) is seeking to address.

First, partly as a reflection of the multi-disciplinary nature of human capital and talent, multiple definitions abound, '*producing jingle, jangle, insufficient description, and construct*

imposition fallacies'.¹⁷ Problems are exacerbated by the terms being used interchangeably. What follows not only attempts to rectify some of the conceptual issues facing human capital but will also offer a way forward to those charged with the responsibility of managing and attempting in some way to manage the operational realities these concepts represent. This is not merely semantics. In some cases the language used to describe our people reflects what are hotly contested debates inside organisational and professional as well as academic factions.¹⁸ As people issues rise to prominence, the differences between these factions need resolving in order for progress to be made for all the stakeholders involved.

This relates to a second major challenge constituted by the new people agenda. Notwithstanding the difficulties brought about by a multi-disciplinary approach to both defining and managing our people, there are also obvious benefits flowing from examining people through different lenses. And yet our formal education – from compulsory schooling through and especially in business schools – imposes silos on the ways in which we think about doing business, making that which is not initially complex harder than it needs to be. There is now a growing body of research revealing the benefits of executives across different functions working more closely together. Emerging from this is an overarching 'intellectual integrity' through which executives '*exhibit discipline, clarity, and consistency so that all of one's decisions fit together and reinforce one another*'.¹⁹ How we understand and better manage our people represents one such space where such integrative thinking is critical.

It is perhaps not accidental that many current HR executives have not risen through the HR function

but are from different disciplinary backgrounds, including finance. Conversely, the integrative thinking required at executive level to strategically align people requires a different skillset to that which has served finance directors and other executives to date. With the ascendancy of people has come a new onus on executives to translate people issues into their strategic and financial planning.²⁰ To the extent that they have been successful forms part of our focus, as does the way forward for the translation of people into the strategic equations underpinning the executive practice of leading people, as well as those undertaken under the banner of 'workforce analytics'.

1.3 Establishing the direction of travel – analytically

Of course, recognising the centrality of people in operationalising a business strategy is one thing. Establishing how people are performing is quite another. But paradoxes abound in the new age of people. If we recognise the centrality of people in the delivery of strategy, the questions for organisational leaders must turn to: how can we enable our people to help us in achieving sustainable growth, and how do we know it's working? The greater the volume of data made available, and with it the promise of a clearer line of sight through to the performance of our people, the more opaque the performance of people appears to become.

It is here where the rise of social electronic media and its by-product – 'big data' and its analysis or 'analytics' – has certainly captured the attention of those seeking to establish the performance of their people. But with new opportunities has come a new set of challenges for managing organisational data in general and people-related data in particular. The increasing availability of data in terms of content, volume

and the speed at which it becomes available constitutes the main reason why the previous analyses examining the value of people by Denise Kingsmill in the UK²¹ and the recently aborted project by the ANSI and the SHRM in the US,²² now require revisiting. Indeed, as will become clear in what follows, the HR function has become a particular honeypot for people-related analytics in the pursuit of 'data-driven' insights.²³

Finding a definition of analytics that demonstrates how it differs from previous methods of statistical prediction is surprisingly difficult. While in many ways big data represents something new in terms of its sheer scale, being defined as '*large pools of data that can be captured, communicated, aggregated, stored and analysed*',²⁴ definitions of analytics remain remarkably similar to conventional statistical methods that would be recognised by generations of statisticians and management scientists.

According to one leading commentator, '*by analytics we mean the extensive use of data, statistical and quantitative analysis, explanatory and predictive models, and fact-based management to drive decisions and actions*'.²⁵ The new analytical element, then, apparently, lies in our ability to make sense of previous events, and make predictions based on, the statistical patterns within the now vast volumes of structured and unstructured information – increasingly in real time – companies now have access to. The analytical techniques themselves are not new but the scale of the data they are applied to and the speed at which this is done is.

Nevertheless, methodological problems accompany the new 'workforce analytics' executives are attempting to fathom. For

one highly respected analytics practitioner, *'if the quantity of information is increasing by 2.5 quintillion bytes per day, the amount of useful information certainly isn't. Most of it is just noise, and the noise is increasing faster than the signal. There are so many hypotheses to test, so many data sets to mine – but a relatively constant amount of objective truth.'*²⁶

While it is easy to make predictions, their accuracy has been called into question. The recent scale of the failure of Google's Flu Trends predictions is a case in point. It seems cracks in the once invincible armoury of big data are now beginning to emerge. As one commentator has observed, *'four years after the original Nature paper was published, Nature News had sad tidings to convey: the latest flu outbreak had claimed an unexpected victim: Google Flu Trends.'*²⁷ According to a leading academic in the public understanding of risk, *'there are a lot of small data problems in big data. They don't just disappear because you've got lots of the stuff. They get worse.'*²⁸ This hardly makes the executive task of establishing the utility of analytics in general, and their interventions in the people space in particular, straightforward.

For this reason, some of what follows might be described as a form of overdue 'analytical gardening' to conceptually and operationally clear away the thickets, weeds and deadwood of the rhetoric and frankly sometimes spurious claims made on behalf of some of the analytical tools purporting to utilise big data and its analysis to provide insights on how we manage our people. To free us from the rhetorical froth that has covered this aspect of talent analytics, what follows will explore those building blocks of people-

related data and its analysis of most utility to senior executives keen to establish the traction they are gaining in enhancing the sustainable value of their people's collective talents.

1.4 Recognising that where the numbers finish, relationships begin

Of course, it is not all about numbers. Many grate at the description of human resources as an asset ripe for greater exploitation. While the accounting profession is for the first time getting to grips with the notion of an asset as a *resource*, the HR profession has steadfastly defended the *human* element in HR. There is a large element of executives who do not require the accounting, academic or consulting industries to prove something that they already know to be true: good management makes a difference to how people perform and, ultimately, the financial performance of organisations.

It is for this reason that what follows is looking beyond the capitalisation of human resources to how we recognise, build and sustain the underlying relationships that enable and drive high performance in organisations. The management of people, their collaboration and integration with the wider capitals of the organisation to build sustainable relationships without which companies would lose the discretionary effort of their employees, which research has continuously demonstrated, makes a material difference to business outcomes.²⁹

Consequently, alongside the development of a raft of metrics, we are investigating the craft of the HR executive's art in determining these relationships. This in turn requires complementary methodologies that utilise the narrative form to capture a

company's 'competitive intangibles', which lie beyond the quantum form and constitute the underlying economic resources the HR professional manages on a daily basis, but which the accounting profession finds challenging to capture.³⁰ *'Where the numbers finish, explanation, understanding and the executive craft begins.'*³¹ As we explore below, the practice of this craft lies beyond the dot-to-dot exercise of analytics, which can only take you to the point when experience and wisdom take centre ground. Nevertheless, an evidence base, for all its potential flaws, helps. Half an analytical loaf is better than no evidence-based bread at all. Which brings us neatly to the Valuing your Talent initiative.

1.5 The Valuing your Talent research project

Executives have long recognised and understood Einstein's observation that not everything that counts can be counted. Accountants refer to such items as intangible. But while formal convention enables accountants to monetise intangible assets such as goodwill on the balance sheet, these same conventions block us from financially recognising the biggest intangible asset of all: our people.

This has not stopped many from trying, but after extensive academic research, consulting interventions and even a major government taskforce, agreement on how we evaluate the product of talent management practices still remains elusive.³² However, in the present context of concern and expectation about corporate cultures, about how organisations operate, and how they develop and manage their increasingly diverse workforces and ways of working, we urgently need to reach a consensus on more consistent measures and frameworks that provide the visibility all stakeholders – both within and

without the organisation – need in order to draw conclusions about the sustainable development of the ‘other capital’.³³

But it is not just about numbers. The central challenge is one of bringing together both accurate information (in whatever form this might take) and fusing this with the knowledge and experience of those charged with the optimisation of the performance (again, in whatever form this might take) of their organisations.

The VyT project, then, has three primary objectives:

- To better understand and establish how organisations measure the impact of their people-based interventions on releasing and driving sustainable value. For this we collect the prior research and practice, draw on interviews with senior executives in HR, strategy and finance functions in organisations of varying sizes and industrial sectors, together with a number of senior professionals working in the accounting, financial reporting and consulting and advisory spaces.
- To define much more clearly the basic people metrics to promote agreement and consistency in how such measures are used.
- Building on these practices we will develop a broad framework against which executives, employees, the investment community and other wider stakeholders can assess how businesses of all kinds are developing their people and organisations to enable sustained and higher levels of performance.

Four overarching principles are guiding our work:

- We are seeking to be highly collaborative, drawing on views

from academia, accounting, business and employee representation groups. In all, we have spoken directly to over 60 senior professionals in over 40 organisations across a number of different organisations, industrial sectors and varying specialisms, ranging from the financial reporting councils, through to all four of the ‘Big Four’ accountants, the financial ratings agencies, management consultants, other advisers and academics.

- We have sought to be inclusive, drawing on innovative research methodologies from recognised leaders in this area but also using, for example, social media technologies to tap into a wider base of views and opinions. To this end we have published at various points the developing human capital framework and invited comments from wider communities, extending the reach of our research further still.
- We are emphatically non-proprietary. What we create we have and will continue to openly share in order to develop, spread and promote best practice in the development of effective human capital strategy.
- Finally, this is not the definitive or final word on how leaders understand their organisation’s capacity to obtain sustainable value from people. We have been clear from the conception of VyT that *Managing the Value of Your Talent* is very much the beginning of a long journey and we welcome future collaboration with fellow travellers seeking to contribute to our overarching aims of improving the experience of work for all with a stake in how our people perform.

The evidence base of Valuing your Talent

As we shall see in Chapter 3, the research base devoted to

establishing the relationship between people and performance is vast, complex and highly technical. While there have been a number of large-scale surveys investigating the role played by analytics in aiding executives in understanding how to better manage their people, more detailed and large-scale in-depth analyses like *Managing the Value of your Talent* have been in short supply.

Ultimately, the evidence base on which the following rests draws from interviews with over 70 professionals across 42 different organisations. Most of these companies are located in the UK FTSE 100 or the Fortune 500. This is hardly surprising. One of our findings, reported in one of the Valuing your Talent working papers, demonstrated the different approaches to human capital management by small and medium-sized enterprises.³⁴ This said, we firmly believe the concepts and diagnostic tools we have constructed will be of benefit to organisations of all sizes. We have attempted to draw data from organisations across a wide spectrum of industrial sectors, and with a global reach, with interviews taking place with individuals based in the USA, mainland Europe, Asia, Australasia, as well as with companies in the UK. We have also a wide spread of roles including chairmen, CEOs, CFOs, CHROs, finance directors, operations directors as well as analysts from leading investment houses and senior partners from each of the 'Big Four' accountants. We have also explored issues with not-for-profit organisations, small and medium-sized organisations and the public sector.

The interviews themselves covered just four broad topics. These were covered by four questions:

- What is your organisation's strategy and accompanying business model?
- What is the role of people in enabling these?
- Is it working?
- How do you know?

These questions enabled us to unpack questions around the main themes covered by what follows, most notably the role played by people in enabling the organisation to achieve its strategic aims and uncovering what we describe under the broad heading *human capital management*. The challenge over the extent to which executives could claim their people interventions were working and the evidence underpinning this was reflected in their analytics-generated insights for the various concepts and diagnostic tools we introduce in *Managing the Value of your Talent*.

In what follows, we let those executives with whom we have engaged do the talking for us. While we have certainly structured the narrative of what follows into a logical flow, we present much of the detail we have heard to enable the reader to see human capital management and its evaluation through the eyes of those who play a central role in leading, advising about, accounting for, regulating and analysing an organisation's ultimate performance.

This detail is captured in two ways. First, we present verbatim extracts from our conversations with professionals to provide an evidence base for the analytical tools and instruments we present for use by those seeking to better understand, execute and optimise the value of human capital. Second, and by way of extending this detail, we provide small *case vignettes* from companies to act as examples of executive thinking and organisational practice about analytics to facilitate the

learning of others. These vignettes do not represent conventional case studies but represent a way of providing greater insight into the practice of human capital, its management and evaluation *in situ* despite the constraints of a report of this size.

Structure of the report

The remainder of the report comprises an additional five sections. Chapter 2 addresses our first question of the role played by human capital in facilitating executives in the formulation and successful implementation of their strategy and underpinning business model. The picture that emerges is one of how central people have become in understanding the value of this process. It soon becomes clear that, of the various resources – or capitals – available to organisations, it is those tightly wrapped around people that dominate what we label *the structural capital* of business. We reveal how, when seeking to obtain the optimal performance from this wider capital base, executives engage in what we label the *clarity-enablement-imperative-traction* (or 'CE-IT') model to augment their understanding of strategy and, critically, the role played by people in its optimised execution.³⁵ We then pull these concepts together and align them with what our respondents viewed to be the four key elements of the value drivers of *human capital management* at the heart of the organisation's business models.

We then move on in Chapter 3 to explore how current thinking on the relationship between people and organisational performance has evolved. We reflect on how the development of the field has seen little innovation and explore the veracity of the dominant techniques in the field. We conclude that both sides of the equation – how

we define performance on one side and the role of human capital activities on the other – are in need of re-evaluation. Nor are we alone in reaching this conclusion, as the responses from our executive interviewees illustrate.

We start Chapter 3 where the previous one ended, mapping and making sense of the varying distance travelled down the analytical path by the different organisations taking part in our research. The picture that will emerge is one of a high level of variation both between and *within* organisations, which, in turn, has left leaders with a complex and daunting but nevertheless surmountable set of analytical challenges from which to draw conclusions about the impact of their human capital management on the performance of their organisation.

Chapter 4 then maps the use of human capital metrics by organisations and illustrates how organisations can better understand the returns they obtain from the insight generated by analytics. The onus here is very much on understanding the journey organisations are currently

travelling – and the role leaders play in shaping it – in terms of both the maturity of data and the analytics which rest on it. Boardrooms will gain here an insight not just into where they might locate the maturity of their own human capital analytical techniques and its direction of travel but, crucially, they also get to see what ‘good’ looks like. Chapter 5 offers a more practical view of analytics and introduces the broad framework we have developed for organisations seeking to begin, improve or evaluate their journey to value-creation via human capital analytics. We conclude in Chapter 6 with the primary challenges now lying before organisational leaders as they seek to instil disciplined and highly effective growth in their workforce strategies as the global economy returns to growth and with it a return to a more intense war for a transparent and more sustainably performing style of human capital management. We close with four key performance indicators all businesses should openly report if they are to meet the new demands for the transparent and sustainable flourishing of our people and the organisations in which they are located.

2 It's the business model, stupid! The structural capitals

'On day one of economics A-level, you learn that there are three factors of production: land, labour and capital. Why is it we don't measure labour? There is a much greater willingness in the UK, a kind of encouragement even, to talk about what the business model is, what the risks to it are, and so on. It feels to me that you've got to talk about the value of your people when you talk about that.'

Stephen Haddrill, CEO, The Financial Reporting Council

An observation such as this from a senior financial regulator would have been almost unthinkable a decade ago. The rise in the importance of the business model, the increasing recognition of the role played by people over time in its sustained delivery, combined with the increased calls for transparency, while dealing with the increasingly volatile, uncertain, complex and ambiguous (or VUCA) world organisations now operate in, all point to a new context in which the role of 'the capitals' – including the people-related ones – need to be clearly articulated and justified by senior leaders.

As Stephen Haddrill went on to explain, *'I think investors are becoming increasingly sophisticated. What appears to be coming through now are challenges such as, "convince us you've got a plan," or, "convince us that you understand your business and we'll go along with you then, but if you try to pull the wool over our eyes, we'll discount you accordingly."* The stakes, then, are increasingly high as the role played by people

in delivering 'the plan' is becoming increasingly important, bringing with it an additional layer on which the personal performance of executives are evaluated.

This new centrality and its evaluation turn on several issues, all of which we unpack in this chapter. The clarity of strategy does not constitute the reduction of an organisation's intent to one or two glib statements. On the contrary, being able to clearly discern and distil the complexity of overarching strategy, the intricacies of its underlying business model and the role played by people in its delivery, is one of *the* defining hallmarks of a senior executive's skillset. Nevertheless, before we can explore the role of human capital in enabling businesses to achieve the challenges they have set themselves, we need first to define what we mean by human capital.

Understanding human capital as a central component of this structural capital underlines the contribution to performance people can make to organisations. It also underlines how investments in our people have to be gauged against wider capital allocation programmes to enable the business to obtain sustainable business results over time. That the development of a high-quality workforce is central to an organisation's success is taken as a given. The challenge now, then, turns on the extent to which we can demonstrate the extent to which investment in people can facilitate leaders in meeting their obligations to stakeholders, both within and without the organisation.

2.1 Integrating human capital into the business model

'The really smart analysts spent 10 minutes talking about our business results and 40–50 minutes talking about people.'

Doug Ballie, Unilever

Underpinning the current surge for greater transparency in the management of large organisations has been a growing interest in understanding the business models at the heart of an organisation's strategy. A business model essentially represents a theory of the business: in short, how a company makes money.³⁶ Building on a major project initiated over a decade ago,³⁷ a new body has recently been brought together under the aegis of a global coalition of regulators, investors, companies, standard-setters, the accounting profession and NGOs in an attempt to establish *'how an organisation's strategy, governance, performance and prospects, in the context of external environment, lead to the creation of value over the short, medium and long term'*.³⁸

Significantly for our purposes, the Integrated Reporting Initiative (or IR) has identified a number of people-related issues deemed to be *'material to the organisation's ability to create value for itself'*.³⁹ An integrated approach to understanding how companies create value places especial importance on the relative ability of a company to transform various forms of capital. Of the six capitals identified, three capitals – intellectual, social and human – are explicitly people-related. The

remaining three capitals – financial, manufactured and natural – represent the major tangible assets utilised by organisations.

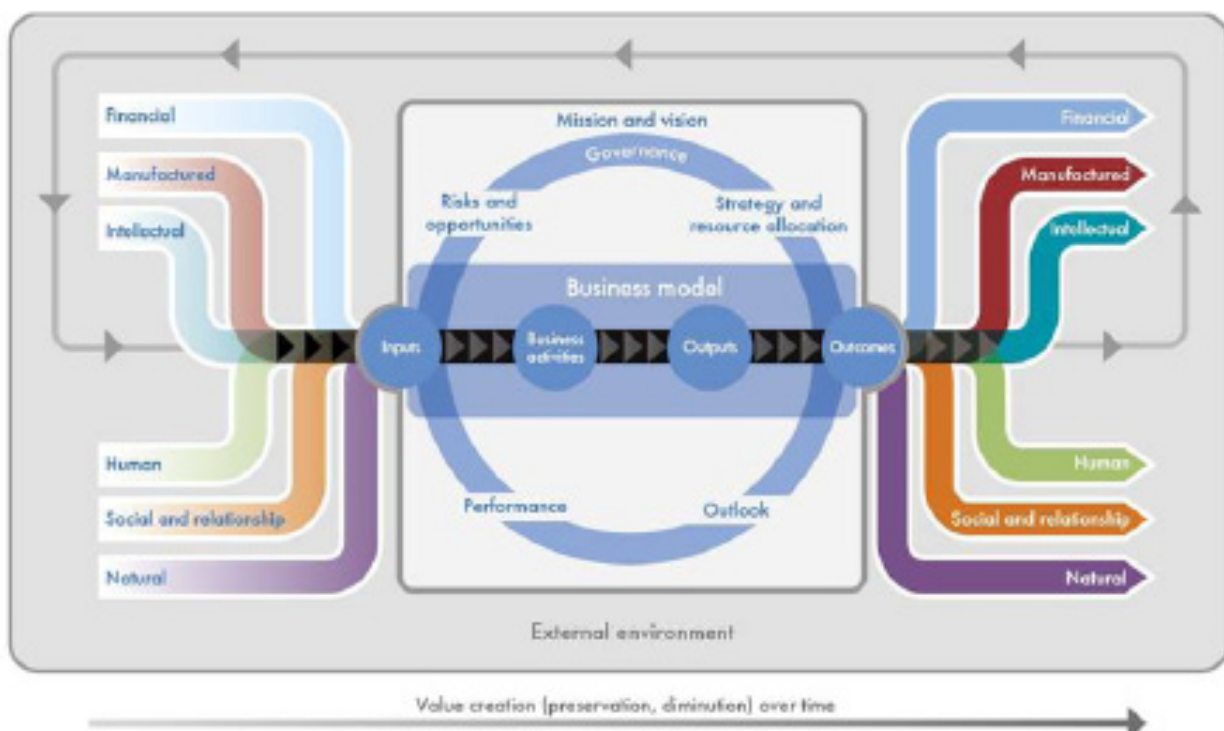
Different business models require the use and combination of different capitals to varying degrees and in different ways (see Figure 2). These six capitals, combined with the business model, represent *‘the chosen system of inputs, business activities, outputs and outcomes that aims to create value over the short, medium and long term’*.⁴⁰

With this increased transparency has come a greater degree of accountability for executives as they seek to justify the level of investments in, and returns from, various combinations of capitals through the business model process. Increasingly value is created from

intangible assets, leading in turn to a greater emphasis on the extent to which organisations manage the human dimension of their organisations.⁴² It is for this reason that there now exists a substantial body of research devoted to understanding the role competencies play in differentiating the value of firms.⁴³

But with increasing emphasis has come corresponding awareness of the paucity of our understanding of how businesses manage, measure and report on the value of the human dimension of their business.⁴⁴ A contributing factor to the confusion here is the lack of an agreed common language through which executives from across the different functional areas can communicate. This problem needs to be tackled head on.

Figure 2: The IR value creation-process



[Source: *The Value Creation Framework*, IIRC, 2014, p13]⁴¹

2.2 From HR to talent to human capital and back again: some definitions

Examining the relationship between people and organisational performance is a highly contested area where many have tried and, to varying degrees, all have faltered.⁴⁵ Part of the problem is the impenetrable language surrounding the debate over the definitions involved on both sides of the equation. The terms 'human resources', 'talent' and 'human capital' are used interchangeably on one side of the equation, as are varying ways to describe performance – in financial, operational or more subjective ways – on the other.

From HR to talent...

A recent review of what constitutes 'talent' sees one leading expert ask, 'to what extent does it really matter that there are no universal definitions of talent and talent management?'⁴⁶ This lack of conceptual clarity and definitions is a fundamental problem built into the DNA of talent management and its perceived utility in meeting the wider challenges faced by organisational leaders. Even now, nearly two decades after McKinsey famously coined the phrase 'the war for talent', we are still debating definitions.⁴⁷ What constitutes talent in organisations turns on the choices leaders make. For example, underlying most executives' views of talent is that it refers to something innate to individuals and is characterised by relative scarcity.⁴⁸ Talent is also commonly used interchangeably with human resources, in which talent has become a euphemism for 'people' and their particular individual characteristics.⁴⁹

Others prefer to make a distinction between talent itself and its management, with the latter comprising the challenges

of operating in open labour markets, devising new models for developing employees within jobs or even across jobs within the same organisation, and making investments in strategic jobs where investments show the greatest benefits.⁵⁰ This latter definition of the *management* of talent is useful and closely resembles how we, and most of the executives we have spoken to, define talent's management.

In what follows, *talent* itself refers to an organisation's *entire* workforce, which in turn refers to all employees utilised by an organisation in delivering its own operations. This definition extends the definition of total employees beyond the usual numbers who are recorded in an annual report's definition under the heading 'the average total number of employees employed' to what we define as the *total number of operating-related employees*.⁵¹

We should also at this early juncture make explicit what we are *not* saying. When discussing talent, we are emphatically *not* describing 'the systematic identification of key positions which differentially contribute to the organisation's sustainable competitive advantage', or to 'the development of a talent pool of high-potential and high-performing incumbents to fill these roles'.⁵² As will become clear, executives both within and without the HR function feel strongly that *all* of their people have a role to play in contributing to the success of organisations, large or small. While some individuals clearly have the potential to contribute more than others, executives view the value of their talent base in terms of its *collective entirety* in the enablement of their strategic choices. The talent pools for such pivotal and enabling positions are viewed to lie beyond as well as inside the elite categories of individuals drawn up within

organisations, a point we share with other commentators:

*[T]he unfortunate mathematical fact is that only 10 percent of the people are going to be in the top 10 percent. So companies have a choice. They can all chase the same supposed talent. Or they can ... build an organization that helps make it possible for regular folks to perform as if they were in the top 10 percent.*⁵³

The definition of talent adopted in what follows refers to the management of all people in such a way that celebrates the collective diversity and abundance of talent as opposed to a war for scarce resources. An organisation has to optimise its return on investment from its talent. Making strategic and differential investment decisions relating to *all* assets, not just people, is a fact of executive life. But there is an emphatic view among executives that the language used to describe their people can no longer focus on a select few.

An organisation's capabilities lie in the combination of the competencies belonging to all of the individuals it comprises. The central challenge of increasing over time the quality of talent in our organisations represents in part the shift to effectively contest models of talent and their management which represent a transformation away from the negative-sum game of the sponsored mobility of elite programmes to a positive-sum game where the collective gifts, skills, knowledge, experience, intelligence, judgement, attitude, character and drive of our people can all make a positive difference.⁵⁴

...to human capital...

One recent review of talent lists no fewer than 11 separate definitions of talent but not one of them offers an insight into how

organisations gain an insight into the value created by our people, the authors choosing instead to eschew such a *'managerialist approach emphasising performance, efficiency and effectiveness objectives'*.⁵⁵ As we shall see, there is a large minority of people within the HR community and beyond who push back against 'managerialist' attempts to value the contribution of people on the grounds that it is both unethical as well as highly problematic because of the intangible nature of what constitutes a person's talent and how such a contribution might be 'measured'. For these reasons, many HR professionals bristle at phrases such as 'human capital' or 'human capital asset' when used to describe people.

Although understandable, this emotional response overlooks the traditions of the academic fields from which HR in general, and human capital theory in particular, has evolved. Economists have been referring to 'human capital' since Pigou's 1928 *Study in Public Finance* with the term in contemporary labour economics largely referring to human capital as an individual's investment decision. Since then the term has infiltrated psychology in order to describe an individual's personal characteristics that act as predictors of job performance, or issues of social position, cultural skill and social mobility in sociology.⁵⁶

Whatever the academic discipline, human capital comprises a resource that individuals and their organisations utilise, albeit to varying degrees, as opposed to a category or label to which individuals are subjugated. It is, as we shall see below, the only 'self-aware asset' that can choose to transform itself. This alone makes the talent asset base a very special asset class.

We see human capital, then, as very much an 'umbrella term' representing a positive resource for talent – its capabilities, intellect and relationships – for the organisation in which it is located. But we need to push this definition a little further still.

...and back again

We start *Managing the Value of your Talent*, then, at the point where current research finishes. In a recent and provocative article entitled, 'Human capital is dead; long live human capital resources!' influential researchers in the US point to the need for research on human capital to move beyond what they describe as the out-dated modes of defining human capital not just as the knowledge, skills and ideas of individuals, but the human capital resources made available at business-unit level.⁵⁷ Such units, claim the authors, *'are based on people – what they do, what they are, or what they know – and are a complex mix of individuals acting and interacting to produce outcomes'*.⁵⁸

Moreover, this *'human capital resources definition focuses on capacities for producing outcomes rather than the individual knowledge, skills, abilities or other resources themselves [and includes] the idea of capacities, the potential for action, to differentiate the potential from the action or consequence it may produce'*.⁵⁹ The challenge set by these researchers, and one taken up by VyT, is to answer the call for *'future research to explore these possibilities and examine whether strategic human capital resources produce different perceived or actual value depending on the manner in which they are combined'*.⁶⁰

As will become apparent, we have gone further, setting out the distinctive and collective capabilities

and integrated architectures of value built by organisations to underpin and enable the superior functioning of their human capital resources which lie beyond any one individual or even groups of individuals within an organisation and represent enduring and sustainable value.

2.3 Structural capital

Accompanying the growing centrality of human capital is an increasing sense in the boardroom of moving beyond the traditional understanding of merely the financial capital structure of a firm – where accountants examine *capital structure* comprising the different sources of finance a firm uses to fund its operations – to examining what we refer to as the *structural capitals of the firm*, which emphasise not just financial resources but also closely examine the collective resources represented by the combined capitals comprising both tangible and intangible resources (see Table 4).

As the importance of the business model has taken centre stage in the strategic thinking of businesses, people too have moved closer to the heart of executive discussions. This does not mean that human capital represents the only game in town when it comes to making decisions over investments across the asset base of an organisation. On the contrary, there is an increasing demand to demonstrate how investments in people both complement and add value to other assets across the business.

We should not assume human capital elements exist in a vacuum of ring-fenced resource allocation. Like other assets and the operations used to drive them, human capital expenditure needs to be understood in the wider context of competing resources. The extent to which this competition is played out and integrated across functional silos to obtain maximum value represents yet another emerging challenge to those leading the organisation. A

corollary of this observation is that other assets will justifiably be ahead of people in the allocation of limited resources. The need for executives across all functional backgrounds to demonstrate how their operations enable financial resources to collectively accrete represents the new challenge of integrated thinking.

There is a growing recognition of the business-critical role people-related capitals play. In the words of Toby Peyton-Jones, HR director at Siemens for the UK and Northern Europe, *‘you might have all of this data, but whether the data is any use means coming back to your strategy.’* And here we come to an issue we kept returning to on a regular basis with multiple respondents, namely being clear about the strategy of the business and the role played by human capital in enabling its successful execution.

Strategy is about choice, being clear about where to play, how to win, what your key capabilities are

Table 4: The new structural capitals of the firm

	Definition	New capital structure
Financial capital	The pool of funds available to an organisation for use in the production of goods or the provision of services, obtained through financing, such as debt, equity or grants, or generated through operations or investment.	Financial resources
Manufactured capital	Manufactured physical objects (as distinct from natural physical objects) that are available to an organisation for use in the production of goods or the provision of services.	Manufactured resources
Intellectual capital	Organisational knowledge-based intangibles, including intellectual property, such as patents, copyrights, software, rights and licences; ‘organizational capital’ such as tacit knowledge, systems, procedures and protocols.	
Human capital	People’s competencies, capabilities and experience, and their motivations to innovate, including their alignment with and support for an organisation’s governance framework, risk management approach, and ethical values; ability to understand, develop and implement an organisation’s strategy; loyalties and motivations for improving processes, goods and services, including their ability to lead, manage and collaborate.	Human capital architectures
Social and relationship capital	The institutions and the relationships within and between communities, groups of stakeholders and other networks, and the ability to share information to enhance individual and collective well-being and includes: shared norms, and common values and behaviours, key stakeholder relationships and intangibles such as brand and reputation.	
Natural	All renewable and non-renewable environmental resources and processes that provide goods or services that support the past, current or future propensity of an organisation, including air, water, land, minerals and forests, bio-diversity and eco-system health.	Natural resources

and the management systems in place to achieve it.⁶¹ Without such clarity organisations cannot move the human capital element of their business model forward because they do not know or understand what it is they need to put in place from a people perspective to enable their strategic choices to become a reality.

For Duncan Ballie, a former chief executive of the European business of Unilever, and now the company's chief HR officer, this requires distilling the detail down to a one-page plan not just isolating how people make the strategy reality, but to determine what is imperative for those managing human capital in the near and medium term. For Ballie, this effectively constitutes 'a licence for executives to operate', and without which they lack a strategic compass against which they can set direction and gauge progress. It is not a coincidence that the overarching strategic direction of the group, and regularly presented to shareholders, is labelled 'The Compass Strategy'.

Taking a perspective on the role of human capital in shaping strategy and determining the sequence of events in which investments in it would take place was a recurring theme for our executive interviewees. For example, in moving to an expansive target revenue business model underpinned by a culture change initiative in the not-for-profit charity Centrepunt, Chief Executive Seyi Obakin pointed to 'needing to know where we were and what we needed to do'. Shifting to a new mindset required a recognition that 'we're not for profit but we're not for loss, either'. Such strategic transformations are easy to design but exceptionally difficult to build and maintain.

For Anthony Bruce, a partner in workforce analytics at PwC, analytics

has a clear role to play here because it can help businesses to build an evidence base to 'identify the critical business issues and the subsequent critical business people issues that people really care about now and in the next 6–12, or 18 months, and provide some insight around those and then use this data to make a number of bets across a range of issues across the workforce'.

So, the first major observation we draw from our research into human capital strategy and the role played by metrics is that, contrary to popular perception, many senior executives do not begin with the numbers and work backwards, but move through what might be described as a *clarity-enablement-imperative-traction* model which involves clear thinking on strategy, the role to be played by human capital in enabling it, and the roll-out of people-related activities. Then, and only then, do executives put a clear set of metrics in place to understand traction against the course set by the leadership team (see Table 5).

With this clarity in place, organisations can then align their human capital interventions with the overarching strategy and accompanying business model of the organisation. Much has been written about the alignment of HR practices with organisational strategy and our intention is not to ape these works here.⁶² Human capital *management* has been defined as 'managing people in a way that leads to the optimal accumulation of human capital: for the individuals who are investing in it; the organisations that are using it and also the financial investors who are funding it'.⁶³

For the majority, then, human capital management is defined in response to the overarching strategy of the business model;

Table 5: CE-IT – Mapping strategic conversations		
Strategic contribution	Definition	Executive conversation
Strategic clarity	Understanding strategic intent	Unambiguous and easy to communicate to different stakeholders
Strategic enablement	How executives establish and resource strategic imperatives	Enabling executives to negotiate and resource strategic imperatives
Strategic imperative	The priority and sequence of major business activities	Underpinning rationale to future major activities
Strategic traction	How progress on strategic imperatives are measured	A clear connection between maximised performance of talent and tangible business outcomes

the extent to which it formulates and executes policies and practices that produces the employee capabilities and behaviours an organisation requires to achieve its strategic aims.⁶⁴ This so-called ‘best-fit’ approach is seen to be the most appropriate way to secure the best performance from people, although some explicitly suggest that the *“return on people” needs to be seen as a qualitative measure, an agenda for discussion that cannot be distilled down into a single financial metric, without being severely compromised*.⁶⁵

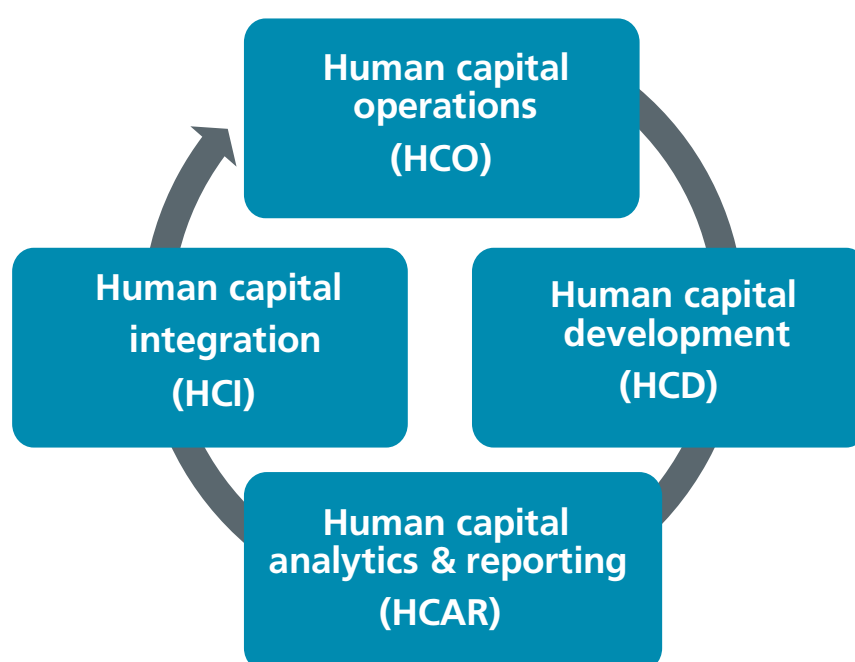
With this latter statement we entirely agree. No single measure can shed light on the value – or otherwise – of our human capital. Nevertheless, given most business strategies are certainly created with the aim of optimising – as opposed to the maximising of – the performance, however defined, of our people, we require a framework that enables us to better understand the traction against which our *human capital management* is succeeding with this aim. Our definition of a strategic approach to human capital management, therefore, comprises

four elements, each of which *‘makes visible an organisation’s use of its [human capital]’*⁶⁶ and aligns these elements with the underpinning business model of the organisation (see Figure 3).

Human capital operations (HCO) represent the basic level of people-based *inputs* at the business-model level.

This first stage in understanding the value of talent involves the recognition of what talent itself comprises.

Figure 3: The four elements of human capital strategy



This rather obvious statement is deceptively misleading. Different people use different terms to describe human capital and often interchangeably. For our purposes, *human capital operations* represent the collective base of talent from which an organisation can draw and is defined as ‘*people’s competencies capabilities and experience, and their motivations to innovate*’.⁶⁷ The size, nature and costs of the workforce represent the foundational layer via which we establish the ‘*capital on which the organisation depends, which provides a source of differentiation and is material to understanding the robustness and resilience of the business model*’.⁶⁸

Human capital development (HCD) refers specifically to the talent-related *activities* through which an organisation transforms and adds to its talent base and through which it ensures capabilities are aligned with the primary activities required by the organisation’s strategy and underpinning business model.

These include but are not restricted to the implementation of specific practices such as recruitment, retention, remuneration, training and other skills development identified by the research exploring high-performance work systems.⁶⁹ At the business-model level, activities represent the conversion of inputs into outputs. It is important to recognise here that talent pipelines run on different timescales from economic cycles in the wider economy and from business models across specific business units within organisations. Activities need to be aligned with the short-, medium- and long-term aspirations of the business to ensure the requisite capabilities are in place. This requires that long-term planning processes align the flow of inputs and activities with intended outputs and outcomes established by the business model (see below).

Human capital analytics and reporting (HCAR) involve the processes of capturing and making sense of the data relating to the *outputs* generated by the business and how these ultimately contribute to business-level outcomes and value-generation.

The primary aim here is to build robust or categorised and uniform data points on which there is agreement on definitions and upon which more detailed exploration of insights can be obtained, enabling more optimal investments in human capital and, critically, other capitals. Such analytics can contribute to continuing human capital and talent supply chain analysis and forecasts as well as to continuing improvements in HCD.⁷⁰ *Outputs* are generated by activities. Where human-capital-related inputs and activities might be more generic, outputs are more specifically and tightly wrapped around the particular strategy and the business model of the host organisation. Although the overwhelming majority do not, organisations can choose to externally report on how human capital components are being impacted by investment in people insofar as they ‘*substantively affect the organisation’s ability to create value over the short, medium and long term*’.⁷¹ HR functions are, however, under increasing scrutiny to internally report on their activities and associated costs to enable optimal human capital management. We shall return to this issue in Chapter 6.

Human capital integration (HCI) – as with outputs, business *outcomes* are specific to the particular and changing contexts of the host organisation.

This aspect of integrating human capital to the business model represents the greatest challenge to executives, as a clear line of sight

between higher-order business-level outcomes and material value-generation (for example, mergers and acquisitions, service-level satisfaction, and so on) is not easily obtainable and not easily measurable. Functional-level outcomes (for example, mergers and acquisitions, service levels, and so on) can, however, make significant contributions to such targets, and via which workforce analytics can provide deeper levels of insight into the extent to which human capital is integrated with the other capitals and wider assets of the business.

Moreover, these higher-order outcomes at business level can be viewed through different lenses. We would suggest at least two possible alternatives. The first, not surprisingly, relates to what might be described as the optimisation of human capital, which includes the development of intellectual capital, the intangible value of the business and what might

be described as the return from human capital employed.⁷²

A second lens, although clearly material from a people perspective, highlights transparency and its role in mitigating risk. In the words of one recent commentator, *'today, technology is ushering in a new wave of real-time, radical transparency, and what I expect it to kill is governments and businesses that persist in unsustainable, socially irresponsible practices, which hurt workers, communities, the environment, and ultimately the organisations themselves.'*⁷³

Factors under analysis through a risk lens might include, for example, behavioural or cultural risks, security risks, and the strategic sustainability of the business model pursued.⁷⁴

Human capital management (HCM), then, represents the optimal location of people and their capabilities to consistently release over time the highest levels of sustainable

value identified in an organisation's overarching strategy and accompanying business model.

We have already established above the extent to which there is wide variation in practice within as well as between organisations in relation to different aspects of human capital and its management. This said, it is difficult to see how an organisation can establish the effectiveness of its business model without establishing firm foundations for the impact of human capital and vice versa. There may be variation in themes but the points of emphases on strategy, human capital, the business model, and a means with which to gauge the traction of human capital strategic interventions all remain broadly in place whatever approach chosen by an organisation. Indeed, it is to the challenge of how organisations can establish at which point they are located on this human capital optimisation journey that we turn in the next chapter.

3 The evolution of workforce analytics

'Useless information is worse than useless.'

John Kay⁷⁵

Everybody is talking about analytics. It is easy to see why. According to one leading consulting house, *'companies that adopt "data-driven decision-making" have productivity levels 5 to 6 per cent higher than can be explained by other factors, including investment in technology [and] the focus now needs to shift to quantifying the enterprise: capturing the actions, interactions, and attributes of the employees and processes that make the enterprise tick.'*⁷⁶

In this chapter we examine the development and veracity of what has now become known as 'workforce analytics'. We achieve this by tracking the development of the different schools of thought of analytics that have evolved over the last 30 years and explore the theoretical foundations of the techniques used by researchers operating in this field. Our observation suggests that the rhetoric of analytical science has not quite kept up with the hype curve. The chapter concludes with the identification of six different technical approaches to workforce analytics and concludes the majority of organisations – a finding echoed across large-scale surveys – are struggling to move beyond elementary approaches.

3.1 The evolution of the analytical art

Of course, *'if you don't measure things, they don't get done,'* suggests Anthony Bruce of PwC, echoing the sentiments of many. Understanding traction against business strategy from a human capital perspective means not just establishing how people-related capitals enable the

business to achieve its objectives, but understanding whether any progress is being made and what the contribution of human-capital-related investments is. And here we open up the debate that is as old as the hills, reignited once more by analytics, exploring the extent to which we can measure – or even predict – the contribution made by the HR function to business performance.

There is now a vast literature exploring the link between talent and organisational performance. The ultimate aim of this body of work has been to prove what most of us instinctively already know to be true: that there is a positive relationship between the ways in which we manage our people and their capacity to drive the performance of the companies for which they work.

What at face value appears to be a relatively straightforward assumption soon runs into significant analytical challenges represented by a lack of clarity as to what precisely constitutes talent, on one side of the equation, and what precisely constitutes performance, on the other. Where some researchers point to a growing body of 'scientific' methods we can use to 'measure' the relationship between people and organisational performance,⁷⁷ others have suggested there is in fact much more heat than light emitted by the now voluminous outpourings of academic research papers, books and reports from academics, consulting houses and think tanks.⁷⁸ The advent of talent analytics has muddied the water around this debate simply because

those offering new analytical solutions appear to be suggesting that they can succeed with ‘big data’ and analytics where previous research has failed.⁷⁹

Research in the field has been remarkably uniform. Almost without exception, a credible explanation of the executive craft comprising how we best manage our people to obtain optimal financial performance has been sought in the quantum form. Variations in the financial performance of organisations on one side of the equation have to be explained by a corresponding linear shift in the measurements we use to capture human capital interventions on the other. Both sides of the equation have been subject to modifications with broadly similar results.

The same challenges facing human capital analytics practitioners, however, are the same problems researchers have been grappling with regarding how best to capture the contribution of human resources ever since the publication 30 years ago of Michael Beer and colleagues’ *Human Resource Assets*.⁸⁰ Leaving to one side the clear allusion to people as assets, which we return to in the final chapter, Beer’s work is as remarkable for what he

prescribed should *not* happen as it was for its original conception of what should comprise the future management of human resources. What has become the canon of HR – *commitment*, now engagement; *competence*, now the development of skills and talent; *congruence*, the debate over the strategic alignment of or ‘best fit’ of people with strategy; and *cost-effectiveness*, the return on investment to talent-based interventions – were all present in this pioneering work.

Beer and his colleagues, however, were unequivocal in their observation that ‘*the 4Cs do not provide managers with actual measurement methods and data for assessing the effects of their firm’s HRM policies. These methods are numerous, and they differ depending on the level of analysis chosen.*’⁸¹ They were also highly suspicious of ‘accounting efforts’, which they viewed to be ‘*potentially very useful [but] have fallen short of their promise.*’⁸² They even provided a very clear health warning regarding attempts to measure the impact of human resources, suggesting, ‘*in the final analysis, HRM outcomes is a matter of judgement informed by data from a variety of sources and in a variety of forms (qualitative and quantitative) and evaluated by various stakeholders.*’⁸³

This notwithstanding, with a newfound sense of contribution, the once ‘back-office’ administrative function of personnel now felt it could step up to the plate of HR management and participate in the ‘front end’ of business planning essential to devising strategy and meeting the long-run needs of the enterprise.⁸⁴ A subsequent outpouring of research has since ensued over the last three decades, giving birth to different schools of thought but all attempting to resolve the same problem: how to account for the *causal* impact of human resources on performance.

Such a search for causality has led to the more specific analytical pursuit of the impact of human resources on business financial performance, or what has been labelled the ‘hard school’ of HR management.⁸⁵ Many incorrectly view this literature as painting a picture of homogeneity on both sides of the equation. While the same underlying analytical technique to operationalise the concepts is broadly the same, what comprises the variables on each side of the equation is subject to surprisingly wide variation. There are at least five different schools on the people side of the equation alone (see Table 6).

The most celebrated, and by far the most cited if not read, school

Table 6: The five research schools of HRM performance

School	Metaphor	Method	Seminal example
Contingency	Russian doll	Performance contingent on alignment of different HR processes with organisational strategy and processes	Schuler and Jackson (1987)
Universalistic	Black box	A linear relationship between organisational performance and certain HR practices	Huselid (1995)
Configurational	Rubik’s Cube	How the pattern or configuration of multiple HR processes are related to each other and to organisational performance	Delery and Doty (1996)
Contextual	Kaleidoscope	A complete overview of the HR factors influencing and shaping policies and practices	Paauwe (2004)
Reflexive	Alethiometer	Explanation and thus understanding of the role played by HR via experience of how underlying mechanisms work	Hesketh and Fleetwood (2006)

HR analytics: a compelling line of sight?

'I'm a strong advocate of evidence-based HR and the powerful insight it can give in supporting boards to more deeply understand the effectiveness of their people strategy and its impact on customer service and business performance. This means connecting people insights with sales, service, marketing and financial performance insights to lay out a compelling "line of sight" between highly engaged, well-led staff and superior, sustainable business performance. The HR teams that master this will be highly prized by their boards and the market.'

Rob Aitken,
Royal Bank of Scotland

of thought is that advocating the universalistic approach.⁸⁷ Like the contingency, configurational and contextual schools, the ultimate goal here was, and still remains, to establish an unequivocal, measurable and causal link between certain common or 'universalistic' HR components or 'best practices' with the financial performance of an organisation. This is also the approach most organisational practitioners usually have in mind when developing, using or consuming talent-related analytics.

3.2 Firing algorithms at black boxes?

This universalistic approach is often labelled the 'black box' school simply because we never learn what happens in between the people-related inputs and business-related outputs.⁸⁸ What constitutes the causal interventions remains largely opaque. The analytics reveal variations in the financial outputs on the other side of the black box. A claim is even made for which inputs have more impact than others, but what constitutes the actual interdependencies or *practice* itself is rarely if ever articulated.

This work represents the analytical extension of Jeffrey Pfeffer's celebrated work on so-called high-performance work systems (HPWS) in the 1990s, which claimed that *'what successful firms tend to have in common is that for their sustained advantage, they rely not on technology, patents, or strategic position, but on how they manage their workforce.'*⁸⁹ Like Michael Beer before him, Pfeffer issued caveats that these 13 practices should not be held up as a panacea, and

crucially observed, *'it is possible for a company to do all of these things and be unprofitable or unsuccessful, or to do a few or none of them and be quite successful.'*⁹⁰

Where Pfeffer was equivocal, however, the US academic Mark Huselid was audacious in his claiming to evaluate the *'prediction that the impact of High Performance Work Practices on firm performance is contingent on both the degree of complementarity, or internal fit, among these practices and the degree of alignment, or external fit, between a firm's system of such practices and its competitive strategy'*.⁹¹ Even putting to one side the size and complexities of the task involved in combining the contingent and configurational approaches into one study, it is Huselid's claim that the extent to which the impact of different HR approaches can be precisely modelled to the nearest dollar that is striking. Huselid's work has subsequently had a major impact on the emerging workforce analytics field and is often cited as the bedrock for new and emerging techniques.⁹²

Many researchers – both within and without academia – be they consulting houses,⁹³ think tanks,⁹⁴ or scholars working in Huselid's own community of practice,⁹⁵ have tried to emulate but never succeeded in repeating on the same scale the findings, either in terms of the direct financial link between HPWS or with the same level of precision in matching operational and financial variables originally claimed by Huselid. And this is where we begin to run into problems with talent-

related analytics and our second observation about the emergence of talent analytics, or, in the words of PwC's Anthony Bruce, the point at which, *'the hype wave is cresting faster than the actual reality'*.

First, there is growing scepticism of the capacity of talent analytics to deliver on the hype that has accompanied it. As the field has developed, researchers are increasingly using proxies of performance in their analysis as opposed to pure financial data. In the majority of instances, these proxies are not related to financial performance at all but instead use individuals' subjective perceptions of the performance outcomes of the business such as ordinal ratings scales. Such techniques make those with responsibility for the regulation of the financial reporting industry nervous. For example, PwC's Anthony Bruce observed, *'I don't think the answer lies in firing algorithms at boxes of data. You might find something that might keep you or me awake at night thinking, "that's interesting," but I don't think it would solve the business issue.'*

Second, we appear to be a long way from solid analytical foundations – exactly how far can be illustrated by problems of translation involved when converting the statistical analysis of intangible HR practices into the 'quantum' form of ordinal

proxies. For example, I can safely deduce that the operating profit at Company A will be \$100 million if its revenues are \$1 billion and operating costs are \$900 million. We can also deduce that if Company B's operating profits come in at \$200 million from \$1 billion revenues, Company B's operating costs are \$100 million lower than Company A's. We can also conclude that Company B's margin is twice the size of Company A's. There is then a clear relationship between revenues, profits and costs.⁹⁶ So far so good.

Translating the same calculative logic to how organisations manage their human capital and its *causal* relationship with their financial performance in the quantum form is much more problematic. There is no stochastic linear line along which the causality of HR interventions can be quantitatively modelled using ordinal proxies of performance. While researchers might want to suggest 'a one standard deviation' increase in high-performance work practices, it is far from apparent exactly what management intervention or practical activity comprises a one standard deviation increase in high-performance work practices. It is these claims that the accounting profession and those both within and without the HR function find challenging to accept. Of course, not all analytics represent an attempt to make the *predictive* claims that are as audacious as Huselid's.

HR analytics: plus ça change...?

'The world hasn't changed. It's still, "tell me how the data you've got can shed some light on the business issue I have." You're back to the same question of what can these numbers tell us? But now you've got to either call it a hypothesis or you've got to call it a business issue, or you've got to call it a need of some kind. But you still have a business issue and you have to look at the data through that lens. This challenge hasn't changed; it remains exactly the same. I think the sources of information we've got are different; the volumes of data we've now got are different; the sorts of visualisation tools we've got are now different; the expectations are different but fundamentally, you've still got to work out how a business issue can be solved through the application of information and data that can create some insight on a business issue and there is no shortcut for that.'

Anthony Bruce,
PwC

Table 7: From data to analytics: different approaches

	Primary analytical approach	Advantages/disadvantages	Models employed
Predictors	Forecasting impact of future scenarios and interventions	Helps with planning; issues over veracity?	Multivariate
Modellers	Data reduction to model impact of variables	Provides insight to impact of people; clear line of sight?	Multivariate
Correlators	Relationships between variables	Some pattern recognition; association or causality?	Bivariate
Describers	Main emphasis on benchmarking data	Useful benchmarking; comparisons limited utility?	Univariate
Collectors	Data collection and reporting emphasis	Provides evidence base; limited analytic insight	Univariate
Anecdotal	Opportunistic and largely second-hand data	No evidence base on operations or their impact	N/A

Modelling the black box: the FRC's view of talent analytics

'The anxiety is that where there isn't that sort of straightforward valuation basis, people start modelling. You then produce a "black box", which nobody else can understand, and is only as good as the assumptions contained within it. There is sometimes rather a lack of scrutiny about what goes on in the box, not least because, frankly, the accountants are not very good at understanding the box, either because it hasn't been properly explained or often because it involves different disciplines. I think we are very conscious of the risks in modelling things and producing numbers which are just garbage, really. It is just more noise, so that's quite an issue.'

Stephen Haddrill,
The Financial Reporting
Council

Exactly how analytical interventions are quantitatively captured and how this unlocks our understanding of what makes things tick are moot. With the recent challenges surrounding the veracity of the claims of Google's big data prowess, predictive analytics appear to have lost some of their recent lustre. Of course, there are analytics and there are analytics. The term workforce analytics has recently been established in the discourse of HR, but this means different things to different people. Moreover, each of these different conceptions and associated techniques carry with them advantages and disadvantages (see Table 7).

Recent research suggests that as many as nine out of ten organisations have limited analytical capability with an approach of 'getting it done' or 'trying to be consistent'.⁹⁷ This approach aligns with the 'anecdotal' or 'collectors' labels we have attributed to those organisations whose main

challenge is pulling together the basic foundations for effective analytics. They remain tied to their data in response mode, as opposed to making the step up to the level of some of their contemporaries in applying sophisticated systems of data management and analytics to their human capital practices. Exactly why this is the case, and where organisations are on their analytical journeys, and how this can help inform more effective human capital management, forms the basis of our next chapter.

Building value through engagement: the data specialist's perspective

We know that employee engagement has been shown to be a leading indicator of performance; but it is also clear that it is related to good management and leadership practice. James Court-Smith, director at data specialists Stillae and senior adviser to the Engage for Success taskforce, understands the reasons why engagement insights are valuable to senior leaders when making crucial decisions for the organisation:

'A focus on engagement can bring the people agenda into commercial and strategic discussions, and offers a robust and concrete building block for the human capital quadrant on your balanced scorecard.'

The methods to measure employee engagement are numerous; survey tools attract the most attention and use by practitioners, but employee voice programmes are equally vital to help leaders and employees get a handle on employee sentiment towards their work and workplace. At Stillae they understand how businesses, big and small, must build their own engagement model and data process around the employee proposition, and crucially ensure that leaders understand why engagement matters:

'Unless your organisation is very small (>100), walking and talking to people, getting a feel for the place, just won't cut it. It's impractical across hundreds of people, let alone tens of thousands. Engagement surveys can provide huge amounts of value if used correctly, and there are two ways we'd recommend they're used: as a diagnostic, and as a performance measure. As a diagnostic it should provide insights into your major initiatives (how well have they performed, where and why), but also highlight unexpected issues and trends. The former is often applied well by organisations: however, the latter is often missing, or seriously underplayed, and requires systematic reviews of the data (by topic but also by organisation area, seniority, job family, etc). Most under-used is the performance measure for leaders and managers, for example employee engagement as an explicit component of their roles.'

As with any powerful mechanism that relies on self-reported data, there are important challenges facing leaders in interpreting and utilising the insights that engagement data provide. However, the potential by aligning with human capital data and business data is huge:

'In my experience the main pitfalls stem from poor use: failure to map the organisation structure or the key initiatives, which means they can then not be examined in the data. Treating results as fact – that is, as the vote, rather than a poll, and ignoring statistical significance, are also common occurrences.'

'There is huge potential value in integrating with other indicators – for example human capital KPIs, feedback channels, performance management systems, capabilities and capacity, etc.'

Gaming employee engagement surveys is also an issue which many organisations are challenged with, and in an age of transparent reporting, engagement data is coming under increased scrutiny by a myriad of stakeholders. For James, he sees two key areas that must be addressed:

'There are two areas which need to be addressed: minimising the motivation to game, for example ensuring usage is fair and appropriate, and actively reducing the risk via checks and balances, and robust feedback processes, such as whistle-blowing. In my experience the gaming concept relates to managers throughout the organisation "encouraging" their teams to be positive on the survey, or indeed the

team's own desire to be nice to their manager, for example if they make makes plain that survey results will affect their performance appraisal. Communications is a great place to start to rectify some of these issues, so messaging should be regular, consistent and emphasise the need for honest responses.'

When businesses get engagement right, the power of frequent and consistent reporting can be huge. The real value lies in linking the power of engagement to business performance and productivity, and on this James is crystal clear:

'There is a wealth of evidence in case studies already about the value of engagement to performance and linking engagement across your organisation to your own performance KPIs, if done credibly, can change the conversation with important stakeholders. Engagement is often a leading indicator – this has been shown in many studies, and I've regularly seen it in my own work. In part this is an effect of the lag – that improvements in engagement take some time to filter through to higher performance. But it's also pretty unique, most of what is measured by organisations is an exercise in history. As engagement improves ownership, commitment and quality, collaboration and discretionary effort, it should be no surprise that helps raise performance over time.'

James Court-Smith is director at Stillae

4 Mapping human capital analytics practice in organisations

This chapter maps the different approaches organisations use in understanding the impact of their people on organisational performance. The emerging picture is one of a much more complex world than that typically presented by academic researchers. To help cut through this complexity we set out how the different elements of human capital analytics can be integrated with both human capital management and the organisation's overarching strategy and business model. We then introduce a typology illustrating the different stages at which organisations are located on their human capital analytics journeys and how this can contribute to a deeper and more revealing understanding of the contribution made to organisational performance by people.

4.1 Getting the analytical plane in the air

In a recent investigation into executives' perceptions of analytics, one recent report has suggested *'companies are no longer suffering from a lack of data; they're suffering from a lack of the right data [and] those working under the assumption that "more data" is equivalent to "better data" are only partially correct.*⁹⁸ The majority of executives we spoke to certainly related to these observations. There appear to be five discrete factors at work. We will deal with each in turn.

1 The infancy of analytics

Much has been made of the infancy of analytics in the workforce space and the extent to which many organisations have yet to

overcome the challenges of pulling together the building blocks: their data. There remains an apparent contradiction between the perceived potential of talent analytics and the reality of the strategic insights currently emerging from what are largely still evolving analytical interventions. *'There is,'* according to Toby Peyton-Jones of Siemens, *'an element of this being "the king in his underpants".'*

Many pointed to a feeling of being left behind by other 'highfliers' in the analytics field, although when pressed to expand on the advanced analytics being practised by other organisations, the conversation would turn to the claims being made about the power of abstract analytical insight in other functions and wider domains such as big data and social media, as opposed to a concrete example of practice in the area of workforce analytics. There is, then, a sense of relative anxiety as opposed to a confident and absolute analytical reality.

This in part explains the experience of many which suggests they are encountering headwinds at very low altitude. For Jeff Schwartz, a principal in consulting at Deloitte, *'there's clearly been a major buzz in the last couple of years around big data and around analytics generally. The way I would describe it, on average, is probably flying at about 500 feet above the ground. We may have made lift-off but we are not flying very high, and for some companies, every once in a while they are dipping down and hitting the tops of the trees.'*⁹⁹

'There is an element of this being "the king in his underpants".'

The difference leadership makes

'It's not the technical issue. Figuring out how to gather the data, build the systems, and do either the descriptive, prescriptive or predictive analysis is hard but it's not necessarily what's holding companies back. One of the things we think is holding things back is really a leadership question. By leadership, we mean what is the commitment and what are the level of resources and energy that an HR, talent or any business leader is going to bring to their organisation to move to a way of thinking and running the business that is more balanced, including traditional ways of making decisions to qualitative and quantitative ways? If leaders sit in the middle of this initiative, as in any initiative, it makes a huge difference. What the analytical "high fliers" seem to have that the "tree trimmers" don't is a different level of leadership commitment, and a different experience at the leadership level of how to introduce analytics into what they are doing both every day and in terms of their planning.'

Jeff Schwartz,
Deloitte¹⁰¹

2 The difference leadership can make

The struggle to gain altitude perhaps more than anything turns on the engagement with and sponsorship of analytics by senior leaders both within and without the HR function. A lack of investment for analytical projects is an obvious stumbling block, a recurring trend picked up once again by recent research.¹⁰⁰

Of more concern, however, to those we spoke to was the expectation of senior executives to be clear about their thinking in relation to the primary benefits of analytics in *enabling* the business to understand its location on a strategic map and avoiding what one executive in the finance sector described to us as the process of *'how measurement is used to prove, defend, facilitate or kill success'*.

Executives, then, need to be front and centre of the projects involving analytics, shaping how they are wrapped around the value drivers of the business model, determining how analytics are to establish traction, and in defining what this traction might look like in the first place.

Many organisations, it seems, have yet to resolve the 'make or buy' decision. Stories of 'being on a journey with our data' were commonplace, with such journeys stretching to periods of 24 or even 36 months before reaching any kind of limited fruition. There is clearly a tension emerging not so much between the level of investment required in establishing the foundations for analytics, but from where this investment may come and who will take responsibility. For Max Blumberg, an independent consultant in the analytics space, *'don't even start analytics without a two-year*

investment in clean, reliable and valid data.'

These are far from easily reconcilable issues but the effective utilisation of analytics requires organisations to think through new and emerging challenges arising from the increasing 'datafication' of commercial life – both within and without the organisation.¹⁰² Moreover, this is not simply a technical issue to be addressed by technological experts, but one where leaders have to step up and resolve issues such as:

- the enterprise-level strategic and operational questions revolving around how organisations engage with and use evolving data ecosystems and the significance of the new relationships with strategic partners that are emerging in this space
- the structural and talent issues required by data usage as the organisation attempts to build both repeatable and scalable data engines that will be of continuing relevance in future years
- then, and only then, deal with the issues currently on everybody's minds: namely, the culture of innovation and experimentation that data-driven ideation is supposed to help foster
- recognise that these are not just questions for those leading the HR, IT or marketing functions but those making decisions about the future strategic direction of the organisation as a whole and the current and future role of analytics across it
- the role played by analytics in helping leaders to establish the quality of the workforce they have at their disposal, its direction of travel and the optimal interventions required to build a sustainable human capital resource.

3 From standardisation to alignment

There is certainly not a problem with the volume or velocity of people-related data for executives to review. If anything, there is a growing sense of data overload for organisations. The challenge then turns to one of standardisation enabling executives to feel that they have the requisite quality of data on which to rest and align their insights on the impact of their various talent-related interventions.

There was an observation that an enormous opportunity was not yet being utilised in the same way as other organisational functions. For Peyton-Jones, this lay in his recognition that *'we are a data point in HR and we've never leveraged that in the same way as finance have, and that whole topic where we can become a much more strategic component is there because of our unique position in being able to provide a commentary on our biggest expenditure, which is payroll.'*

Other interviewees pointed to the sheer scale of data now coming on stream both from without as well as within the organisation. Everywhere there was a sense of a potential that had yet to be grasped or adequately assimilated into the thinking of the teams responsible for leveraging analytics. Anxieties were once again driven by the perceived analytical advances thought to be taking place in other functions.

Here again, the problem seems to be one of solving for the right questions. Standardisation requires executives to be clear about the questions they are seeking to answer, which in turn then shapes how data is collected and categorised. It is not enough to adopt a reactive approach where data is viewed as an externally generated product requiring analysis

and then a strategic response. The new analytical strategies recognise in advance the new and emerging economies of data and require executives to think of new ways of synthesising information to create analytical platforms of specific utility for their business units, functions and enterprises ahead of investment decisions in analytics and new analytically enabling technologies.

While this process is certainly an iterative one, organisational leaders must first resolve a number of strategic issues before entering and shaping the data ecosystems they intend to build. This more targeted response will not only save precious resource but also prevent other executive leaders from drowning in the complexity of multiple data sets which offer little analytical insights simply because they cannot be manipulated into a form that offers any insight.

4 Moving beyond data to analytics

Building on the issues identified above, a fourth barrier to progress turns on how organisations make the transition from companies who understand their data requirements and manage information and the associated analytical challenges accordingly. The principal challenge here is moving from data collection to its assimilation and effective analysis. For Ian Iceton of Network Rail, *'I wouldn't say we're collecting too much data but the challenge we have is that we have a lot of different sources of data, which are just not joined up.'*

The problem appears to turn on the capacity of organisations to know the point at which they need to start making decisions on the basis of their analytical findings rather than debating its veracity. This translates into a level of analytical bravery required on the part of those making analytically informed

Analytics: an economy of databases?

'We need to better understand the way the data changes the way people work through the way the data is exchanged and provided. If I look at how data is affecting things, we can see in our own models the amount of money you can charge for generating the energy, versus the amount of money you can charge for distributing the energy, versus the amount of money you can charge for providing the information about who generated it, who provided it and who used it: that data is extremely valuable and as valuable as the generation of the energy itself.'

Toby Peyton - Jones,
Siemens

Taking an analytical leap of faith

'There's a fear of getting it wrong. HR needs to have more courage. By definition estimates will be wrong. The courage comes in terms of the recognition that when making a valuation you are going to get it wrong. [...] Do people have the confidence in HR to say something is 75% right, so therefore we should have a go at it? If you put that into another financial domain, can a finance director predict the future through financial forecasts and business planning? No, they can't. But they get away with it because they apply some logic, some tools, and they allow a degree of variability, or accepted degree of variability, in the outcomes that they are going to come up with in their financial forecasts. I think those using people data – and it might be people in the HR function or it might not – need to get themselves to that point where they have a combination of confidence and courage similar to the important leaders and early adopters in this area.'

Anthony Bruce,
PwC

decisions where the burden of proof for people-related analytics is viewed to be higher than that required for other – especially the finance – functions.

5 Integrating analytics across the business

Finally, there is a clear sense that the analytical plane is flying at different altitudes, not just across different organisations, but also within them. According to Tom Maddison, Group HR Director of Xerox, 'as with all organisations there is a wide range of reality, so one of the big pushes we are moving to is starting to get to some form of commonality.' Clearly, these variations represent a significant challenge to the task of informing the rest of the organisation of a 'single view' of the contribution being made to business performance by human capital.

From all this we can draw four initial conclusions:

- Organisations are at an early stage in their human capital analytics journeys, a point underlined by recent research.¹⁰³
- Leadership's sponsorship, engagement with and oversight of analytics projects are critical to their success.
- There can be no analytical insight without first securing data maturity.
- The wide variation and complexity of analytics across organisations requires their initial mapping and subsequent integration with overarching strategy and underpinning business model.

4.2 Towards an integrated human capital analytics

A central challenge in the delivery of effective human capital management is a robust foundation to underpin the evidence base used by executives. Like the availability of data, the problem is not so much

a shortage of options but almost a potential embarrassment of riches. If the HR function really is undergoing a process of 'datafication', a generic language that executives, analysts and wider stakeholders can all agree on would represent a major step forward in reducing the complexity and confusion currently shrouding the field of human capital analytics. In the words of Jeremy Anderson, chairman of KPMG, 'you are effectively writing a language via which the HR and finance communities can talk to each other.'

Resolving this issue would not just enable progress in the field of people-related analytics but it would also enable the HR function to communicate to the wider business the vital contribution people play in delivering the strategic value proposition to which leaders of the organisation have signed up various stakeholders. Such a conversation would then be able to take place against a backdrop of evidence to establish the extent to which movements in the operations, development, and integration of human capital are material to the performance outcomes of the business. Human capital analytics are not an end in itself. If analytics represent the journey, the destination is a greater understanding of how people release and drive sustainable value over time. This journey comprises four stages along which:

- the HR function itself recognises the distinct yet integrated ways in which people and HR management interlock with and combine to form an overarching human capital strategy;
- which in turn requires the integration of human capital with the operating requirements of the overarching business model;
- which in turn enables a more integrated view of how human

capital is aligned with the strategic requirements of the business;

- which in turn demonstrates how the integration of all of the above constitutes a material impact on the role played by people in value-creation.

The matrix presented in Table 8 represents an attempt to tackle head on the issue of materiality and the frustration from executives in getting to grips with analytics we heard in the previous section. We have already encountered and defined human capital management and the business model drivers in previous chapters. We turn now to the challenge of defining the different steps along which organisations can progress in their analytical journeys.

The first challenge turns on data management. As one leading strategy consulting house has recently declared, *'companies need to make big changes to master big data, and do so quickly.'*¹⁰⁴ As we have established above, there can be no analytics and insight without a firm foundation of data on which to rest analysis and understanding.

We identify four stages in the path to *data maturity*:

- **Compliance:** while some organisations generate more data than others, all organisations

have to report on specific items relating to their people (for example, number of employees, total benefits received). These may vary across geographies (for example, in the USA companies are not required to report on the benefits of all employees). The significance of these data is that they are comparable, are audited and consequently receive closer scrutiny and management attention in their reporting.

- **Categorised:** data comes in all shapes and sizes. It can be structured or unstructured; from within the organisation or without; from different segments of customers or partners; with different levels of agreements concerning access, and so on. Access to data is different from its capture insofar as data sitting in a virtual filing cabinet in the cloud do not constitute an analytical asset until they are pulled down and stored on a requisite system and are ready for analysis. Organisations with mature data systems have clear systems in place where data are captured, categorised and stored in data management centres with clear protocols for data input and access for analysis, communication and reporting.
- **Aligned:** alternatively, a distinction needs to be made between different segments of data where granularity is important. Organisations with

Table 8: An integrated human capital analytics

Human capital integration	Outcomes	Applied	Insight
Human capital analytics & communication	Outputs	Aligned	Analysis
Human capital development	Activities	Categorised	Information
Human capital operations	Inputs	Compliance	Data
Human capital strategy	Business model drivers	Data maturity	Analytical maturity

mature data systems in place have established in advance the analytical questions they require answering and have collated, codified and consequently aligned their data to enable future data collection, analysis and modelling as well as communication and reporting.

- **Applied:** building on the previous three stages, companies with mature data systems also recognise and make a distinction between 'target' or 'dependent variables' (those which are deemed business critical and are the subject of specific understanding and analysis) and 'enabling' or 'independent variables' (those data points – ranging from one or two, to many different variables), which shape the dependent variable.

Similarly, there are four stages of analytical maturity:

- **Data:** organisations collect large volumes of data on their people, partly for regulatory reporting but also for financial management and budget-setting. Those organisations with a more mature analytical approach are highly specific about the data points they require and why, and build systems enabling them to access, capture, store and codify data in line with these analytical requirements. Those with immature analytical approaches tend to react to data when presented and have no systems in place for its codification and analysis. Data lying outside normal practices of budgeting and reporting are seen as an externally obtained product rather than an internally generated asset of the organisation.
- **Information:** as data is categorised, more information becomes available on specific

human-capital-related activities revealing patterns, complementarities and disparities. At this stage, analysis remains largely unsophisticated due in part to a lack of maturity in approaches to data capture and analysis. There tend to be more questions than answers. Those with a more mature approach convert data into information through a practice of clear and widely available reporting and communication.

- **Analysis:** this stage of maturity very much represents the crossing of the Rubicon from data collection and description to rising levels of sophisticated analysis of human-capital-related metrics. The emphasis shifts away from cost management and benchmarking to the location and exploration of ways to develop value-creation through people. More mature analytics fuses data from within the organisation with data from without the function, organisation and beyond.
- **Insight:** as understanding develops over time, those organisations with mature data systems in place can map the impact of particular variables on the overarching strategic intent of the business but remain mindful of the underlying complexities and dangers of an over-reliant approach on analytics.

4.3 Moving towards an analytical return on insight

How organisations populate their human-capital-related data points is largely determined by a combination of decisions made by the managers and executives responsible and contextual circumstances. Over time, organisations build analytical profiles enabling them to understand the impact of human capital management on the performance of the HR function and, ultimately, the organisation as a whole.

The different interlocking elements that comprise human capital analytics operate along a range of different continua, each of which affords executives to move through the stages of first revealing the initial evidence contained within their data, through its deeper analysis to reveal human-capital-related issues not immediately apparent from initial cuts of data, to ultimately a deeper understanding of how and where the value of talent can be optimised across the organisation to maximum effect. The relationship between the different factors at work shaping how analytics reveals the role of human capital in business performance are summarised in Figure 4.

Several of the continua – strategic clarity; data maturity; analytical maturity – we have already met above, as we have the four value drivers of the business model. The remaining two – *return on insight* and *economic value of human capital*

– each turn on the progress made by organisations in understanding and integrating analytics with all of the elements at work identified in the *return on insight*.

The best way to illustrate our thinking here is to turn to the experiences of the companies and individuals participating in the research. Before doing so, we stress here that, whereas the *return on insight* tool looks both uniform and linear, the reality is much fuzzier. For this reason, we urge readers to see the *return on insight* tool as exactly this: an illustrative instrument for working through the various challenges of human capital strategy and the accompanying analytics as opposed to a prescriptive methodology for how human capital analytics should be conducted or human capital management should ultimately be evaluated.

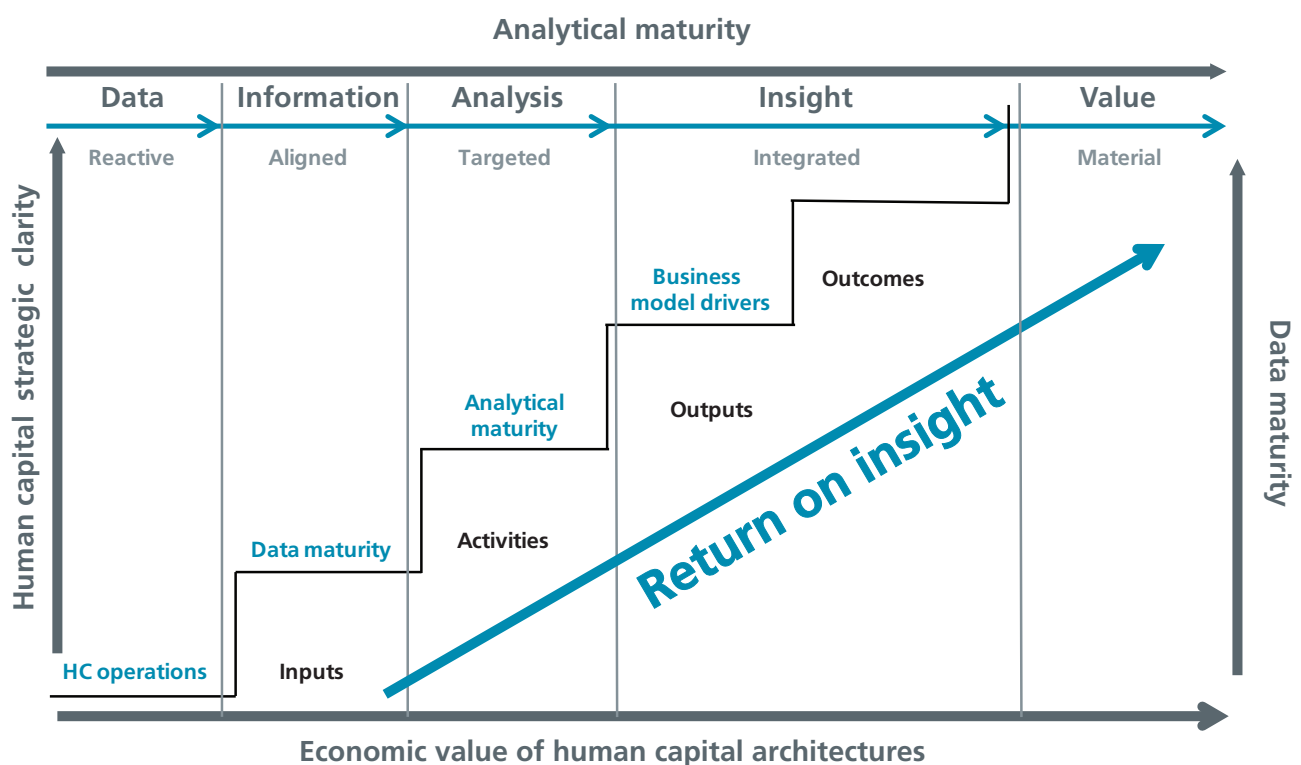
Again, there are precedents. Recent work by Peter Davenport has identified five different stages

through which organisations progress to reach what he describes as the state of an ‘*analytical competitor*’, which is ‘*an organisation that uses analytics extensively to outthink and out-execute the competition*’.¹⁰⁵ New research has specifically examined the differences between organisations in their orientation to analytics, illustrating the difference in focus across users of analytics ranging from:

- ‘reactive’, where the focus is on getting basic data ‘done’
- ‘standardised’, where the focus is on consistency
- ‘focused’, with a focus on aligning analytics with the business
- ‘strategic’, where the focus is on driving performance.¹⁰⁶

We have drawn on these precedents, although our own typology again differs slightly to reflect the new developments we

Figure 4: The return on insight



Out of the analytical Dark Ages and into the Golden Age

'All of my thinking and work in this area is around getting forensic around people. What I mean by "getting forensic" is human capital analytics – which is not that far from human capital accounting, which I see as being at the bottom of the pyramid – all the way through to cultural change metrics and the Organisational Health Index and practices in there. Generally, I see us as being in the "Dark Ages" of applying analytical and forensic capability to actually quite predictable things in the same way as marketing was 20 years ago. The marketing profession has been transformed by its ability to manage what we now call "big data". The same will happen to HR as happened to marketing.'

**Colin Price,
McKinsey**

are incorporating into *Managing the Value of your Talent*. We will pick this up in the following chapter, but for now we define the four stages of the *return on insight* journey on which organisations and even individual business units and teams can be located.

Return on insight level 1 – reactive

This level is typified by an almost complete absence of data. For small organisations, human capital data is not required for the simple reason that owners know how many people work for their organisation, what they cost, what their capability comprises and how they are performing. These organisations are not necessarily in the analytical 'Dark Ages', they are simply agnostic to human capital metrics largely as a function of their size. As Barry Florida-James, chief executive of the venture-capitalist-backed JustAccounts.com, informed us, *'I know that I've done Jack and Jill's annual appraisals, and that I still have Tom's, Dick's and Harry's left to do.'*

Data and analytical maturity might well be described as basic, but the clarity a small business possesses in relation to its strategy and subsequent human capital requirements are perhaps at a level that larger businesses can only dream of. With such clarity comes a clearer line of sight to the economic value of human capital. In short, these smaller organisations are only too aware of where their high-margin work lies and those employees whose capabilities represent the optimal state of alignment to release it. Again, many larger-scale organisations cannot match such agility.

Whereas Davenport suggested organisations located at this level might be described as 'analytically impaired', there was no allocation process for those who viewed

analytics to be superfluous to requirements. Such organisations are not on the path to becoming analytical competitors simply because they have no desire to become so. They view the information or 'business intelligence' they have to hand as perfectly satisfactory for their operational requirements. They already know what works and why and do not require an analytical underpinning. They are, to all intents and purposes, simply reacting to the legal requirements of obtaining data in order to 'get data done'.¹⁰⁷

Return on insight level 2 – aligned

This level combines Davenport's 'analytically impaired' with those practising what have been described as 'localised analytics'.¹⁰⁸ Many of the organisations we spoke to typically describe their human-capital-related analytics as displaying the characteristics of analytical maturity at this level, the primary aim being one of ensuring data consistency or 'standardisation'.¹⁰⁹ Analytics at this level has yet to make a significant contribution to understanding of the performance of people or where current or additional value might be found.

Data are captured but relate primarily to the costs of particular activities (for example, recruitment or training) but even here data are likely to be incomplete, inaccurate or both. The focus is still very much one of *'putting in basic, integrated transaction functionality and high-quality data in place'*.¹¹⁰ Even those organisations with solid data foundations at this level lack either analytical capability, have limited analytical linkages between various systems, and do not have the software or systems in place to support analytical functionality, or remain highly sceptical of human-capital-related analytics to contribute to managerial decision-making.

At this level there is also a tendency for those in HR to present analytics in their function as being behind the curve of analytical practice at other organisations or even other functions within the business. This flags two issues. First, the biggest hurdle facing organisations at this level of analytical maturity lies in their inability to integrate and draw from the capabilities created by other parts of the organisation. Second, recent research identifying the key capabilities that differentiate the best HR leaders in the eyes of their CEO and CFO highlight not just the role of analytical understanding and strategic capability, but crucially, point to the ability of HR leaders to network both within their own organisation but across others to build the capability of their function as well as themselves.¹¹¹

A lack of analytical maturity, therefore, signals the challenges faced in some organisations in terms of establishing a clear human capital strategy – which could be related to weaknesses in overarching strategy and business model development – or be indicative of more dangerous fault lines in the overarching integration of operations with strategy at senior leadership levels within an organisation.

Return on insight level 3 – targeted

This level represents the point at which Davenport describes as ‘having competitive aspirations with regard to analytics’.¹¹² This is the realisation that data needs to be more synthesised and in order for companies to get ahead of the data curve, or, in the words of Neil Lewis of Nationwide, ‘trying to take the debate away from, “do the numbers add up?” and actually get to the discussion about what the data’s actually telling you’. This analytical ‘crossing of the Rubicon’ represents the point at which analytics are put to work to produce business-specific

reports ‘targeting’ particular issues. This point in the development of analytics presents at least three primary challenges.

First, many of those located on the advisory side of analytics emphasised the recognition that analytics requires something different from that which has preceded evidence-based discussions before. For PwC’s Anthony Bruce, ‘just because you’ve got a new capability and a new word, doesn’t mean it’s a good idea. You still have to relate it to a business idea which is meaningful.’ Genuine business insight into the contribution of people established from analysis is the goal but remains the challenge.

Here lie analytical dragons. A second challenge identified by experienced analysts is that companies do not understand the role in generating insights played by the combined issues of data veracity, codification, scaling and design in generating business insight. Of more practical concern, even if the data are robust, their analyses can run into many kinds of problems of the simplest type, which can have catastrophic consequences for managerial decision-making. For example, Tom Maddison, Group HR Director at Xerox, identifies that ‘one of the challenges with HR data is whether maximisation is always a good idea. For example, if we want to reduce attrition, if we get to zero, is that good? No, it’s bad, as we want a certain level of attrition. So many of the objectives for HR are optimisation objectives, not maximisation objectives, and this needs to play out in your analytics, which isn’t always sensitive enough to pick up these underlying issues.’

A third challenge represents the central leadership issue identified by the overwhelming majority of our respondents: namely, the point at which data analysis and reporting

Building C-suite confidence

‘What I’m most proud about is that if the CEO comes to my office, 95 per cent of the time he asks a question, I am able to give him an answer based on the data that we have. That was not the case ten years ago. [...] We have built a function where I feel I am able to be nimble in getting data, enabling us to make decisions in a really agile and accurate way.’

**Dawn Klinghoffer,
Microsoft**

feeds into genuine business insight with material repercussions not just for human capital management and strategy formulation, but for its integration with business strategy and capital deployment for the business as a whole. For Ian Icceton at Network Rail, *'we do a lot of analysis crudely but what we haven't done yet is join it up properly. We've got almost too many bits and pieces. It's great raw data but people just haven't had the time to put it together to create a really comprehensive picture. We are trying to work out how to do that but we're not there yet.'* Taking analysis to the next level for these organisations remains their central analytical challenge.

Return on insight level 4 – integrated

The defining hallmark of analytics at this level is that it represents the point at which leadership has genuine control of and insight from human-capital-related analytics and can relate these to the different functions across the organisation and integrate these with overarching strategy and business models. For Peyton-Jones of Siemens, this level of clarity has a genuine knock-on impact when informed by analytics:

If you've got a car, you've got all sorts of information about what's happening in the engine. Quite frankly, if the tyres are flat, I don't need to know about what's going on in the carburettor and tuning it. I just need to know about tyre pressure. So the key thing will be that strategic question. The strategic discussion with my CEO is always about what are the drivers of the business and how are those playing out in my function and what data points are of particular interest at the moment that relate to those? The rest of the data and information is available but it's just noise.

But progress here turns not just on having the data and analytics in place, or even an initial level of insight. There is another level of analysis, what Davenport in his description of 'analytical competitors' describes as *'having a distinctive capability mean[ing] that the organisation views this aspect of its business as what sets it apart from competitors and as what makes it successful in the market place'*.¹¹³

Return on insight level 5 – valued

In Davenport's typology of analytical organisations, *'if a company can't see any impact on such critical measures of its nonfinancial and financial performance, it's not really competing on analytics'*.¹¹⁴ For Anthony Bruce the challenge is one of securing *'data that validates the strategy or the decisions we are making or data that helps you to evaluate other strategies or decisions you might make'*. The attribution of certain outcomes to human capital management, however, is far from straightforward. Nevertheless, we think such outcomes can be better understood by the introduction of understanding from a fifth and overarching level of understanding of how human capital strategy influences higher-level outcomes across the organisation. What these higher-level outcomes represent, and how they can be analytically related to human capital management, will be covered in the next chapter.

Valuing your Talent: understanding people risk

There is increasing recognition of the dangers organisations face if they don't understand and manage the risks associated with their people. Recent corporate failings in the banking sector and media industry, as well as the crisis over patient care in the NHS following the public inquiry into Mid Staffordshire NHS Trust, have problems over organisational culture and poorly managed people risk at their heart.

As part of the Valuing your Talent project, we have started to investigate how better use and understanding of human capital data can support a more strategic and systemic approach to managing people risk. For example, we have been talking to risk specialists Airmic*, which has undertaken significant research into the causes of corporate crises, as well as into organisations that are leading best practice in this area. Airmic's report *The Road to Resilience* identifies five principles of resilience:

- **Risk radar:** the ability to anticipate problems and see things in a different way will help an organisation develop an early warning system and be able to seize new opportunities.
- **Resources and assets:** well-diversified resources and assets provide the flexibility to respond to opportunities as well as adverse or changing circumstances.
- **Relationships and networks:** risk information flows freely throughout the organisation up to directors to prevent the 'risk blindness' that afflicts many boards.
- **Rapid response:** capability that prevents an incident escalating into a crisis or disaster because people and processes are in place to quickly restore things to normal.
- **Review and adapt:** learn from experience, including near-misses, and make the necessary changes and improvements to strategy, tactics, processes and capabilities.

Airmic also found overwhelmingly that the key to achieving resilience is to focus on behaviour and organisational culture. *'You've got to have the right culture; otherwise you're never going to embed anything. Nobody's going to do the training, nobody's going to put it on their personal agenda and talk about it, the networks aren't going to happen, the network is where your culture lives'* (SVP, Head of Global Risk Management, IHG).

'It has got to start at the top of the organisation, with supportive language that shows we are more interested in how we learn and move forward, than holding an individual accountable' (CEO, UK General Insurance, Zurich).

The Valuing your Talent Framework incorporates most of these elements, for example a focus on organisational culture, agility and resilience as strategic outcomes. The framework also includes a consideration on whether there are the necessary human capital resources, for example the leadership and workforce capability in the organisation. Crucially it also has an emphasis on employee relations and voice, which is very much about ensuring that there are positive relationships in an organisation and that people feel confident to raise any concerns or issues they might have with management. Another area that is identified as important in the framework is employee well-being, because of the link between stress and higher risk of accidents, for example.

In the next phase of the research we will continue to explore the relationship between human capital measurement and risk with Airmic and other risk specialists, and we will review and refine the framework accordingly. Our aspiration is to build a framework which supports a strategic and systemic approach to the management of people risk.

Airmic is the association for everyone who has a responsibility for risk management and insurance for their organisation. Members include company secretaries, finance directors, internal audit as well as risk and insurance managers.

5 The Valuing your Talent Framework

It is difficult to underestimate modernity's appetite for analytical solutions. In the field of human capital analytics, at least, there is a view that the competition is ahead and the analytical capability gap that has opened up must be closed in order to offset the impending commercial catastrophe that will inevitably ensue without a firm grasp of what is happening in the world of 'big data' in general and the ramifications of this for talent analytics in particular. And yet solutions – analytical or otherwise – remain elusive. We have been here before – many times – albeit in different guises.

There is a wonderful anecdote told by Peter Senge illustrating the power of a systems view of the world. It is worth presenting here if only to underline the point regarding the absence of a silver bullet in the field of talent-related analytics:

*As one manager at [the firm in question] says, after touring the facility visitors invariably ask, 'You have shown us A, B, C, D, E, and F. Our own plants have these already. Now please show us G, the secret ingredient that makes you different.' But there is no distinct 'G.' The secret ingredient lies in the relationship among all the parts, in the production process as a whole. While this might strike many as esoteric or even evasive, Tom heard it as a direct expression of the systems view he was beginning to understand.*¹¹⁶

The systems view both pervades and underpins the integrated approach

to a deeper understanding of the contribution made by human capital to organisations' business models discussed throughout *Managing the Value of your Talent*. We have already established how taking an intellectual approach to this integrated way of thinking requires 'exhibiting discipline, clarity, and consistency so that all of one's decisions fit together and reinforce one another'.¹¹⁷ In what follows below we begin to explore how what we call the *human capital framework* contributes to this discipline, clarity and consistency in the field of human-capital-related analytics.

But first a caveat: the *Valuing your Talent Framework (VTF)* we present below is exactly that: a framework. In short, it represents an internal diagnostic assessment tool that combines the latest thinking on human capital analytics and what the evidence from our respondents suggests they might find useful in thinking through their talent-related issues. While the specific contents of the VTF we present below are certainly generic and relevant to most organisations, some organisations will want to emphasise some aspects more than others. There will also be others that may want to make insertions of their own particular contents. Such modifications in no way detract from the analytical purchase offered by the VTF and is positively encouraged in ensuring organisations obtain the best possible insight relevant to their own strategy and business model.

'The bad news is that there is no simple algorithm. The good news is that there is a framework that can give you a place to start.'

A.G. Lafley and Roger Martin,
*Playing to Win: How strategy really works*¹¹⁵

Supporting leaders to deliver

'There has been a growing acknowledgment amongst leadership that a positive climate and engaged employees deliver value. [...] I believe that if you have good people processes that are executed by good people managers you can do remarkable things. Generally, good managers don't need to be taught good processes. It comes naturally. But some need good support and frameworks to help.'

**Brian Callaghan,
ArcelorMittal**

5.1 From the 'why' to the 'how' of human capital analytics¹¹⁸

In keeping with the principles-based approach adopted by the IR initiative and financial reporting councils as a whole, the VTF represents an attempt *'to strike an appropriate balance between flexibility and prescription that recognises the wide variation in individual circumstances of different organisations while enabling a sufficient degree of comparability across organisations to meet relevant information needs'*.¹¹⁹ If taking an integrated approach to analytics constitutes the 'why', executives are still left with the challenges of the 'how' of analytics. We fully recognise that organisations collect data to help them with their operations, internal and external reporting obligations, and strategic imperatives, not solely for analytical exercises. This notwithstanding, clarity, discipline and consistency of data will serve the dual purpose of providing organisations with a robust data foundation on which to contribute to evidence-supported decisions while simultaneously providing the concomitant data foundations for comparative and deeper diagnostics and insight purposes.¹²⁰

We have already in previous chapters discussed the primary building blocks comprising the main structure of the VTF. To summarise, there are four *value drivers* contributing to the execution of an organisation's business model. These are represented by the inputs, activities, outputs and outcomes identified at the heart of the framework. These value drivers simultaneously apply to a number of different functions (for example, finance, strategy, operations), albeit with varying degrees of emphasis. Each of these value drivers relates to the elements of *human capital management*, including human capital operations, human capital development, human capital analytics and reporting and human capital integration. Moving

to an integrated approach opens up discussion of human capital's value via what we might describe as higher-order outcomes of sustainable business performance.

The higher-order outcome of sustainable business performance can be seen as a *product* emerging from a combination of the inputs, activities, outputs and outcomes of the wider organisational operations associated with the delivery of the business model and corresponding human capital elements. This higher-order level of performance can also represent a lens or filter through which we shape our understanding of how organisations can better manage and enhance those aspects of human capital through which it gains traction against its objectives. These will vary in line with the industrial sector in which the organisation is located and the specific targets it has in mind.

As a *product*, the lens can reveal which aspects of human capital are aligned with sustainable, as opposed to short-term, gains. The example higher-order outcomes are indicative as opposed to prescriptive or exhaustive.

The organisational and operational realities behind the framework are less rational, much fuzzier, complex and highly contextual, underlining once more the exploratory as opposed to scientific application of the VTF. Organisations of different types and sizes will use the VTF in a variety of ways. What follows represents the starting point for those responsible for both undertaking and consuming the product of human capital analytics. For this reason we list indicative content of the boxes or 'buckets' of the VTF in Figure 5, and in Figure 6 indicative examples of the algorithms analysts might use to explore the content of each of the buckets in more detail. We provide a

The *Managing the Value of your Talent* report includes, in the appendix, definitions of indicative metrics for the various boxes and levels of the framework.



measure the quality of outputs and the resulting impact at business level from the combination of inputs and activities.

OUTPUTS

add measurable value to the organisation and are the result of effective human capital management activities.

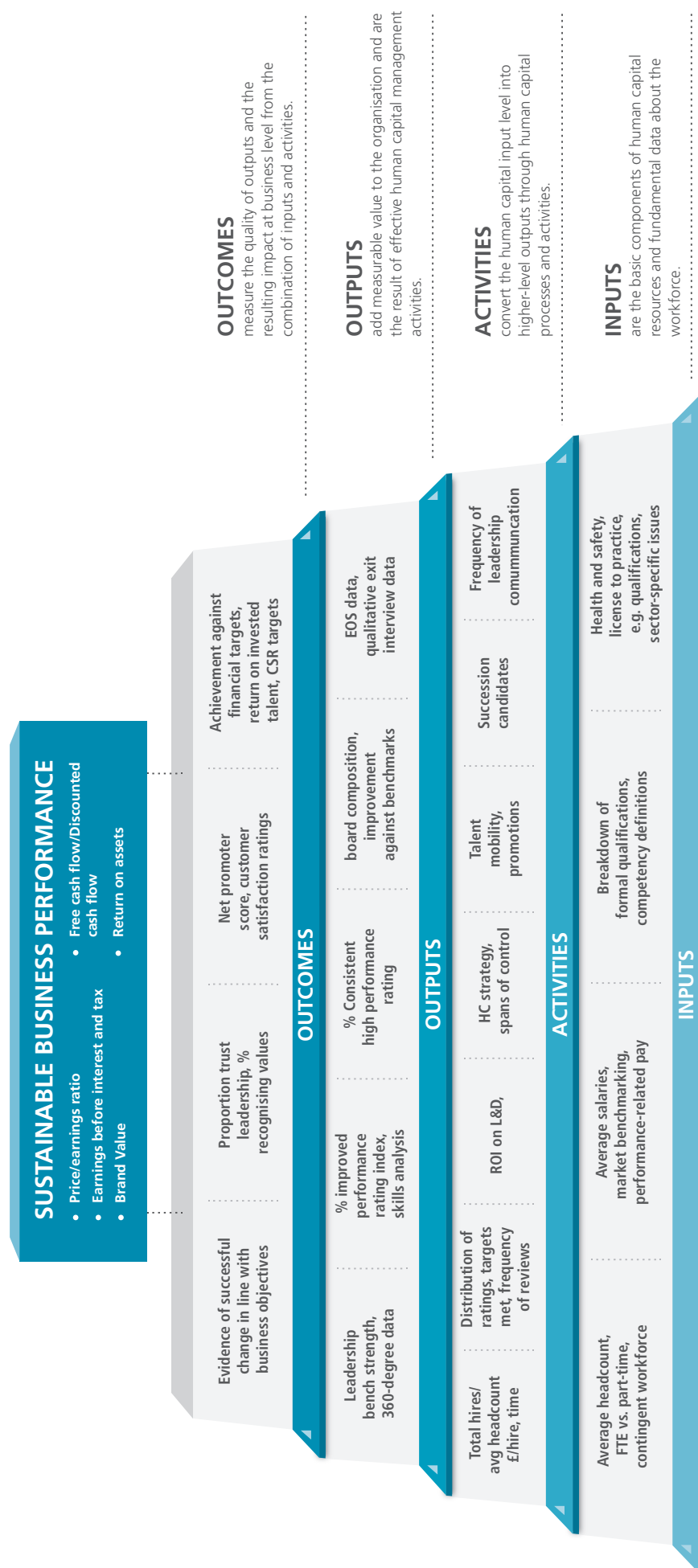
ACTIVITIES

convert the human capital input level into higher-level outputs through human capital processes and activities.

INPUTS

are the basic components of human capital resources and fundamental data about the workforce.

The Valuing your Talent indicative algorithms



more detailed description of each of the buckets in Appendix 1.

In terms of the 'how', there are different options. To chart a pathway through the minefield of what has now become human capital analytics, we propose the '3x3' comprising three sets of three key issues that executives must keep under review in terms of the human capital analytical operations they manage. More specifically:

Framing

Initially all executives are faced with three overarching phases of analytical projects. These phases are drawn from Accenture's approach to analytics but many advocate the same approach:¹²¹

- Identify the human capital question/problem to be answered/tackled.
- Establish the data requirements, type and their sources.
- Collect and analyse the data.

What initially presents itself as a relatively straightforward task quickly becomes complex. In terms of the question to be answered, the buy-in of key stakeholders across the organisation is required. They need to be made aware of the level of investment – both in time as well as financial resource – and of the perceived benefits of participation.

Data requires decisions to be made regarding the extent to which analysis will draw from existing or created data assets. There are a number of issues:

- Does the data required to answer the questions exist and is it in a format that will enable analysis to answer the questions set?
- Is the data already in your possession or does it belong to parties outside the function, across the enterprise or with other partners?

- Does the investment in creating new data justify the cost?
- Is there a viable trade-off between using secondary data sets that satisfactorily, albeit partially, answer the questions as opposed to incurring the initial investment of creating the data?
- Is the data structured (codified) or unstructured (un-coded or in textual form)?
- If the latter, how might it be codified, determined by whom, and at what expense?
- Have you thought in advance about the analytical modelling you wish to conduct, thereby shaping the way data will be collated and analysed to employ these methods?
- Is the data scalable across the enterprise and does it constitute a repeatable exercise, thereby generating a distinctive capability?
- Do you have the capability to conduct this analysis and is the resource available in the timescales required?

Analysing

Then comes the analysis of the data, bringing with it a whole host of additional questions. Again, one can point to an additional three overarching phases here, which lie beyond the simple reporting of descriptive data and provide insights from the reveal–enhance–model methodology of Deloitte Analytics. Again other analytical phases offer similar interventions, although not perhaps with the same level of clarity:¹²²

- the 'revealing' of initial patterns in data, which involves showing the business something it cannot already see
- the 'enhancement' of data in terms of deeper analytical thinking and, if required, additional data sources to provide insights on an issue the business did not already know

- and 'modelling' different strategic human capital plans to provide foresight enabling the business to make better decisions impactful on strategy and results the business was previously unable to make.

We saw in Chapter 3 a raft of different analytical approaches, rising in complexity in line with the analytical maturity of the approaches adopted by organisations. The decision to make or buy the analytical capability required is a key consideration and one addressed at the onset of investment in analytics. A primary problem, as we have seen, is that building internal analytical capability takes time, but the benefits are clearly long term and scalable across the enterprise as a whole. Those that decide to initially buy analytical capability from third parties should give consideration to the absorptive capacity of those involved to contribute to an internal knowledge resource, even if this is limited to familiarity with and experience of commissioning, managing and utilising the results of third-party analytics providers.

Evaluating

Ultimately, the VTF can be used in three different ways in human capital strategy-making:

- a tool for diagnostic assessment highlighting possible areas for improvement/value-creation and the enhanced integration of human capital management with overarching strategy and business model
- as a recurring measurement activity which could ultimately be built into workforce interventions and wider core planning processes
- ultimately a tool for evaluating the direction and progress of workforce development and the location of value within the business.

IBM: It ain't what you do, it's the way that you do it...

'One of the frustrations for our stats team, and I'm not kidding, we have over a thousand charts on the walls covering a number of different aspects of data, is when looking at the last few years' worth of data we can see no difference between the out-performers and the under-performers: they say exactly the same. We wanted to qualify that and concluded that in 81% of the questions the out-performers will give exactly the same answer as an under-performer. So what they say is the same but their financial results are different. This can be explained by two factors.

'One is, in the remaining 19% of factors where the out-performers do say something substantially different, which we define as being as at least a 20% deviation away from each other, which isn't even that much.

'The other factor is that the out-performers are better in the executing on what they say. To be an out-performer, it's not about having a better idea, or better concept, because by and large people know what markets to address, and so on, it's all about getting it done. You can look at large organisations, full of complexity, leadership models, and so on, but it all turns on whether the organisation executes or not. So with that remaining 19% where the difference lies, the three factors that drive out-performance are:

- 1 out-performers have better access to data, so they organise their virtual and physical lives so they can extract data from transactions, enquiries, and so on*
- 2 they are twice as good – I believe 108% but let's say twice as good – at analysing their data, and*
- 3 they are twice as good at executing on the insights they gain from their data.*

'These three factors explain 19% out-performance. So, 81% is down to execution and the rest is about being hard-nosed about your data: having it and analysing it.'

Peter Korsten,
Institute for Business Value, IBM

How businesses evaluate the contribution made by analytics varies from company to company in line with their approach and area of focus. It is to these evaluations – and especially the specific elements of analytics from which organisations derive value from their insights – that we turn in the next section.

5.2 The value of talent: towards a granular view

After nearly a century of research exploring the relationship between the performance of people and the financial performance of the organisations to which they belong, the general consensus to emerge,

especially in the last three decades, is that managing people turns on the efficient application of the 13 so-called high-performance work systems. More recent research has suggested we can focus even more tightly still: on just three generic practices – namely, leadership to inspire people, the development of talent and reward.¹²³ Further analysis of this latter research, however, reveals this 'people advantage triad' actually turns on no fewer than an additional underlying 22 key HR topics!

The search for the fundamental factors each organisation needs to put in place to drive the performance of their people has revealed even more underlying factors, the connection between which is often much more complicated than originally envisaged. Unsurprisingly, human capital analytics have also run into these same underlying complex issues.

As we can see, courtesy of IBM above, most organisations, be they high- or low-performers, focus on largely the same things. What ultimately appears to make the difference is the extent to which they adequately execute those same practices. The science underpinning this analysis has in many ways simply underlined the importance of the underlying executive 'art' required to successfully implement talent management initiatives and interventions. Nevertheless, executives rely on a cluster of key metrics in the HR space (see Table 9).

We have seen above how human capital can be differentiated from strategic human resource management and people strategy in terms of its focus on the creation of value inside organisations. While many of the metrics listed above are certainly helpful in this regard, they lack credibility across the rest of the business for two reasons, it appears.

Table 9: Key human capital metrics		
Label	Metric constituents	Advantages/disadvantages
Revenue per employee ¹²⁴	Revenues/employee numbers	Provides insight into headline value-creation/other wider aspects drive revenues
Profit per employee ¹²⁵	EBIT/employee numbers	Commonly used comparative margin-related headline/EBIT can be shaped by other organisational factors
Employee asset ratio ¹²⁶	Employee numbers/total assets	Insight into 'gearing' of people against assets/wide variations both across and within sectors
Compensation level ¹²⁷	Employee costs/employee numbers	Provides a people-related 'P&L'/constituent parts are not universally available
Return on compensation ¹²⁸	EBIT + employee costs/employee costs	As above, and margin-related/as above
Return on invested talent (ROIT) ¹²⁹	(EBIT + employee costs + associated costs) – costs of capital/employee and associated costs	Converts people into an ROIC-related metric and provides variations relating to assets, costs of capital/as above

The first turns on the tendency to focus on costs when describing the activities of talent-related activities. It is perhaps not coincidental that many executives see the efficiency of spend on human resources as almost a badge of honour. This 'how low can you go' mentality equates to many viewing the costs of people as akin to the running costs of a car: far from representing the 'engine', people are viewed as representing the 'petrol', which is to be sourced as cheaply as possible. Makoto Takano, a CFO of one of the businesses in the FTSE 250 company Xchanging, illustrated the implications of a distorting 'bottom-line' view of the costs of talent:

As an investor, if I had two companies, and they are both

identical in terms of their costs, but there are some metrics that might not impact the bottom line because they're up and down in different places, things like attrition rates would matter to me in terms of which company was better. Intuitively, I might say what might be happening is... [he then writes Table 10 on the back of a piece of paper]:

...[he continues] So, costs are still 100 in Company B. Even though they've squeezed their costs here [total people costs], they are spending double on their recruitment costs, so the end result is the same. Although [Company B's] gross employee costs are lower, they may look a better company, but actually, if I had all the information, I would actually think Company A is the better company.

Table 10		
Cost Item	OPEX Company A	OPEX Company B
Total people costs	50	40
Recruitment	10	20
Other costs	40	40
Total	100	100

The capacity for success

'We had a meeting this morning with the chief investment officers of a dozen or so major houses. One of the points that was made which seemed to get a lot of nodding round the table was that there are a lot of companies which are pretty average performers and which get through a fair number of chief executives or other senior executives because they think if they can convince the market they can get the right star they can end up at the top of the Premier League. I suppose from what the investors were saying was that we should resist the temptation of being fooled by that. They were saying the same as you, so twice in one day probably means it has some truth in it, that a company has a certain capacity for success, which is related to its business model, its place in the world and so on. You can notch it up but unless you can pull it down and start again, you're not really going to get any further. There is no "star transformation", there is only some kind of evolution. So you have to be careful that you don't attribute too much value to the intellectual and star quality of a senior team.'

**Stephen Haddrill, CEO,
Financial Reporting Council**

A second factor turns on the challenge of converting the value of human capital into the language of the boardroom. As one executive informed one of us on a previous research project, *'I need HR to talk to me in Excel, not in PowerPoint!'*¹³⁰ In many ways, the language of the boardroom is strategy, which converses in finance. This requires human capital management to engage in part with the same currency of the financial fundamentals the rest of the business is evaluated by. We will return to the integration of human capital analytics with the financial fundamentals in the final chapter.

Meanwhile, recent research suggests human capital management can embrace the problem of integrating with financial data by rising to the challenge of answering five fundamental questions every boardroom requires from their HR executives.¹³¹ Ultimately, these questions, used in combination with the VTF and *return on insight*, help organisations to obtain a more granular view of where value is generated within the business and refine their human capital management accordingly. These five questions are:

- What is the rate of return from investment in people?
- How does it compare with the rate of return obtained by competitors?
- In what direction is the rate of return travelling?
- Is talent's value optimally aligned with strategic intent?
- Is there a ceiling or organisational 'metabolic rate' of value-creation from people at which additional investment does not generate returns?

Each of these five questions raises important challenges for human capital analytics.

1 What is the rate of return from our investment in people?

In establishing the rate of return, the challenge for analytics lies in the conversion of the return to an investment in talent into the same financial equation as that of the return on invested capital (ROIC). Recent research has attempted exactly this with interesting implications for establishing what the productivity or underlying 'metabolic rate' of a workforce might be.¹³²

Nevertheless, establishing baseline data provides a line of sight into the location of high-value-adding employees and enables organisational managers and leaders to examine the configurations of value across different constellations of people in more complex ways. This was a point not lost on former Microsoft CEO, Steve Ballmer, in his observation that *'there are actually high-value activities and low-value activities. Although sometimes you'll find that somebody's low-value activity is somebody else's high-value activity.'*¹³³

2 How does it compare with the rate of return obtained by competitors?

Viewed in isolation, a single measure is of little use. Benchmarking data provides useful comparative data but, ultimately, organisations need to be clear about how their people are performing relative to the talent base found in those competitor organisations analysts would include in their peer group. Even here there are complications as different organisations have different strategies and underpinning business models – not to mention assets – from those in the same industrial sector.

3 In what direction is the rate of return travelling?

Of course, value is not just absolute but relative both in terms of

comparisons with competitors and other organisations executives are seeking to emulate, but also over time. Establishing the direction of travel relative to revenues or ongoing investments in talent can reveal important aspects of traction in terms of the development of the human capital asset base within a company. Of course, factors outside an organisation's control can have a dramatic impact on performance. Recent research published by McKinsey revealed that those companies in the top quintile at the beginning of their analysis (2007) had only a fifty-fifty chance of remaining there five years later (2011).¹³⁴

4 Is talent's value optimally aligned with strategic intent?

The sustainability of performance is a far deeper challenge and human capital strategy requires that it be integrated across the strategy of the business as a whole to reflect both current operating conditions and anticipated future requirements. A constant problem for company leaders revolves around the setting of expectations of the future performance of their talent. Using suitable analytics can help executives in making better projections of anticipated future rates of return from their people, and aid investors in their evaluations of the feasibility of such claims. The challenge to consider here for all companies is one of having the requisite resources in place to provide competitive advantage and meet targets. It is one thing to have aspirations in terms of the performance of people, quite another to deliver it.

5 Is there a ceiling or organisational 'metabolic rate' of value-creation from people at which additional investment does not generate returns?

Leadership teams continuously seek productivity gains from their workforces. Any investment in talent

is universally upheld as a sound investment. Imagine a scenario, however, in which you could track the returns from talent but over time analysis revealed that there comes a certain point where, no matter how much investment you pump in, or how many innovative talent strategies you import from elsewhere and all dutifully captured by your analytics, the productivity dial simply refuses to budge. What if the upshot of this analysis is that your people had a certain 'metabolic rate' which, once reached, was unresponsive to investments beyond a certain level to improve it?

Recent research has revealed that when examined over time, some companies and industries possess 'genotype-like' qualities in their capacity to deliver results, representing significant spurs or challenges to productivity improvement.¹³⁵ Skills shortages, inflated salaries for scarce labour or other wider market dynamics can all be seen as contributory factors in determining the 'metabolic rate' of people.

Establishing those areas of the business where people out-perform others turns on a number of significant factors, many of which lie outside the jurisdiction of talent. While talent might well be the asset that drives the value of all of the other assets, there are points at which people begin to challenge the extent to which all investment in talent necessarily represents the only optimal investment.

Nevertheless, some organisations continue to secure extraordinary results from ordinary people. Over time organisations build human-capital-related processes and combinations that collectively constitute overarching *architectures*, which themselves represent a source of competitive advantage and intangible value.¹³⁶

Human capital architectures: the lattice on which assets grow

'The bedrock of formal knowledge you have becomes the lattice on which learning can grow. It's not that knowledge itself but the meta-knowledge that can grow on that knowledge base that you can't Google and that you'll never be able to Google. That is where the real high-value assets of the organisation are.'

Toby Peyton - Jones,
Siemens

Can we materialise the architectures of value?

'I think it's a really good question but it's also inevitably a very difficult one to answer. I have the ability to look at this from two different lenses. With my HR hat on, the value is real and massive. If you think about the level of investment in an individual, the level of return you obtain can be highly significant. At a corporate level, developing processes, methodologies and ways of working that are sustainable, even when you take away the person or people responsible for those processes, yet the "machine" keeps running, the value of this is potentially massive. I can think of very specific examples at both individual and corporate level where I've seen that happen. But if I put my accounting hat on, the challenge of attributing value will be on a scale very difficult for accountants to feel comfortable with. Done right, the kind of leverage we're talking about in terms of value will be much higher than what accountants normally associate with this area. The difference between dealing with an individual or a workforce has such a potentially significant impact that the accounting impact is also material, and accountants will genuinely struggle with it because it is by far the largest impact you'd see on the balance sheet in terms of value.'

**Ian Icton,
Network Rail**

Human capital architectures constitute the value generated by combinations of people-generated processes. While existing research points to such resources as the collection of the specific human capital resources of different *individual* employees,¹³⁷ we take this further, adopting a wider view that these capabilities are also complemented by and accretive to different combinations of *organisationally* owned overarching collective capabilities, systems, processes, forming architectures through which people interact, manage and ultimately leverage human and other business-owned capitals.

Architectures of value transcend any one individual and can be seen to reflect different and unique organisational *signature* processes 'which describe how

processes embody a company's character and signify their idiosyncratic nature'.¹³⁸ These processes ultimately enable some organisations to capitalise on the value of their talent more than others. They recognise, in some cases almost unconsciously, the distinction between the value of talent and the *economic* value of their human capital. They can instinctively, and sometimes more analytically, establish that some constellations of value can be reconfigured to release more value through human capital management. It is this executive craft that places HR executives in the role of value brokers for their organisations, in their playing a key role in enabling talent to be developed, aligned and optimised in ways other organisations find difficult to emulate.¹³⁹ We turn to this challenge in the final chapter.

6 The end of the beginning?

We finish *Managing the Value of your Talent* at the point where many will now start looking afresh at the management of their people in terms of what we have described as the shift from financial capitalism to a new age of people. The emerging view of this brave new world is one in which executives require a 'new licence to operate' in which people and their talents join financial capital as the primary assets through which modern organisations conduct their business at new levels of transparency increasingly required by investors, consumers, employees and other wider stakeholders.

Nobody is suggesting that the centrality of financial intermediation across markets is being usurped by a new ascendancy in the value of people. But the new transparency does, as we have established above, represent a call to arms for modern organisations and their leaders. In addition to the calls for transparency, we conclude there are three additional primary challenges.

Partly a corollary of the new transparency is the requirement for leaders to fully understand and explicitly set out the role of human capital – under which we include the social and relational and intellectual capitals of the *entire* workforce – in enabling their organisations to deliver on their strategic aims. Anecdotal evidence suggests many boardroom participants find the articulation of their strategy and accompanying business models difficult. If those located at this level find this process challenging, what hope have those charged with the responsibility of leading,

managing and actually undertaking its implementation? Given the centrality of understanding strategy to wider employee motivation, the importance of the clear articulation of strategy, the business model and talent's role in delivering it hardly needs labouring.

A third challenge emerges directly from the previous two. As organisations' strategies and business models evolve, so too must the sophistication of their understanding of the enabling role played by their talent. We have clearly established how the evidence base in this space is very much at the beginning of what is a long journey to analytical maturity. As the calls for enhanced transparency from potential as well as current employees grows louder, so too will the onus on organisations and their leaders to demonstrate their competitive advantage in the currency of talent and its development. The labour market is simultaneously growing increasingly global, competitive and, driven by data availability, analytical and transparent. In the age of people, the mantra for organisations is to *'ask not what you can do for your organisation but what can we do together in order to maximise the value of your talent'*. While the first response of organisations might be to push back against this initial seeming loss of control in the balance of power with employees, executives playing the long game recognise the huge potential for those organisations that carve out brands associated with new and evocative employee value propositions wrapped around

their talent and its development. Far from being an exercise in statistics, human capital analytics will in future play a fundamental role in enabling organisations to better understand, develop and articulate these employee value propositions and their traction in meeting the simultaneous and converging requirements across multiple stakeholders.

This leads us to our fourth challenge. In a new and transparent world where human capital is seen as material to the success of the business, organisations are now under enormous pressure from wider society to demonstrate their level of commitment to – and by this we also emphatically mean their investment in – their people. Actions speak louder than words and while there are those who push back against additional levels of reporting as superfluous bureaucracy, administration and red tape, in the new age of people it is no longer enough to say people are our greatest asset; organisations need to demonstrate their commitment to their people. In the new and merging 'economies of experience', employees and their talents are increasingly flexible and portable. Consequently, organisations are and will increasingly in the future be called upon by wider stakeholders to demonstrate the health of the relationship with their people.

6.1 Actions not words

We have to varying degrees discovered a clear willingness on the part of executives to engage with each of these challenges. There is an appetite not just for engaging

The need for a common language

'The nature of analysts is that they like to look clever so they don't like to ask stupid questions. They need an insight and a basis for the conversation. It's just the nature of the people who get these roles. They need something to bite on in order to get into the conversation.'

Investment analyst

with human capital management underpinned by analytics, but there also appears to be movement in the accounting and wider and senior executive communities in recognising the growing and material influence of human capital strategy and its role in overarching strategy development and implementation. It is not coincidental that the Valuing your Talent initiative has brought together the main three bodies representing the accounting, managerial and people professions. But new challenges – requiring action, not words – are emerging. We would suggest these fall into three categories: the recognition and understanding of the value of talent; analytical clarity; and a new transparency in the form of human capital reporting by organisations.

1 Value = people

It is a glib statement. Nevertheless, people are financially material in a way they were not when the CIPD commissioned several reports into investors' views of human capital.¹⁴⁰ Suggesting otherwise would place any executive in the invidious position of suggesting their people are immaterial. We have clearly established through *Managing the Value of your Talent* the movement to a wider view beyond the capital structure of the firm to one emphasising the *structural capitals* underpinning the business model of the firm, in which people play a central role. Some might suggest that this hardly represents new thinking. Our discovery of the agreement of the major financial reporting bodies with the view of the IR initiative emphasising the role of people in understanding – and subsequently placing material value on – an organisation's strategy and underpinning business model, is new and fertile territory, however. Others will no doubt take up this challenge in future work.

This development places executives very firmly in the driving seat as the 'value brokers' who can understand, recognise, develop, nurture, articulate and ultimately enable their organisations to benefit from the undoubtedly valuable, albeit complex, and intangible talent asset. How great a role the HR profession, and leading HR executives in particular, will play in this new articulation of value is an open question. Indeed, there are no guarantees that HR will own the 'articulation of people value' space as other functional leads – particularly in strategy and finance – already feel that they have legitimate claims for nurturing and owning people strategy. One possible, albeit slightly idealistic, aspiration, if not solution, lies in integrative thinking, which transcends such functional turf wars and certainly resonates with the views of our respondents.

Companies have widened their reading of the strategic compass to include all of their talent in an attempt to ensure the whole of their people do not, in financial terms at least, fall short of the sum of their parts. The emergence of a new level of transparency and data availability will only serve to exacerbate the importance of this inclusive approach. In the new and online 'economy of utterances', material changes to the value of organisations' brands might well occur on the back of a sentence comprising fewer than 60 characters. What is more likely, however, is the rise to prominence of the role played by a new and transparent analytics to underpin the material and sustainable impact people can make on an organisation's strategy and underlying performance – which brings us nicely to analytics.

2 Analytically speaking

Human capital analytics have certainly been a long time in the making. In the words of Oracle's Andy Campbell, 'it feels like the right time to be talking about HR analytics.' In many ways this is all that people are doing: talking about analytics, as opposed to getting their analytical hands dirty with data. The challenge is one of moving beyond narrative reporting to finding a suitable analytical base that stands up to scrutiny. There are two primary conclusions to draw from our work relating specifically to analytics.

The first concerns the problems that are seemingly built into the 'DNA' of conventional analytics. The calculative mode requires that the intangible be made tangible in order to perform the methods of analysis that statistical modelling requires. This opens up a whole host of questionable veracity – and has left many unsure as to what to believe and what not to believe in the analytical space. There is clearly a long-overdue requirement for the culling of spurious methods and the conclusions drawn from them. As we have established, useless data is worse than useless. It is misleading, potentially harmful not just to the interests of employees but may even have negative material consequences for organisations themselves. We hope that what has preceded offers all of those interested in analytically establishing the value of talent with an equally robust way of analytically evaluating the analytics used to make the claims of the performance gains 'caused' by organisational interventions. The difficulties in achieving this aim should not be underestimated and are no better illustrated than by UBS's corporate human resources director, Mark Warburg:

Unfortunately, these things are multi-faceted. You can't just drive

one because something else will go out of kilter or vice versa. The issue, then, is once you've realised it's more than one factor, how do you then take the combination of those factors together to actually come up with a decision about what it is? The reality is there is a judgement that is made and you have to look at each of those things without a final calculation and say, 'actually, looking at it, each of those factors, this is what we think.'

Second, and related to the complexities of the new analytics and bits accompanying big data, *Managing the Value of your Talent* offers professionals both within and without the HR function a new *lingua franca* with which to converse over the evidence base constituting the value of people. Those involved in the new people analytics now have a way of clarifying the strategy of the business and the way human capital strategy can be aligned with this and the underlying value drivers of the business model. They can also obtain a clear line of sight through to the returns derived from this insight as well as a clear matrix through which to understand the maturity of both their data and its analysis. Overarching all of this is the human capital framework, which sets a new standard in defining how the value of people can be more closely understood at organisational level through the integration between people strategy, human capital management and its accompanying human capital strategy. Here again, this represents a future call to arms to those who work at the intersection of the value triad between people, strategy, finance and leadership.¹⁴¹

3 Towards an integrated human capital reporting

Using a language aligned with – but not subservient to – those of the finance and other functions will ultimately enable more informed

discussion over the value of talent by leaders across the organisation. Of course, for some organisations the value of talent has always been a top-table conversation. As the call for enhanced transparency in the talent space grows in volume, all boards will need to address the extent to which they are adequately demonstrating how well they are managing their talent. What better way of embracing the challenges brought about by the so-called 'shareholder spring' than by tying the remuneration of an organisation's top executives with the development and wider flourishing of the people they lead?

One of the possible outcomes of Valuing your Talent is that these discussions might now take on a larger life of their own in the wider communities outside the organisation, as Stephen Haddrill, chief executive of the UK's Financial Reporting Council, has observed:

Moving accounting standards to get human capital value on the balance sheet – well, it could end up there – but having some guidance about how people should go about talking about and valuing the human capital, particularly in a business that is highly human-capital-driven, which in many ways they all are, is something that the corporate report should talk about. If we can have a few numbers or indicators about human capital, rather than just a load of guff in the chief executive's report, then why not? I would have thought that is good, because it does enable a bit of comparison as opposed to having none and it shows that the management has thought about it. The longer-term investors are more interested in this and would welcome a bit more help understanding it.

Transparency represents a new executive licence to operate from which talent is no exception. Recent work has already made

Transparent reporting

'It's a chicken and egg problem. Investors expect companies to guide them in terms of their KPIs and the key issues to judge them on. Companies feel uncomfortable about bringing forward measures that are maybe outside the norm beyond the mainstream of presentations. They generally wait for investors to ask questions in this area rather than volunteering information. The emphasis should come from companies in terms of their saying, "these are the human capital metrics which we think are absolutely fundamental; these are the ones which we keep track of; and these are the ones that you should look at." It's a process of the education of investors. But until they actually start that process, they will remain reticent about doing that, and I don't think you'll get it from the investors per se. At present they struggle with the comparability issue. At the moment it's a case of, "why has that number gone up? Have you changed the way you measure it?" Without context and education, they can't make sense of it.'

Investment analyst

clear how human-capital-related analytics might be incorporated into the wider financial fundamentals undertaken in analysts' conventional financial analysis.¹⁴² If organisations are to engage in a meaningful way with the new transparency in this space, human capital reporting needs to be robust. While organisations certainly present large quantities of people-related data in their annual reports and elsewhere, it is largely inconsistent in terms of both the regularity of reporting (for example some items are reported one year but not the next) and constitution (for example different definitions of reporting items), making analysis, evaluation and scrutiny by wider interested parties and stakeholders problematic.

The primary pushback from those who would be charged with the responsibility of aggregating and presenting all of the human capital data related for annual reporting suggest any additional reporting items are costly, time-consuming and of little benefit.¹⁴³ We disagree for at least two reasons.

First, many organisations spend a large minority of their operating costs on their people. For some, labour costs alone represent the single largest item in their expenditure lines. While many point to the value paradox in which a primary asset that creates value – talent – cannot find its way onto the balance sheet, the reality is, outside IFRS, even the costs of talent are largely unknown. It is here where we encounter the challenge brought by the call for enhanced transparency. For example, for a young and highly talented potential graduate trainee attempting to choose which offer to accept from a number of organisations, being able to discern more about how different organisations invest in their people would have a significant part to

play in shaping the decision, if consistent research findings are anything to go by.¹⁴⁴ Yet this same individual as a potential *employee* has to make a decision about what might be a 50-year relationship on substantially less information than the information available to a potential *investor* were they considering a monthly £50 investment in a savings product. This asymmetry in information is no longer sustainable. Our evidence suggests the competition for the most highly talented will lead to heightened interest in new 'economies of development' where a large part of the brand of an organisation – and its accompanying employee value proposition – will rely on how employees can differentiate between those organisations with authentic 'talent academies' and those who represent 'talent consumers'.

Second, many organisations already report on the items we are requesting below. The problem, however, is that such reporting is inconsistent. Part of the obstacles of bringing human capital metrics into the fundamental mainstream is that their very building blocks are available only to those with direct access to organisations. As we have seen above, chief executives clearly see the development of their talent pipelines as material, not just because they recognise the importance of this to the future sustainability of the businesses they lead but because they are challenged over such issues by their large-scale investors. Again, it is important not to run away with the rhetoric here. People and their talent are more material in some industrial sectors than others.¹⁴⁵ Nevertheless, wider availability of human-capital-related financial data at organisational level will enable analysts and other wider stakeholders to rightly draw

their own conclusions about the materiality of the value of talent. In the new and transparent world under discussion here, how can it be right that I must report on the depreciation of each £50 million piece of machinery over ten years, but let you know nothing about the £50 billion I have invested in my people over the corresponding period? Moreover, with my people labour costs tucked away deeply inside my cost of goods sold (COGS), you would not even be able to establish that my people costs were in the region of £5 billion a year! This brings us to the accounting challenges brought about by the new transparency.

6.2 Our most important asset?

Far from scaling and measuring the asset that drives the value of all the others, the capacity of modern accounting techniques to accommodate and subsequently financially capture the value of talent is being seriously challenged. This in part explains why the accounting bodies have themselves recently deliberated not just, as we have seen, over how best to report the impact of people, but also over what constitutes an asset and the role people might play in this future definition.¹⁴⁶

Although an update of the *conceptual framework* underpinning the financial reporting standards (IFRS) is relatively routine, the recent changes to the definition of an asset by the International Accounting Standards Board (IASB) that is responsible for them has *potentially* profound implications for how we value our people. The new draft framework currently under review proposes that the definition of an asset *'focuses more clearly on the fact that an asset is a resource'*.¹⁴⁷ This is a highly technical debate but three broad issues stand out in relation to the ramifications of these developments and the ascendancy of people.

First, the ramifications for human *resources* are moot. As we have established above, the financial reporting bodies are not, in principle, averse to capturing the 'capability of producing economic benefits', which people represent. They are unrelenting, however, in their view relating to the need for improvement in the technical way in which we understand and calculate the *financial* relationship between people and performance. Current standards currently fall short, and by some margin.

Second, and perhaps even more tellingly, when presenting examples of the various forms the proposed new 'economic resource' might take, the new conceptual framework makes specific mention of an organisation's existing workforce, suggesting attempts at valuation may be pushing against an open door.¹⁴⁸

Third, there is emerging evidence to suggest those companies that disclose more information relating to their people – what some label *human capital structure* – enjoy lower costs of equity capital,¹⁴⁹ suggesting human capital reporting has financially material considerations. This said, we stress again the need to not run away with ourselves. As the recent Kay Review of Banking noted, *'many metrics and models ... are simply flawed measures which should not be employed. Other metrics and models are useful when deployed in conjunction with a range of other measures.'*¹⁵⁰

How then are we to proceed in establishing what these other measures might look like in the human capital space? We suggest four measures, each of which meets the simultaneous need for stakeholder interests in sustainable business performance through people and adhering to increased expectations of transparency.

1 Employee costs

Many companies adhere to the IFRS requirements of reporting the costs of their people and include a breakdown of the benefits and other employee-related costs. But many companies, particularly those following US GAAP, do not publish information on the total costs of their labour. Discussions over the capacity of some firms to obtain a greater return on their investment from their people than others cannot take place when we do not have the denominator with which to work out the 'people equations' many investors would routinely perform with other financial fundamentals.

Consequently, our first recommendation comes in three parts. First, although the majority of organisations do report the number of employees they have, typically on average during the financial year under analysis, there is still potential for inconsistencies because of the variations in definitions as to what constitutes an organisation's employee. For example, many organisations increasingly use contracted-out service providers to deliver what are integral elements of their core operations. There is clearly room for confusion here but without an adequate definition as to what constitutes an employee we cannot even calculate basic productivity metrics such as revenue per employee or profit per employee. Another sister project to Valuing your Talent exploring definitions of HR standards by the BSI is already under way.¹⁵¹

Second, and as discussed in Chapter 1, an organisation's *entire* workforce refers to all employees utilised by an organisation in delivering its own operations (see Table 11). With the definition of headcount resolved, organisations can then move to calculate the costs of their entire workforces (see Table 12). These two data points are significant because

Table 11: Headcount definition: an example

Talent refers to an organisation's *entire* workforce, which, in turn, refers to all employees utilised by an organisation in delivering its own operations.

Employees	2013	2014
Total organisation employees	175,000	171,000
Total employees recruited	8,750	6,800
Total employees exiting	4,750	3,900
Total contracted-out employees	5,500	5,750
Total operating-related employees	180,500	176,750

Table 12: Headcount definition: IS notes

Talent refers to an organisation's *entire* workforce, which, in turn, refers to all employees utilised by an organisation in delivering its own operations.

Employees	2013	2014
Staff and management costs	(£ million)	(£ million)
Wages and salaries	5,002	4,883
Social security costs	631	659
Other pension costs	333	358
Share-based compensation costs	228	153
Sub total	6,194	6,053
Contracted-out employee costs	137	149
Total costs	6,331	6,202

they enable wider stakeholders to establish the level of investment in people represented by their labour costs. An additional element lies in the recruitment and departure or 'churn' numbers. As with the number and costs of employees, a minority of organisations already routinely report their churn numbers. This data point offers an additional level of transparency in to employee relations. We have heard two caveats from some quarters as to how this data point might be a cause for concern. First, it offers a level of invasiveness many companies might find uncomfortable. Second, fluctuations from year to year reflect the specific conditions of particular organisations, or even business units within them (for example an acquisition or divestment). One possible solution might be

to calculate and report three-year rolling averages of employee movements, thereby overcoming outliers caused by exceptional developments. Further colour might also be provided through narrative reporting in the operating and financial review (OFR) section of a company's annual report.

2 Recruitment costs

The costs of labour and recruitment can be incorporated into an income statement note form (see Table 13). Again, these costs can be reported against three-year rolling averages.

3 Training and development costs

Here again we are pushing at an open door insofar as these costs are already reported. We are nudging the door a little further open by requesting a higher level of

Table: 13 Indicative income statement note of all operating-related employee costs		
Employees Staff and management costs	2013 (£ million)	2014 (£ million)
Wages and salaries	5,002	4,883
Social security costs	631	659
Other pension costs	333	358
Share-based compensation costs	228	153
Total staff and management costs	6,194	6,053
Recruitment costs	74.4	102.5
Training and development costs ⁱ	201.4	194.6
Total recruitment and training costs	275.8	297.1
Total organisation employee costs	6,496.8	6,350.1
Contracted-out employee costs	137	149
Total operating-related EE costs	6,606.8	6499.1

ⁱ Refers to employee training and development and excludes research costs

granularity in terms of the specific training costs for current employees. Organisations tend to report research and development costs in their entirety. In our example, 80% of the £1 billion attributed to research and development specifically refers to the research and development of the particular products the example company engages in. Again, organisations can report a three-year rolling average for this data point.

4 Engagement

This final data point is perhaps the most contentious. While undoubtedly the research exploring the relationship between employee engagement and organisational performance suggests an analytical underpinning to the concept, many in the financial community feel uneasy about a subjective data point. Nevertheless, it is the only line of sight we have into employees' collective opinions of their organisation and their role within it. Moreover, a substantial number of organisations already conduct employee organisation and employee

satisfaction surveys. A large minority (32% of the FTSE 100) currently report their employee survey scores with one in twenty (6%) building engagement scores into their executives' remuneration criteria.¹⁵² But this is only half of the story.

Of those reporting their engagement scores, just 16% reported engagement scores less than 70%, a figure routinely regarded to be a signal of an 'engaged workforce'.¹⁵³ Clearly, there is inconsistency and room for significant improvement. Many organisations already use external providers, underpinning the robustness of their data. Reporting employee engagement scores is optional but in the new level of transparency around human capital we are advocating, current and potential employees, customers, investors and wider stakeholders will draw their own conclusions about those organisations that routinely fail to report their engagement scores. Engagement scores should not be seen as an optional extra to be

called upon when underpinning executive remuneration strategies. On the contrary, they represent an important lens into the state of the nation inside organisations. A disengaged workforce is more likely to underperform than an engaged one, and, from the evidence we have heard, is more likely to make errors, commit misdemeanours and other high-risk behaviour.¹⁵⁴

These four indicators do not represent the final word in the evaluation of the capacity of organisations to create sustainable value from their talent. They do, nevertheless, represent an opportunity to insert robust data points relating to talent into the wider financial fundamentals used by those interested in establishing the differential capacity of organisations to release more value from their people than others. This analysis is not the end point but very much the beginning of the discussion inside organisations on where best to invest precious resources represented across the structural capitals discussed throughout this report. Those organisations above and below the lines drawn in the sand by this analysis will face questions about their success or failings. Over a period of time these data points, together with the human capital framework, will provide an important overarching barometer and diagnostic tool to be used in order to enable employees to thrive and, by implication, their organisations to benefit from this human flourishing.

Analytics is not an end in itself. As John Kay informed us in his recent review of corporate reporting, '*data is not information, information is not knowledge, knowledge is not understanding, understanding is not wisdom.*'¹⁵⁵ But it is a start. And where the numbers finish, the path to executive wisdom begins.

Appendix 1: The Valuing your Talent Framework – indicative metrics

The following are indicative metrics for the Valuing your Talent Framework, and are intended as a sample of metrics that may be used by organisations, not an exhaustive list of those currently in use.

Inputs

Inputs are the basic components of human capital resources and fundamental data about the workforce.

Workforce composition: This is basic data on the make-up of the workforce which is a crucial building block for more sophisticated analysis. Indicative data include the average number of employees (for example, full-time equivalents), distribution of certain categories contributing to the diversity of the employee base (for example, age, gender, ethnicity). Workforce composition data should also include information on part-time vs full-time employees and organisations' use of contingent or contracted labour.

Skills, qualifications and competencies: This focuses on the knowledge, skills and experiences of employees. The type of data that this covers includes information on the proportion of the workforce with postgraduate, degree-level qualifications, professional qualifications and vocational qualifications, for example.

Pay and benefits: Data here relates to information on employee salaries and benefits. Following the Hutton *Fair Pay Report*, some companies report on data relating to pay differentials between employees and other data relating to highly paid employees. Regulation both current

and anticipated may lead to future data points emerging.

Regulatory compliance: This is data which demonstrates the extent to which the organisation is compliant with relevant legislation in terms of reporting on its workforce. This would include, for example, the level of health and safety incidents which are reportable by statute (for example those defined under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013). In some sectors this data could include information on essential levels of professional competence, for example those occupations that require a licence to practise.

Activities

Activities are applied to the human capital 'input' leading to higher-level outputs through human capital processes and activities.

Recruitment and retention: This is data from the full recruitment and retention process; from identifying, attracting, selecting and maintaining employees. Typically consists of measures around staff turnover rates, time to hire, replacement costs, average tenure, tenure of experienced hires, diversity of hires and qualifications mix.

Performance management: Performance management data is that which comes from the performance management process, and typically consists of collective appraisal scores and qualitative data from 360 review processes, and data regarding objectives and targets met/missed to demonstrate how performance is understood and improving.

Learning and competency development:

Learning and development data typically consists of number of training days and cost of training on a per employee basis at different levels, range of training. Organisations are increasingly looking to improve their understanding of the impact of training, therefore return on investment (ROI) data represents high quality L&D insight.

Organisation development and design:

Data here centres around the HR policies, processes and strategies which maintain the functioning business, and can include at the basic level spans of control and management hierarchy.

Reward and recognition: This is data which concerns the extent to which individuals are rewarded and recognised for the contribution at work, and can include data regarding bonus payment (financial and non-financial) and employee award programmes.

Workforce and succession planning:

Data regarding the future needs of the workforce features in this part of the framework. Skills and talent forecasting and future-profiling of people requirements are used by business professionals to manage and plan future human capital requirements. Succession planning data for senior leadership in particular should feature as part of the framework, and be used by the business to identify and maintain talent levels within identified portions of the management structure.

Employee relations and voice:

Featured here is data which covers

the varying types of employee voice initiatives, for example the extent of unionisation in the workforce and time lost to industrial action. Measures relating to the uptake and effectiveness of internal staff consultation arrangements may also feature here. Data here can include outputs from employee surveys, or communication audits, frequency and quality of management communications and presence of flexible working policies.

Outputs

Outputs add measurable value to the organisation and are the result of effective human capital management activities.

Leadership capability: Data here relates to the abilities of leadership to meet their objectives, and the skills/talent mix of leaders across the organisation. Data which cross-cuts this and performance measures can include appraisal results, training outcomes, plus flexibility and agility of senior leadership. High-quality measures here link organisational objectives to individual leadership targets, and consists of assessments and appraisals against defined standards. Engagement scores frequently feature as criteria in the capability assessment process for senior leaders.

Workforce capability: This includes data which references the ability of the workforce to deliver against their objectives, and may include data regarding skills and capabilities of employees. For example, a measure of the ability of the workforce to adapt to change and employee agility form part of this. Data here is crucial for understanding the talent mix of the workforce.

Workforce performance:

Performance measures here allow leadership to assess the quality of delivery of employees, and the ability of employees to meet their defined targets. Performance measurement

data features heavily in the assessment of middle management and teamleaders, as well as senior management.

Diversity: Featured here is data which relates to the diversity of the workforce. This includes benchmarking data to ensure that the diversity of the workforce aligns with that of the social environment in which it operates at all organisational levels in terms of age, gender, race, religion, ethnicity, ability and sexuality.

Engagement and well-being:

Data regarding the engagement of the workforce with the organisation and their role forms a major part of many organisations' HR reporting. Employee satisfaction and employee promoter scores are two widely used measures of employee engagement, which form part of the employee voice processes in many businesses. Measurement regarding well-being can include days lost to well-being-related issues, for example stress and associated mental health issues, plus quality and uptake of well-being initiatives.

Outcomes

Outcomes measure the quality of outputs and the resulting impact at business level from the combination of inputs and activities.

Organisational agility and resilience:

Workforce agility allows an organisation to establish the optimal workforce to support an organisation's objectives. Resilience refers to the ability of an organisation to adapt to the unexpected. This incorporates data that demonstrates the extent to which an organisation's workforce reacts rapidly and positively to internal and external changes to the business environment, economy, organisational structures and new strategies. Indicative data would include information on the extent an organisation can increase or

decrease the size of its workforce effectively in response to fluctuations in demand. Data could also cover savings in property costs as a result of a more flexible workforce or increases in productivity or efficiency savings as a result of outsourcing or in-sourcing activities.

Organisational culture: This box incorporates data that indicates the extent to which an organisation's leaders and employees are aligned to its purpose and values. Organisational culture is hard to measure, which is why analysis requires a combination of hard quantitative data and more subjective data. Indicative data will include employee engagement survey data, as well as information taken from exit interviews, data on numbers of formal disciplinary and grievances, employee turnover rates, absence levels and information on stress/excessive pressure. Data on accidents and near-misses are also important. Specific cultural surveys or analysis tools can also be used to provide insight on an organisation's culture. Given the complexity, it is likely that a full audit of organisational culture is only practical on an annual basis: however, employee engagement data should be able to provide regular temperature checks.

Productivity: This refers to data which demonstrates how efficient the organisation is at producing outputs at minimal costs. An example of this would be data that shows the return on people employed.

Organisational performance: This incorporates data demonstrating the organisation is performing well against defined targets and is meeting its objectives to an acceptable standard. This data will vary depending on the nature of an organisation's strategic objectives. Measures could include, for example, increasing market share, profit or improving the quality of products or services

Appendix 2: Case studies

Microsoft: The four stages of analytical life: HRBI at Microsoft

Business insight (BI) sits at the heart of what Microsoft does. When speaking to analysts about the company's new reorganisation – *OneMicrosoft* – to align with its new strategy in September 2013, Steve Ballmer, then chief executive officer, explained how the leadership team had spent six months, *'not beating out what a reorganisation looks like, but really fundamentally honing the strategy, the strategy first and foremost of focusing in on high-value activities. There are actually high-value activities and low-value activities. Although sometimes you'll find that somebody's low-value activity is somebody else's high-value activity.'*¹⁶¹

Microsoft has a history of analytically establishing and hitting high value. In the last six years, revenues are up 66%, representing an 8.8% compound growth rate. At \$191 billion, cash returned to shareholders over the last decade dwarfs the figures returned by competitors, including Apple.¹⁶²

From human capital analysis to human capital reporting

Ballmer attributes Microsoft's success to a number of things: great products, a clear business model, and *'having incredible talent'*. Indeed, Ballmer went on record to suggest that, *'this is something I actually think I understand probably better than almost anybody on the planet.'*¹⁶³ One of the key individuals playing a role in Ballmer's grasp on Microsoft's talent is Dawn Klinghoffer, the Senior Director of HR Business Insights at Microsoft.

A mathematician by background, Klinghoffer joined Microsoft over a decade ago, initially contributing to, and subsequently now leading, a team of 30 people with skills in statistics, psychology, finance and a whole host of other capabilities all underpinned by analytics which Microsoft brings to bear in its HR Business Insight. *'Microsoft is very data-driven,'* she says, *'so pretty much everyone wants to understand every type of aspect of our data, and that's what our team specialises in.'*

Ballmer himself was keen to understand his talent through the eyes of data and was rarely disappointed. *'What I'm most proud about,'* reflects Klinghoffer, *'is that if the CEO comes to my office, 95% of the time he asks a question, I am able to give him an answer based on the data that we have. That was not the case ten years ago. [...] We have built a function where I feel I am able to be nimble in getting data, enabling us to make decisions in a really agile and accurate way.'*

The leadership team regularly uses Klinghoffer's and her team's skills. *'Because our CEO relies so much on data it makes our role critical. We get involved with lots of big projects where data is key to decisions, even down to the latest re-orgs that were announced this summer, which meant that we were providing lots and lots of cuts of data. This involved looking at things and asking, "if we arranged things this way, what would that mean from a people perspective?" I'd like to think this helped making decisions on where we wanted to go. Our data is very much support for the strategy leads to make decisions.'*

Human capital reporting the Microsoft way

Sitting under Lisa Brummel, CHRO at Microsoft, the HR function has a direct line to the CEO and comprises line HR teams and four centres of expertise (COEs). Within Talent and Organisational Capability there is a centralised college staffing function, and under Compensation and Benefits sits the Global HR Operating Team. HR Business Insights is a separate COE, which, Klinghoffer points out, *'really highlights the investment that HR and Microsoft have made in the function.'*

Human Resources Business Intelligence (HRBI) has a research and analytics team that owns the Microsoft-wide Poll, where employees are surveyed once a year on engagement, the Exit Survey, which gathers insights on people who have left the company, attrition analysis involving more predictive modeling, movement analysis, leadership paths and quality of hire.

Getting the analytical foundation steps in place

There is a separate team that is focused on Microsoft-wide standard reporting, tools and processes which partners with the Research and Analytics team. This is the largest remit of HRBI. This includes ownership of the HR data warehouse, and reporting tools that HR as well as managers access to get at reports such as attrition, diversity and staffing.

The HR function at Microsoft has itself been through a transformation in the autumn of 2013, and one of the areas focused on was centralising reporting and analytics. *'One of the teams I lead, 'highlights Klinghoffer,' is completely focused on supporting the reporting and analytics needs of the line organisations, so the Engineering, Business and Corporate functions are supported with any ad hoc reporting/analysis needed to run their businesses.'*

It is quite an empire. There is a person on the team that partners closely with the Legal and Corporate Affairs function (LCA) and any data/analytics that is needed to support their work. Another is focused solely on a special project Klinghoffer and her team recently worked on with the Global HR Operations team in the way Microsoft manages employee data. She also has an HR data privacy expert which partners with LCA on privacy standards and guidelines specifically around employee data. Klinghoffer's team also own the business management function for HR as a whole and the HR Planning process, the resource model used to allocate human capital within the disciplines of HR and partner closely with finance on the expenses needed to support various HR programmes.

Yielding this analytical power is an art Klinghoffer has honed over the 13 years she has been working at Microsoft. *'It can be overwhelming for people to look at piles of data and figure out how you are going to get any information out of it – particularly when you are in professions where data analysis is not a core competency.'* This, for Klinghoffer, means focusing on a business problem by gathering insights with a view to taking action. This sounds simple but requires a deep level of analytical understanding and the processes involved across four different stages. Each of these stages resonates strongly with the four analytical steps of the Valuing your Talent Framework (VTF).

Stage 1: Data collection

This stage clearly resonates with the input analytical step of the VTF. In short, Microsoft has an enviable grasp of the size and nature of its workforce. *'What is really important to take away is you don't need a ton of data to be able to make traction,'* observes Klinghoffer. Much depends on what is under analysis and what you want to do with it – or more accurately, the level of the claims you'd like to make and the significance of investment made on the back of it. *'Obviously the more data you have the richer your insights can be.'* For example, when exploring recruitment and retention issues, Klinghoffer's team have data from 90,000 hires stretching back over nine years to work with.

Small companies need to be careful about making judgements without a lot of data. For Klinghoffer, *'you must have critical mass of a population in order to have a strong point of view: we generally don't*

like taking a big stand on less than 50, [and] you should ideally have 100 hires for any given group.' She continues, 'for this type of analysis to be meaningful, you need to be able to somehow differentiate the talent and the outcomes they have been able to achieve since they were hired.' This is not necessarily easy for new or small companies.

What little data you do collect has to be high quality. *'The best place to source this data is from your accurate and complete processes and systems, and the HR data warehouse that contains all the related data,'* although Klinghoffer acknowledges many companies have not reached the rigor of Microsoft's warehouse: *'When I speak at external events the two problems people have right now is the quality of data and lack of data. People don't even have a database that houses all of the HR data, and they don't even know where to get some of this stuff.'* Microsoft has benefited from taking a long view, a long time ago: *'We thought we have a lot of HR data on individuals so we better create a data warehouse so we have one place to go, and we've had this in place for about 13 years. When I speak externally I would say around 75% of the companies I speak to do not have a data warehouse.'*

Stage 2: Applying definitions

Definitions play a key role in deriving meaningful insights relating to the effectiveness of investments in the workforce. Again, much depends on what is under analysis. For example, Klinghoffer highlights the importance to data collection of being able to differentiate between different types of activities across different populations when establishing, for example, *Quality of Hires (QoH)*.

'At Microsoft "early attrition" is less than two years due to the high relative investment of a new hire – recruiting costs, signing bonus/stock, relocation, less productive ramp-up time of a new hire, on-boarding assistance from teammates, interview loop time, opportunity cost of another good hire that may have stayed, etc. We estimate cost of attrition at 150% of salary.' There are other data points to consider, although, *'any company should be able to discern their ROI from a new hire [and from there] what is the break-even period.'* Ultimately companies can build their own QoH data sets using, *'a combination of both hard data if available (for example, reviews, sales, retention), or soft, that any company can theoretically roll out (for example, hiring manager or peer survey) or a blend.'*

Stage 3: Analyse

Questions inevitably come in waves, as, *'once you begin the analysis, you will most certainly generate additional questions.'* Again, it is difficult to draw general points from this stage because specific issues require specific questions, which in turn are aligned with different techniques. Companies will inevitably approach different analytical questions through the different lenses of the VTF. Klinghoffer again uses the example of QoH: *'if you hire across geographies, different professions, or a variety of experience levels, you probably have some variation in the quality of your hires. What kind of variation do you have? Is there any connection to your business's opportunities or pain points?'* Clearly, there are parallels here with the VTF's third analytical step, output measures, which seek to establish the outputs generated by HR's activities.

Klinghoffer offers two important caveats regarding the analysis stage. The first observation turns on the utility of analytics. *'QoH is not useful at an individual level – it is the source or multiple traits of the hire that is important, not the individual performance.'*

The second concerns the much-trumpeted notion of predictive analytics. *'Remember, this QoH analysis will not necessarily predict how an employee will perform long-term, based on the time periods of the definition. This also will not predict attrition [although] we have done some other work on that front. We actually hired somebody from the marketing sciences area from T-Mobile and she had done a lot of predictive work around mobile customers and whether they'd switch carriers, and she's using the same underlying philosophy to create some models for us in our world. [...] We've definitely contributed to the organisation making better decisions based on data.'*

Stage 4: Take action

As the VTF advocates, there is a cyclical pattern from human capital analysis, to its reporting and finally through to its ultimate valuation. Taking action on the basis of BI is closely linked with its analysis, and critically, how executives understand and derive insight from analytics. For Klinghoffer, *'the visualisation of data has had an enormous impact,'* because *'where we learn the most is around how we are able to instantly understand and process the data without having to weed through the numbers.'*

The HRBI team are now playing a central role in the decisions and activities the HR team is involved in. For Klinghoffer, *'data gets involved in pretty much every programmatic decision we make in HR. If we are going to change our performance management system, we do tons of analysis and the data really helps drive that decision. Any type of benefit changes we make we do extensive analysis. We have used data to explore whether we are paying our top performers the right amount of money. We spend a lot of time on quality of hire – the people we have hired. We examine them across a scale from a high-quality, medium-quality or low-quality hire.'*

This is not simply analysis for analysis's sake. There is a clear move to map outputs and impact to the inputs of, in this case, recruitment: *'We look at the data to measure the level of investment in different populations based on what the data says. We have done analysis on attrition helping Microsoft to understand what types of people are leaving and do we want to go in and do anything about keeping those populations. So, when we are looking at decisions as an HR function, data is absolutely part of those decisions.'*

Things have certainly moved on. Reflecting on over a decade of experience in HR analytics, Klinghoffer observes, *'ten years ago we would have shown people their data and they would have said, "This isn't right." We have had to go in and fix the data so when we show them something it is right. Now everyone has an HR scorecard and uses it to make decisions, and metrics are so easy now to create and get people to rally behind them. People understand now what they didn't ten years ago, and the importance of making the quality of their data better.'*

The ultimate test of the value of these techniques and interventions lies in their utility for other customers. Microsoft has not only honed its analytics to enable its own internal processes, it has also monetised its BI in its software developments, itself a reflection of Microsoft's shift to a software and enterprise-led delivery of services. HRBI has a central role to play in this process, as Klinghoffer has experienced at first hand: *'When people are creating these kinds of products one of the first things they think about is people data because there's tons of data, and it's where people go first to see if they can get it to work. We constantly eat our own dog food at Microsoft. We are always being asked by product groups at Microsoft to work with us to help build their data and products to see how it looks. It's a win-win for us. We get to use these new cool products like Power View and Excel. We've been using Power View for a few years now. I got to present the demo to Bill Gates eight years ago. It was because we have great data which resonates with people, so I feel I am at the right place because I get to be involved with these types of projects.'*

The CEO of Microsoft, and the institutional investors behind him, see the future of the company lying in who wins the battle for the digital ecosystem taking shape in the second decade of the twenty-first century. This ecosystem will involve a number of products designed to enable the decisions of those in HR as well as other executive roles. If Klinghoffer's experience is anything to go by, HRBI will be at the heart of this new ecosystem.

Xerox: Managing the intangible value of people: can you CE-IT?

In 2013, Xerox marked 75 years of xerography and of revolutionising how the world works and shares information. In one of life's little ironies, for a company that has made its name and revenues primarily on the back of copying things, it is in fact one of the world's great innovators, being awarded on average 23 patents per week. In the words of the company's chairman and CEO, Ursula Burns, *'we're here to help our customers be more successful by taking very complex business processes and challenges, create solutions and make them appear simple to the people who need them.'*¹⁶⁴ For Burns, this involves using innovation smartly and strategically to help the world tackle daunting and complex tasks.

Little wonder, then, that both Louise Fischer, HR director for EMEA, and CFO Xavier Heiss are both in their neighbouring offices early. *'We're both early birds,'* says Fischer. *'He's usually in before me. I get in about 7:00 or 7:15. We usually spend most mornings for half an hour just chewing the cud and catching up.'*

Chewing the cud involves coming to terms with the fast-changing shift to a service-based offering put in place by CEO Ursula Burns. The target is to convert the ageing and margin-declining elements of business into higher value-added service offerings. Around half of the business now fits this new mould with a target of two-thirds of the portfolio set for 2017.

In separate conversations with both Fischer and Heiss it becomes quickly evident where the two functions can integrate their strategic and operational thinking to help the business make the underlying people changes required by the shift in thinking and action required at Xerox. Significantly, all of this is being achieved against the backdrop of a business for which 85% of its revenues is annuities based. This requires thinking about changing to a higher-value creating business model while continuing to offer the same and reliable services customers have come to expect. Taking a CE-IT perspective helps us to understand the ways in which Fischer and her CFO see and tackle the people element of the new Xerox strategy.

Clarity

Gaining greater clarity around the strategy and its underpinning business model has enabled Fischer to focus on the related people-specific solutions. *'As we're selling our technology, the price has come down and people are printing less, so we are getting less margin. The problem is people think the costs of the service around that should also be less every time they renew it. It's like when you buy your iPad, you expect it to be half the price when you buy your next one, like our customers, so our margins have declined.'*

The problem here, of course, is that while margins from technology might decline, the costs of people move in the opposite direction. The obvious answer in previous iterations of capitalism has been to shed labour and the associated costs. But Fischer suggests the operational complexities of business are fuzzier: *'You have issues around whether we can reduce our labour force but it's become more complex because it is more networked now and we don't expect things to get simpler, so we need to change the way we execute service. So the strategic workforce plan adopted by the group is about doing less in the field and resolving more issues remotely.'*

Enablement

Espousing change in your people over a cup of early morning coffee with your CFO is one thing. Putting it into practice to underpin the strategy is quite another. But Fischer is unequivocal: it is no longer about taking out cost but thinking very clearly about how to invest in people to enable them to deliver what is required: *'It's good to have the commercial acumen and the understanding of the business but I wanted*

to reconnect with the people side. I'm driven to transform and take cost out, transform and take cost out, transform and take even more cost out, rather than focusing on the re-investing side that leads me back to my original interest in having the conversation about people and how I can create a business case to start re-investing some of the costs we've taken out in our talent.'

Imperative

It is here where those early morning conversations reveal the importance of an integrated approach between the people and finance functions. Fischer was able to learn from her CFO of the imperatives required from a people perspective: *'Xavier has got a huge battle on with his Audit Collection team who are the people who get the cash in and get the invoices paid, because we have so many different billing methods. So instead of one invoice going out and being very simple it's multifarious and too expensive. So that sits in Xavier's shop and he will say to the different lines of business, "If you're telling me it's too expensive, I'll take cost out, half of the cost out. I'll take all of the cost out even, but you've got to stop selling complicated offerings to your customers. You've got to make it simple: one invoice." So he's driving that change, because they're driving him to take cost out. But then you have to say, "Okay, what's the people model that simplifies and delivers that way of working?" We look at this in terms of processes, countries and lines of business.'*

And here Fischer immediately points to the role of people-specific imperatives in balancing enablement against cost reduction. *'We have been looking at certain parts of the business recently and saying, "Gosh, this line of business is grossly underperforming in that country, let's get shot." And then you realise that, actually, that same business is helping fund the infrastructure and the equipment that they are selling helps to keep those prices down and manage the infantries. So we've looked at those things, simplified the way we do things and are finding more ways to do things more cheaply while doing what it is we have to do.'*

Imperatives are a way of life for CFO Heiss: *'My entire career is based on, "There is something broken and you have to fix it." It soon becomes very clear when talking to Heiss that people have a central role to play in his own executive toolkit for approaching business imperatives: 'If you asked me to describe the company today I would say it is a mix of people, process and system. And when you put these three together then, if you have an organisation, a team and a process, if you take this element of people, process and system you will have a good way of understanding what could be broken and how a solution could be articulated.'*

Heiss does look at measures in the people space but for him, examining the relationship between people, process and system is more art than science: *'This is not the metrics; it's more a part of the diagnosis. It's like a doctor saying, "Do I do an x-ray, or do I do a scan, or whatever?"'*

Traction

Nevertheless, there does come a time when the results of exploring the balance between enablement and established imperatives need to be monitored. From a CFO's perspective, they are done in a wider context: *'when I'm looking at a country with my finance hat on, I will look at key finance metrics, P&Ls. It's a mix of pure financial data and what we call KPIs – key performance indicators. So, for example, you might say revenue growth is important. But what type of revenue? And in this revenue, what type of product family? Then you move from pure financial data to KPIs within this. There is nothing revolutionary here. Xerox is a data-driven company.'*

The granularity of traction

But Heiss goes deeper and has his own distinctive perspective for understanding how the people elements underpinning the business model are ultimately connected to the profitability of the business. Heiss focuses on three separate yet related notions of value-added.

First, is what Heiss refers to as 'business value-added' or what the customer is prepared to pay for. He articulates this very clearly: *'As the customer, you may have a bill for which you have printed 10,000 prints on your colour machine, the invoice is £500. If I now split what that £500 is made of, there is the margin—our profit—and after that there is only cost. Business value-added will be things that you will recognise as a customer and say, "yes,*

I'm okay to pay for this." As an example, if you have an older consumable for your machine and the machine generated black pages or colour pages, and I can show you as the customer the cost sitting behind the invoice, you will say, "Yes, I can see that, I used two colour cartridges and I've got this cost there." You have called during the month to get a service engineer so you won't be surprised to see labour costs of the person coming to you on which there is salary, and seeing as this guy is coming equipped, he has tools, he has a car, he has a phone and these carry costs. But this guy also has around him an infrastructure, an IT system to support him, so you won't be surprised to see that on the invoice. This is the concept of business value added: what you as the customer are prepared to pay when I give you a printout of the costs.'

Then Heiss introduces a second concept: "non-business value-added" (NBVA). 'This,' he suggests, 'is looking at how can we change or extract from the processes in order to improve profitability but also to be more competitive because everybody in our market is trying to reduce cost.'

In many ways, this is the CFO's take on the issues referred to above by Fischer. Streamlining the process can certainly shave off costs but this is precisely the approach Fischer was pushing back against. Yes, we can re-engineer through six sigma approaches, but we also need to explore where additional BVA sits. This, for Heiss, introduces a third element where people are critical.

Heiss continues, 'And then you have a third component, which I call "required value-added". As an example, if I put on my invoice the costs of accounting, would you accept to pay for the costs of accounting for Xerox? You would question why you have to pay. I could put the cost of tax on there. Tax you won't challenge because you recognise that you have to pay your VAT but if I'm telling you that you have to pay for my accountant or internal control and quality, would you be willing to pay? I could say, "You know what, this is the cost of doing business because today we are living in a regulated world and having all of these accounting requirements with the SEC and Sarbannes Oxley, it's just part of the regulation. It's the cost of doing business. And you, Mr Customer, do not like it but it's what you have to pay for. And I don't like it but it's part of the costs of doing business. The three types of elements when you strip a process, when you want to cut the costs of a process you will look at what is clearly bringing business value-added to the customer, what is non-business value added on the old proposal which via Lean Six Sigma you might take out, and what you should have as a minimum requirement in order to do your business.'

Seeing the development of intangible value

The challenge, then, revolves around how the services delivered by people can increase the business value-added elements of the service offering as opposed to shaving off costs here and re-engineering different elements there. Heiss spent some time explaining that the creation of goodwill – the difference between the book value of a business and the higher price paid for it – effectively represents the management of a company's financial assets through increasing the value of talent. He provided us with an example:

'The one element at Xerox where we are different is the tenure of our employees. It is amazing. They have been on a journey with us in a way that helps them to understand our business. They are like diesel engines, much more traditional but they are predictable and reliable. But this means sometimes they are not very adaptable or able to change quite so effectively. But we also acquire other people who contribute to the increase in the goodwill value of the business. If you look at our balance sheet, our goodwill is relatively large. We have added to the depth of the value of our people through recruitment and acquisition. We have diversified and opened our portfolio with services but we also understand technology. So when you ask us what is it that we are buying, we bought a piece of experience. So you are buying some of the benefits you would normally associate with long tenure. We are buying experience of players who are in markets where we haven't previously been active which opens our portfolio with services. We are moving into new services segments in technology we are very strong, but also now in health care, education, and commercial, and things like that, but we know that we still have a journey to do. But when you bring our technology together with these other areas, it's very powerful. We create future value-added in the business through the promise of additional services. You create unexpected goodwill through our ability with technology and fusing it with other services.'

Talent's talent for creating talent at ArcelorMittal

'We are still a very young company,' observes Brian Callaghan, group head of leadership development. The age of the company belies its size. The combination in 2006 of the world's two largest steel companies to form ArcelorMittal has brought an exciting, albeit daunting, challenge. 'We're still building talent. We're only eight years old. What do you do when you put a new organisation together and start building your talent base? You start with the foundations.'

Recognising the value of people

There are impressive foundations. Resourcing a company of this size with over 230,000 employees and 500 top managers is a continuous process.

The HR function works closely with ArcelorMittal's various business units to find and place the most suitable talent. *'It hasn't always been like this,' says Callaghan, 'There has been a growing acknowledgement amongst leadership that a positive climate and engaged employees deliver value. [...] I believe that if you have good people processes that are executed by good people managers you can do remarkable things. Generally, good managers don't need to be taught good processes. It comes naturally. But some need good support and frameworks to help.'*

Support is provided by the ArcelorMittal University, which is at the centre of the learning and development organisation in ArcelorMittal. The ArcelorMittal University is the driving force for the implementation of the learning strategy within ArcelorMittal. With academies dedicated to transversal functions and expertise within the company, a growing number of regional training campuses on every continent and a direct link to a network of local training centres, it provides numerous opportunities for employees to grow. With over 11.3 million registered training hours globally, it is an important integrated element of ArcelorMittal's people development processes.

The framework at ArcelorMittal is also impressive. The Global Employee Development Programme (GEDP) focuses on improving skills, motivating employees and ensuring the group has a pipeline of talent for the future. Perhaps the most striking element of the pipeline is the pivotal role the group's top talent plays in the development of current and future talent in the business.

Building a robust evidence base

'Basically our GEDP is a classic performance management process,' explains Callaghan. 'Managers agree objectives aligned with the business strategy; they provide regular feedback and coaching; they hold a mid-year review; they provide more feedback and coaching; they hold an annual appraisal, which includes rating their direct reports, a five-point rating for performance and a five-point rating for potential. The process was designed just after the merger and every year it has matured. Managers and employees have become more familiar with it and the process improves year on year. At the end of the year when the annual appraisals take place, ratings require moderation. So, "Career Committees", as we call them, are scheduled. These start in the steel plants where the managers will review the performance and potential ratings of the people in that plant, making sure that the ratings have been applied fairly across the different functions. These ratings are then elevated to the next level, along with ratings from other plants, for further moderation. In all, there are about five or six levels of moderation culminating in a final Career Committee where Mr Mittal [the chairman and CEO] and the GMB [Group Management Board] will spend two full days reviewing the top of the pyramid – executive vice presidents, vice presidents, general managers – making sure that the ratings are arrived at in a fair and transparent way. This is important as ratings can impact other processes such as executive appointments, succession management, incentive plans and so on.'

Using talent's talent for talent, analytically

Ensuring ArcelorMittal's top talent plays a role in developing others is not just a nicety the business would like to have. It sits at the heart of how all leaders across ArcelorMittal are evaluated and rewarded and is driven home in the performance management and data collection systems. As Callaghan elucidates, *'for every manager, their first objective is to manage the GEDP process for their people. They must agree objectives; they must build and support development plans; they must provide regular feedback and coaching; they must conduct the mid-year review; they must conduct the annual interview. That's the number-one objective out of five or six personal objectives. At the end of the year, the manager has to make a case for their report rating, with tangible evidence of what has been achieved.'*

Here, too, the evidence base is impressive. Over the last three years, of the 120 people who moved into top leadership roles via either internal or external appointments, just five people achieved a rating of less than 3 [on a five-point scale]. As Callaghan points out, *'a "2" in our scale means that they "somewhat met expectations". A "3" is "fully meets expectations", which is a very good rating. So, of the 120, 115, over a three-year period, fully met or exceeded expectations. That suggests that we made the right decision in promoting the people into those roles because they are delivering or exceeding what is expected of them.'*

But the search for data to inform the people strategy does not finish there. The exceptional people talent ArcelorMittal has in place is regarded as a key source. The placement of an individual in a key position is not just for the formation and implementation of the business strategy, but the position's incumbent becomes a direct line of insight into the current and future strategic and operating challenges facing the business, and a reflection of the capabilities required to tackle them. The group is not just creating qualitative data by validating candidate profiles. They are building an internal capability that represents a sustainable architecture of value based on the collective capability of its executive cadre. The job-profiling project that has been implemented over the past 18 months is *'not just a standard job description exercise. ...For all key positions across the group, senior management are interviewed and are asked detailed questions around "What are the strategic objectives of the job? What are the major business challenges that will need to be addressed? Who are the key stakeholders? What are the internal and external forces impacting the job-holder? "And of course, we seek views on experiences, attributes and competencies required to succeed. This information is used to develop output-based job profiles. In addition we build people profiles which include knowledge, experience, competencies and psychometric assessments. These are then used as the framework for succession management and development planning as we are able to conduct a compatibility exercise which shows the best-fit candidates for the roles.'*

Looking at talent through a risk lens

Ensuring people are aligned with the business is not the only goal. ArcelorMittal has built a risk management element to their talent management. *'Why would we want to do that? Well, we don't want to put the wrong person into a key position because it represents a risk for the business and we want to protect the business by ensuring a certain level of sustainability. Equally, we want to ensure that our people have the best opportunity to utilise their natural capabilities. If you put a round peg into a square hole, the business is at risk and the person will not perform to their optimum level. It is important to ensure that candidates are suitable for the role and it is in line with their aspirations and with their profile. It's not just about putting the name of somebody who has been identified as high potential into a box for a particular role. The individual's career aspirations should be taken into account, so there is a career conversation with the individuals concerned. Obviously the education, knowledge, experience have to be taken into account.'* Far from de-personalising employees and their aspirations, then, ArcelorMittal's analytics are ensuring employees' hopes and aspirations are factored into the evidence base the company uses when placing talent, representing a hugely valuable return on insight from their investment in the analytics underpinning the GEDP.

'It's not perfect,' suggests Callaghan, but the returns go beyond this impressive understanding of ArcelorMittal's top managers. *'We have a very robust succession management process for the top 500 positions within the company. There's nothing extraordinary about it. At the end of the day we have for each*

of those key positions people identified as replacements. Last year 83% of movements in that space came from the actual succession plans. Our target was 80%. We don't want 100% because we believe that some strategic external hiring will bring different thoughts and different ideas to the company. Eighty-three per cent is very good and it demonstrates to our people that there are career opportunities.'

Talent: the c-suite's view

Key to the success is the way in which human capital strategy is aligned with the requirements of the business. *'I sit down with my boss [HR EVP Henri Blaffart], review the business plan, look at the HR component and determine how HR can best support the different business units. We will agree my personal objectives, with KPIs, which specifies what is expected of me for the year. The CEOs of the units, the CEOs of the businesses, the CFOs, the CMOs, will all have specific performance objectives linked to their respective business units, aligned to the overall business strategy. For every executive, and every manager across the company, the objectives include people-related components.'*

Perhaps most tellingly of all is the impact this maturing evidence-based human capital strategy has had on employee engagement. Measured across 24,000 employees, the group's global survey of employees has not just seen its response rate increase from 56% to 75% over the last four years, but engagement itself has risen from 62% to 69% over the same period, in what have been incredibly challenging market conditions. Little wonder, perhaps, that during the conversation with Callaghan, he just happened to mention that his CEO Lakshmi Mittal made a presentation to the institutional investors during one of their regular meetings. As Mittal himself suggests, human capital strategy and the communication of the results from analytics can have a very positive impact:

'The GEDP process was designed as a continuous process of communication and feedback between management teams and individuals across the group. By making sure that individual objectives are clearly aligned with the company's strategy, the process is also helping us ensure that every one of us knows what our goals are as a company, what direction we are taking, and what our strategy is to achieve these objectives. It is therefore more than a process: it is a fundamental part of the company's business strategy, part of which includes having the best talent in the business in order to efficiently execute this strategy. In today's tough business environment, having a motivated and engaged workforce has never been so critical to the health and success of our company. One of the key elements of employee engagement is communication and leaders have a key role to play in this respect, to make sure each and every employee receives and understands key messages.'

Appendix 3: Contributors

We are grateful for contributions from the following (although ultimate responsibility for the text lies with the VyT team):

Airmic	John Hurrell	Lancaster University Management School	Professor John O'Hanlon
Albatross	Katie Moore	Lloyds Bank	Dr Alan Gilchrist
ArcelorMittal	Sean Taggart	McKinsey	Colin Price
	Brian Callaghan	Marks & Spencer	Tanith Dodge
ASDA	Petros Tottas	Microsoft	Dawn Klinghoffer
Blumberg Associates	Jo Whitfield	Nationwide	Robert Aldrich
CentrePoint	Max Blumberg		Neil Hasson
CIMA	Sey Obakin	NEST	Paul Cox
	Ana Barco	Nestlé	Matt Stripe
	Brad Taylor	Network Rail	Ian Icton
	Peter Spence	Newton Asset Management	Elly Irving
	Charles Tilley	Oracle	Andy Campbell
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Clinimed	Sue Bull		Alison Murray
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Deloitte	Laurence Collins	Pernod	Jenny To
	Howard McMinn	PwC	Anthony Bruce
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Fitch	Andrew Jackson	Alison Thomas Consulting	Alison Thomas
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	Peter Korsten	Valuentis	Nicholas J Higgins
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International Integrated Reporting Council	Charles Tilley	Xerox	Louise Fisher
Just Accounts	Barry Florida-James		Xavier Heiss
	Lucy Koleva		Tom Maddison
KPMG	Jeremy Anderson		

References and notes

- 1 Mitchel, C., Ray, R. and van Ark, B. (2014) *The Conference Board CEO Challenge® 2014: People and Performance* (New York: Conference Board).
- 2 Francke, A. (2014) 'The asset that creates all the others,' http://www.cipd.co.uk/blogs/cipdbloggers/b/human_capital_blog/archive/2014/03/11/the-asset-that-creates-all-the-others.aspx
- 3 Hesketh, A. (2014) 'Employee Engagement and Performance in the FTSE 100: A financial analysis' *Lancaster University Management School Working Paper* (Lancaster: LUMS)
- 4 For example see Ingham, J. (2007) *Strategic Human Capital Management: Creating value through people* (Oxford: BH, Elsevier). There are, of course, the two major investigations undertaken in the UK and US. See Kingsmill, D. (2003) *Accounting for People, Report of the Task Force on Human Capital Management*, Department of Trade & Industry: London; ANSI/SHRM (2012) *Guidelines for Reporting Human Capital Metrics to Investors* (Alexandria, VA: SHRM). There is, of course, the influential set of books written by David Ulrich: for example, see: Becker, H. Huselid, M. and Ulrich, D. (2001) *The HR Scorecard: Linking People, Strategy and Performance* (Boston, Mass, Harvard Business School Press). His more recent work also provides key insights. See: Ulrich, D., Younger, J., Brockbank, W., and Ulrich, M. (2012) *HR From the Outside In: Six competencies for the future of human resources* (McGraw-Hill)
- 5 Michaels, E., Handfield-Jones, H. and Axelrod, (2000) *The War for Talent* (Boston, Mass: Harvard Business School Press)
- 6 Cantrell, S.M. & Smith, D. (2010) *Workforce of One: Revolutionizing Talent Management through Customization* (Harvard Business Press)
- 7 Pine, B.J. and Gilmore, J.H. (2011) *The Experience Economy: Work Is Theater & Every Business a Stage: Work Is Theatre and Every Business a Stage* (Boston, Mass: Harvard Business School Press) 2nd Edition
- 8 CGMA (2012) *Rebooting Business: Valuing the Human Dimension* (London, AICPA/CIMA), p. 15.
- 9 CGMA (2012) *Rebooting Business: Valuing the Human Dimension* (London, AICPA/CIMA), p. 18.
- 10 For example, see Boujelbene, M.A. & Affes, H. (2013) 'The impact of intellectual disclosure on cost of equity capital: A case of French firms,' *Journal of Economics, Finance and Administrative Science*, 18(34), 45–53.
- 11 CGMA (2012) *Talent Pipeline Draining Growth: Connecting human capital to the growth agenda* (London, AICPA/CIMA), Figure 6, p. 9.
- 12 Hesketh, A. & Hird, M. (2010) *The Golden Triangle: How Relationships Between Leaders Can Leverage More Value From People*, in P. Sparrow, A. Hesketh, M. Hird, C. Cooper (eds) *Leading HR* (Oxford: Palgrave), pp. 103–135; EY (2014) *Partnering for Performance Part 2: The CFO and HR*, The Master CFO Collection, Part 6 (London: EY).
- 13 CGMA (2012) *Talent Pipeline Draining Growth: Connecting human capital to the growth agenda* (London, AICPA/CIMA)
- 14 IIRC (2013) *The International Integrated Reporting Framework* (London, IIRC), para. 2.15, p. 12
- 15 IIRC (2013) *Capitals. Background paper for IR* (London: IIRC)
- 16 IIRC (2013) *The International Integrated Reporting Framework* (London, IIRC), para. 2.15, p. 12
- 17 Molloy, J.C. and Ployhart, R.E. (2012) 'Construct clarity: Multidisciplinary considerations and an illustration using human capital,' *Human Resource Management Review*, 22, 152–156, p. 154
- 18 For a flavor of the heat around these debates, see the VyT's sister web page hosted by the RSA: <https://rsapremiums.crowdicity.com>
- 19 Lafley, A.G., Martin, R. with Riel, J. (2013) 'Leading with Intellectual Integrity,' *Strategy + Business*, 71 Summer 2013, p. 2
- 20 Moss, Kanter, R. (2002) Moss Kanter, R. (2003, *Foreword*, in Marc Effron, Robert Gandossy & Marshall Goldsmith (eds) *Human Resources in the 21st Century* (New Jersey: Wiley) pp vii–xii.

- 21 Kingsmill, D. (2003) *Accounting for People, Report of the Task Force on Human Capital Management*, Department of Trade & Industry: London.
- 22 ANSI/SHRM (2012) *Guidelines for Reporting Human Capital Metrics to Investors* (Alexandria, VA: SHRM)
- 23 Davenport, T.H., Harris, J.G., and Shapiro, J. (2010) 'Competing on Talent Analytics: What the best companies know about their people – and how they use that information to outperform rivals,' *Harvard Business Review*, October, 52–58
- 24 McKinsey (2011) *Big data: The next frontier for innovation, competition and productivity* (McKinsey Global Institute)
- 25 Davenport, T.H. and Harris, J.G. (2007) *Competing on Analytics: The New Science of Winning* (Boston, Mass: Harvard Business School Press), p.7
- 26 Silver, N. (2012) *The Signal and the Noise: The art and science of prediction* (London: Penguin), p.13
- 27 Harford, T. (2014) 'Are We Making a Big Mistake?' *The FT Weekend Magazine*, March 29/30, 28–31, p. 29
- 28 Spiegelhalter, D. (2014) quoted in Harford, T. (2014) 'Are We Making a Big Mistake?' *The FT Weekend Magazine*, March 29/30, 28–31, p. 29
- 29 MacLeod, D. and Clarke, N. (2009) *Engaging for Success: Enhancing performance through engagement* (London: Department for Business, Innovation and Skills).
- 30 Fleetwood, S. & Hesketh, A. (2010) *Explaining the Performance of Human Resources Management* (Cambridge: Cambridge University Press), p. 272
- 31 There is a view held by accountants that goodwill merely represents the difference between what was paid for a company and its book value and is the sum total of all the intangible assets, part of which could be human capital assets. So, in some way the value of human capital is recognised on the balance sheet. But there are two issues here. First, we can only record externally acquired, not internally generated, human capital. Second, the methodologies associated with such valuations are in need of improvement as recent the example of the recent write-down of the value Autonomy by HP.
- 32 Kingsmill, D. (2003) *Accounting for People, Report of the Task Force on Human Capital Management*, Department of Trade & Industry: London.
- 33 Airmic/Cass Business School (2011) *Roads to Ruin: the analysis. A study of Major risk events, their origins, impact and implications* (London: Airmic); and Airmic/Cass Business School (2014) *Roads to Resilience: Building Dynamic Approaches to Risk. Protecting and championing trusted reputations in complex and uncertain business environments* (London: Airmic); Financial Reporting Council (FRC) (2013) *Risk Management, Internal Control and the Going Concern Basis of Accounting. Consultation on Draft Guidance to the Directors of Companies applying the UK Corporate Governance Code and associated changes to the code*. (London: FRC).
- 34 Hesketh, A. (2014) 'Life Begins at 80: The human capital management challenges of SMEs' *Valuing your Talent Research Insight* (London: CIPD)
- 35 The CE-IT instrument was introduced in the first Valuing your Talent Working Paper. See Hesketh, A. (2013) 'Valuing your Talent: Resourceful Assets?' *Valuing your Talent Research Insight* (London: CIPD)
- 36 Drucker, P. (1994) 'The Theory of the Business' *Harvard Business Review*, 72, September-October: 95–104. A more contemporary version can be found in Birkinshaw, J. and Godard, J. (2009) 'What is Your Management Model?' *MIT Sloan Management Review*, 50(2): 80–90.
- 37 British Standards Institution (BSI) (2006) *The Sigma Guidelines: Putting Sustainable Development into Practice – A Guide for Organisations* (London: BSI)
- 38 IIRC (2013) *The International <IR> Framework* (London: IIRC), p. 7; See also: IIRC (2013) *Basis for Conclusions* (London: IIRC)
- 39 IIRC (2013) *The International <IR> Framework* (London: IIRC), para 2.7, p. 10
- 40 EY/IIRC (2013) *Value Creation: Background paper for <IR>* (London: IIRC), p. 1
- 41 IIRC (2013) *The International <IR> Framework* (London: IIRC), Figure 2, p. 13
- 42 Lev, B. (2001) *Intangibles: Management, Measurement, and Reporting*, (Washington, D.C.: Brookings Institution Press).
- 43 The literature here is vast. A good place to start is: Hamel, G. and Prahalad, C.K. (1990) 'The Core Competencies of the Corporation,' *Harvard Business Review*, May–June
- 44 E&Y/IIRC (2013) *Value Creation: Background paper for <IR>* (London: IIRC)
- 45 For an overview see Fleetwood, S. & Hesketh, A. (2010)

- Explaining the Performance of Human Resources Management* (Cambridge: Cambridge University Press)
- 46 Tansley, C., Kirk, S. Tietze, S. (2013) 'The currency of talent management—a reply to "talent management and the relevance of context: Towards a pluralistic approach,' *Human Resource Management Review*, 23, 337–340, p. 338, emphasis in the original.
- 47 Michaels, E., Handfield-Jones, H and Axelrod, (2000) *The War for Talent* (Boston, Mass: Harvard Business School Press)
- 48 For a collection of the latest debates see: Gallardo-Gallardo, E, Dries, N., González-Cruz (2013) 'What is the meaning of 'talent' in the world of work? *Human Resource Management Review*, 23, 337–340, p. 338. Thunnissen, M., Boselie, P., Fruytier, B. (2013) 'Talent management and the relevance of context: Towards a pluralist approach,' *Human Resource Management Review*, 23, 326–336
- 49 Lewis, R.E. and Heckman, R.J. (2006) 'Talent management: a critical review,' *Human Resource Management Review*, 16, 139–154
- 50 Cappelli, P. and Keller, J.R. (2014) 'Talent Management: Conceptual Approaches and Practical Challenges,' *Annual Review of Organisational Psychology and Organisational Behavior*, 1, 305–31.
- 51 We are only too aware that this is a highly contested area. The new human capital management standards under discussion by the BSI will provide further clarity when it reports later in 2014. We tackle the definition in Chapter 6.
- 52 Collings, D.C. and Mellahi, K. (2006) 'Strategic talent management: a review and research agenda,' *Human Resource Management Review*, 19, 304–313
- 53 O'Reilly, C.A. and Pfeffer, J. (2000) *Hidden Value: How Great Companies Achieve Extraordinary Results with Ordinary People* (Boston, MA: Harvard Business School Press)
- 54 This argument is taken from Brown, P. and Hesketh, A. (2004) *The Mismanagement of Talent: Employability and Jobs in the Knowledge Economy* (Oxford: Oxford University Press), Chapter 8.
- 55 Tansley, C., Kirk, S. Tietze, S. (2013) 'The currency of talent management—a reply to "talent management and the relevance of context: Towards a pluralistic approach,' *Human Resource Management Review*, 23, 337–340, p. 338.
- 56 Molloy, J.C. and Ployhart, R.E. (2012) 'Construct clarity: Multidisciplinary considerations and an illustration using human capital,' *Human Resource Management Review*, 22, 152–156, p. 154
- 57 Ployhard, R.E., Nyberg, A.J., Reilly, G., & Maltarich, M.A. (2014) 'Human Capital is Dead; Long Live Human Capital Resources!' *Journal of Management*, Vol. 40, No. 2, 371–398
- 58 Ployhard, R.E., Nyberg, A.J., Reilly, G., & Maltarich, M.A. (2014) 'Human Capital is Dead; Long Live Human Capital Resources!' *Journal of Management*, Vol. 40, No. 2, 371–398, p. 377
- 59 Ployhard, R.E., Nyberg, A.J., Reilly, G., & Maltarich, M.A. (2014) 'Human Capital is Dead; Long Live Human Capital Resources!' *Journal of Management*, Vol. 40, No. 2, 371–398, p. 377, emphasis in the original.
- 60 Ployhard, R.E., Nyberg, A.J., Reilly, G., & Maltarich, M.A. (2014) 'Human Capital is Dead; Long Live Human Capital Resources!' *Journal of Management*, Vol. 40, No. 2, 371–398, p. 393
- 61 Lafley, A.G. & Martin, R.L. (2013) *Playing to Win: How Strategy Really Works* (Cambridge, Mass: Harvard Business Review Press)
- 62 There is a wider debate here. Human resource strategy is different from a people strategy, which in turn differs from human capital strategy. If HR strategy is about aligning with the strategic aim of the business, and people strategy represents how best to enable our people to maximise their own capability, human capital strategy represents the traction organisations make in the alignment of their people to achieve optimal and sustainable business value.
- 63 Ingham, J. (2007) *Strategic Human Capital Management. Creating value through people* (London: BH), p. xvi
- 64 For example, see Beer, M., Spector, B., Lawrence, P.R., Quinn Mills, D. & Walton, R.E. (1984) *Managing Human Assets* (New York: The Free Press)
- 65 Ingham, J. (2007) *Strategic Human Capital Management. Creating value through people* (London: BH), p. 182
- 66 IIRC (2011) *Towards Integrated Reporting: Communicating Value in the 21st Century* (London: IIRC), p. 2
- 67 IIRC (2013) *The International <IR> Framework* (London: IIRC), p. 12
- 68 IIRC (2013) *The International Integrated Reporting Framework* (London, IIRC), para. 4.14–4.15, p. 26.
- 69 Pfeffer, J. (1994) *Competitive Advantage through People: Unleashing the Power of the Workforce*, Boston: Harvard University Press.
- 70 Davenport, T.H., Harris,

- J.G., and Shapiro, J. (2010) 'Competing on Talent Analytics: What the best companies know about their people –and how they use that information to outperform rivals,' *Harvard Business Review*, October, 52–58.
- 71 IIRC (2013) *The International <IR> Framework* (London: IIRC), para 3.17, p. 18
- 72 Hesketh, A., McMinn, H. and Lewis, H. (2014) 'Putting A Price on Talent' *Finance and Management*, April, 13–16. See also, Hesketh, A., McMinn, H. and Lewis, H. (2012) *Bringing Talent into the Boardroom: A New Metric for Establishing the ROI of Talent* (London: Deloitte).
- 73 Fernández-Aráoz, C. (2014) *It's Not the How or the What but the Who. Succeed by surrounding yourself with the best* (Boston, Mass: Harvard Business Review Press), pp. 191–2
- 74 We intend to develop these lenses with our further work under the aegis of VyT.
- 75 Kay, J. (2012) *The Kay Review of UK Equity Markets and Long-Term Decision Making. Final Report* (London: BIS) Quote attributed to Clifford Stoll and Gary Schubert in Mark R. Keeler, 'Nothing To Hide' (2000), p.112, cited by Kay para 10.5, p. 71
- 76 Accenture (2013) *Accenture Technology Vision 2013: Every business is a digital business* (Accenture), p. 21
- 77 Boudreau, J. & Ramstad, P. (2007) *Beyond HR: The New Science of Human Capital* (Boston, Mass: Harvard Business School Press).
- 78 Fleetwood, S. & Hesketh, A. (2010) *Explaining the Performance of Human Resource Management* (Cambridge: Cambridge University Press).
- 79 Davenport, T.H., Harris, J.G., and Shapiro, J. (2010) 'Competing on Talent Analytics: What the best companies know about their people – and how they use that information to outperform rivals,' *Harvard Business Review*, October, 52–58
- 80 Beer, M., Spector, B., Lawrence, P.R., Quinn Mills, D. & Walton, R.E. (1984) *Managing Human Assets* (New York: The Free Press)
- 81 Beer, M., Spector, B., Lawrence, P.R., Quinn Mills, D. & Walton, R.E. (1984) *Managing Human Assets* (New York: The Free Press), pp. 19–20.
- 82 Beer, M., Spector, B., Lawrence, P.R., Quinn Mills, D. & Walton, R.E. (1984) *Managing Human Assets* (New York: The Free Press), pp. 20–1.
- 83 Beer, M., Spector, B., Lawrence, P.R., Quinn Mills, D. & Walton, R.E. (1984) *Managing Human Assets* (New York: The Free Press), p.21
- 84 Miles, R.E. & Snow, C.C. (1984) 'Designing Strategic Human Resource Systems,' *Organisational Dynamics*, Vol. 13 (1): 36–52
- 85 Legge, K. (2005) *Human Resources Management: Rhetorics and Realities* (London: Routledge)
- 86 For a more detailed discussion of this observation, and what follows, see Fleetwood, S. & Hesketh, A. (2010) *Explaining the Performance of Human Resources Management* (Cambridge: Cambridge University Press), Chapter 2.
- 87 Becker, B., Huselid, M. & Ulrich, D. (2001) *The HR Scorecard: Linking People, Strategy and Performance* (Boston, Mass, Harvard Business School Press)
- 88 Purcell, J. Kinnie, N. Hutchinson, S. Rayton, B. Swart, J. (2003) *Understanding the People and Performance Link: Unlocking the Black Box*, London: CIPD.
- 89 Pfeffer, J. (1994) *Competitive Advantage through People: Unleashing the Power of the Workforce*, Boston: Harvard University Press.
- 90 Pfeffer, J. (1995) 'Mortality, Reproducibility and the Persistence of Styles of Theory', *Organisation Science*, Vol. 6, No. 6, 681–693.
- 91 Huselid, M. (1995) 'The Impact of Human Resource Management Practices on Turnover, Productivity, and Corporate Financial Performance', *Academy of Management Journal*, Vol. 38, No. 3, 635–672
- 92 There are important and very technical issues to be discussed here regarding how the new analytics deviates in important ways from Huselid's original variables. These issues lie beyond a report of this size but a discussion can be found in Fleetwood, S. & Hesketh, A. (2010) *Explaining the Performance of Human Resources Management* (Cambridge: Cambridge University Press), Chapter 2.
- 93 BCG (2012)
- 94 TWF (200?)
- 95 For an overview see Wall, T. & Wood, S. (2005) 'The Romance of Human Resource Management and Business Performance, and the Case for Big Science', *Human Relations*, Vol. 58, No.4, 429–462.
- 96 At the risk of complicating things still further, even these numbers are subject to interpretation because of the variations in Generally Accepted Accounting Principles (GAAP) across different geographies, but this is another story.
- 97 Visier (2014) *The State of Workforce Analytics and Planning: 2014 Survey Report*

- <http://www.visier.com/lp/2014-survey-report-the-state-of-workforce-analytics-and-planning/>, accessed 2nd June 2014
- 98 Accenture (2013) *Accenture Technology Vision 2013: Every business is a digital business* (Accenture), p. 19, original emphasis
- 99 Schwartz, J. (2013) 'Talent Analytics (Part 1): What is talent analytics, and how are companies using it?' 28 February 2013 (Deloitte University Press), <http://dupress.com/articles/what-is-talent-analytics-and-how-are-companies-using-it/>, accessed 21 February 2014
- 100 Visier (2014) *The State of Workforce Analytics and Planning: 2014 Survey Report* <http://www.visier.com/lp/2014-survey-report-the-state-of-workforce-analytics-and-planning/>, accessed 2nd June 2014
- 101 Schwartz, J. (2013) 'Talent Analytics (Part 4): 'Talent Analytics (Part 4): Why are some firms struggling to implement talent analytics?' 15 February 2013 (Deloitte University Press), <http://dupress.com/articles/why-are-some-firms-struggling-to-implement-talent-analytics/>, accessed 21 February 2014
- 102 For example see: Agarwal, R., Baltassis, E., Brock, J. and Platt, J. (2014) *Enabling Big Data: Building the capabilities that really matter* (New York: Boston Consulting Group).
- 103 Visier (2014) *The State of Workforce Analytics and Planning: 2014 Survey Report* <http://www.visier.com/lp/2014-survey-report-the-state-of-workforce-analytics-and-planning/>, accessed 2nd June 2014
- 104 Agarwal, R., Baltassis, E., Brock, J. and Platt, J. (2014) *Enabling Big Data: Building the capabilities that really matter* (New York: Boston Consulting Group), p. 2
- 105 Davenport, T.H. and Harris, J.G. (2007) *Competing on Analytics: The New Science of Winning* (Boston, Mass: Harvard Business School Press), p.23
- 106 Visier (2014) *The State of Workforce Analytics and Planning: 2014 Survey Report*, <http://www.visier.com/lp/2014-survey-report-the-state-of-workforce-analytics-and-planning/>, accessed 2nd June 2014
- 107 <http://www.visier.com/lp/2014-survey-report-the-state-of-workforce-analytics-and-planning/>, accessed 2nd June 2014
- 108 Davenport, T.H. and Harris, J.G. (2007) *Competing on Analytics: The New Science of Winning* (Boston, Mass: Harvard Business School Press).
- 109 <http://www.visier.com/lp/2014-survey-report-the-state-of-workforce-analytics-and-planning/>, accessed 2nd June 2014
- 110 Davenport, T.H. and Harris, J.G. (2007) *Competing on Analytics: The New Science of Winning* (Boston, Mass: Harvard Business School Press), p.39
- 111 Cleemann, C. and Hesketh, A. (2013) 'Two's Company, Three's A Crowd? The Executive Social Life of the HR Director, paper presented to the Strategic Human Resources Management Conference, Copenhagen, April 15–16. There is also additional support from EY (2014) *Partnering for Performance Part 2: The CFO and HR*, The Master CFO Collection, Part 6 (London: EY)
- 112 Davenport, T.H. and Harris, J.G. (2007) *Competing on Analytics: The New Science of Winning* (Boston, Mass: Harvard Business School Press), p.38
- 113 Davenport, T.H. and Harris, J.G. (2007) *Competing on Analytics: The New Science of Winning* (Boston, Mass: Harvard Business School Press), p.24
- 114 Davenport, T.H. and Harris, J.G. (2007) *Competing on Analytics: The New Science of Winning* (Boston, Mass: Harvard Business School Press), p.38
- 115 Davenport, T.H. and Harris, J.G. (2007) *Competing on Analytics: The New Science of Winning* (Boston, Mass: Harvard Business School Press), p.33
- 116 Lafley, A.G. & Martin, R.L. (2013) *Playing to Win: How Strategy Really Works* (Cambridge, Mass: Harvard Business Review Press)
- 117 Senge, P. 'Foreword' in H.T. Johanson and Bröms, A. (2000) *Profit Beyond Measure: Achieving Extraordinary Results With Ordinary People* (New York: The Free Press), p. xi
- 118 Lafley, A.G., Martin, R. with Riel, J. (2013) 'Leading with Intellectual Integrity,' *Strategy + Business*, 71 Summer 2013, p. 2
- 119 I am grateful to Max Blumberg and his vast experience of analytics consulting for suggesting that this distinction be made abundantly clear. As I'm sure he will be keen to point out, what follows is not of his but of my making.
- 120 IIRC (2013) *The International Integrated Reporting Framework* (London, IIRC), para. 1.9, p. 7.
- 121 Benton, J.M., Cantrell, S. and Vey, M.A. (2004) 'Making the right Investments in People' *Outlook*, 2004, No. 3, 64–73 (Accenture)
- 122 See Silverstone, Y. and Sotkeiwicz, (2010) *Human Capital Analytics: Generating insights to meet complex workforce, HR and business*

- challenges (Accenture)
- 123 I am grateful to Laurence Collins, Howard McMinn and Robert Rollings of Deloitte for sharing this information with me.
- 124 Strack, R., Caye, J-M., von der Linden, C., Quiros, H., and Haen, P. (2012) *From Capability to Profitability: Realizing the value of people management* (New York: Boston Consulting Group). This also resonates strongly with each of the three building blocks of the ability, motivation and opportunity (AMO) model found in the more academically oriented literature: see Appelbaum, E., Bailey, T., Berg, P. and Kalleberg, A. (2000) *Manufacturing advantage: why high-performance work systems pay off*. (Ithaca: Cornell University Press). The original AMO model can be traced back to Appelbaum's work but has been subjected to a number of iterations and permutations since.
- 125 For a discussion see Flamholtz (1974) *Human Resources Accounting* (Dickinson)
- 126 Flamholtz (1974) *Human Resources Accounting* (Dickinson)
- 127 Flamholtz (1974) *Human Resources Accounting* (Dickinson)
- 128 For a discussion see Fitz-Enz (2000) *The ROI of Human Capital: Measuring the economic value of employee performance* (AMACOM)
- 129 For a discussion see Fitz-enz (2000) *The ROI of Human Capital: Measuring the economic value of employee performance* (AMACOM)
- 130 For a discussion, see Hesketh, A., McMinn, H. and Lewis, H. (2014) 'Putting A Price on Talent' *Finance and Management*, April, 13-16. See also, Hesketh, A., McMinn, H. and Lewis, H. (2012) *Bringing Talent into the Boardroom: A New Metric for Establishing the ROI of Talent* (London: Deloitte).
- 131 Hesketh, A., McMinn, H. and Lewis, H. (2014) 'Putting A Price on Talent' *Finance and Management*, April, 13-16. See also, Hesketh, A., McMinn, H. and Lewis, H. (2012) *Bringing Talent into the Boardroom: A New Metric for Establishing the ROI of Talent* (London: Deloitte).
- 132 Hesketh, A., McMinn, H., and Lewis, H. (2014) 'Putting A Price on Talent' *Finance and Management*, April, 13-16. See also, Hesketh, A., McMinn, H. and Lewis, H. (2012) *Bringing Talent into the Boardroom: A New Metric for Establishing the ROI of Talent* (London: Deloitte)
- 133 Hesketh, A., McMinn, H. and Lewis, H. (2014) 'Putting A Price on Talent' *Finance and Management*, April, 13-16. See also, Hesketh, A., McMinn, H. and Lewis, H. (2012) *Bringing Talent into the Boardroom: A New Metric for Establishing the ROI of Talent* (London: Deloitte).
- 134 Ballmer, S. (2013) Microsoft Financial Analyst Meeting 2013, Bellevue, Washington, September 19, 2013
- 135 Bradley, C., Dawson, A. and Smit, S. (2013). The strategic yardstick you can't afford to ignore. *McKinsey Quarterly*. October; Hesketh (2013) 'Valuing your Talent: Resourceful Assets?' *Valuing your Talent Discussion Paper* (London: UKCES)
- 136 Hesketh, A., McMinn, H. and Lewis, H. (2014) 'Putting A Price on Talent' *Finance and Management*, April, 13-16. See also, Hesketh, A., McMinn, H. and Lewis, H. (2012) *Bringing Talent into the Boardroom: A New Metric for Establishing the ROI of Talent* (London: Deloitte).
- (London: Deloitte).
- 137 Hesketh, A. and Collins, L. (2014) 'Architectures of Value' *Lancaster University Management School Working Paper* (Lancaster: LUMS)
- 138 Ployhart, R.E., Nyberg, A.J., Reilly, G. and Maltarich, M.A. (2014) 'Human Capital is Dead; Long Live Human Capital Resources!' *Journal of Management*, 40(2), 371-398
- 139 Gratton, L. & Ghoshal, S. (2005) 'Beyond Best Practice,' *MIT Sloan Management Review*, 46, No. 3, 49-57
- 140 This is, of course, a reflection of the resource-based view of capability. For example see: Barney, J. (1991) 'Firm Resources and Sustained Competitive Advantage,' *Journal of Management* 19(1), 99-120.
- 141 King, Z. (undated) *Investors' views of human capital* (London: CIPD); King, Z. (undated) *View from the City: How can human capital reporting inform investment decisions?* (London: CIPD).
- 142 Cleemann, C. and Hesketh, A. (2013) 'Two's Company, Three's A Crowd? The Executive Social Life of the HR Director, paper presented to The *Strategic Human Resources Management Conference*, Copenhagen, April 15-16; EY (2014) *Partnering for Performance Part 2: The CFO and HR*, The Master CFO Collection, Part 6 (London: EY).
- 143 Hesketh, A., McMinn, H. and Lewis, H. (2014) 'Putting A Price on Talent' *Finance and Management*, April, 13-16. See also, Hesketh, A., McMinn, H. and Lewis, H. (2012) *Brining Talent into the Boardroom: A New Metric for Establishing the ROI of Talent* (London: Deloitte); Hesketh, A. and Collins, L. (2014) 'Architectures of

- Value' Lancaster University Management School Working Paper (Lancaster: LUMS).
- 144 For example see: King, Z. (undated) *Investors' views of human capital* (London: CIPD); King, Z. (undated) *View from the City: How can human capital reporting inform investment decisions?* (London: CIPD).
- 145 Brown, P. and Hesketh, A. (2004) *The Mismanagement of Talent: Employability and Jobs in the Knowledge Economy* (Oxford: Oxford University Press)
- 146 Barber, F. and Strack, R. (2005) 'The surprising economics of a people business,' *Harvard Business Review*, June, pp. 80–90. We also picked this up during our conversations with the financial investment community. We will return to this issue below.
- 147 IASB/IFRS (2013) *A Review of the Conceptual Framework for Financial Reporting*, Discussion paper, DP/2013/1
- 148 IASB/IFRS (2013) *Snapshot: Review of the Conceptual Framework*, Discussion Paper, p.4, original emphasis
- 149 IASB/IFRS (2013) *A Review of the Conceptual Framework for Financial Reporting*, Discussion paper, DP/2013/1, para. 3.5, (c)(iv), p. 38.
- 150 For example, see Boujelbene, M.A. & Affes, H. (2013) 'The impact of intellectual disclosure on cost of equity capital: A case of French firms,' *Journal of Economics, Finance and Administrative Science*, 18(34), 45–53.
- 151 Kay, J. (2012) *The Kay Review of UK Equity Markets and Long-Term Decision Making. Final Report* (London: BIS) Quote attributed to Clifford Stoll and Gary Schubert in Mark R. Keeler, 'Nothing To Hide' (2000), p.112, cited by Kay para 10.30, p. 76
- 152 CIPD to enter reference to BSI project here
- 153 Hesketh, A. (2014) 'Employee Engagement and Performance in the FTSE 100: A financial analysis' *Lancaster University Management School Working Paper* (Lancaster: LUMS)
- 154 Hesketh, A. (2014) 'Employee Engagement and Performance in the FTSE 100: A financial analysis' *Lancaster University Management School Working Paper* (Lancaster: LUMS)
- 155 Airmic/Cass Business School (2011) *Roads to Ruin: the analysis. A study of Major risk events, their origins, impact and implications* (London: Airmic); and Airmic/Cass Business School (2014) *Roads to Resilience: Building Dynamic Approaches to Risk. Protecting and championing trusted reputations in complex and uncertain business environments* (London: Airmic); Financial Reporting Council (FRC) (2013) *Risk Management, Internal Control and the Going Concern Basis of Accounting. Consultation on Draft Guidance to the Directors of Companies applying the UK Corporate Governance Code and associated changes to the code.* (London: FRC).
- 156 Kay, J. (2012) *The Kay Review of UK Equity Markets and Long-Term Decision Making. Final Report* (London: BIS) Quote attributed to Clifford Stoll and Gary Schubert in Mark R. Keeler, 'Nothing To Hide' (2000), p.112, cited by Kay para 10.27, p. 75
- 157 Hutton, W. (2011) *Fair Pay: Hutton Review of Fair Pay in the Public Sector* (London: Crown Copyright).
- 158 Cappelli, P. (2005) *Talent on Demand* (Boston, Mass: Harvard Business School Press)
- 159 Bryan, L.L. (2007) 'The New Metrics of Corporate Reporting: Profit per employee,' *McKinsey Quarterly*, Number 1, 57–65
- 160 Hesketh, A., McMinn, H. and Lewis, H. (2014) 'Putting A Price on Talent' *Finance and Management*, April, 13–16
- 161 Ballmer, S. (2013) Microsoft Financial Analyst Meeting 2013, Bellevue, Washington, September 19, 2013
- 162 Ballmer, *ibid.*
- 163 Ballmer, *ibid.*
- 164 Burns, U. (2014) 'Letter to shareholders,' Xerox Corporation Annual Report 2013 (Xerox), p. 2



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