CIPD
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Research report

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The intangible workforce: do *investors* see the potential of people data?

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Acknowledgements

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Foreword

Business today is changing rapidly, driven by economic uncertainty, social and geopolitical change, and the growth of technology and automation. But a constant is that at the very heart of every business is its people – they are the 'assets' that drive value from all other assets. When engaged, invested in and understood, they represent huge potential and opportunity, but when disempowered, poorly managed and even mistreated, they can represent a very real risk. People are central to value-creation.

Historically our ability to understand exactly how people help businesses to generate value has been patchy at best. How investments in skills drive productivity and performance, and how the less tangible – but no less important – aspects of engagement, well-being, leadership and corporate cultures all play a role in value-creation is still an area requiring deep research. And yet for long-term shareholders and other investors, insights on these concepts are increasingly being seen as critical to understanding how business can both generate and sustain value over the long term.

With people analytics providing ever more data about the workforce, the HR profession is clearly central to businesses' ability to articulate this value more effectively. However, a lack of common measures or approaches prevents real understanding of what the data means and blocks any opportunity for benchmarking.

Our work with Warwick Business School seeks to understand how investors navigate this lack of workforce information – and considers whether in some circumstances they do at all. With such inconsistent reporting of human capital data, perhaps it's not surprising that the use of people data by investors is also varying. There are, however, innovators across the investment community seeking more insight into the workforce who are beginning to standardise their approaches.

The human capital indicators and drivers of value and risk are also critically important for good corporate governance and board oversight. HR expertise is essential at the very top to lead and inform more consistent discussion and inquiry by boards into the people dimension of business. Boards must look closely at how they consider people in their business model, the materiality of the workforce, and the impact that good and bad people management practice can have. If we're to improve how boards and investors work together to create more sustainable and inclusive businesses, we need more dialogue and a shared language which includes common measures across the governance, HR, finance, and investment landscape.

The UK Corporate Governance Code, now 25 years old, has helped to foster a highly competitive landscape of respected global organisations. The impact of the Cadbury Report published in 1992 can be seen the world over, and the Stewardship Code (often termed 'the other side of the coin') is an admired complementary and critical regulatory instrument. Following the UK Government's recent consultations on corporate governance, it is encouraging to see the Financial Reporting Council (FRC), the custodians of these codes, opening up to the challenge of modernising them to reflect the many changes in business, business models, and the investor landscape. Now is an opportune time to embrace a wider ideal of encouraging greater corporate transparency and integrity through high-quality and more integrated reporting.

Part of these changes is to strengthen the idea of good business principles which can be applied and evidenced, alongside the traditional 'comply and explain' approaches. Business behaviours and focus can't be changed or encouraged by rules alone, and particularly as we seek to include more insight on human capital and the less tangible aspects of business such as corporate culture, reputation and trust. Greater transparency on a broader range of organisational measures and narrative helps to build trust, and can help to build relationships with the many important stakeholders organisations must engage.

By tackling these questions of human capital measurement, transparency, and value, we should be able to help improve both the quality of governance, quality of stewardship and more sustainable long-term investment in business. We have an opportunity for change, and if we do this we can ensure that UK organisations and the regulatory environment they exist in continue to be seen worldwide as a leading standard. With Brexit fast approaching, answering these questions takes on added urgency.

Peter Cheese
Chief Executive Officer
CIPD

1 Introduction

CEOs often describe people as their organisation's 'most important asset', but as corporate governance scandals of the recent past have shown, treatment of the workforce by organisations often betrays this sentiment. For organisation owners, such as institutional investors, good corporate governance that incorporates and appreciates the value of all assets is of obvious interest, particularly those assets that are connected to value-creation. But often the intangible nature of such assets, such as those related to the workforce, prevents their materiality from being fully understood: the quality and quantity of human capital information disclosed by organisations is often poor and inconsistent (McCracken et al 2016). This has obvious implications for industries in which intangible assets make up most of the organisation's book value, but the relevance of such issues across all organisations and industries is surprisingly widespread.

In knowledge-based organisations, such as the tech and financial services industries, much value is captured in these assets that relate to people, namely human capital: the knowledge, skills, and abilities of the organisation's workforce. These concepts are of real value to external stakeholders, such as investors, and as such may form part of an organisation's reporting strategy. But as this data is often of poor quality or hidden from view, it can present a challenge to investors as they seek to manage and mitigate investment risks since a great many of these issues have roots in intangible human capital (Krausert 2016).

This ambiguity has the potential to create issues for investors, who could be left in the dark as to information that may influence both competitive advantage and potential material risk (McCracken et al 2016). Members of the investment community are very aware of this risk. Recent work by organisations such as the Pensions and Lifetime Savings Association, Financial Reporting Council, and the CIPD show that human capital information is attracting increasing interest from investors and their stakeholders, which has also been found to be of importance by scholarship in this area (Block et al 2008, Edmans 2011, Krausert 2014, 2016, 2017, Porter 1992, Ulrich 2015). This increasing interest is coming from a variety of sources, for example 'gatekeeper' consultants, investors, and asset owners who are more frequently asking questions relating to human capital and the workforce (CIPD 2015).

There are, however, a number of issues preventing investors from accurately understanding the value of organisations' human capital. First, human capital theoretic perspectives from psychology, accountancy and finance, management, and economics are often misaligned, resulting in a lack of definitional clarity regarding what constitutes human capital. Second, internal organisation capability for measuring and reporting human capital through the HR practice of human capital analytics is too often low in organisation priorities, with analytics being fixated on human resources operations as opposed to informing strategic decision-

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making (Charlwood et al 2017, Houghton 2017). Finally, while the strategic human resources management and strategic human capital streams of research have dedicated much scholarship to understanding the link between human capital and organisation performance (for example through concepts such as high-performance work systems, the HR 'black box', and human capital mobility) (Purcell et al 2003), there still remain questions about the nature of this relationship and how the black box works in practice (Boxall et al 2011). As a result, meaningful human capital information is commonly thought to be harder to operationalise for the mainstream investment community.

The purpose of this paper is to consider the extent to which investors can and should use human capital information when making investment decisions. In investment practice today, organisation performance data and information is used to evaluate the pricing of organisations, with the objective of highlighting under-priced organisations in which to invest, and in particular the extent to which performance can be understood over the short, medium and long term. Research has shown that organisations investing more in human capital tend to yield greater returns to their investors (Benson et al 2006, Easton and Jarrell 1998, Edmans 2011). In fact, in some instances human capital has been described as the ultimate driver of competitive advantage (Barney 1991, Lado and Wilson 1994). Not surprisingly, investors' interest in human capital information has been growing recently (Jacobs 2015, Ulrich 2015). It is an opportune time to consider human capital information, its value, and how it may be used by those investing in organisations to make more effective decisions.

Understanding and creating value: the role of human capital data

Human capital information is, of course, not only valuable to the investment community and other financial stakeholders; information relating to the workforce is an almost constant topic across business and the wider community. In the media, zero-hours contracts and automation continue to be considered as disruptors to traditional working practices, and the ongoing conundrum of the UK 'productivity puzzle' and skills shortage continue to be framed as damaging aspects of a poorly managed economy. Finally, Brexit uncertainty and its implications for migrant work continues to be a recurrent theme for senior business leaders, the media, and beyond. All are workforce debates related to human capital, and as such have important implications for organisations and their stakeholders and should be factored into stakeholder decision-making.

Investments in human capital by organisations are often considered to be long term. For example, investment in training and development of organisation-specific skills has been shown to increase retention and improve worker productivity and organisational performance (Becker 1993, Schultz 1961, Mincer 1974). While some benefits may be realised in the shorter term (for example worker satisfaction with training received), some studies have found that positive effects of training tend to emerge and/or increase over time (for example d'Arcimoles 1997, Nembhard and Tucker 2011). New skills and task strategies acquired through training need to be applied on the job for employees to move along the learning curve (Krausert 2015). Larger-scale interventions

at the organisational level (such as the introduction of new ways of working) may have a disruptive effect on productivity before higher levels of productivity emerge over time periods in the range of months and years (for example Nembhard and Tucker 2011, see Krausert 2017, for further details). Thus, the long-term nature of human capital investments can make them a valuable component of an organisation's business model, as human capital can influence organisations' competitive advantages and potential for growth.

However, in the absence of information on such longer-term human capital investments, investors can base their investment decisions only on historical performance data, for example past earnings. Coupled with near-term earnings pressure (for example as a result of quarterly earnings targets), this may result in myopic decision-making: firms may have incentives to not make (or cut) longer-term investments in human capital in order to boost profitability in the near term (Krausert 2017, BEIS 2017). Short-termism and its consequences have been debated in more detail as part of the Kay Review (BIS 2012).

Communicating human capital value

Today, the narrative portion of corporate/annual reports is the major source of human capital information that management uses to influence external stakeholders. Narrative statements, which form a large part of annual reports, detail qualitative information regarding various aspects of organisation performance and prospects. For the human capital element, the narrative component is often a missed opportunity: CIPD research has shown that while the quantity and quality of human capital data disclosed by the FTSE 100 continues to increase, little is illustrated that describes human capital risk. Moreover, human capital disclosure is selective and highly variable across organisations, meaning the utility of disclosed human capital information is reduced – an outcome of which may be the risk of information overload (McCracken et al 2016, Cuozzo et al 2017). The same has been noted by regulators as a risk to good corporate governance practice (Beattie and Smith 2013).

The publication of the annual report is only part of the communication of data and information to external stakeholders. Investors synthesise data in a number of ways: they may seek verification of the annual report (through online third-party data sources), engage with organisations through face-to-face meetings with management, and finally they may exercise their voting responsibilities through strategic

Experts in human capital: the role of the HR profession

While historically the investment community has not been considered to be a key stakeholder of the HR profession, the future 'people professional' has the potential to contribute significantly by building a much stronger and highly influential relationship with financial stakeholders. If organisations fail to communicate effectively about the longer-term benefits of human capital investments, investors' decisions will, by default, reflect the expenses of such investments (through the financial statements). In other words, they will not be able to tell the difference between earnings that are lower because of bad management and earnings that are lower because organisations make investments in people that are necessary for sustainable performance. And short-term financial objectives may then create pressure on managers to identify cost savings that may affect human capital investments. By contrast, if investors value the role of human capital in the organisation's business model, including its longer-term effects, it would enable human capital investments, lifting pressure to operate with short-term financial targets in mind that may otherwise damage the effectiveness and sustainability of large organisations (see Krausert 2017 for further information).

Given that research is now more consistently illustrating the role of human capital in generating competitive advantage, driving organisation performance, and building long-term sustainability, there is much opportunity for the HR function to demonstrate its value and experience in understanding the human aspect of organisations. Opportunities don't stop at the development of human capital data and insights. There is also much scope for HR professionals to work more closely with investor relations functions in the courting of investors and their stakeholders. Here HR can offer a unique voice on human capital, its complexity, uniqueness, and potential value (Jacobs 2015, Krausert 2014, 2016, 2017, Ulrich 2015).

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voting at AGMs (PLSA 2016). Organisations often use multiple channels to communicate information, including company webpages, conference calls, and newswires (Striukova et al 2008).

Research objectives

While it is being argued anecdotally that investor interest in human capital is on the increase, more specific knowledge about the types of human capital information of interest to investors is lacking. Scholarship has highlighted the attention investors pay to certain components of note, in particular management quality or headcount; yet other aspects commonly understood in the HR profession (for example engagement and talent management) receive little or no attention (Agarwal et al 2011, García-Meca and Martinez 2007). Much scholarship has focused on a broad concept of intangible assets, combining human capital and other types of intangibles (from strategy-related issues through R&D investments to brand image). Research focusing more specifically on human capital disclosure and use by investors is less common. Additionally, the existing literature is largely descriptive and does not reference its complexities, nuances, value, and the common indicators appropriate for describing it. Given that investor interest in human capital is growing while they are currently uncertain about how they can and should take it into account, research is needed that goes beyond mere description, outlining what kind of human capital information could be of relevance to investors, even if it is not being used currently.

This research report serves as an introduction to the research topic, and a statement of intent for further research investigating the investor perspective on human capital and the workforce. This report is a synthesis of a literature review, the full version of which will be published separately.

Key questions

Given that we believe such information is of value to those wishing to appreciate current and future organisation performance and future organisation performance prospects, we propose two key questions that this report will investigate in greater detail:

1. To what extent is human capital information available to investors?
2. To what extent is the human capital information available to investors being used to inform investment decisions?

2 The investment decision process

In this section we describe two important groups in the investment community: securities analysts who undertake traditional analysis of financial information, and environmental and social governance (ESG) analysts. We describe our current understanding of their perspectives on human capital data and information, and the implications of their different perspectives and analysis methods for our study.

Mainstream investors: the role of securities analysts

Researching investors' use of human capital information requires an understanding of the actors and information flows in the investment landscape. Investors can be broadly classified into institutional investors and retail investors. Institutional investors buy larger quantities of shares, on behalf of investing individuals and companies (for example pension funds, hedge funds, mutual funds, trust funds, and insurance companies). Retail investors are entities purchasing (smaller amounts of) shares on their own behalf.

Institutional investors are further classified into small and large block-holders, depending on whether they own a controlling stake in the organisation being invested in. It is arguably small block-holders that have both the means and the incentives to conduct research on intangible factors, such as human capital, and take them into account in their investment decisions (Edmans 2009). Retail investors lack the means to access respective information and, given small holdings, the incentive to invest in obtaining information. Large block-holders would have the means. However, they arguably lack the incentives, given they cannot easily act on the information, that is, sell their large holdings ('lack of liquidity') (Edmans 2009).

Given that institutional investors are the entity most likely to take human capital into account, it is worth taking a closer look at the mechanisms through which they arrive at their investment decisions (see also Krausert 2017). The actual investment decisions are made by fund (or money) managers. These are employed by the investment organisation and rely on recommendations of securities analysts. Some of these securities analysts are employed by the investment organisation – so-called buy-side analysts. Others are employed by investment banks and brokerage houses – so-called sell-side analysts.

Both types of securities analyst specialise in an industry segment, conducting research about a limited number of companies in that segment. On that basis, they forecast future earnings for these companies. These earnings forecasts provide the basis for net present value estimates and an assessment of whether the companies' current stock price corresponds to these estimates. On that basis, they make stock recommendations for investors (buy, hold, or sell recommendations).

The majority of the research has been conducted on sell-side rather than buy-side analysts. This is because the reports (including stock recommendations) of sell-side analysts are publicly available, while the reports of buy-side analysts are not. Research examining differences between sell- and buy-side analysts includes the work by Groysberg and colleagues (2008, 2013). According to them, key differences include the following:

1. Sell-side analysts cover a smaller number of companies, leaving them more time to conduct fundamental analysis. Buy-side analysts, by contrast, cover a larger number of organisations, leaving them less time to take intangible factors, such as HC, into account.
2. The information sources are different. Sell-side analysts are more likely to obtain first-hand information about the companies they are covering. Buy-side analysts conduct their own research, too. But they rely to a significant extent on the reports produced by sell-side analysts.
3. The target audience is different. Buy-side analysts' reports are written exclusively for the fund managers in their organisation. Sell-side analysts report to a wider audience, including buy-side analysts and fund managers of different investment organisations as well as retail investors. The goal of the employing organisation is to attract investors to use their brokerage services (increasing trading volume generally and specifically for organisations for which they provide investment banking services).

4 Sell-side analysts' earnings forecasts tend to be overly optimistic. Buy-side analysts' forecasts tend to be less optimistic than sell-side analysts' forecasts.

5 Sell-side analysts' buy recommendations tend to be associated with greater returns on investment. However, this appears to be explained by their targeting of, on average, smaller organisations that are associated with greater share price volatility. Once the riskiness of the investment is controlled for, differences in returns on investment disappear (Groysberg et al 2013).

The literature often assumes sell-side analysts to be the actor in the investment process that is most likely to take information on intangibles (including human capital investment) into account. Having said that, there is also some research suggesting that buy-side analysts and fund managers may still gather their own information, for instance on the quality of management. Another reason to not ignore the research and decision processes of buy-side analysts and fund managers is that funding for sell-side investment research has been subject to substantial cuts. This is the result of regulative interventions seeking to curb biases in sell-side analysts' forecasts (for example analysts publish overly optimistic forecasts; the covered organisations, in return, purchase the services of the employing investment bank). Given the purpose of the investment banks' employment of analysts is to promote their business, these regulations have led to a reduction in the research funds of investment and brokerage houses. Figure 1 summarises the relationships among the various actors in the investment community.

Figure 1: Information flows between organisations, securities analysts and investors (based on Groysberg et al 2008, 2013)

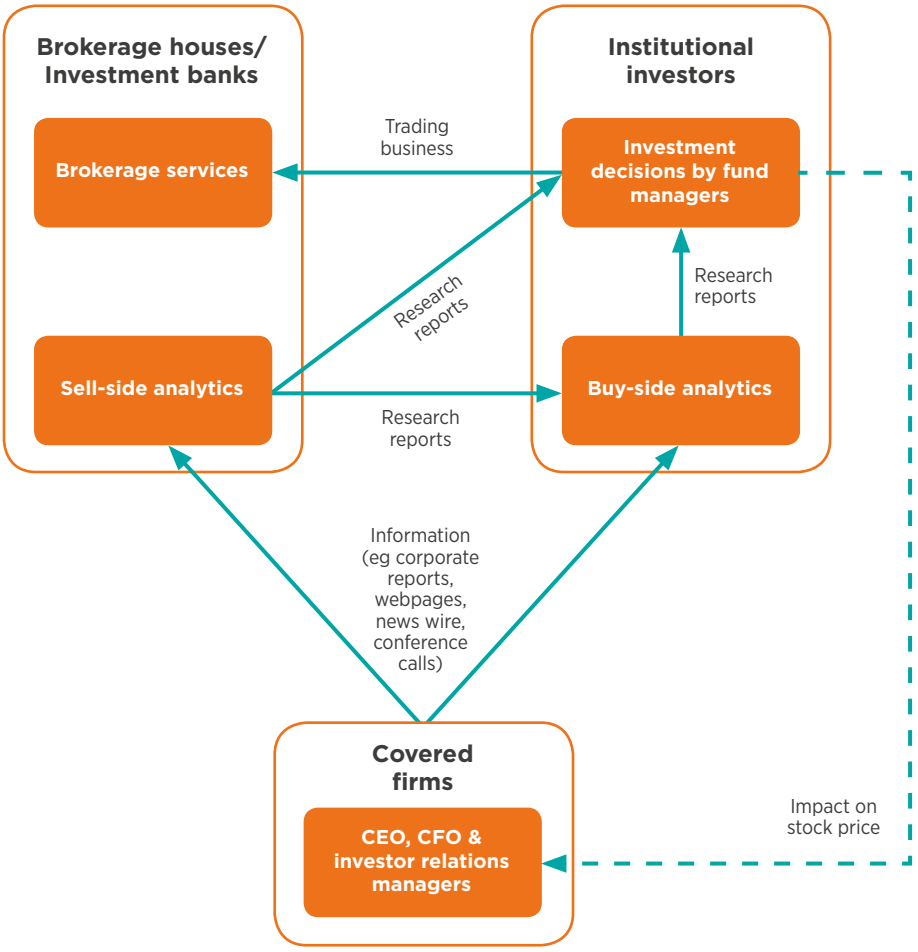


Figure 1 also includes the firms that are covered by analysts as potential investment targets. These firms disclose information to investors via corporate reports, their webpages, newswire releases, and conference calls with fund managers and analysts. Key actors on the firm's side include the CEO, CFO, and investor relations specialists. The relationships between firms and investor representatives are important for both sides. While firms' representatives have an interest to portray their firms in a positive light in the stock market, securities analysts are dependent on firms' representatives for information. This dependency tends to result in overly positive depictions of firms' outlooks in analyst reports (for example, Fogarty and Rogers 2005).

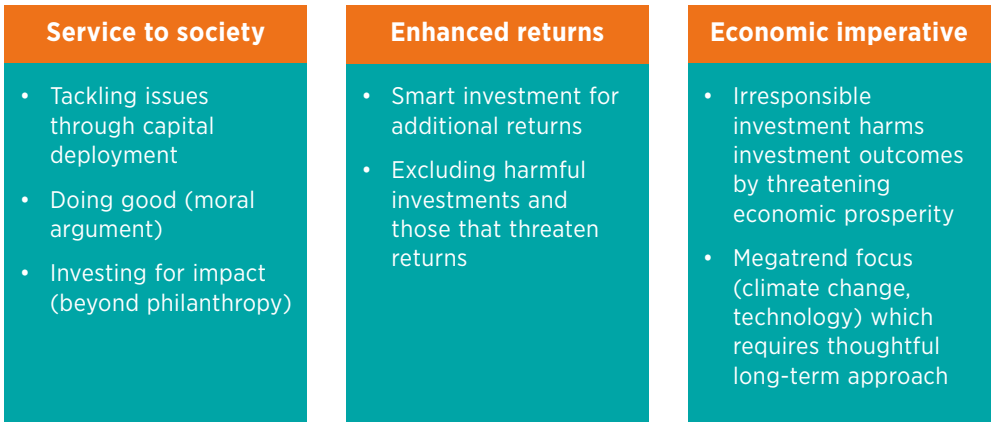
Up to this point, we have looked at how mainstream investors use different sources of information to understand aspects of firms they are engaging with. While financial analyses may point to aspects of human capital important in the decision-making process, parts of the investment community (so-called socially responsible investors (SRIs)) additionally use investment screens to filter out potential investment targets based on ethical principles. The next section introduces these types of investors and discusses the mechanisms through which human capital may reflect in their investment decisions.

ESG investors: the environmental, social, and governance perspective

ESG investors are those who commit to taking into account environmental, social and governance issues in their investment decisions. They allocate funds not only with the objective of maximising their financial return (at a given level of risk), but also to maximise fund allocations to organisations displaying desirable social and environmental practices for ethical reasons. ESG investors use socially responsible investment (SRI) screens to exclude companies that violate ethical values (negative screens) and to include companies that perform particularly well on ethical dimensions (positive screens). For example, ESG investors may exclude companies with poor human rights records or include companies with diverse workforces, and many funds use both negative and positive screens simultaneously (Humphrey et al 2016). Additionally, ESG investors may also engage in investor activism, seeking to actively influence organisation decision-making (for example, van Duuren et al 2016). This is also referred to as investment stewardship.

ESG investors are motivated through three clear objectives that describe the outcomes that investments are intended to generate. These are illustrated in Figure 2.

Figure 2: Motivators for responsible investment (Blackrock 2016)



'SRI screens offer an opportunity to filter out aspects of human capital management that investors may have sensitivity towards.'

SRI screens offer an opportunity to identify which aspects of human capital investors attend to. The literature has reported a number of SRI screens broadly related to human capital, including equality and diversity, labour/employment relations, human rights, union relations and employee health and safety (for example Waring and Lewer 2004). This contrasts with factors such as management quality, changes in employee numbers, and collective contracts as examples of human-capital-related factors taken into account by traditional investors (see below).

ESG factors are an emerging area of interest. Appetite for investing in more responsible business has increased, particularly among large institutional investors keen to ensure the organisations they invest in work towards sustainability goals (Guenster et al 2010). Investment professionals link ESG factors into their work in three distinct ways, as described in Table 1.

ESG investing has increased in magnitude in recent years. A ballpark figure of approximately 10% of total assets is often mentioned in the literature (Hong and Kacperczyk 2009, Humphrey et al 2016).

There are two channels through which human capital information may potentially be taken into account in investment decisions: on the one hand, earnings forecasts of traditional investors and, on the other hand, SRI screens of ESG investors. The magnitude of the SRI phenomenon, although growing, is still small compared with traditional investment.

ESG screens and standards

The literature displays some inconsistency as to which ESG screens are most important. Some have argued product-related screens are used most commonly (tobacco, alcohol, gambling, and defence/weapons) (Grossman 2006, Waring and Lewer 2004). Others suggested environmental and governance issues are primary

Table 1: Integration approaches for ESG factors (Blackrock 2016)

Integration approach	Key points
Traditional investing	• ESG factors are applied to financial analysis to evaluate risks and opportunities. • ESG factors are believed to either contribute to or detract from the value of the investment opportunity, and as such inform investment views and position.
Sustainable investing	• Explicit incorporation of ESG objectives into investment products and strategies. • ESG factors can be included in three different ways: (1) application of exclusionary screens that remove companies or industries not aligned to investor ESG values; (2) investment in specific ESG-compliant portfolios, which are evaluated and weighted to provide a hierarchy of compliance with the investor ESG values; and (3) by targeting specific ESG outcomes alongside financial returns.
Investment stewardship	• Engagement with companies to protect and enhance the value of assets through dialogue and proxy voting. Investors build relationships with business leaders to uncover material ESG risks and to mitigate against their impact through engagement.

concerns (Galbreath 2013). Labour-related issues are part of the social dimension, which, some argued, is relatively less important compared with the other two categories of *environment* and *governance* (Berry and Junkus 2013).

The ESG literature is more concerned with labour-related issues rather than human capital, as defined earlier (Faisal et al 2012, Grossman 2006, Waring and Lewer 2004). Labour-related issues commonly attended to include:

- diversity
- labour relations
- health and safety
- executive pay
- union relationships.

The usage of ESG screens varies at the industry level – industries differ in the extent to which social norm pressure is exercised in relation to different ESG factors (Faisal et al 2012). The use of ESG screens also varies at the fund level, such that different funds pay attention to different ESG factors (for example union pension funds pay special attention to union relations) (Waring and Lewer 2004). Overall, it has been argued that labour-related issues have been growing in importance (for example, Grossman 2006, Waring and Lewer 2004).

To gain a complete picture of the labour-related issues reflected in ESG investment decisions, one also needs to examine auditable certification standards such as the *SA8000, Workers' Rights Consortium*, *Fair Labor Association, Worldwide Responsible Apparel Production*, and *The Clean Clothes Campaign*. These are used, for instance, by suppliers in the apparel industry to signal that they meet basic labour standards. Chatterji and Levine (2006) have compared these standards, finding major differences in the language on wages, independence and assurance. The standards were similar only in relation to the most basic standards, that is, with respect to child and forced labour, physical abuse of workers, and responsibility regarding the supply chain. More recently, it was argued that the social rating sector has been undergoing significant consolidation (Girerd-Potin et al 2014).

Upcoming standards for human capital reporting (Wong and Bond 2017)

International standards have proven invaluable in modern globalised economies, and one of the most significant benefits is enhancing the network effect. Standards increase compatibility between systems, allowing information to be collected, documented, shared, and compared within a larger network, and consequently attracting more potential users to adopt and standardise.

In 2010 the International Standards Organisation (ISO) authorised the creation of technical committee TC260 with the remit of standardisation in the field of human resource management for organisations of all types and size and across all sectors. ISO TC260 invites the broadest possible participation of ISO members, and there is a large and growing body of experts eager to get involved in HR standardisation – currently there are 26 countries participating as full members of TC260, including the UK, with a further 24 countries having observer status. *ISO 30414: Human capital reporting for internal and external stakeholders*, and *ISO 30409: 2016 Human resource management – workforce planning* are standards that will influence human capital measurement and reporting.

In the UK, the Human Capital Standards Committee, HCS1, was convened by the BSI in 2011 with the remit of supporting the work of TC260 and also to oversee the development of national standards in the field of people management and development. Relevant standards in the UK people management and development system include standards for valuing people: *BS 76000 – Human resource – Valuing people. BS 76000* is a framework standard that is based on a set of high-level principles for valuing people. It promotes a structured and thoughtful approach to people value management that enables organisations to assess the extent to which their HR policies and practices promote long-term effectiveness, shared values, and social sustainability to ensure the mutual respect and contribution of everyone who works on their behalf.

People and their development are, and shall remain, an important source of value-creation, and investment and organisational standards in this area must be specific, consistent, and measurable, and be of benefit to organisations, their stakeholders, and wider society. The future of standards is about the ethical use of data, metrics, and evidence-based decision-making on the investment in, and development of, people. Standardisation is expected to continue at an increasing rate as organisational leader, shareholder, and investor demands for analytical and predictive insights increase.

Like the indexes provided by social rating agencies (such as the MSCI KLD 400 Social Index), these certification standards are relevant for our research: ESG investors may rely on these indexes and certifications to include and exclude organisations from their portfolio.

Apart from that, the literature often refers to the Global Reporting Initiative (GRI), a voluntary standard supported by the United Nations, proposing eight criteria in the category 'labour practices and decent work'. These include employment, labour–management relations, occupational health and safety, training and education, diversity and equal opportunities, equal remuneration for men and women, supplier assessment of labour practices, and grievance mechanisms (Global Reporting Initiative 2013).

Compared with research on mainstream investors' use of human capital information, the literature is less pessimistic about ESG investors' use of labour-related information. The literature also seems to be more unequivocal about what kind of labour-related issues are important (equality and diversity, labour relations, and, to a lesser degree, employee health and safety).

Understanding risk and performance

A major debate in the ESG investment literature is about effects of ESG screening on fund performance. Most commonly, the effect was found to be either neutral or negative – on average across all types of funds and screens (Hong and Kacperczyk 2009). Research found differences in effects of positive and negative screens. Negative screens were found to reduce the funds' ability to diversify and, thus, increase risk. Positive screens were found to reduce risk (Humphrey and Lee 2011). One study found that the number of social screens but not the number of other types of screens had a negative effect on fund performance (Renneborg et al 2008). However, the evidence also supports that ESG screens based on employee satisfaction specifically should have a positive effect (Edmans 2009).

ESG screens are also increasingly used by mainstream investors to forecast earnings and to assess risk and reputational effects (van Duuren et al 2016). ESG factors are used for 'red flagging', either excluding stocks associated with ESG issues or monitoring them intensively. Stocks scoring low on ESG factors are more likely to be involved in litigation (Waring and Lewer 2004). Different from the human-capital-related factors discussed earlier, the discussion in the ESG literature is less about 'direct' effects of ESG factors on performance (for example through more motivated and skilled employees) than about 'indirect' effects through the organisation's reputation in the market and risks of corporate scandals and litigation.

3 Decision-making using human capital information

As a first stage of the project with Warwick Business School and the University of Kansas, we have carried out a detailed review of the literature to evaluate (a) the current understanding of investors' use of human capital information and (b) gaps in the existing research, so as to guide the empirical part of our project. This section provides a high-level overview of some of the key findings in the literature. The complete literature review will be published as a separate paper.

The vast majority of the existing research has been focused on securities analysts and information they are processing. Given the evaluation process of (sell-side) securities analysts is made public via the analysts' research reports, the analysts' forecasts and recommendations are used as proxies for the investment decision process. This approach is validated by findings suggesting that the analysts' stock recommendations are an important influence on investment decisions and the stock price (Womack 1996, Zuckerman 1999).

Each of the following sections summarises different strands of relevant research in accounting, finance and strategy, their key findings and gaps, and opportunities for further research.

Human capital information is less frequently used by analysts in their assessments compared with information on other types of capital

The literature shows that securities analysts' forecasts and recommendations as well as investment decisions do reflect intangibles beyond financial statements (for example, Agarwal et al 2011, Amir et al 2003). They process information disclosed in the annual report, including the narrative sections (Fogarty and Rogers 2005, Rogers and Grant 1997). At the same time, a significant part of the information they process does not seem to be obtained through publicly available sources. The analysts' evaluations of the information tend to be overly positive and pro-management (Fogarty and Rogers 2005, García-Meca and Martinez 2007). And the evaluation of intangible information varies significantly across individual analysts (Groysberg et al 2013).

Several studies have found that the type of intangible information most commonly used by analysts is information related to the firm's strategy (García-Meca and Martinez 2007, Groysberg et al 2013, Hendry et al 1999, Orens and Lybaert 2010, Sakakibara et al 2010). Some research found relational capital (for example, brand reputation) to be of particular interest (Flöstrand 2006, Sakakibara et al 2010). Others found that industry growth (Groysberg et al 2013), and research and development are also important for the analysts' earnings forecasts (Yu et al 2015).

Human-capital-related information is, in comparison, relatively unimportant in the analysts' firm evaluation process, by and large (Dempsey et al 1997, Flöstrand 2006, Orens and Lybaert 2010, Yu et al 2015). Analysts did not use

'The vast majority of existing research has been focused on securities analysts and the information they are processing.'

information on high-involvement work practices during the 1990s (Benson et al 2006), indicators of employee satisfaction during the 1980s or 1990s (Edmans 2011) and information on organisations' adoption of total quality management during the 1980s (Easton and Jarrell 1998).

Management quality: an important indicator in the view of analysts

The one human-capital-related factor that is consistently found to be important for analysts' recommendations is management quality (or experience/reputation of management) (Agarwal et al 2011, Breton and Taffler 2001, Dempsey et al 1997, García-Meca and Martinez 2007, Groysberg et al 2013, Hendry et al 1999, Sakakibara et al 2010). It remains an open question how exactly management quality is evaluated by analysts. The available research suggests that some analysts may use the concept synonymously with the performance track record of managers (Hendry et al 1999) or that they form a subjective impression based on repeated meetings and interactions with managers (Almqvist and Henningsson 2009). Ulrich (2015) referred to a (successful) investment fund exposing CEOs to challenging situations to evaluate how they coped (for example, inviting them to go sailing). He referred to this as *'a "finger in the wind" assessment of leadership – but even that has proved useful'* (p28).

Other types of human-capital-related information that were found to be used relatively frequently by some studies but not others include information on employee numbers (or changes in employee numbers) (García-Meca and Martinez 2007), labour–management relations (Dempsey et al 1997), HR-related risks such as long-term financial obligations related to human capital (Almqvist and Henningsson 2009), and employee training (Sakakibara et al 2010). Offering a potential explanation for the relative lack of attention to human capital, some studies have found that information gaps are particularly large in relation to human capital (Dempsey et al 1997, Sakakibara et al 2010; see also Wyatt and Frick 2010).

Some of the reviewed literature furthermore suggests that it is forward-looking information that is of particular interest to the capital market (Almqvist and Henningsson 2009, Gietzmann 2006, Krausert 2017, Ngobo et al 2012, Orens and Lybaert 2010). An example of forward-looking human capital information would be information about a new approach to work organisation, a new training and development programme, or a new recruitment and selection system, all of which may incur costs in the near term with beneficial effects emerging over the longer term (Krausert 2017). There is scope for future research to study the impact of human-capital-related information on analysts' recommendations and investment decisions that is forward-looking (and focused on change as compared with past-oriented information).

Analyst evaluation methods differ internationally and by sector

The available research suggests that analysts evaluate human capital differently across industries and countries. For example, in the US context, securities analysts in the IT and industrial sectors seem to be more interested in human capital than analysts in other sectors (Flöstrand 2006). In contrast, in the UK, it was found that company disclosures (such as through the annual report) cover less human capital information in the IT industry compared with other sectors (Striukova et al 2008).

Other organisation-level factors related to analysts' use of human capital information include the market-to-book ratio (García-Meca and Martinez 2007; see also Amir et al 2003), operating uncertainty, industry concentration (Ballester et al 2002), and organisation size. Human capital was found to be more important for valuations of smaller organisations in Japan (Sakakibara et al 2010). Elsewhere, analysts covering larger organisations have been associated with smaller forecasting errors due to more stable growth and earnings, greater transparency, more private information, and larger analysts coverage (for example, Ngobo et al 2012).

Analyst characteristics impact evaluation methods

Differences in analysts' evaluations of human capital have furthermore been related to a number of analyst characteristics. Sakakibara et al (2010) found human capital to be more likely to be taken into account by more experienced analysts, potentially because of better access to information. Elsewhere, it was argued that analysts are more likely to take into account intangible information (a) if employed by larger brokerage houses, where they cover a smaller number of analysts and, hence, have more time to gather and analyse information, and (b) if they are included in all-star listings (such as the All American Analyst Index). Analysts covering fewer organisations and more skilled analysts (all-star listings being a proxy for skill) are more likely to use the so-called fundamental analysis technique. Thereby, analysts collect information

about intangibles such as the strategy, processes, and business environment of organisations (the organisations' 'fundamentals') so as to forecast future earnings. The alternative to fundamental analysis is earnings forecasts based on relative valuation multiples (that is, ratio analyses), relying on financial information only. The possibility that analysts take into account human capital information is given only where analysts rely on fundamental analysis (Krausert 2017). Thus, both the incentives and the ability to take human capital into account are likely to vary significantly across analysts.

Objective decision-making: the impact of bias and issues relating to agency

The recommendations of securities analysts have been found to be affected by both agency problems and cognitive biases. Agency problems result from agents (such as analysts or managers) pursuing vested interests which are in conflict with interests of the principals who employ them (such as investors). For example, analysts depend on the managers of the firms they evaluate for information (such as their strategy, R&D activities, new product releases, and so on). As a result, they tend to evaluate firms and their strategies overly optimistically, so as to not put in jeopardy future information flows (Fogarty and Rogers 2005).

Optimistic biases among sell-side analysts are also the result of needs to generate trading business for their employing brokerage houses. Their reports and recommendations are targeted at institutional investors, for those to carry out their trades using their brokerage services. Pessimistic analyst reports would dampen trading activity and, thus, negatively affect the business of brokerage houses.

Finally, optimistic biases can occur where the employers of sell-side analysts offer investment banking services. The rationale of these overly optimistic analyses is to attract (or not put off) investment banking clients (Groysberg et al 2008, 2013).

Besides agency problems, research also found analysts to be subject to various cognitive biases. According to this, overly optimistic analyses may be the result of (subconscious) overconfidence biases. A related problem is credulity, whereby analysts do not sufficiently query the information provided to them by managers. Especially when information is provided in terms of narratives (as opposed to numerical information), they are prone to accept 'hard-to-refute stories' too easily.

Agency problems and cognitive biases have, to date, not been studied specifically in the context of human capital information, but future research could incorporate such issues. Because human capital information is often reported in narrative form, it is conceivable that its use is prone to overconfidence and credulity biases. This is another area that could be examined by future research. One could furthermore examine factors that reduce analysts' bias, such as training activities for analysts, how information is presented, and whether biases differ across communication channels (annual report, company webpages, private communication).

Imitation: herding amongst investors

Herding, or herd behaviour, takes place when investors imitate each other in their investment decisions (or when analysts imitate each other in their analyses, earnings forecasts, and stock

'Agency problems and cognitive biases have, to date, not been studied specifically in the context of human capital information.'

recommendations) (De Bondt and Forbes 1999, Sias 2004). Herding is a type of bias that has attracted particular attention as a potential explanation of market anomalies, such as under-reactions or over-reactions in the market (De Bondt and Forbes 1999, p144). A related bias is anti-herding behaviour (or contrarian investment strategies), whereby investors make a deliberate effort to set themselves apart from the consensus (for example, Spyrou 2013).

As with other biases, herding has not yet been studied specifically in the context of investors'/analysts' use of human capital information. Theoretically, various implications are conceivable. For example, to the extent that analyst recommendations are the result of herding, they might take human capital information (or any other fundamentals) into account to a lesser extent – their recommendations will be more driven by the views of the 'leaders of the pack' than their own analyses of fundamentals. On the other hand, any information taken into account by leading analysts might, via imitation, reflect in their recommendations indirectly. Again, such possibilities would need to be explored empirically by future research.

Heuristics: fast and frugal investment decisions

Heuristics are 'fast and frugal' decision rules that people commonly use in everyday life. They are distinguished from rational decision rules (such as utility theory or net present value theory). However, recent research has also been demonstrating ways in which heuristics can be more effective than 'rational' decision rules given the complexity of, and limited information in, many real-world contexts. Examples of heuristics include the 'one-clever-cue' heuristic, whereby people base decisions on one good reason (or cue) instead of seeking to integrate complex information. Another example is the 'imitate-the-successful' heuristic, which has been argued to be rational for individual actors given high information costs. Tallying is a heuristic whereby decision-makers count the number of cues that favour one alternative over another (for example, Gigerenzer and Gaissmaier 2011, Muradoglu and Harvey 2012).

We believe that there is potential for this literature to be integrated with our topic. One could, for example, examine to what extent analysts and investors use heuristics in processing human capital information, what kind of heuristics, and how effective such heuristics are relative to rational decision models.

Insights and expertise: the opportunity for senior HR professionals

The investment community is a critical stakeholder for senior HR professionals in major organisations. As such, HR professionals are in a prime position to be able to influence and engage with investors on concepts relating to the workforce. Corporate reporting, leadership conference calls with investors, and face-to-face engagement with investors are ways by which investors and analysts understand workforce strategy and objectives. It is in these settings where HR insights may prove to have impact.

There are a number of ways that senior HR professionals can ensure they're able to foster effective relationships with the investment community:

1. **Build high-quality measurement and reporting systems:** Senior HR professionals should ensure human capital and workforce data is of high quality and is reported externally in a transparent, frequent, and accessible manner. Data and insights should describe concepts of material value to investors: information that they require to help inform their decisions.
2. **Frame HR strategy and human capital investment in terms of long-term business strategy:** Analysts using human capital and workforce information are interested in concepts relating to the long-term potential of the organisation.
3. **Disclose material risks and opportunities:** Research shows that investors are interested in data relating to management quality, and risk and opportunity. This data should be disclosed in both narrative and numerical form, and made available to external stakeholders for their assessment.
4. **Report standardised and consistent HR measures to boards and senior leadership:** Senior leaders may be able to foster more effective relationships with the investment community if they have high-quality workforce data to hand. Adopting organisation-wide standards and reporting via human capital and workforce dashboards can help boards and senior teams to articulate the value and quality of human capital to external stakeholders.

4 Summary and next steps

Our assessment of published peer-reviewed literature demonstrates that while analysts do have access to some human capital information, and sometimes use it, it is often to a very limited extent compared with other types of intangibles. Furthermore, it focuses on a narrow range of human capital aspects (for example management quality) as well as human capital data with cost implications (for example workforce size). It appears that mainstream analysts and ESG analysts use human capital and employment relations data differently, and attach different value to them. There also appears to be some slant within the ESG literature towards environmental and governance factors, with human/workforce factors being utilised less frequently in ESG assessments.

A major issue our literature review highlights is a lack of understanding amongst scholarship about how investment processes informed by human capital information actually work in practice. The underlying processes of firm valuation and investment processes in the capital market are not fully understood, both when it comes to the use of intangibles information in general, and human capital information more specifically. Research has been focusing on intangibles information as a broader construct, where human capital is at best covered as one dimension of this construct, next to other types of intangibles, such as firm strategy, customer satisfaction and the firm's brand name – which have received considerably more attention and interest.

There are a number of reasons why intangibles such as human capital have been hard to explore within the investment decision-making process. The issues of data quality, data visibility, and complexity of human capital measurement and reporting influence (ESG and mainstream) investment decisions. Fund managers rely on social rating indexes, labour standard certifications, reports of social research analysts, and reports of (sell- and buy-side) securities analysts. To capture the relative effect of the various types of information, measurement of both fund performance and human-capital-/labour-related information that may be influencing the decisions of the fund manager would be required. The decision-making process and data that informs it is hard to measure and complex in nature, as is the process, which does not appear to be linear or standardised.

Questions also exist relating to investor perspectives on human capital information. Presently analysts don't appear to pay attention to human capital information to the same extent as information describing other types of intangible resources. This may be because the current cognitive frames that analysts and fund managers use to evaluate and inform their investment decisions are biased against human capital information in favour of more easily accessible data, and may also be an artefact of the finance-driven education analysts and fund managers have received in their training. Our research points to a potential issue of low

'A major issue our study highlights is a lack of understanding amongst scholarship about how investment processes informed by human capital information actually work in practice.'

understanding of human capital in all parts of the investment process that, when combined with often inefficient and ineffective methods of communication, means that human capital materiality is not adequately expressed to external stakeholders – whether that's through face-to-face meetings, corporate reports, newswires, or via emerging social networks.

Improving the extent to which investors use human capital information to inform their decisions can only come about by exploring through empirical evidence whether investors currently use human capital information, and in what forms human capital information is best communicated. Further information is needed as to how analysts value intangibles more broadly. Understanding this will facilitate more effective communication of human capital information (meeting the needs of investors) as well as, potentially, learning processes among investors about the relevance of human capital for their analyses. More data is required to inform future practice, on the part of the analyst, the board, and the HR leader.

An alternative approach would be to study earnings forecasts or earnings forecast accuracy as a dependent variable (at the level of the securities analyst), that is, one could link the human capital information use of that analyst to their forecasts and forecasting accuracy. However, this would not allow the capture of human-capital- and labour-related information influencing investment decisions via ESG screens (or red-flagging) rather than via earnings forecasts.

Our review has demonstrated that not enough is known about decision-making using human capital information to be able to improve the practice of investors with regards to this data. Before further steps can be taken to improve practice across key communities, more insights are required. As such, the CIPD will continue to work with the University of Warwick to explore the evidence on this topic, and work with practising analysts, advisers, and their communities to explore how to improve human capital analytics practice.

Appendix

Table A1: Major environmental, social and governance standards initiatives (adapted from Blackrock 2016)

Initiative	Key points
Principles for Responsible Investment (PRI)	• Investor-sponsored initiative in partnership with the UNEP Financial Initiative and UN Global Compact, which defines six voluntary and aspirational investment principles to incorporate ESG factors: (1) incorporation of ESG issues into investment analysis and decision-making processes; (2) active ownership and incorporate ESG issues into ownership policies and practice; (3) seeking appropriate disclosure on ESG issues by entities in which investments are made; (4) promotion of acceptance and implantation of the principles within the investment industry; (5) collaboration to enhance our effectiveness in implementing the principles; (6) reporting on progress towards implementation of the principles.
CDP (Carbon Disclosure Project)	• NGO focused on collecting and reporting climate-related data to cover specific environmental issues around climate change, water, and deforestation risk.
Global Reporting Initiative (GRI)	• Independent organisation that helps business, government, and other organisations understand and communicate their impact on sustainability issues (ESG). • GRI 4th edition (2013) included 400 indicators of broader sustainability performance.
International Integrated Reporting Council (IIRC)	• Global coalition of regulators, accountancy bodies, audit organisations, and businesses to promote communication about value-creation and how to report it through corporate governance and reporting.
Global Impact Investing Rating System (GIIRS)	• Project by B Lab that assesses the social and environmental impact of companies and funds; it provides two ratings: one for impact models and one for operations against ESG standards.
Sustainable Stock Exchanges (SSE)	• Peer-to-peer learning platform exploring how exchanges, in collaboration with their stakeholders (investors, organisations, and regulators), can enhance transparency of ESG issues.
Ceres	• Non-profit organisation advocating for sustainability leadership, comprising a network of investors, companies, and public interest groups. Focused on enhancing sustainability practice across multiple systems.
Financial Stability Board (FSB)	• An international body that monitors and makes recommendations about the global financial system. • FSB has established a taskforce to consider climate-related issues, relevant to ESG.
Sustainability Accounting Standards Board (SASB)	• Independent non-profit with the mission to develop and disseminate sustainability accounting standards. • Evidence-based standards-setting approach.

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