Measuring the Contribution of Skills to Business Performance
A Summary for Employers

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1. Introduction

The contribution of skills to business performance is a subject that has long interested researchers, organisations and those developing and actioning government labour market policy.

This project emerged from the work of a number of key policy bodies and agencies in the skills arena, and has been taken forward by a steering group of interested parties. The project has been funded by the Chartered Institute for Personnel and Development (CIPD), the Department for Education and Skills (DfES), Investors in People (liP UK) and the Sector Skills Development Agency (SSDA). The remit for this work was to explore what is now a vast array of studies which have tried to unpick the relationship between skills and organisational performance and to extract the essence of the evidence. What kind of difference do skills make? What mediates the effect? What does this mean for employers? We have built on these findings by developing an explanatory framework which helps present and make sense of the research. Finally we have sought to identify a range of measures or indicators, which across a number of rigorous, well-designed studies, have been shown to have strong and positive links to desirable business outcomes. We have therefore developed a set of indicators which have been robustly linked to performance.

Literature review

The first phase was to review existing evidence to see what is known about the relationship between skills, training and business performance to provide evidence which is as straightforward, methodologically robust and as convincing as possible.

Development of a explanatory model

This review highlighted clusters of factors which have been reported as associated with better organisational performance. Skills tend to emerge strongly but there are also identified linkages with a wide array of other HR practices, eg appraisal, empowerment, performance-related pay, recruitment and selection processes, trade union membership etc. We wanted to
develop a model which not only provided some coherence to all of these disparate factors, but which also would help create a
degree of explanatory power.

**Development of a framework of indicators**

The final stage of the project was to use the various measures and our model to highlight a range of indicators which could be used by organisations to help improve business performance. These indicators are uniquely underpinned by rigorous research which makes this model quite different from most other frameworks in the market. And the indicators have been chosen to ensure:

- They are meaningful within an employment context. They should be able to generate and inform internal debate regarding decisions on training, development and management. They should not be overly complex or rely on the use of complicated data gathering techniques or analysis.

- They align and are compatible with existing national and international measures to ensure that data generated can be used in comparison or in conjunction with other data that is tracked and reported.

- They are actionable in that they should reflect activities that can be deliberately manipulated to alter performance over time.
2. The Evidence on Skills and Business Benefits

The well worn adage that people are our most important resource is often said but doesn’t always get translated into organisational behaviour. Do people get the investment they deserve? And if they do not, is that because of a lack of understanding of the possible returns to that investment or of the difficulties of evaluating that return? As improving business performance is a key aim of most organisations, understanding what may make the difference is of enormous value to managers and leaders. There is now substantial evidence that investing in people is one way in which organisations can make positive gains in productivity and other business outcomes. Such human investment can have greater impact than investment in IT, in machinery, or in R&D.

One of the most obvious forms of investment is in the skill levels of the workforce. The belief in benefits has been widespread and underpins the consistent message from UK government and its agencies for organisations and individuals to undertake more training and development because of the benefits it is anticipated that it will bring. Standards such as Investors in People have also been very successful in focusing on promoting the training needs of the workforce and matching those to business needs with the objective of enhancing business performance.

Over the last two decades there has also been a wealth of research on other people factors that affect organisational performance. This research has gathered momentum over time to now constitute a considerable body of evidence in its own right.

In this brief guide we do three main things — we spell out the evidence of benefits employers can achieve from investing in their workforces, we explore the routes that investment might take and we propose a set of measures of HR investment by which organisations can monitor their own performance, and which extensive evidence has shown, can make all the difference.

2.1 Benefits from skills

When looking at the evidence linking skills to organisational outcomes, we are in fact nearly always looking at evidence which uses qualifications or educational attainment as a proxy for skill
because it is very difficult to measure or monitor skills per se. Nonetheless there is considerable positive evidence linking educational attainment to organisational performance. For example the most productive manufacturing organisations tend to have a more highly educated workforce than the least productive — equivalent on average, to an extra qualification level (Haskel and Hawkes, 2003). This kind of relationship has also been found in the US where it has been estimated that the equivalent of an extra year of schooling raised productivity by between 4.9 and 8.5 per cent in the manufacturing sector and between 5.9 and 12.7 per cent in services (Lynch and Black, 1995). These results have been supported by Mason and Wilson in 2003 for the UK.

A series of hugely influential and robust research projects has also strongly indicated a link between skills and business productivity. A number of well-known ‘matched plant’ studies (see for example, Keep, Mayhew, Corney; 2002) by the National Institute for Economic and Social Research (NIESR) considered the impact of workforce skills and development on productivity alongside a range of other factors such as investment in capital equipment and maintenance practices for matched comparator establishments. A clear connection between higher skills and higher productivity was identified particularly at the intermediate skills level. All the studies found that the higher average levels of labour productivity in firms in continental Europe were closely related to the greater skills and knowledge of their workforces, especially intermediate skills. Skill levels were also shown to be associated with the uptake of new equipment and to maintenance activity. These studies mostly took place in the mid to late 80s and early 90s but the findings have been replicated very recently (Mason and Wagner, 2002) with similar results.

Other studies have explored if there is a relationship between skills and other organisational outcomes. Haskel and Hawkes (2003) found that higher skill (qualification) levels support innovation and more sophisticated production processes and were associated with the production of higher quality products. Green et al. (2003) has also found a strong relationship between different levels of UK workforce skills and the sophistication of products. An OECD study looked at innovation in UK SMEs and found that higher qualification levels of both managers and staff boosted innovation (Albaladejo and Romijn, 2001) and was associated with higher technological complexity and originality. Others have shown a link to company survival (Reid, 2000).

### 2.1.1 Implications for employers

These and other findings suggest that a more highly qualified and educated workforce is associated with greater productivity, greater innovation and higher quality products or services. An option therefore for employers is to instigate more rigorous and demanding recruitment standards to increase average education
or qualifications. Raising skill levels through recruitment activity is one way in which employers can realise benefits but there are other ways and some research has looked specifically at the impact of training and development activity.

2.2 Benefits from training

There is evidence that training is associated with productivity improvements and softer benefits to organisations. Dearden, Reed and Van Reenen (2000) found connections between more training and higher labour productivity across a number of UK sectors. Others, eg Collier et al. (2003), have found that increasing investment in training reduces the chance of firm closure.

There are other benefits too. There is some evidence of benefits from training in terms of motivation and attitude; Booth and Zoega (2000) suggested that training fosters a common firm culture and helps attract good quality workers; Green et al. (2000) found training had a downward impact on employee turnover, and recent work by IES has found that training and development opportunity is a significant driver of employee engagement (Robinson et al. 2004).

A key question has been whether more education, training and skills is enough or whether training needs to be embedded in the strategic context of the organisation. Indeed there is evidence that training is most effective when there is a strategic association between training and development policy and business strategy (eg Keep et al. 2002; Thomson et al. 1997; Mabey and Thomson, 2001). It also seems to be the case that more extensive and formalised training is advantageous — off the job training appears to confer greater benefits to individuals and organisations (Lynch and Black, 1995; Bishop; 1994; Black and Lynch, 1996; Barrett and O’Connell in 1998 and in 2001).

Individuals also benefit from training. Studies have indicated that training received from a current or previous employer brings wage benefits, improved promotability, and reduced likelihood of redundancy for the individual. (eg Blundell et al., 1999; Arulampolam, Booth and Elias, 1997; Blanchflower and Lynch, 1992).

2.2.1 Implications for employers

The emerging evidence therefore is that training and development of the existing workforce has benefits for productivity and employee morale and engagement, and that this is most clearly realised when such development activity is linked to the business strategy of the organisation. Employers who raise the skills of their workforce through recruitment activity or though training and development reap benefits of productivity and other gains too.
2.3 The Wider Context of HR practice

More generally, there is now a vast array of evidence that skills are just one element of the ways in which organisations invest in their people. They invest in their workforce in many other ways too, through pay systems, appraisal, communication mechanisms etc. HR practices have been subject to considerable investigation to try and unpick whether they also contribute to organisational performance and in what ways.

This array of HR practices which have been linked to business performance have been termed high performance work practices (HPWPs).

2.3.1 What are the practices?

In considering how such HPWPs impact on performance it is helpful to understand just what these practices are. It has been argued (Bosalie and Dietz, 2003) that practices relating to employee development and training, participation and empowerment, information sharing, and compensation systems are most often researched.

In the work that has been done to assess the impact of such practices on performance, a wide variety of sometimes quite specific practices have been used, eg Thompson’s work (2000) exploring the impact of HPWPs in UK aerospace companies identifies over 30 practices. Pfeffer (1998) describes seven practices of successful organisations, Pil and MacDuffie (1996) suggest five key practices arising from their work on car manufacturing.

Ashton and Sung (2002) sift all of these various lists down to four dimensions:

- Support for employee performance (training, appraisal systems, mentoring, coaching) all targeted on achieving organisational aims or plans
- Employee involvement and autonomy in decision making (the use of self-managed work teams and multi-skilling which provide the employee with the opportunity of developing team working and decision-making skills)
- Rewards for performance (individual and group-based performance pay) which focuses employee efforts on contributing to business performance
- Sharing of information and knowledge (communication of information to all employees) to enable them to fully contribute and to engage their enthusiasm.

Most organisations will have some aspects of these kinds of practices in place but reaping the benefits is not completely straightforward. There are two quite different perspectives on
how they work, some suggest that more is better, in that the more practices adopted, the greater the effect (eg the work on UK aerospace companies – Thompson, 2000), whilst others have argued that the impact of practices is dependent on certain conditions. In one interpretation there is a suggestion that practices need to be ‘bundled’ into meaningful groups of practices. For instance there are various studies which have found that adoption of single practices do not deliver the same improvement of results (Katz, Kochan and Keefe, 1987; Ichniowski and Shaw, 1995; Wood, 1999). Another interpretation suggests that practices need to be appropriate to the strategy and circumstance of the firm (eg Bae and Lawler, Huselid and Rau, 1997).

### 2.3.2 What is the impact?

Whilst there may be disagreement about what combination of practices constitutes ‘best practice’ and how this should be defined, the evidence commonly highlights positive improvements to organisational performance. Across what is a sizeable body of work, carried out in many different countries, in different industries and using different methodologies, the large majority of studies show positive effects on firm performance of the adoption of such HR practices. The effects are often found to be greater than other investments such as IT or R&D. UK work; Wood et al. (2001), and Patterson et al. (1998) found that nearly one-fifth of variations between organisations in productivity and profitability were associated with differences in HR practices. Similarly studies from the US and Europe, looking at organisations of different size and from a range of industries show similar gains.

A recent study published by the Chartered Institute for Personnel and Development (CIPD) (Purcell et al. 2003) also finds these positive impacts and examines the ways in which HR practices may impact on performance and asserts that for people to perform above minimal requirements they must:

- have the ability, ie the requisite knowledge and skills.
- be motivated to work well.
- be given the opportunity to deploy their skills and contribute.

HR practices serve to turn these three elements into action, and managers have a key role in implementing policy and practice. The importance of employee attitudes to business performance is another layer of complexity in seeking to understand the skills-performance link. The body of research on engagement has shown that employee motivation is a key intervening variable in producing higher performance (eg Barber et al. 1999).
2.3.3 Implications for employers

This suggests that investment in people, be that training and development activity, reward systems that enable employees to share the success of the firm, or time to help build an understanding of the aims and objectives of the organisation, all help contribute to organisational success.

The key messages emerging from the literature are that skills make a significant difference to firm performance and that skills can be enhanced through careful recruitment processes and through the training and development of the workforce. Skills also need to be embedded within an approach to managing people which both captures their motivation and enables them to apply themselves fully at work. Good management, good communication and meaningful jobs all have a part to play in turning the promise of skills into a reality.

The UK has seen a growing interest in the concept of ‘Human Capital’, with a lively debate on the intangible value which people, through their skills, knowledge and attitudes, bring to organisations. It is now widely accepted that these intangibles can bring significant benefits in terms of competitiveness and yet few organisations are able to take full account of such ‘human capital’ in their decisions. The role of skills and other people management practices is central to this debate and we move on to explore just how they impact and how they can be measured.
3. Making the Link

As we have seen, there are strong messages of positive impact from training and development, HR practices, and enhanced employee commitment, emerging from a vast array of research designed to test this relationship. In trying to understand how this effect takes place, we can construe a value chain from antecedents of capability — the factors that develop employees’ abilities or their commitment, through to the outcomes of capability — the final results be they profit or shareholder value or improved goods or services (see figure 3.1). Somehow all these input factors which have been highlighted in the literature make a difference to workforce capability. Capability is expressed in turn, through the activities of people — the effort they make, the new products or services they create or the quality of what they do. That activity will impact on the amount of work that takes place — the productivity of the workplace, and the satisfaction of consumers or customers of the organisation. And it is productivity and customer satisfaction which are likely to give rise to final outcomes of profit or shareholder value (for private sector companies).

Figure 3.1: The chain of impact

Source: IES, 2005
This is of course a simplification and such a chain is inevitably set within the environmental context — all the other factors that can affect organisational performance such as the level of competition, the environmental infrastructure, the regulatory environment etc. But, all other things being equal, we have seen clear evidence that these HR inputs can make a difference.

3.1 A model of capability

This rather begs the question of what constitutes workforce capability in the first place. It is something of a black box in that it is not visible or readily available for direct observation or measurement. What we do know is that it would appear to be affected by the wide range of HR practices that have been linked in the literature to organisational performance and therefore these practices may help us understand just what it is that underpins capability and what can be used to help organisations monitor and improve their performance.

In sifting through all the findings in the literature, there emerges two key dimensions to human capability — the first dimension spans from the development of capability on the one hand to its deployment on the other, and the second dimension spans from the individual’s domain of influence to the organisation’s (see Figure 3.2).

3.1.1 Inputs to and deployments of capability

We have seen that capability can be developed and that education, training and development all play a part in improving individual capability. However, whereas training and skill development are focused on the growth of capability, the effectiveness of the workforce is also dependent on the way in which it is utilised in practice. The most educated and highly trained people may not do a good job if they are disinterested or de-motivated and therefore

Source: IES, 2005

Figure 3.2: Dimensions of Capability

Source: IES, 2005
this utilisation is dependent on the motivation and engagement of employees. Their attitudes to their organisation, their manager, their colleagues, customers and their job, all affect their performance. As we have seen from the literature, motivation is a crucial element of performance.

3.1.2 The individual/organisational partnership

Individuals acting alone cannot create exceptional organisations, but rather work in the context of the organisation — its policies, processes, culture, and strategic direction; ultimately the permissions it gives and the opportunities it creates. Organisations play their part in developing human capital through the policies and practices they have in terms of the kinds of skills they look for and where they look: for example the decision to fill more senior roles by promoting internally rather than through external appointments; the levels of qualification that are required on entry; and the processes for succession planning.

In deploying capital, organisations create the context through the resources they provide, their operating procedures, job design, the degree of autonomy allowed and the product or market strategy the organisation follows. Skills and enthusiasm are attributes of the individual, but they can only make a difference when the organisation provides access to roles and an appropriate context within which they can be applied.

Taken together these two dimensions create four distinct areas of influence (what we have termed the 4A model, see Figure 3.3) all of which have been empirically associated with better organisational performance, not just in one or two studies but in what is now a vast (and still growing) portfolio of rigorous and extensive work. The four key areas are:

Access: the organisation’s policy and practice on recruitment and selection. The literature suggests that rigorous recruitment practices, valuing skills at selection, and providing an opportunity for internal advancement in the organisation, all contribute to performance.

Ability: the skills of the workforce (generally proxied by qualifications), the provision of ongoing training and development opportunities including: on and off-the-job training; coaching and mentoring; and structured work experience. There is strong evidence that a more highly skilled workforce is associated with greater productivity and also strong evidence that the provision of training and development is associated with a range of business benefits.
**Attitude**: the policies which can enhance employee motivation and engagement such as performance management systems (including appraisal and one to one discussions with line managers) performance related reward, profit or gain sharing practices, family friendly working practices, and communication practices. All have been shown to enhance employee engagement, which in turn affects effort and quality.

**Application**: the opportunities organisations supply which enable people to apply their skills and enthusiasm in the workplace such as: job design — the scope the job provides for people to make a difference; practices encouraging people to contribute ideas; and fundamentally, the business strategy the organisation is pursuing. Greater degrees of autonomy, practices which welcome and utilise the ideas of the workforce and business strategies that differentiate on the grounds of quality or innovation, have all been linked with business performance.

The 4A model provides a framework for organisations to consider all aspects of people management and to consider their own investment in people within each of the four quadrants. The skills of the workforce are key but the evidence is that they are more effective when set within an HR system which acknowledges the importance and contribution of the other quadrants.

**Figure 3.3: The 4A model of capability**

![Diagram of the 4A model of capability](image)

*Source: IES, 2005*
An issue for organisations is just how to translate the insights from the literature into practice within their own setting. The literature is peppered with different practices in each of these four factors and different measures of each of these practices. There is potential for enormous confusion as to how organisations might easily measure their own performance and use these measures to progress. We wanted to take this array of potential measures and use them to arrive at a set that would be easy to use and yet firmly supported by the best evidence we could find that these indicators are associated with improved performance. In arriving at a set of indicators that can be used within organisations we have used five criteria:

- **Resonance**, *ie* the measures should be meaningful. They should be able to generate and inform internal debate regarding decisions on training and development and the other forms of investment that have been shown to be important. We have sought to identify measures that can reasonably be collected in the organisational context, *ie* are not overly complex or rely on the use of complicated data gathering techniques or analysis.

- **Alignment and compatibility with existing national and international measures.** Wherever possible we have used the same measures which have been suggested by other agencies, *eg* DTI and CIPD. This is to ensure that data that is generated for others already, can as far as possible, be used for this too.

- **Rigour and lack of ambiguity.** The measures should generate data which is as valid, reliable and unambiguous as possible. To reduce ambiguity we have given full descriptions of the measures and how they should be gathered or calculated.

- **Capacity for longitudinal tracking.** The measures should be able to track activity over time. This is essential for improving performance. Using the indicators to understand progress over time and to compare between different parts of larger organisations can help with understanding the connection between human capital investment and performance.

- **Actionable indicators.** The measures should be able to reflect activities that are within organisational control, so that they can be deliberately manipulated to alter performance over time.
It is important that the indicators are able to adapt to changing organisational circumstance. For example raw measures can lose meaning when the size of the workforce changes and therefore we have sought to contextualise indicators by relating them to the workforce population through the use of ratios or proportions.

The result of these deliberations and a careful analysis of the literature is to derive a set of indicators rather larger than we would like. The problem is that we do not know from all the various work which has been done by others, just which indicators are likely to have the greatest impact. In this exploratory phase we will be treating these indicators as an emerging set, identified by the literature but which would be enhanced by testing fully. Such testing would help identify a smaller subset which links most strongly with organisational performance and which can be easily collected. This subset then holds the promise of not only providing a means by which organisations can change their own performance over time, but also the means by which organisations can benchmark their investment with others. If you are interested in benchmarking your own organisation’s performance against that of others please contact:

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We present below our suggested measures within each of the quadrants of our model.

### 4.1 Access

Access measures are designed to help understand how jobs are resourced. This covers both the care taken with recruitment and the degree to which internal movement and progression takes place. We have therefore suggested a range of measures to help capture information on the degree to which internal promotion and progression occur, some sense of the care and quality of the recruitment process and also a sense of your ability to attract good candidates:

#### 4.1.1 Core Measures

1. Proportion of vacancies / posts filled internally, ie with internal rather than external candidates (number of vacancies / posts filled internally / total number of posts filled per annum × 100).
2. Proportion of vacancies subject to test on recruitment, ie the use of some kind of psychometric or practical test to help determine candidates’ suitability for the job (number of vacancies subject to test on recruitment / total number of vacancies × 100).

3. The proportion of new recruits fully experienced on appointment (average), ie those recruits which can do the job without further training other than induction training (number of recruits fully experienced / total number of recruits per annum × 100).

4. Proportion of vacancies for which there exists a person specification detailing skills needed for the role (number of vacancies with person specification / total number of vacancies per annum × 100).

4.1.2 Desirable measures

A measure of the quality of the recruitment/resourcing process would be desirable but difficult to devise. We have contemplated measures of average time taken at interview, proportion of interviewers who have received interviewing skills training, and numbers of steps in the selection process, but these measures are more subjective than we would like. We present them as optional measures.

5. Proportion of interviews conducted by interviewers who have received interviewing skills training (number of interviews conducted by trained personnel (at least one per panel) / by total number of interviews per annum × 100).

6. Proportion of interviews conducted using criteria based interviewing techniques (eg using questions designed to probe against attributes necessary for the job such as competencies, focus on experience etc.) (total number of interviews using criteria based techniques / by total number of interviews per annum × 100).

7. Proportion of jobs for which there are clear identified internal successors, developed accordingly (number of jobs for which there is one or more obvious internal candidates appropriately developed / total number of jobs × 100)

4.2 Ability

We want to include measures that pick up not only the quantity of activity going on but which would also provide some indication of the spread of that activity. There is considerable difference between an organisation that spends a large sum of money on a small management population and one that spends the same amount but distributes it more evenly. In an ideal model we would also wish to include measures of the quality of training and
development activity but this is difficult to measure easily and therefore we have omitted quality indicators from the core set.

Measures of the skills of the workforce are more problematic. The most widely used measure of ability is qualification but this is a proxy measure which we would ideally prefer to avoid. However, as alternative measures of ability are likely to be complex to collect and maintain over time — eg appraisal ratings, competency assessments, scores on psychometric tests, we have decided to retain measures of qualification attainment as the best and most readily available measure (and the one that is most commonly used elsewhere).

### 4.2.1 Core Measures

#### Activity

8. Proportion of non-managerial employees receiving training (Total number of non-managerial employees receiving formal off-the-job training/total number of non-managerial employees × 100).

9. Average training days per employee (total training days provided per annum for non-managerial employees / total number of non-managerial employees).

10. Average training spend per non-managerial employee (training expenditure per annum on non-managerial employees / total number of non-managerial employees).

11. Average training days per manager (total management training days per annum / total number of managerial employees).

12. Average training spend per managerial employee (expenditure on management training per annum / total number of managerial employees).

13. Proportion of the workforce with current pdp or development objectives (total number of employees with current pdp / total workforce × 100)

#### Stock

14. Proportion of non-managerial employees with degrees or equivalent, (number of non-managerial employees with degrees or equivalent / total workforce × 100).

15. Proportion of managers with degrees or equivalent (number of managers with degrees/degree level qualification / total managerial workforce × 100).

16. Proportion of workforce with formal qualifications to level two minimum (numbers of workforce with qualifications to
NVQ level 2 or equivalent (eg 5 GCSEs pass A-C)/total workforce × 100)

17. Proportion of managers who are fully proficient

18. Proportion of key workforce group(s) who are fully proficient (can be broken down by workforce group if able to do so)

4.2.2 Desirable Measures

Quality

19. Proportion of training expenditure on accredited training, ie resulting in a qualification (spend on accredited training / total training spend × 100)

20. Proportion of training which is general (days training provided which provides ‘broad skills and knowledge’ / total number of training days × 100)

21. Proportion which is firm-specific — (days training provided which provides ‘directly related to the operation of the company’ / total number of training days × 100)

22. Proportion of training days directly linked to the business strategy (number of training days directly linked to business strategy / total training days × 100).

Figure 4.1: Indicators and the 4A model

Source: IES, 2005

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4.3 Attitudes

We also present hard measures of the impact of motivation and morale which have been implicated in the literature as contributing to high levels of motivation or which have been seen to link to performance and which are relatively easy to collect and analyse. These measures of engagement outcomes are often used as proxies for engagement, eg turnover rates, absenteeism (often better measured by the rate of short-term absence rather than long term absence and therefore we use a measure designed to capture the impact of short term absence called the Bradford factor explained below).

4.3.1 Core Measures

23. Turnover (number of voluntary leavers in year (excluding layoffs, retirements or redundancies) / total workforce numbers × 100).

24. Proportion of lay-offs (numbers of redundancies / lay-offs in last two years, ie involuntary leavers not for disciplinary reasons / total numbers in the workforce × 100).

25. Absenteeism (total hours lost to sickness per year / total hours available × 100).

26. Bradford factor = (number of incidences of absence)2 × total number of days lost, eg five individual days = 125 (5 × 5 × 5), Five continuous days = 5 (1 × 1 × 5).

27. Percentage gain sharing (ie total numbers of employees receiving some form of profit related bonus or share options / total workforce numbers × 100).

28. Percentage receiving performance pay (proportion of the workforce for which some element of pay is performance related – total staff numbers receiving some form of performance related pay / total staff numbers).

29. Proportion of pay that is variable (total variable pay bill / total pay bill × 100).

30. Proportion receiving appraisals, ie at least an annual review of performance (total numbers of staff receiving annual review / total workforce × 100).

31. Frequency of 1:1s (average) a regular, formal and private discussion between an individual and their line manager.

4.3.2 Desirable measures

Much of the literature uses bespoke measures of motivation which were developed by the researchers explicitly for the particular study. In most cases a representative of the organisation is asked to comment on staff morale. Clearly any measure of employee
satisfaction which organisations can use to improve their own performance would be better collected from the employees directly but measures of satisfaction are difficult to use and they are more costly to collect and to analyse. For organisations to use such measures, they must have the means to distribute questionnaires, to encourage employees to respond, and they must have the means to collect the results, enter them into some kind of database and analyse them or they must have the resources to engage an organisation which can do this on their behalf. We acknowledge that not all will be able to do so. Some organisations however, may already have attitude surveys which they use to monitor employee views over time or wish to instigate such a survey. We have therefore collected together a suggested range of items that cover areas which IES research indicates are of fundamental importance to engagement.

- **Good quality line management** — managers who:
  - care about their employees
  - keep them informed
  - treat them fairly
  - encourage them to perform well
  - take an interest in their career aspirations
  - smooth the path to training and development opportunities.

- **Two-way, open communication** — which allows the employee to voice ideas and suggest better ways of doing things, while at the same time keeping employees informed about the things that are relevant to them (including the relationship between the jobs they have and the wider business).

- **Effective co-operation** within the organisation — between different departments and functions, and also between management and trade unions.

- **A focus on developing employees** — so that individuals feel that the organisation takes a long-term view of their value, and delivers both the training they need now and fair access to development opportunities.

- **A commitment to employee well being** — demonstrated by taking health and safety seriously, working to minimise accidents, injuries, violence and harassment, and taking effective action should a problem occur.

- **Clear, accessible HR policies and practices** to which line managers and senior managers are committed — particularly with regard to appraisals, equal opportunities and family friendliness.

- **Fairness in relation to pay and benefits** — in terms of comparisons within and outside the organisation.
A harmonious working environment – which encourages employees to respect and help each other.

To help those which would like to measure engagement more directly, we have collected together 12 items which have through extensive testing been shown to correlate with engagement, and which in turn have been shown to relate to job performance. These measures are presented to those within the organisation and responses recorded on a five point scale from strongly agree, agree, neutral, disagree, strongly disagree:

32. Engagement measures

- I speak highly of this organisation to my friends.
- I would be happy for my friends and family to use this organisation’s products/services.
- This organisation is known as a good employer.
- This organisation has a good reputation generally.
- I am proud to tell others I am part of this organisation.
- This organisation really inspires the very best in me in the way of job performance.
- I find that my values and the organisation’s are very similar.
- I always do more than is actually required.
- I try to help others in this organisation whenever I can.
- I try to keep abreast of current developments in my area.
- I volunteer to do things outside my job that contribute to the organisation’s objectives.
- I frequently make suggestions to improve the work of my team/department/service.

33. We also suggest two trust measures measured in the same way:

- I trust my manager.
- This organisation keeps to its promises.

4.4 Application

In the literature there has been plenty said about the importance of firm strategy and of job design to organisational performance, however this is also an area where good indicators are hard to find. It tends to be an area of the literature, which has not been subject to much in the way of empirical test and the occasions when it has been measured have tended to focus on distinguishing broadly between organisations rather than a measure of value to organisations themselves.
The essence of this factor is two fold; to what degree do jobholders have the freedom to make decisions for themselves with regard to their own work area; and to what degree is the organisation competing on an added-value business strategy. In table 4.1 we give some example strategy questions which have been used in previous studies. The literature has also shown that some measure of the facilities available to staff in terms of new ICT is also of value and we have included such a measure here. Wherever possible we have used some of the indicators that have been used in the literature and have indicated two areas where attitudinal measures could be useful but which are, as previously mentioned, difficult to collect and analyse.

### 4.4.1 Core Measures

34. ICT spend as proportion of total turnover (ICT spend / total turnover \(\times 100\))

35. Existence of formal process for employee involvement (i.e., there are formal opportunities for employees to express their views and influence their immediate working environment).

36. Proportion of workforce participating in (numbers participating / total workforce \(\times 100\))
   - a) Team briefing
   - b) suggestion schemes
   - c) quality circles
   - d) regular face to face meetings with managers
   - e) upward appraisal
   - f) receiving organisation wide newsletter
   - g) regular staff survey.

37. Frequency of meetings per annum with staff representatives to discuss employee matters (number of scheduled meetings per annum)

38. Percentage of workforce multi-skilled, i.e., can do range of different jobs or perform range of job roles (total numbers of employees multi-skilled / total employment \(\times 100\)).

### 4.4.2 Desirable measures

One of the key factors likely to be correlated with organisational performance is the degree to which employees have autonomy, i.e., permission to make decisions within their sphere of influence. However, measuring this is difficult and may be best answered by employees themselves than from an organisational perspective. We have made some suggestions below.

We also think there is some evidence that the commercial strategy of the organisation is important for business success and also
influences all the other segments of the model. It would be very useful to be able to contextualise the other indicators by understanding the business strategy of the enterprise and the questions below (Table 4.1) are designed to capture these key elements. Responses on strategy should be considered contextual in that they indicate the degree to which skills are critical in the context of the organisation. They are likely to be especially useful when comparing performance on the indicators with other organisations.

39. Autonomy — Two attitudinal items that can be inserted into staff surveys are:

'I have a lot of say in deciding how to do my job'

'I have a lot of say in deciding what goes on in my work group'

40. Strategy measures (see table 4.1)

Taken together these measures provide a comprehensive set of indicators which have been found to correlate with business performance and which organisations can relatively easily collect and use to monitor their own human capital performance.
### Table 4.1: Possible strategy questions

**Over the last year have you implemented any changes designed to:**

- Significantly improve the *quality* of your existing products or services
- Significantly improve the *efficiency* with which you produce your existing products or service
- Introduce significant new *products or services*
- Introduce significant new technology
- Introduce significant new methods of work organisation

**Over the coming 12 months do you have any formal plans to:**

- Significantly improve the *quality* of your existing products or services
- Significantly improve the *efficiency* with which you produce your existing products or services
- Introduce significant new *products or services*
- Introduce significant new technology
- Introduce significant new methods of work organisation

**Do you see the main markets for your products or services as being:**

- Local
- Regional
- National
- International

**Would you say your organisation performs better or worse than other similar organisations in terms of each of the following:**

- A. Financial performance
- B. Growth in sales or income
- C. Market share
- D. Product or service innovation
- E. Quality of goods or services

- Much worse
- A bit worse
- The same
- A bit better
- Much better

**Do customers for your goods/services make their decisions based:**

- On price
- On quality
- On your ability to tailor to their needs
- On your ability to be different from other suppliers

**And which of these is most important?**

- Price
- Quality
- Your ability to tailor to their needs
- Your ability to be different from other suppliers

*Source: IES 2005*
5. Using the Indicators

These standard indicators provide a ready measure of the aspects of people capability (or human capital if you will) which have been shown to relate to organisational performance in a wide range of studies from around the globe. We suggest collecting this data on a regular basis (at least twice per year). Some of the indicators are likely to be much more sensitive than others and will be subject to frequent change e.g. turnover figures; others may be more stable and unlikely to shift dramatically over shorter periods. In table 5.1 we indicate the direction of change that would be considered positive. It is intended that these measures will form the core of any human capital reporting of the organisation and therefore will be part of regular business planning and financial reporting processes.

The indicators are best considered over time and (in larger organisations) between locations or units. This provides both temporal and intra-organisational benchmarking data. Such data can be extremely powerful in seeking to understand the linkages between these factors and organisational performance. There may also be the opportunity to benchmark performance against other organisations and we would be keen to develop this facility (see page 21 for contact details for those interested in participating in sharing benchmarking data).

There is a veritable maze of information available on factors linking investment in people to business performance, from rigorous academic studies with complex data collection and analysis, to benchmarking models or lists of factors which are recommended. This research has sifted through a large number of those studies, models and lists to arrive at a set of indicators associated with performance gains. The role of this report is to present the results of this work and to provide simple and yet rigorous indicators of high performance to enable organisations to measure the contribution of skills (and other HR investments) which have been shown to contribute to business success.

The indicators should be seen as forming clusters under each quadrant of the model. They provide the opportunity to consider performance against each of the four key aspects of human capital and to assess where performance is possibly weak and where effort needs to be expended. Coupled with measures of
organisational performance, it is possible for organisations to monitor the contribution of these factors to performance outcomes, although doing so can be complex. Our work has demonstrated that there is significant evidence of a link between the indicators in our framework and business performance and therefore organisations which do not have the capacity to undertake complex evaluative work may simply wish to use the measures to report on their own human capital performance and to monitor and improve it over time. The essence of the indicators is to provide the means by which organisations can measure and monitor these things for themselves.

5.1 Conclusion

The summary report has presented evidence from the huge amount of literature available and has fully explored what this evidence means for skills and business performance. The evidence is strongly indicative that skills, training and other forms of investment in people help build business success. The reality however, is that relatively few firms are able to effectively measure their ‘human capital’ investment or to take account of such issues when making business decisions. This report therefore presents a model of just how all the various forms of investment either create or facilitate the deployment of human capability and then presents a range of indicators against each aspect of the model which taken together provide a comprehensive set of measures of human capital investment. These indicators have the weight of much evidence behind them and have emerged from the much wider range that have been already tested and found to be related to business performance.

These measures can be used to explore the investment in the workforce, to track such investment over time and to compare activity within different parts of the organisation or between organisations in the knowledge that they have been shown elsewhere to be associated with improved business performance.

Sources of advice and support

For those organisations seeking to use the indicators and who would like support in doing so, we suggest contacting the project managers for this project:

Kirsty Yates  
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Tel: 01709 765442
E-mail: lesley.giles@ssda.org.uk
Table 5.1: Expected direction of movement of indicators for improved performance

<table>
<thead>
<tr>
<th>Factor</th>
<th>Indicator</th>
<th>Direction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access</td>
<td>Number/proportion of vacancies/posts filled internally</td>
<td>↑</td>
</tr>
<tr>
<td></td>
<td>Number/proportion of jobs subject to test on recruitment</td>
<td>↑</td>
</tr>
<tr>
<td></td>
<td>Number/proportion of new recruits fully experienced on appointment (average)</td>
<td>↑</td>
</tr>
<tr>
<td></td>
<td>Proportion of vacancies for which there exists a person specification</td>
<td>↑</td>
</tr>
<tr>
<td></td>
<td>Proportion of interviewees trained in interview techniques</td>
<td>↑</td>
</tr>
<tr>
<td></td>
<td>Proportion of interviews using criterion based techniques</td>
<td>↑</td>
</tr>
<tr>
<td></td>
<td>Proportion of jobs for which there are clear internal successors</td>
<td>↑</td>
</tr>
<tr>
<td>Ability</td>
<td>Proportion of non-managerial workforce receiving training</td>
<td>↑</td>
</tr>
<tr>
<td></td>
<td>Average training days per annum per non-managerial employee</td>
<td>↑</td>
</tr>
<tr>
<td></td>
<td>Training expenditure per non-managerial employee per annum</td>
<td>↑</td>
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<tr>
<td></td>
<td>Average training days per manager per annum</td>
<td>↑</td>
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<tr>
<td></td>
<td>Average expenditure on management training per manager per annum</td>
<td>↑</td>
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<tr>
<td></td>
<td>Proportion of workforce with current pdp</td>
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<tr>
<td></td>
<td>Proportion of non-managerial workforce with degree or equivalent</td>
<td>↑</td>
</tr>
<tr>
<td></td>
<td>Proportion of managers with degrees or equivalent</td>
<td>↑</td>
</tr>
<tr>
<td></td>
<td>Proportion of workforce with formal qualifications to level 2 minimum</td>
<td>↑</td>
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<tr>
<td></td>
<td>Proportion of managers who are fully proficient</td>
<td>↑</td>
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<tr>
<td></td>
<td>Proportion of defined key workforce group who are fully proficient</td>
<td>↑</td>
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<tr>
<td></td>
<td>Proportion of training expenditure on accredited training</td>
<td>↑</td>
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<tr>
<td></td>
<td>Proportion of training which is generic vs specific</td>
<td>↑</td>
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<tr>
<td></td>
<td>Proportion of training days linked to business strategy</td>
<td>↑</td>
</tr>
<tr>
<td>Attitude</td>
<td>Turnover — number of voluntary leavers in year (excluding lay-offs, retirements or redundancies)/total workforce numbers</td>
<td>↓</td>
</tr>
<tr>
<td></td>
<td>Proportions lay-offs in last two years</td>
<td>↓</td>
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<tr>
<td></td>
<td>Absenteeism</td>
<td>↓</td>
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<tr>
<td></td>
<td>Bradford measure of short term absence</td>
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<tr>
<td></td>
<td>Percentage gain sharing (ie proportion of the workforce receiving profit related bonus or share options)</td>
<td>↑</td>
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<td></td>
<td>Percentage receiving performance pay (proportion of the workforce for which some element of pay is performance related)</td>
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<tr>
<td></td>
<td>Percentage of pay that is variable (average)</td>
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<td></td>
<td>Percentage receiving appraisals (ie at least an annual review of performance)</td>
<td>↑</td>
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<tr>
<td></td>
<td>Frequency of 1:1s (average) a regular, formal and private discussion between an individual and their line manager</td>
<td>↑</td>
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<tr>
<td></td>
<td>Attitudes (core set of measures of drivers of engagement and trust)</td>
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<tr>
<td>Application</td>
<td>ICT spend as % turnover</td>
<td>↑</td>
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<tr>
<td></td>
<td>Existence of formal processes for employee involvement</td>
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<tr>
<td></td>
<td>Proportion of employees involved in various business improvement processes</td>
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<td>Frequency of meetings with staff representatives to discuss employee matters</td>
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<td></td>
<td>Percentage of workforce multi-skilled, /e can do range of different jobs or perform range of job roles</td>
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<td></td>
<td>Autonomy questions</td>
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<tr>
<td></td>
<td>Strategy of the organisation</td>
<td>↑</td>
</tr>
</tbody>
</table>

Source: IES, 2005
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