## Key concepts and terms

- Human capital
- Human capital advantage
- Human process advantage
- Human capital monitor (Andrew Mayo)
- Intangible resources
- Organizational capital
- Social capital
- Human capital management
- Human capital index (Watson Wyatt)
- Human capital measurement
- Intellectual capital
- Metrics
- Organizational performance model (Mercer HR Consulting)

## Learning outcomes

- The concept of human capital
- Constituents of human capital
- Importance of human capital measurement (HCM)
- Approaches to measurement
- Factors affecting choice of measurement
- Characteristics of human capital
- Significance of human capital theory
- Reasons for interest in HCM
- Measurement elements
- Criteria for HCM data for managers
Introduction

The concept ‘human capital management’ (HCM) is based on the concept of human capital as explained in the first part of this chapter. The next three sections describe the processes of human capital management – measurement, internal and external reporting. The chapter concludes with a note on introducing HCM.

Human capital management defined

HCM is concerned with obtaining, analysing and reporting on data that inform the direction of value-adding people management, strategic, investment and operational decisions at corporate level and at the level of front line management. It is, as emphasized by Kearns (2005), ultimately about value.

HCM is concerned with purposeful measurement, not just measurement. The defining characteristic of HCM is the use of metrics to guide an approach to managing people that regards them as assets and emphasizes that competitive advantage is achieved by strategic investments in those assets through employee engagement and retention, talent management and learning and development programmes. HCM provides a bridge between HR and business strategy.

The concept of human capital

Individuals generate, retain and use knowledge and skill (human capital) and create intellectual capital. Their knowledge is enhanced by the interactions between them (social capital) and generates the institutionalized knowledge possessed by an organization (organizational capital). These concepts of human, intellectual, social and organizational capital are explained below.

Human capital

Human capital consists of the knowledge, skills and abilities of the people employed in an organization. The term was originated by Schultz (1961) who elaborated his concept in 1981 as follows: ‘Consider all human abilities to be either innate or acquired. Attributes… which are valuable and can be augmented by appropriate investment will be human capital.’ A more detailed definition was put forward by Bontis et al (1999), as follows.
Human capital defined, Bontis et al (1999)

Human capital represents the human factor in the organization; the combined intelligence, skills and expertise that gives the organization its distinctive character. The human elements of the organization are those that are capable of learning, changing, innovating and providing the creative thrust which if properly motivated can ensure the long-term survival of the organization.

Scarborough and Elias (2002) believe that: ‘The concept of human capital is most usefully viewed as a bridging concept – that is, it defines the link between HR practices and business performance in terms of assets rather than business processes.’ They point out that human capital is to a large extent ‘non-standardized, tacit, dynamic, context dependent and embodied in people’. These characteristics make it difficult to evaluate human capital bearing in mind that the ‘features of human capital that are so crucial to firm performance are the flexibility and creativity of individuals, their ability to develop skills over time and to respond in a motivated way to different contexts’.

It is indeed the knowledge, skills and abilities of individuals that create value, which is why the focus has to be on means of attracting, retaining, developing and maintaining the human capital they represent. Davenport (1999) comments that:

*People possess innate abilities, behaviours and personal energy and these elements make up the human capital they bring to their work. And it is they, not their employers, who own this capital and decide when, how and where they will contribute it. In other words, they can make choices. Work is a two-way exchange of value, not a one-way exploitation of an asset by its owner.*

The choices they make include how much discretionary behaviour they are prepared to exercise in carrying out their role (discretionary behaviour refers to the discretion people at work can exercise about the way they do their job and the amount of effort, care, innovation and productive behaviour they display). They can also choose whether or not to remain with the organization.
The constituents of human capital

Human capital consists of intellectual, social and organizational capital.

Intellectual capital

The concept of human capital is associated with the overarching concept of intellectual capital, which is defined as the stocks and flows of knowledge available to an organization. These can be regarded as the intangible resources associated with people which, together with tangible resources (money and physical assets), comprise the market or total value of a business. Bontis (1998) defines intangible resources as the factors other than financial and physical assets that contribute to the value-generating processes of a firm and are under its control.

Social capital

Social capital is another element of intellectual capital. It consists of the knowledge derived from networks of relationships within and outside the organization. The concept of social capital has been defined by Putnam (1996) as ‘the features of social life – networks, norms and trust – that enable participants to act together more effectively to pursue shared objectives’. It is important to take into account social capital considerations, that is the ways in which knowledge is developed through interaction between people. Bontis et al (1999) point out that it is flows as well as stocks that matter. Intellectual capital develops and changes over time and a significant part is played in these processes by people acting together.

Organizational capital

Organizational capital is the institutionalized knowledge possessed by an organization that is stored in databases, manuals, etc (Youndt, 2000). It is often called ‘structural capital’ (Edvinsson and Malone, 1997), but the term ‘organizational capital’ is preferred by Youndt because, he argues, it conveys more clearly that this is the knowledge that the organization actually owns.

The significance of human capital theory

The added value that people can contribute to an organization is emphasized by human capital theory. It regards people as assets and stresses that investment by organizations in people will generate worthwhile returns. Human capital theory is associated with the resource-based view of the firm as developed by Barney (1991). This proposes that sustainable competitive advantage is attained when the firm has a human resource pool that cannot be imitated or substituted by its rivals. Boxall (1996) refers to this situation as one that confers ‘human capital advantage’. But he also notes (1996, 1999) that a distinction should be made between ‘human
capital advantage’ and ‘human process advantage’. The former results from employing people with competitively valuable knowledge and skills, much of it tacit. The latter, however, follows from the establishment of difficult to imitate, highly evolved processes within the firm, such as cross-departmental cooperation and executive development. Accordingly, ‘human resource advantage’, the superiority of one firm’s labour management over another’s, can be thought of as the product of its human capital and human process advantages.

An approach to people management based on human capital theory involves obtaining answers to the questions set out below.

**Questions on people management raised by human capital theory**

- What are the key performance drivers that create value?
- What skills do we have?
- What skills do we need now and in the future to meet our strategic aims?
- How are we going to attract, develop and retain these skills?
- How can we develop a culture and environment in which organizational and individual learning takes place that meets both our needs and the needs of our employees?
- How can we provide for both the explicit and tacit knowledge created in our organization to be captured, recorded and used effectively?

Human capital theory helps to:

- determine the impact of people on the business and their contribution to shareholder value;
- demonstrate that HR practices produce value for money in terms, for example, of return on investment;
- provide guidance on future HR and business strategies;
- provide data that will inform strategies and practices designed to improve the effectiveness of people management in the organization.

**Human capital measurement**

Human capital measurement has been defined by IDS (2004) as being ‘about finding links, correlations and, ideally, causation, between different sets of (HR) data, using statistical techniques’. As Becker *et al* (2001) emphasize:
The most potent action HR managers can take to ensure their strategic contribution is to develop a measurement system that convincingly showcases HR’s impact on business performance. [They must] understand how the firm creates value and how to measure the value creation process.

The primary aim of HCM is to assess the impact of human resource management practices and the contribution made by people to organizational performance. Methods of measuring impact and contribution based upon human capital data have therefore to be developed.

The need for human capital measurement

There is an overwhelming case for evolving methods of valuing human capital as an aid to people management decision making. This may mean identifying the key people management drivers and modelling the effect of varying them. The need is to develop a framework within which reliable information can be collected and analysed such as added value per employee, productivity and measures of employee behaviour (attrition and absenteeism rates, the frequency/severity rate of accidents, and cost savings resulting from suggestion schemes).

Becker et al (2001) refer to the need to develop a ‘high-performance perspective’ in which HR and other executives view HR as a system embedded within the larger system of the firm’s strategy implementation. They state that: ‘The firm manages and measures the relationship between these two systems and firm performance.’

Reasons for the interest in measurement

The recognized importance of achieving human capital advantage has led to an interest in the development of methods of measuring the value and impact of that capital, as indicated below.

**Reasons for the interest in measuring the value and impact of human capital**

- Human capital constitutes a key element of the market worth of a company. A research study conducted in 2003 (CFO Research Studies) estimated that the value of human capital represented over 36 per cent of total revenue in a typical organization.

- People in organizations add value and there is a case for assessing this value to provide a basis for HR planning and for monitoring the effectiveness and impact of HR policies and practices.
However, three voices have advised caution about measurement. Leadbeater (2000) observed that measuring can ‘result in cumbersome inventories which allow managers to manipulate perceptions of intangible values to the detriment of investors. The fact is that too few of these measures are focused on the way companies create value and make money’. The Institute of Employment Studies (Hartley, 2005) emphasized that reporting on human capital is not simply about measurement. Measures on their own such as those resulting from benchmarking are not enough; they must be clearly linked to business performance.

Research carried out by Professor Harry Scarborough and Juanita Elias of Warwick University (Scarborough and Elias, 2002) found that it is not what organizations decide to measure that is important but the process of measurement itself. As they noted:

In short, measures are less important that the activity of measuring – of continuously developing and refining our understanding of the productive role of human capital within particular settings, by embedding such activities in management practices, and linking them to the business strategy of the firm.

This sentiment is echoed by Donkin (2005), when he says, ‘It is not the measuring itself that is the key to successful human capital management but the intentions behind the measuring and the resulting practices that emerge.’

**Approaches to measurement**

Three approaches to measurement are described below.

1. **The human capital index – Watson Wyatt**

On the basis of a survey of companies that have linked together HR management practices and market value, Watson Wyatt (2002) identified four major categories of HR practice that could be linked to increases in shareholder value creation. These are:

- The process of identifying measures and collecting and analysing information relating to them will focus the attention of the organization on what needs to be done to find, keep, develop and make the best use of its human capital.
- Measurements can be used to monitor progress in achieving strategic HR goals and generally to evaluate the effectiveness of HR practices.
- You cannot manage unless you measure.
total rewards and accountability 16.5 per cent
collegial, flexible workforce 9.0 per cent
recruiting and retention excellence 7.9 per cent
communication integrity 7.1 per cent

2. The organizational performance model – Mercer HR Consulting

As described by Nalbantian et al (2004) the organizational performance model developed by Mercer HR Consulting is based on the following elements: people, work processes, management structure, information and knowledge, decision making and rewards, each of which plays out differently within the context of the organization, creating a unique DNA. If these elements have been developed piecemeal, as often happens, the potential for misalignment is strong and it is likely that human capital is not being optimized, creating opportunities for substantial improvement in returns. Identifying these opportunities requires disciplined measurement of the organization’s human capital assets and the management practices that affect their performance. The statistical tool, ‘Internal Labour Market Analysis’ used by Mercer draws on the running record of employee and labour market data to analyse the actual experience of employees rather than stated HR programmes and policies. Thus gaps can be identified between what is required in the workforce to support business goals and what is actually being delivered.

3. The human capital monitor – Andrew Mayo

Andrew Mayo (2001) has developed the ‘human capital monitor’ to identify the human value of the enterprise or ‘human asset worth’, which is equal to ‘employment cost × individual asset multiplier’. The latter is a weighted average assessment of capability, potential to grow, personal performance (contribution) and alignment to the organization’s values set in the context of the workforce environment (ie how leadership, culture, motivation and learning are driving success). The absolute figure is not important. What does matter is that the process of measurement leads you to consider whether human capital is sufficient, increasing, or decreasing, and highlights issues to address. Mayo advises against using too many measures and instead, to concentrate on a few organization-wide measures that are critical in creating shareholder value or achieving current and future organizational goals.

A number of other areas for measurement and methods of doing so have been identified by Mayo (1999, 2001). He believes that value added per person is a good measure of the effectiveness of human capital, especially for making inter-firm comparisons. But he considers that the most critical indicator for the value of human capital is the level of expertise possessed by an organization. He suggests that this could be analysed under the headings of identified organizational core competencies. The other criteria he mentions are measures of satisfaction derived from employee opinion surveys and levels of attrition and absenteeism.
Measurement data

Main HCM data used for measurement

- Basic workforce data – demographic data (numbers by job category, sex, race, age, disability, working arrangements, absence and sickness, turnover and pay).
- People development and performance data – learning and development programmes, performance management/potential assessments, skills and qualifications.
- Perceptual data – attitude/opinion surveys, focus groups, exit interviews.
- Performance data – financial, operational and customer.

A summary of human capital measures and their possible uses is given in Table 4.1.

Table 4.1  A summary of human capital measures and their possible uses

<table>
<thead>
<tr>
<th>Measures</th>
<th>Possible use – analysis leading to action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work-force composition – sex, race, age, full-time, part-time</td>
<td>Analyse the extent of diversity</td>
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<tr>
<td></td>
<td>Assess the implications of a preponderance of employees in different age groups, eg extent of loses through</td>
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<tr>
<td></td>
<td>retirement</td>
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<td></td>
<td>Assess the extent to which the organization is relying on part-time staff</td>
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<tr>
<td>Length of service distribution</td>
<td>Indicate level of success in retaining employees</td>
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<tr>
<td></td>
<td>Indicate preponderance of long or short-serving employees</td>
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<td></td>
<td>Enable analyses of performance of more experienced employees to be assessed</td>
</tr>
<tr>
<td>Skills analysis/assessment – graduates, professionally/technically qualified, skilled workers</td>
<td>Assess skill levels against requirements</td>
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<tr>
<td></td>
<td>Indicate where steps have to be taken to deal with shortfalls</td>
</tr>
<tr>
<td>Attrition – employee turnover rates for different categories of management and employees</td>
<td>Indicate areas where steps have to be taken to increase retention rates</td>
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<tr>
<td></td>
<td>Provide a basis for assessing levels of commitment</td>
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</tbody>
</table>
Table 4.1 continued

<table>
<thead>
<tr>
<th>Measures</th>
<th>Possible use – analysis leading to action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attrition – cost of</td>
<td>Support business case for taking steps to reduce attrition</td>
</tr>
<tr>
<td>Absenteeism/sickness rates</td>
<td>Identify problems and need for more effective attendance management policies</td>
</tr>
<tr>
<td>Average number of vacancies as a percentage of total workforce</td>
<td>Identify potential shortfall problem areas</td>
</tr>
<tr>
<td>Total pay roll costs (pay and benefits)</td>
<td>Provide data for productivity analysis</td>
</tr>
<tr>
<td>Compa-ratio – actual rates of pay as a percentage of policy rates</td>
<td>Enable control to be exercised over management of pay structure</td>
</tr>
<tr>
<td>Percentage of employees in different categories of contingent pay or payment-by-result schemes</td>
<td>Demonstrate the extent to which the organization believes that pay should be related to contribution</td>
</tr>
<tr>
<td>Total pay review increases for different categories of employees as a percentage of pay</td>
<td>Compare actual with budgeted payroll increase costs Benchmark pay increases</td>
</tr>
<tr>
<td>Average bonuses or contingent pay awards as a % of base pay for different categories of managers and employees</td>
<td>Analyse cost of contingent pay Compare actual and budgeted increases Benchmark increases</td>
</tr>
<tr>
<td>Outcome of equal pay reviews</td>
<td>Reveal pay gap between male and female employees</td>
</tr>
<tr>
<td>Personal development plans completed as a percentage of employees</td>
<td>Indicate level of learning and development activity</td>
</tr>
<tr>
<td>Training hours per employee</td>
<td>Indicate actual amount of training activity</td>
</tr>
<tr>
<td>Percentage of managers taking part in formal management development programmes</td>
<td>Indicate level of learning and development activity</td>
</tr>
<tr>
<td>Internal promotion rate (% of promotions filled from within)</td>
<td>Indicate extent to which talent management programmes are successful</td>
</tr>
<tr>
<td>Succession planning coverage (% of managerial jobs for which successors have been identified)</td>
<td>Indicate extent to which talent management programmes are successful</td>
</tr>
<tr>
<td>Percentage of employees taking part in formal performance reviews</td>
<td>Indicate level of performance management activity</td>
</tr>
</tbody>
</table>
### Human Capital Management

**Table 4.1 continued**

<table>
<thead>
<tr>
<th>Measures</th>
<th>Possible use – analysis leading to action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distribution of performance ratings by category of staff and department</td>
<td>Indicate inconsistencies, questionable distributions and trends in assessments</td>
</tr>
<tr>
<td>Accident severity and frequency rates</td>
<td>Assess health and safety programmes</td>
</tr>
<tr>
<td>Cost savings/revenue increases resulting from employee suggestion schemes</td>
<td>Measure the value created by employees</td>
</tr>
</tbody>
</table>

**Human capital internal reporting**

Analysing and reporting human capital data to top management and line managers will lead to better informed decision making about what kind of actions or practices will improve business results, increased ability to recognize problems and take rapid action to deal with them, and the scope to demonstrate the effectiveness of HR solutions and thus support the business case for greater investment in HR practices. The process of reporting the data internally and the inferences obtained from them is therefore a vital part of HCM. It is necessary to be clear about what data is required and how it will be communicated and used.

The factors affecting the choice of what should be reported in the form of metrics are:

- the type of organization – measures are context dependent;
- the business goals of the organization;
- the business drivers of the organization, ie the factors that contribute to the achievement of business goals, such as increases in revenue, control of costs, customer service, quality, innovation, expansion through mergers and acquisitions, product development and market development;
- the existing key performance indicators (KPIs) used in the organization;
- the use of a balanced scorecard which enables a comprehensive view of performance to be taken by reference to four perspectives: financial, customer, innovation and learning and internal processes;
- the availability of data;
- the use of data – measures should only be selected that can be put to good use in guiding strategy and reporting on performance;
the manageability of data – there may be a wide choice of metrics and it is essential to be selective in the light of the above analysis so that the burden of collecting, analysing and evaluating the data is not too great and people do not suffer from information overload; remember that the cost of perfection is prohibitive, the cost of sensible approximation is less.

Human capital information is usually reported internally in the form of management reports providing information for managers, often through the intranet and on dashboards. However, this information will not be valued by managers unless:

- it is credible, accurate and trustworthy;
- they understand what it means for them personally and how it will help them to manage their team;
- it is accompanied by guidance as to what action can be taken;
- they have the skills and abilities to understand and act upon it.

It is not enough simply to give managers and other stakeholders information on human capital. It must be accompanied by effective analysis and explanation if they are going to understand and act upon it in the interests of maximizing organizational performance.

**Human capital external reporting**

The EC Accounts Modernization Directive requires companies to prepare a business review. This has to disclose information that is necessary for the understanding of the development, performance or position of the business of the company including the analysis of key financial and other performance indicators, and information relating to environmental and employee matters, social and community issues, and any policies of the company in relation to these matters and their effectiveness.

A framework (Table 4.2) for external reporting has been produced by the CIPD (2003).

<table>
<thead>
<tr>
<th>Principle</th>
<th>Features of framework</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add value to the decision making undertaken by stakeholder groups in respect of human capital, with value added exceeding the costs of information gathered</td>
<td>Information should be relevant to the identification of human capital and should be available in both narrative form and as quantitative indicators. The information-gathering requirement should be clearly defined and should not be too costly.</td>
</tr>
</tbody>
</table>
**Table 4.2 continued**

<table>
<thead>
<tr>
<th>Principle</th>
<th>Features of framework</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance the advantages of comparability with other organizations with the need for flexibility to reflect particular contexts</td>
<td>There should be a distinction between primary and secondary indicators</td>
</tr>
<tr>
<td>Provide information on possible institutional barriers to the effective development and utilization of human capital within firms</td>
<td>Indicators to highlight possible barriers to the under-utilization of human capital based on sex, age or race</td>
</tr>
<tr>
<td>Reflect the dynamic and context-dependent nature of human capital</td>
<td>There should be multiple categories of indicators to reflect the acquisition, development, management and performance of human capital</td>
</tr>
<tr>
<td>Be future-oriented to highlight the contribution of human capital to future performance</td>
<td>The framework should incorporate information on both the near-term and the long-term, highlighting both investments in and depreciation of human capital. It should provide information not only on human capital stocks but also on the management and utilization of the flow of human capital</td>
</tr>
</tbody>
</table>

**Introducing HCM**

As Baron and Armstrong (2007) point out, it is important to emphasize the notion of HCM as a journey. It is not an all or nothing affair. It does not have to depend on a state-of-the-art HR database or the possession of advanced expertise in statistical analysis. It is not all that difficult to record and report on basic data and, although some degree of analytical ability is required, it is to be hoped, nay expected, that any self-respecting HR professional will have that skill.

At the beginning of the journey an organization may do no more than collect basic HR data on, for instance, employee turnover and absence. But anyone who goes a little bit further, and analyses that data to draw conclusions on trends and causation leading to proposals on the action required that are supported by that analysis, is into HCM. Not in a big way perhaps, but it is a beginning. At the other end of the scale there are the highly sophisticated approaches to HCM operated by such organizations as Nationwide and the Royal Bank of Scotland. This might be the ultimate destination of HCM but it can be approached on a step-by-step basis.
The concept of human capital

Individuals generate, retain and use knowledge and skill (human capital) and create intellectual capital. Human capital ‘defines the link between HR practices and business performance in terms of assets rather than business processes’ (Scarborough and Elias, 2002).

Characteristics of human capital

Human capital is non-standardized, tacit, dynamic, context dependent and embodied in people (Scarborough and Elias, 2002).

Constituents of human capital

Human capital consists of intellectual capital, social capital and organizational capital.

Significance of human capital

Human capital theory regards people as assets and stresses that investment by organizations in people will generate worthwhile returns.

Importance of human capital measurement

Measuring and valuing human capital is an aid to people management decision making.

Reasons for interest in human capital measurement

- Human capital constitutes a key element of the market worth of a company.
- People in organizations add value.
- Focus attention on what needs to be done to make the best use of human capital.
- Monitor progress in achieving strategic HR goals and evaluate HR practices.

You cannot manage unless you measure.

Approaches to measurement

- The human capital index, Watson Wyatt.
- The organizational performance model, Mercer HR Consulting.
- The human capital monitor, Andrew Mayo.

Measurement elements

Workforce data, people development data, perceptual data and performance data.

Factors affecting choice of measurement

- Type of organization; its business goals and drivers.
- The existing key performance indicators (KPIs).
- Use of a balanced score card.
- The availability, use and manageability of data.

Criteria for HCM data as a guide to managers

Data will only be useful for managers if:
- the data are credible, accurate and trustworthy;
- they understand what it means for them;
- they are accompanied by guidance as to what action can be taken;
- they have the skills and abilities to understand and act upon them.
Questions

1. Your finance director has asked you: ‘What is the difference between human resource management and human capital management? And whether or not they are different, why should we bother with the latter?’

2. What is social capital and why is it significant?

3. You have given a presentation on human capital management at a local conference. At question time a member of the audience gets up and says: ‘This is all very well, but it sounds as if we will have to do an awful lot of work in getting a full programme of HCM off the ground (eg collecting, analysing and reporting on performance statistics) and I don’t think that we have the resources to do it and even if we had, that it would be a cost-effective use of our time’. Respond.

References


