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The Valuing of Information Assets in UK Companies

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ABSTRACT

The primary focus of this study is on the impact of the UK financial reporting standard for goodwill and intangible assets (FRS10) on information assets. It was anticipated that the identification of methods already in use under the terms of FRS10 for valuing information assets would be identified. It was anticipated that once UK companies have recognised information as an asset for valuation purposes this would bring information assets within the compass of financial appraisal.

Interviews were conducted with accounting and information professionals as well as with representatives of their professional and regulatory bodies focusing on the valuation of information as an asset. Of the 24 organisations in which interviews were carried out, eight were FTSE 100 companies which were identified as being information-intensive organisations, thus likely to represent the state of the art with regard to the valuation of information assets. The main method of data gathering was by individual interview using a semi-structured approach.

The most surprising finding was that UK companies appear not to be using FRS10 to value their information assets. Moreover, many of those interviewed did not believe that information should be categorised as an asset or valued for inclusion on the balance sheet. One difficulty identified in using FRS10 to value information assets was that it specifically excludes internally-generated intangibles which do not have a 'readily ascertainable market value'. The information assets considered most important by interviewees were internally-generated. These were typically not valued for internal purposes, hence one reason why there is little impetus to include information assets on the balance sheet maybe because it could be unwise to report externally that which has not been addressed internally.

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1. Impetus for the research and methods

1.1 Introduction

The study reported in this paper sought to show how the benefits of information assets could be recognised by organisations through valuation. Information managers have found it difficult to persuade senior management that information should be capitalised on company balance sheets. The benefits of investment in information are especially unclear. One reason for this is that the nature of investment in information is generally long-term and continuous (for example building up a collection of competitor intelligence reports or developing a new product or service). Abell (1994, p.238) has pointed out that many small and medium-sized enterprises are unwilling to invest in information assets because they are perceived as having no immediate financial benefits. In other words, companies are unwilling to invest where benefits cannot be readily and immediately demonstrated.

Methods for the identification and assessment of information assets, such as the information audit, are well established (Orna, 1999). Therefore, opportunities for valuing information assets seem increased since companies already have methods for identifying and assessing information assets, a first step in their valuation. In practice, however, few organisations attempt to carry out such audits of their information assets (Horne, 1998, p.11). This may be because the benefits of such an exercise are not clear, while the difficulties and costs of an audit are readily apparent. Information assets, if they are to be valued for inclusion on the balance sheet, must first be identified and assessed within information intensive organisations.

1.2 Aims and objectives of the research

The aims and objectives of the project primarily focused on the impact of the UK accounting standard for goodwill and intangible assets FRS10 (1997a) on information assets. By focusing on the methods already being used by companies in response to FRS10 it was hoped that the identification of methods already in use, preferred methods and the extent to which FRS10 was currently being used by companies for valuation of their information assets would be found. The results would be used to assess, for the first time the importance of information assets to the

balance sheets of companies and the methods which they used to account for them. The research also aimed to assess the level of understanding and effort needed to carry out such valuations routinely.

Information assets are often viewed as an overhead by companies, and are therefore in danger of having their funding cut when organisations need to cut costs. If information assets, including those held by libraries and information unit, can be valued and accepted as assets on a company's balance sheet, the general acceptance of information as an asset will be accelerated.

The objectives of the research were:

- To assess the understanding of information asset valuation in organisations, and by information professionals and accountants.
- To identify the issues that arise when attempting to value information as an asset.
- To identify and evaluate methods of valuing information as an asset which are currently in use.
- To carry out an assessment of the use of FRS10 for the valuation of information assets within companies who have already implemented FRS10 or are planning to do so.

The results were expected to show the methods used by organisations in the UK for carrying out valuations of their information assets and help to promote the need for such valuations. This, in turn, may lead to greater emphasis being placed on information assets and also lead to a greater recognition generally of the value of information. The results could be used by companies when valuing information assets and could also be used by senior management in those companies to persuade the board that information should be included as an asset and appear on the balance sheet.

Once UK companies have recognised information as an asset for valuation purposes this would bring information assets within the compass of financial appraisal. Reliable comparisons between the overall performance of alternative information assets could then be made. Similarly, better cost justification and investment decisions could be made regarding information

assets. The value of information to an organisation would be recognised, bringing with it changes in priorities and attitudes. The project team therefore set out to assess the understanding of information as an asset in UK companies, and the impact of FRS10 on the reporting of information assets. The objective of gaining an overall understanding of how the valuation of information assets could progress in the UK was foremost.

1.3 A joint approach

Methods for valuing information are already in use within some leading UK organisations. Library and information units within companies, (e.g., Credit Suisse First Boston), have mechanisms for valuing their contribution to the growth of the company (Rollo, 1998). However, such methods are specific to the organisations they serve and are rarely applied externally. To find a method which could be widely applied and which would have the rigour required for the inclusion of information assets on the balance sheet requires a dual approach. We attempted, therefore, to create a partnership on the valuation of information through the participation of accounting and information science experts.

This has benefits in that:

- Any method developed would have the support of the two disciplines.
- The inclusion of information on the balance sheet would be based on methods already used within accounting.
- A dialogue would be established between the accounting and information professions on how best a valuation of information might be achieved.

1.4 Approach to valuation

To date the best known attempts to value the intellectual capital of companies (in which information assets are included) have been through the calculation of the gap between the market capitalisation and book value¹ of listed companies (Stewart, 1997). This results in a figure for the intellectual capital of a listed company but does not ascribe a value to individual intangible assets. Basing a valuation on market capitalisation does have problems for UK companies.

¹ The difference between the market capitalisation and the physical and financial assets of a company (its book value) is called “market to book value”.

Such valuations are subject to the ups and downs of the market as has been seen during early 2000 by a drop in the valuations of high tech companies. However, the main criticism is that such valuations exclude the majority of UK companies. In the UK, listed companies represent a tiny minority (only 0.25%) of the 1.2 million or so UK companies.

The vast majority of commercial enterprises in the UK are sole traders, partnerships or unlisted companies incorporated under the 1985 Companies Act. Market valuation as a basis for calculating the information assets of the majority of commercial enterprises in the UK would not be possible. Therefore our approach to valuing information assets from an accounting rather than a market valuation has benefits in being more widely applicable to UK companies.

1.5 Project development

Overall, the aim was to find a method of valuation for information assets which was being used in UK companies. To this end, we carried out a series of informal interviews with accounting and information professionals, and with representatives of their professional and regulatory bodies, between January and December 1999. The remit was to survey individuals within companies with a view to identifying the methods already being used by them in response to FRS10. This would identify methods already in use, preferred methods, and give an indication of the extent to which FRS10 was currently being used by companies for the valuation of their information assets. Once a valuation was achieved, then an assessment could be made, for the first time, of the importance of information assets and the methods used to account for them.

It soon became clear, however, that identifying individual companies which were using FRS10 to include intangibles like information on the balance sheet, with the objective of comparing methods used, would have proved extremely difficult. UK companies were not using FRS10 to value their information assets. The reasons for this are outlined in Section 3. Similarly, as preliminary interviews were carried out, it became clear that many company spokespersons did not believe that information should be included on the balance sheet, nor did they identify or assess the most critical information assets in their organisations. Many of those we interviewed saw information as a service to be provided to users, rather than as an asset in its own right. Preliminary research interviews with a number of individuals led us to widen the scope of the

project in order to assess more fully the reasons why valuations were not taking place. The aims were then to identify not only the reasons why FRS10 was not being used, but also the obstacles to placing a valuation on information assets.

1.6 Methods

The following two main tasks were carried out.

- The literature on the valuation of intangibles and on the concept of information as an asset was reviewed. Standard bibliographic tools covering information science, information management and accounting literature were used. We also used sources covering human resources and personnel management. Both print and electronic sources were employed.
- We conducted interviews with accounting and information professionals and with representatives of their professional and regulatory bodies on the valuation of information as an asset. This necessitated the identification of appropriate contacts and the formulation of questions along relevant themes.

The main method of data gathering was by individual interview, using a semi-structured approach. This generated qualitative information only and, as such, is not completely satisfactory. A qualitative approach is usually complemented by the collection of quantitative data, giving support to any findings gained through interviews. However, some interesting results did emerge. In total, we interviewed staff in 24 organisations; 16 were represented by senior librarians and information managers, and 8 by senior accountants, finance directors or by their chief executives. More information professionals than accounting professionals were interviewed, but this reflects more on the numbers of each profession contacted than a lack of uptake either way. Representatives of accounting regulatory bodies outweighed representatives of information professional organisations although an equal number were invited to take part.

The identification of accounting professionals, information professionals, and representatives of their professional and regulatory bodies for inclusion in the project was a primary task.

Identification was partly based on information sources such as *the TFPL Guide to Who's Who in*

the Information World 6th ed. (1997). Many of those interviewed were also very senior in their field.

Interviews were carried out between January and December 1999. These were semi-structured and covered the following general themes:

- Understanding of information assets.
- Recognition and valuation of information as an asset.
- Impact of FRS10 on the valuation of information assets.
- Usefulness of including information on the corporate balance sheet.

The following stakeholders were identified by the project team and are represented by at least one interview:

- Accounting regulatory organisations.
- Accounting professionals within commercial organisations.
- Professional information organisations.
- Information professionals/managers.

Of the 24 organisations in which interviews were carried out, eight were FTSE 100 companies, representing a third of those participating in the research. However, these organisations were not intended to be representative of large UK companies, but rather as examples of information-intensive organisations which were considered more likely to have an interest in the themes of the research project. Mature, information intensive-organisations have been identified as more likely to understand and participate in intellectual capital measurement and management (Roos and Roos, 1997, p.417).

Interviews were conducted on an informal basis and lasted generally one to one and a half hours. Many were tape-recorded, which allowed the interviewer to interact fully with the interviewee, knowing that a record would be available for transcription. Very often, not all the anticipated

questions were appropriate because of an attitude to information as an asset held by the interviewee. For example, if an interviewee believed that information was not an asset, then continuing with questions aimed at the valuation of information as an asset would have been counter-productive. It seemed far more interesting and useful to find out why the interviewee did not view the information held by his/her organisation as an asset.

The interviews yielded some surprising and interesting results, especially in identifying obstacles to valuing information, as will be seen in the following section. A preferred method for the valuation of information as recommended by FRS10 was identified, though only in principle, as will also be seen in Section 2.

2. Findings

2.1 Introduction

A series of interviews was carried out with information and accounting professionals and with representatives of their professional and regulatory bodies during 1999. The results are based on qualitative information collected from these interviews. The individuals we interviewed did not accept information as an intangible asset under FRS10. The reasons for this became clear as the project developed. They were both technical and social, illustrating the constraints of a conservative reporting approach and the extent to which personal beliefs and attitudes to information valuation were, in effect, holding back progress in this area. The results fall into two main areas. Firstly, why FRS10 is currently an unsuitable method for the valuation of information assets and secondly, why there are few attempts to carry out valuation of information assets in UK companies.

2.2 Valuation method

The valuation method investigated in most detail was recommended by the UK Accounting Standard for Goodwill and Intangible Assets FRS10 (1997a). FRS10 required that from 23 December 1998 UK companies must capitalise their intangible assets as long as they have “readily ascertainable market value”. FRS10 has proved, however, an unsuitable method for the valuation of information assets at the moment. FRS10 requires companies to apply strict criteria

when recognising intangible assets. As intangible assets become more important for companies (Hope & Hope, 1998), there may well be support for revising FRS10, so that there is encouragement to include more intangibles in the future. FRS10 may then become a more suitable method for valuing information assets.

2.3 Identifying information assets

We found that very few companies held a register of their information assets or had taken steps to identify or assess them on an organisational level. Without this first step, the valuation of information assets was not possible. The most significant obstacles to achieving a valuation of information assets may relate to the identification of information assets and their attributes rather than the mechanics of valuation itself. Many problems with individuals deciding whether their information could be valued were embedded in cultural attitudes to information.

The majority of information and accounting professionals interviewed argued that information was already valued culturally and exploited in their organisation, so there was no need to attempt to value it using FRS10. Some of the comments included:

- There is a feeling of the importance of information in our organisational culture.
- The impact of information is regarded as high, we do not attempt to quantify this but we know it is valuable.
- Information resource allocation proves the information function is valued.
- Management and control of information is already important.
- Very difficult to measure how information contributes to a deal being made but we already accept it does.
- If you undertake research, it is in the belief you will get future benefits.
- If you harness information, you will have a better business.

While many individuals interviewed may “know” or “accept” that information is important, it is difficult to value this as an information asset. There may be commercially exploitable information assets which could be valued and these are ignored by such an approach.

It is significant that the recognition of information as an asset in accounting terms was not considered important by many of those interviewed. We interviewed several accountants and finance directors who said that information was absolutely critical for better business practice, but that attempts to define it as an asset in accounting terms were not useful or indeed possible. They agreed that information is an important resource, but because it does not meet the requirements of an asset in accounting terms, it should not be treated as one. This seems to reflect a belief that the reporting of assets should be guided by strict rules, and that adherence to those rules was more important than attempting to place a valuation on information.

Accountants generally said that they were required to keep accounts in a manner rigorous as possible and including intangible assets which might not prove reliable was ill-advised. Information professionals found it difficult to regard information assets in terms other than as costs and concentrated on making cost or time savings. An argument frequently put forward was that information does not need to appear on the balance sheet as an asset in order to be recognised as important by managers. Many of those interviewed believed effective management of and investment in information assets was not dependent on their inclusion in the balance sheet. This was not because information was not regarded as an important resource which was deserving of careful management. It was because the inclusion of information assets on the balance sheet was not seen as essential to the good management of information. Accountants and information professionals alike rejected the valuation of information as an asset for inclusion on company balance sheets.

Financial statements have traditionally had a dual role: as a statement of figures and as motivation for a company's management to manage more effectively (Grinyer, Russell and Walker, 1990, p. 223). There appears to be a move away from this view among the individuals interviewed, suggesting that the role of financial reports in encouraging better management has changed. Management is now taking control of their own performance, often through performance measurement techniques (Kaplan and Norton, 1996, p.75).

Therefore one reason why there seems to be little impetus to recognise and define information as an asset in accounting terms may be because there is little acceptance of any management benefits to be gained from including information assets on the balance sheet. These benefits include increased awareness of information assets which, given a high profile, might be commercially exploited; changes in the perception of the value of information by management and hence increased investment; and ultimately better management of information assets. The reasons given for not including information on the balance sheet reflected the view of information as a business enabler, rather than an asset:

- Information is not owned: information companies may be data rich, but are unable to add anything to the value of the business because the information they collect cannot be divulged or recycled. (The ownership of an information asset does not prevent inclusion on the balance sheet, “rights or other access” are required. Draft statement of principles for financial reporting, ASB, 1999b).
- Information is not a special case: if you put information on the balance sheet as an asset, you would have to consider putting on other support functions like administration or personnel. (Information is a special case in this context. Other support functions like administration do not have the potential to be exploited commercially, unless of course your administration system can be packaged and sold as an information asset).
- There is simply no need. No one puts advertising expenditure on the balance sheet but that does not mean that people do not think very seriously about their advertising. (This does not mean that advertising should not be on the balance sheet.)

2.4 Information assets in organisations

The concepts of intellectual capital and knowledge management seem particularly to have discouraged attempts to value information assets. They have provided an argument for managers who do not want to take risks in ascribing a value their information assets. Intellectual capital and knowledge management point out that the most important assets are in “people’s heads” and, as yet, are impossible to capture or control in any organised way. As these are the most

important assets there is then no basis for valuing other assets. The emphasis on human capital, and the impossibility of owning it, has meant that many of the people we interviewed were wary of attaching a value to information which had to be processed, updated or interpreted by employees. This is significant in that it recognises the importance of those who work with information. However, by abdicating responsibility for identifying those information assets which might be valued (e.g. customer and supplier information Hawley, 1994, p.9), there is little scope for any commercial exploitation of information assets.

The most commonly cited difficulty for the valuation of information assets was the impossibility of accounting for individual employees' intellectual assets, or ownership of them. Intellectual capital residing in the workforce was widely regarded as the most important asset of organisations. It became clear that because interviewees felt it was impossible to value this one area, that other information assets were not seen as deserving of attention.

The following statement sums this up:

“Even if you were able to get a valuation for the library on say multiple licence fees you still have the people side to deal with and that is going to be very tricky.”

Financial controller, Pharmaceutical company

There was a strong belief that success in managing and exploiting information assets should be attributed to the drive of individuals, for example, Edvinsson at Skandia or Petrash at Dow Chemical. In applying and popularising intellectual capital ideas within their own organisations, these individuals were seen to have harnessed information assets for financial success. There was little recognition of such intellectual capital measures as productive in themselves. The better management of information assets was seen as dependent on organisational culture and the determination and drive of an individual high profile leader.

There was also a strong belief that an individual organisation's information assets were unique. It would therefore be impossible to compare them to the information assets of other organisations. As a result, the inclusion of information assets on the balance sheet would not

indicate whether a company had comparable information assets to others, but only whether year on year their own information assets were growing or depleting. This would be of more interest to competitors than to investors, and was seen as a reason not to value information assets on the balance sheet.

However, many of those interviewed felt that as all organisations have information assets of some kind, the real area of interest was in how organisations leveraged those assets and that it was impossible to account for this. There was little acceptance of the special attributes of information outlined by Repo (1986) and Davenport (1993). It was argued that basing a valuation of information on the premise that information increased in value or was maintained over time, or that information helped decision-making, was an unlikely and impractical approach. Some of the reasons given for this were:

- There is no proof that information holds its value over time. Information value depends on currency; information degrades too quickly for a valuation to be made.
- The value of information for problem-solving is time critical; only the right information at the right time helps.
- Managers are paid to deal with real time problems, for which there often are no precedents.
- The process of getting to the solution is as important as the solution itself; information saving us time is not an issue.

There is, of course, no proof that the value of any asset, tangible or intangible, increases over time. The idea that information has a predictive value, a value in providing context in which better decisions can be made, is ignored.

2.5 *FRS10 and accounting for information assets*

We found no companies in the UK that are currently using FRS10 to account for information assets.² We have found that FRS10 requires companies to include only items which meet strict

² This does not necessarily mean that no company uses the standard for this purpose; only that our research failed to uncover a single example.

criteria when qualifying as an intangible asset. In interviews with accounting and information professionals carried out for this research, we found that including information as an element of goodwill was seen as by far the easiest route for companies to take when complying with FRS10. Information is far more likely to be included within goodwill for accounting purposes rather than as a separate intangible asset.

One difficulty identified in using FRS10 to value information assets was that it specifically excludes internally-generated intangibles which do not have a "readily ascertainable market value". The information assets considered most important by interviewees were internally-generated. Therefore, the effort required in identifying secondary information assets, which were not internally-generated, was not seen as equal to the benefits. The cost of these secondary information assets, or externally-acquired information assets, was not seen as a basis for valuation by many of those interviewed.

FRS10 gave intangible assets the same accounting treatment as goodwill. It has become much less important that intangibles are included within goodwill as they are now both treated in the same way and amortised for tax purposes.

Under FRS10, intangible assets can include:

- Purchased intangibles such as distribution rights, copyrights and franchises, brands recognised at cost.
- Acquired intangibles - intangibles that are acquired with a business. These are capitalised separately, but only if they can be measured reliably.
- Internally-generated intangible assets, which need to have a "readily ascertainable market value" if they are to be recognised.
- FRS10 refers specifically to software development costs and concludes that they should be dealt with as part of the cost of the related hardware.

The term "measured reliably" used by FRS10 excludes many intangibles which might have been recognised. In practical terms "measured reliably" requires that there be either:

- a contractual right to receive a certain sum at the end of the period of use; or
- a readily ascertainable market value.

Very few intangibles will meet the criteria for an intangible asset set out by FRS10 and it is unlikely that information will. It is clear that companies complying with FRS10 are encouraged by the standard to exclude rather than include more intangibles on the balance sheet.

“In FRS10 we don't actually allow people to show too many intangibles and that's done quite deliberately.”

Sir David Tweedie, Chairman, Accounting Standards Board, Interview 12 April 1999

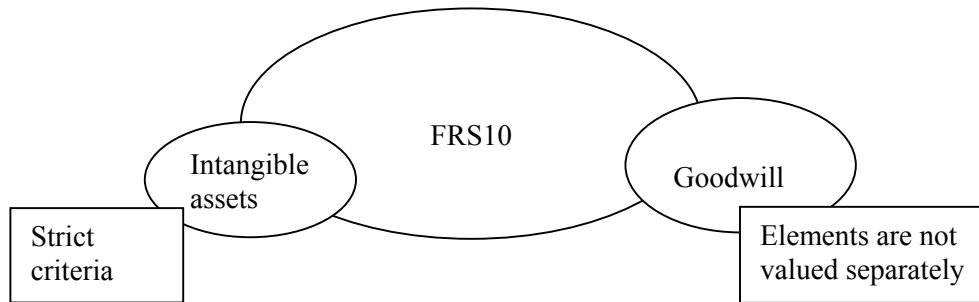
It is clear that FRS10 is designed to include only those items that can be relied upon. There are historic reasons for this. For example, the simplicity of the profit and loss account is misleading (Gasson, 1997, p.21). Almost every item is determined by not only the company's performance, but also by the way the company has chosen to treat items on the balance sheet. It is very easy to create profits from nowhere by holding product costs in the profit and loss account inventory on the balance sheet rather than deducting them from sales. This is the way Maxwell Communications and Pentos managed to go out of business despite appearing to be profitable companies (Gasson, 1997, p.22). It is thus easy to understand why accountants argue that “the only thing that does not lie is cash” (Gasson, 1997, p.22). In order to make financial reports more transparent, it has been necessary since 1992 to include a cash flow statement as well as profit and loss and balance sheet in company accounts.

Including information as an element of goodwill is by far the easiest option. Since the elements of goodwill are never separated out or measured individually, it would be difficult to assign a valuation to information assets within the aggregate of goodwill. Acquired goodwill is recorded only when a business is bought or sold. It is usually accepted that a successful ongoing business is worth considerably more than would have to be paid for an identical set of physical resources if starting the business from scratch (Grinyer, Russell & Walker, 1990, p.229) but the value of goodwill is only recorded at the time of the purchase or sale of a business. Internally-generated goodwill has never been recognised in accounting statements principally, according to Farmer,

because of the difficulty of measuring over time its changing value (Farmer, 1998, p. 22). The value of goodwill is therefore only recorded at the time of the purchase or sale of a business.

This creates a problem for the valuation of information assets as part of goodwill. If information assets can only be recognised when they are sold, how can companies identify, assess, value and exploit them prior to being taken over? Therefore as information assets cannot be recognised as intangible assets under the strict criteria of FRS10 and cannot be valued within goodwill since individual elements are not measured separately (see Exhibit), FRS10 is, at the moment, an unsuitable method for valuing information.

Exhibit FRS10 and accounting treatment of goodwill and intangible assets.



2.6 Benefits of FRS10

The main benefits of FRS10 appear to be technical. In essence, FRS10 has outlawed the previous practice of the immediate write-off of goodwill to reserves (Farmer, 1998, p22). FRS10 can provide benefits for UK companies the shares of which are traded on the US stock exchange. It offers cost savings in eliminating GAAP (Generally Accepted Accounting Principles) adjustments between UK and US company accounts. For example, US accounting rules for goodwill were more advanced than those in the UK and this resulted in a problem of comparability. This in turn sometimes required large adjustments in figures. Companies which implemented FRS10 were able to eliminate GAAP adjustments through transitional arrangements set out by the standard. Two of the individuals interviewed by the project team saw this as the main if not the only benefit of FRS10.

Sir Bryan Carsberg explained the problems caused by different accounting standards in different countries (Carsberg, 1999, p.4).

“At present, with accounting standards, which differ from country to country, the costs for multinational companies of preparing accounts are very much higher than they need to be.

Multinational companies have to prepare accounts for subsidiaries according to the accounting rules of many different countries and then have to convert them to some uniform set of standards for preparation of the group accounts. Finally, they may have to convert the group accounts to show the results under other accounting principles, if they have more than one stock market quotation and the regulators have differing requirements”.

2.6.1 Amortisation

Companies complying with FRS10 are taking an unexpected route, according to the Accounting Standards Board, when accounting for goodwill and intangibles by amortising them over their “useful economic life”, usually no more than 20 years. It was expected by the Accounting Standards Board that more companies would attempt to carry such assets on the balance sheet indefinitely. To do this, companies had to prove that value was maintained in the asset by carrying out an impairment test. An impairment test under UK GAAP “is a check that carrying values of recognised tangible and intangible assets and goodwill are supported by the net present value of the cash flows they are expected to generate” (Kennedy, 1996, p. 123). These impairment tests are extremely technical and only very large companies would have the resources to carry them out. If information were included on the balance sheet as an asset, it would, as an asset that increases in value, be carried indefinitely on the balance sheet.

Impairment tests do carry a risk for companies, discouraging the carrying of intangible assets indefinitely. Amortising over “useful economic life” is by far the safest route. As a result, there is little encouragement to concentrate on intangible assets or information assets, which would have to be carried indefinitely.

“I expect only the larger companies are going to the trouble of doing the impairment tests. About 95% will take the write off over 20 years.”

Sir David Tweedie, Chairman, Accounting Standards Board, Interview 12 April 1999

Another senior accountant who was interviewed gave a similar estimate:

“About 80% are amortising over 20 years, very few are doing it indefinitely. To undergo an impairment test, you have to keep the acquired asset separate from the business and you have to track it. Every time you combine two businesses you have to track goodwill and people have better things to do.”

Senior Manager, Consultancy

Sir Bryan Carsberg, Secretary General of the International Accounting Standards Committee in a speech at the Institute of Chartered Accountants in England and Wales (Carsberg, 1999, p.3) explains why the approach to amortisation taken by the Accounting Standards Board is significant:

“The approach developed by the UK Accounting Standards Board for amortisation of intangibles is instructive. The Board has suggested amortisation need not be required at all, and, if it takes place, could be over any life chosen by management, however long. If amortisation were not to take place over a life shorter than 20 years, then, a strict impairment test would be applied to safeguard against overvaluation. The impairment test would be based on an assessment of the present value of forecast future cash flows, with constraints on the way in which the forecasts are made. The approach would represent a new level of use of managerial forecasts in financial reporting. Financial analysts are surely likely to say that if the forecasts are reliable enough to form a basis for valuing intangibles then they are reliable enough to be valued explicitly.”

Unfortunately, with between 80% and 95% of companies estimated not to carry out impairment tests, such a situation may never materialise. It does however point to a way forward in intangible asset valuation and in particular to the valuation of information.

The impact of FRS10 has recently been assessed by specialists at Arthur Andersen who surveyed 100 companies to see how they were reporting FRS10's requirements (Powling and Riclesford, 1999, p.84). The results focused on the reporting of goodwill and provide some early data that support the figures quoted by our interviewees.

Powling and Riclesford (1999) found that:

- Only 3% of companies claimed that goodwill had an indefinite life.
- 63% adopted a 20-year life for goodwill.
- Only 9% reinstated previously written-off goodwill.
- 35% highlighted goodwill amortisation on the face of the balance sheet.

(Powling and Riclesford, 1999, p.85).

FRS10 has been implemented mainly by companies with December year ends, with few companies, Reuters among them, adopting the standard early (Powling and Riclesford, 1999, p.84). The directors of Reuters adopted FRS10 for its year end 1997. The FRRP (Financial Reporting Review Panel) took up the presentation in the company's consolidated profit and loss account of the goodwill amortisation charge that arose from the early adoption of FRS10. In this profit and loss account the goodwill amortisation charge was not included in the operating costs but was shown separately below the sub-total "Operating profit". The FRRP's view was that the amortisation charge should have been classified as an operating charge and thus deducted before operating profit was arrived at. In the Reuters 1998 accounts goodwill amortisation is charged as a cost in arriving at operating profit.

The impact of FRS10 on intangible assets is also being surveyed. A financial reporting publication, *Company Reporting: a monthly review of financial reporting practice (1999)* has issued a survey of FRS10 and Goodwill and FRS10 and Intangible Assets in its September and October 1999 issues. FRS10 is still in the early stages of implementation for many companies and it may be some time before the full impact of the standard can be gauged.

2.7 An agreed method of valuation for intangible assets

Problems with finding an agreed valuation method for intangibles like brands have been identified as a major obstacle to including them on the balance sheet. The difficulty of achieving a consistent valuation of such intangible assets is summed up by Sir David Tweedie, Chairman of the Accounting Standards Board:

"The values don't agree with the methods, the methods give widely different answers and we have no market testing so we want all three of those. We want one method to be agreed by the valuers and we want proof that it works. Then we'll allow it to come onto the balance sheet. Until then it's off balance sheet in the notes."

Interview, April 1999

Although we found no companies that were using FRS10 to account for information, all those interviewed agreed that, in principle, the best and most acceptable method would be “by reference to any active market”. The price at which information could be sold was not regarded as useful as this was not comparable across companies. The second method, the difference between purchase cost and fair value, depended on there being a sound relationship between the cost and the value of information and it was generally argued that no such definitive relationship was possible.

An active market in which information assets were frequently bought and sold was clearly identified as the best method. However, as the information assets of those we interviewed were regarded as unique by them, no homogenous information asset market was seen as possible. Recent developments fuelled by e-commerce have, however, highlighted the potential of information as a tradable commodity. eBay, a commercial Internet site, has recently hosted auctions for intellectual property, trademarks, copyright and patents (www.patentauction.com).

Information asset marketplaces developing on the Internet may help to achieve a market for information assets. The Patent and License Exchange (pl-X.com) is also currently building an inventory of patents and licences which will form the basis of a patent marketplace. Such initiatives mean that the valuation of information assets will become increasingly important and information assets themselves may have substantial cash flows attached to them.

3. Conclusions and recommendations

3.1 Introduction

It may be some time before organisations can value information assets routinely. This requires a change in the treatment of information assets by management, which requires that there be demonstrable benefits from information assets. These can be most readily seen on the balance sheet. Unless such assets are formally recognised and reported, there is little impetus to manage them more effectively. Without such recognition of information as an asset there is little opportunity for information assets to add value to organisations. Individual skills and competencies are important but they are not the only assets that need to be valued. Those information assets, which can be valued, should be.

Many individuals we interviewed agreed that information was a vital business asset. However, while information was said to be regarded as vital, few managers were actively exploiting their information for financial gain, or indeed believed that such active management could result in financial benefits. Although many of those interviewed said information was used for internal management and control, few practical methods for the exploitation of information assets were in place. Most of those interviewed argued that there was no need for the valuation of information as an asset as it was already valued culturally and managed internally for the business.

3.2 Reporting information assets

One reason why there is little impetus to include information on the balance sheet may be because it would be unwise to report externally what has not been addressed internally. It would certainly not be beneficial to carry out such a process publicly. If information assets have not been managed well internally then this would reflect badly on a company's management should they report them externally. Internal reporting is a first step and would encourage any problems to be rectified.

However, the representatives of the organisations we interviewed did not undertake the internal reporting of information assets.

While individuals said that within the company the value of information was recognised, there were few attempts to identify any individual information assets which could be reported. This is where the main problem lies. It may be a problem of understanding rather than a problem of attitude. It is much easier to think abstractly about such issues than to attempt to practice them in a concrete manner. While many of those we interviewed spoke clearly of the merits of information management and the value of information, they were all sceptical about achieving a valuation which could be included on the balance sheet.

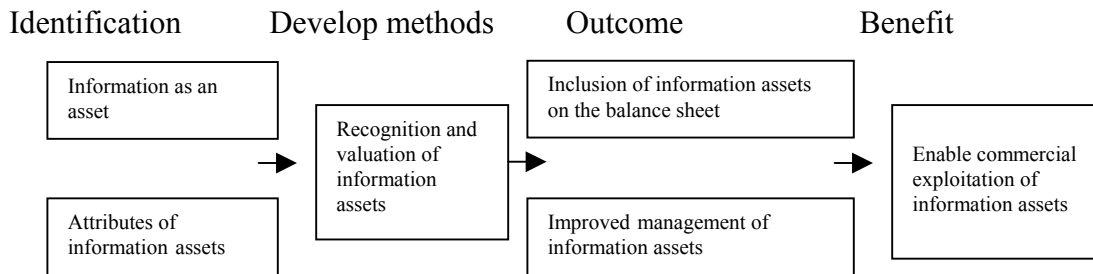
This has led us to conclude that an important step in achieving any valuation of information assets must be the development of a new method of identifying and assessing such assets. The

internal management and reporting of information assets would be more readily achieved if a consistent method of identifying and valuing them were widely used. External reporting of information assets may then follow. Certainly, methods of financial reporting for a much wider range of intangible assets will have to be developed as new technologies and businesses emerge, based upon non-traditional intangible assets.

We believe information asset valuation may well have many commercial benefits for UK companies. Companies, in creating and maintaining information assets, make a long-term investment in systems and people. If such investments were to be accurately recorded and valued, and their significance recognised by managers, then the role of information assets in achieving commercial success would be more apparent. Exhibit sets out a possible process of achieving valuation of information assets for commercial advantage. This is a four-step process:

1. Identify information as an asset and list the attributes of the information asset which mark it out as important, e.g. if a company is customer-based, then customer-related information is the most valuable.
2. Develop methods for recognising and valuing information assets.
3. Include information on the balance sheet as an asset. This will lead to increased awareness of information assets and, it is hoped, better management of information assets.
4. Once information assets are identified, valued and recorded as assets, then their potential to be successfully exploited for commercial gain is greatly enhanced.

Exhibit: Achieving a valuation of information assets



To be valued, information must be seen to have benefits not only in improving the functioning of a business, but also in facilitating competitive advantage. Capturing and exploiting information for competitive advantage may prove the key to business success or failure. The protection, growth and exploitation of information assets are dependent on those assets first being recognised and managed. This requires investment, over the long term, in information assets. One way to encourage such investment is to report information assets on the balance sheet. It is not the only way and it is recognised that commercial advantage may well be lost in the case of a new development or product. Such advantage is often based on an organisation being the first to develop and market a new product. Preventing a competitor from learning of new developments or products may ensure that a product is first to market and so can capture a sizeable market share.

The first step is the identification of information assets. One potential method we have identified is the Information Health Index (IHI), developed by the IMPACT Group from the work of the Hawley Committee (Horne, 1998, p.12). The IHI gives “a measure of the goodness of information management.” We plan in the future to develop the IHI, and other such techniques we identify, as self-assessed information asset management tools. These could be widely used in UK companies and even in the public sector. Once the identification and assessment of information assets in companies becomes routine, perhaps the external reporting of information assets will gain credence. As more assets are identified and assessed and as information assets are increasingly bought and sold on the Internet, then market values for information assets may

become accepted. To set these valuations within a marketplace environment an “expected value of information” may be used.

3.3 Recommendations

The recommendations are aimed at Government, information professionals, and accounting regulators and professionals. They are intended as strategic goals which will lay a foundation for the future valuation of information assets in UK companies, and which will create a climate in which such initiatives can benefit all involved.

3.3.1 Recommendations for Government and Department of Trade and Industry

Government should encourage organisations to identify and assess the benefits and constraints of their own information assets. These assets may be customer records, market research results, libraries and information units or employee know-how, and some may be more profitable than others. What they all do, however, is enable “added value”, and this will be a main feature of successful companies.

Unless organisations understand how the management of information can provide benefits there will be little progress. McKean (1999, pp.35-36) states that technology is a means and information is a must. He argues that there is power in the Internet to crush companies that do not offer customer value. McKean conducted an experiment on the online auction service eBay (www.ebay.com) to demonstrate the increasing sophistication of customers. By putting dollar bills up for sale and recording the average offer (which was 55 cents) he concluded that unless companies trading on the Internet provided good value, they would fail.

McKean says 90% of a company’s success is based on information mastery.

Companies will not survive without information management. There must also be a concerted effort by Government to encourage companies to identify and exploit their information assets. One way Government can achieve this is by encouraging companies to value and report their information assets. They can do this by setting valuation goals for their own information activities and reporting them as encouragement to business managers.

The DTI's publication of *The 1998 competitiveness white paper: our competitive future: building the knowledge driven economy (Cm 4176)* demonstrates the growing interest in intangible assets and the changing perceptions of their potential exploitation:

The Competitiveness White Paper states that:

“British business must compete by exploiting capabilities which its competitors cannot easily match or imitate. These distinctive capabilities are not raw materials, land or access to cheap labour. They must be knowledge, skills and creativity, which help create high productivity business processes and high value goods and services.”

(DTI, 1998, p.10)

The UK is one of the few countries in Europe to start to develop a national strategy for intellectual capital. Encouraging companies to invest in non-traditional intangible assets is difficult, especially when there is little real evidence of any financial benefits to be gained, and no generally accepted methods to measure the return on such investments. The DTI should publish the results of its own initiative in this area, the Competitiveness Index. The Index aimed to be an analytical tool to enable Government and business to make informed decisions on the UK's competitive performance. Reporting such initiatives publicly would be a major incentive for others to do so.

3.3.2 Recommendations for information professionals

Information professionals must learn basic valuation principles and apply them to information assets. Certainly, if the valuation of information assets is ever to become widespread, then information professionals must be prepared to experiment with, and apply valuation principles to information policies and strategies. They must also be prepared to enter into a dialogue with accounting professionals within their own organisations and promote the valuation of information assets in this way. Without involvement from information professionals and their professional bodies, there is little impetus to value information and, by extension, information professionals.

3.3.3 Recommendations for accounting professionals and regulators

There is a need for accounting professionals and regulators to look at the recognition of information assets. If information assets are to be valued for accounting purposes then there must be encouragement to practitioners who wish to experiment with the valuation of information assets so that new methods can emerge.

Accounting regulatory bodies have a key role to play by encouraging research into, and the development of, new methods of valuation for intangible assets. Unless there is leadership from these bodies to encourage new methods of valuation which can be tested and applied on a large scale then confusion will continue and there will be little progress in accounting for these increasingly important assets.

In particular, there is need for research into, and the development of, new and innovative ways of accounting for information assets so that they are perceived by management as representing benefits rather than costs. This would encourage the internal control and management of information assets within organisations. It would pave the way for the external reporting of information assets which must be the ultimate goal. The external reporting of information assets will provide a clearer picture of how a company manages its most essential asset.

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