An Accounting Perspective on Intellectual Capital

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Introduction

In this chapter we provide an accounting perspective on intellectual capital. For this purpose we will first provide an overview of how the topic of intellectual capital has evolved in the field of accounting. We will then discuss its definitions and the current regulatory standards as well as the latest scholarly thinking. In the concluding section we discuss potential future developments of accounting standards.

In the developed economies we have seen a shift from the industrial economy, in which tangible resources were dominant, to a knowledge economy, in which intellectual capital (IC) is a critical resource and a key determinant of competitive advantage, economic success and value creation in firms. In the accounting field the term ‘intangible assets’ is more commonly used and refers, like IC\(^1\), to the non-physical value drivers in organizations that represent claims to future benefits.

In an industrial economy production facilities, physical location, and efficient manufacturing processes were the vital resources for a firm and sufficient to sustain a superior position in the market place (Chandler 1980, 1994; Nakamura, 2001). The booms after the two World Wars created sellers’ market in most of the developed countries (Marr & Spender, 2004). In such a world traditional cost-focused reporting methods were able to provide an adequate picture of firm performance. However, global trade has gradually changed this towards buyers’ markets. Such markets do not absorb all goods produced when they are saturated. Consumers are better informed and more demanding, which leads to increasing innovation speed and decreasing product life cycles. Differentiation and innovation become critical and capabilities and assets such as research and development (R&D), creativity, brand image, patents and copyrights are essential to achieving a competitive advantage. This also means that traditional cost-focused reporting tools cannot provide the adequate information of firm performance.

\(^1\) For the purpose of this chapter we will use the terms intellectual capital and intangible assets interchangeably.
The objective of financial reporting is to provide useful information for users in making economic decisions on the financial position and performance of the firm, as stated by the Financial Accounting Standards Board (FASB, 1978) Statement of Financial Accounting Standards (SFAC 1, par. 34) and the International Accounting Standards Board (IASB) framework for the preparation and presentation of financial statements (IASC, 1989 par.12). Even though it is generally accepted that investments in intangibles are important sources of future performance, restrictive accounting asset recognition rules mean that most intangible assets cannot be included in the balance sheet, especially if they are internally developed. Instead, all costs incurred to develop intangible assets must usually be directly charged as expenses in the income statement. For companies which invest in intangibles, this immediate expensing means that the current profit and financial position of an organization is reduced, while future reported profits are often overstated.

A key argument against the recognition of intangible assets in balance sheets is the uncertainty of future economic flows from such assets. As a consequence, current accounting systems are more likely to ‘front-load the costs’ of investing into intangibles and ‘delay the recognition’ of its benefits (Lev & Zarowin, 1999). In the late 1980s academics and practitioners started to raise their concerns about this practice and argued that if accounting rules would not adapt to the increasing need to provide relevant information about investments in IC, accounting will lose its relevance (e.g. Johnson & Kaplan, 1987). Both, the views of professional organizations and academic research emphasized the need to adjust the existing accounting practices to keep on providing users with the true and fair view of the firm's financial position and performance.

One visible effects of a possible loss in relevance of accounting information was the increasing gap between market value and book value of equity during the 80’s and 90s. This could not be explained with the contemporary earnings growth rates, but was partly due to the fact that investors started to value the increasing level of investment in IC as potential sources of future profitability (Nakamura, 1999). In fact, R&D investments in the US economy doubled for the period of 1953-1997, while investment in tangible assets remained steady. Even with this increase in investments in IC as future sources of value and profit, most of them have to be immediately expensed, thus decreasing current earnings and book value of equity. In fact, Lev and Sougiannis (1999) confirm Nakamura’s (1999) assertions that ‘innovative capital’ is a fundamental variable underlying the market-to-book value effect.

The American Institute of Certified Public Accountants (AICPA) and the Association for Investment Management and Research (AIMR) were among the first professional associations to express their concerns about the current financial reporting model. In 1991, the board of directors of the AICPA established a special committee on Financial Reporting. After two years they published a summary report (AICPA, 1994) warning

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2 The loss of relevance of accounting information is also clear from Lev and Zarowin (1999) who show that R&D-intensive firms experience more changes than firms with no-R&D, and lose the informativeness of financial information quicker than no-R&D firms.

3 Research and Development expenditures as a proportion of non financial corporate Gross Domestic Product increased from 1.3 for the period 1953-1959 to 2.9 from 1990 to 1997. Conversely, tangible investment remained the same 12.6% over the total nonfinancial corporate Gross Domestic Product.

4 The AICPA had previously taken other initiatives to improve the information provided in the financial statements. (Rimerman, 1990).
that the existing accounting system fails to meet the current needs of investors and creditors, and that a static business reporting model without the important non-financial information will have harmful consequences (Jenkins, 1994 and Upton, 2001). The AICPA publication, and a similar report published by the AIMR, led the FASB to undertake a research project focused on improving business reporting in 1998. As a result, the FASB published several reports\(^5\) emphasizing the importance of voluntary disclosure of information about intangible assets. In October 2001, the FASB started a new project on voluntary disclosure of information on intangible assets, but has deactivated this project.

The concerns about the decreasing relevance of traditional accounting information quickly surpassed the US boundaries. The Canadian Institute of Chartered Accountants (CICA), the Danish Agency for Development of Trade and Industry, the Netherlands Ministry of Economic Affairs, the Organization for Economic Cooperation and Development (OECD), the Institute of Chartered Accountants in England and Wales (ICAEW), and the Chartered Institute of Management Accountants (CIMA) have all conducted studies addressing the need to identify, measure and report information on intangibles which are the major value drivers in the knowledge economy (Starovic and Marr, 2003; Upton, 2001).

Not only professional and regulatory bodies but also academics have discussed the erosion of relevance of published earnings information, and historical cost accounting in general, due to the fast changes in the environment and the delayed reaction of regulators. Ely and Waymire (1999) suggest: "Standard-setters may need to write new standards at an accelerating rate merely to maintain the overall relevance of accounting data at the existing level". Empirical findings of studies in the field support this view\(^6\). While Collins, Maydew & Weiss (1997) and Francis & Shipper (1999) do not find clear evidence on the decline in the value relevance of accounting information, Lev and Zarowin (1999) report a significant decline in the combined relevance of earnings and book values. Brown, Lo & Lys (1999) show, that after controlling for the scale effects, the results in the Collins, Maydew & Weiss (1997) and Francis & Shipper (1999) studies do support the argument of a temporal decline in the value relevance of earnings. Lev and Zarowin (1999) clarify previous evidence showing that the decreasing relevance was not due to the increasing number of firms in the intangible-intensive or high-tech industrial sectors, but to the rate of business change and an increasing investment rate in R&D. This means that firms that are innovative, creative, and faced with quick changes are those for which the current historical-cost accounting system is least suitable\(^7\).

Together with evidence on the inadequacy of the reporting system for a business environment with an increasing degree of innovation and investment in intangibles (Lev

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\(^6\) These studies follow the definition of value relevance as the ability of earnings to explain the cross sectional variation of stock returns, measured mainly through the R\(^2\) together with the coefficient estimates from the regression analysis.

\(^7\) Evidence for Europe reports similar results for countries with an Anglo-American accounting system, while those with a Continental-European reporting system do not seem to suffer a decline in the value relevance of earnings (Høegh-Krohn and Knivsfål, 2000).
and Zarowin, 1999), an extensive body of literature has documented the positive effects of intangibles on the firms’ future profits and market values. Not only R&D but also advertising, patents, brands, trademarks and human resources are important value drivers, and investors need relevant and timely information on these value drivers to assess the economic conditions of the firm and its future potential. Cañibano et al. (2000) assert, "in order to provide the users of financial statements with relevant information for investment and credit decisions, standard setting bodies should develop guideline for the identification of intangible elements, and set criteria for their valuation and adequate standards for financial reporting".

There is no common definition of IC. Stolowy & Jeny-Cazavan (2001) find that most regulations provide a general conceptual definition of intangibles and then include a list of items or categories of intangible assets. Most regulatory accounting bodies include in their definition of intangibles (a) the promise of future benefits, (b) the lack of physical substance, and (c) the non-monetary nature. The International Accounting Standard (IAS, 38) specifies that a company can only recognize an asset if it is identifiable, controlled, probable that future benefits specifically attributable to the asset will flow to the enterprise; and cost can be reliably measured. These recognition criteria apply to both purchased and self-created assets. If any intangible asset does not meet the above criteria, IAS 38 requires the expensing of this item. The uncertainty regarding future benefits from intangibles, its uniqueness in certain occasions (Hendriksen, 1982) and the importance of reliability over relevance in current accounting systems narrows the list of items that are recognized as intangible assets. Regardless of the long list of intangible resources relevant to organizations, the categories recognized as assets in accounting are very limited; they mainly refer to acquired (not internally generated) intangibles: (a) goodwill, (b) research and development, and (c) other identifiable intangibles such as patents, software, licenses, copyrights or brands. Goodwill is an all-inclusive asset category defined as the excess of the cost of an acquired company over the sum of the fair value of identifiable net assets. In many acquisitions the purchase price is higher than the value of the net assets included in the balance sheet. Goodwill allows firms to account for the ‘unidentifiable assets and liabilities’ that cannot be recognized in the firm’s balance sheet using current accounting standards. Goodwill only appears in an acquisition transaction. Furthermore, while identifiable intangible assets may be recognized individually, as a part of a group of assets or as part of an entire enterprise, unidentifiable assets cannot be recognized individually (Vallabhajosyula, 2001). Also internally generated goodwill is not recognized in balance sheets, and together with other intangibles has to be expensed immediately, including investments in advertising, training programs, customer lists, and start-up costs.

Intangibles are sources of value and competitive advantage, but it is clear from the above list that much of what is commonly regarded as IC and intangible value drivers would not in fact pass the accounting recognition test. Regulatory accounting bodies have not yet developed an adequate reporting system to provide investors and other users with the required information for making investment and credit decisions. This

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8 An analysis of the literature on the value relevance of different intangibles can be found in Cañibano et al. (2000).
9 In certain regulatory regimes after an acquisition transaction, some of these intangible resources will be recognised as assets apart from goodwill in the acquirer's balance sheet if they comply with the recognition criteria for “identifiable” assets and liabilities.
lack of information has harmful consequences for both firms and investors as they might lead to higher cost of capital and interest rates, greater degree of uncertainty over earnings, and greater errors in earnings forecasts, and larger information asymmetries between managers and stakeholders leaving a greater degree of freedom for insider gains and earnings management (García-Ayuso, 2003; Starovic & Marr, 2003). However, firms seem to be reacting, and, guided by international research efforts, they are starting to provide voluntary information on their intangible resources to comply with the new needs and requirements for better information (e.g. Mouristen et al, 2004).

**Accounting for intangible assets: current techniques and practices**

Hendriksen (1982) proposes two approaches to account for intangible assets: (a) matching outlays with future revenues whenever possible, or (b) expensing the outlays in the years incurred if they cannot be easily matched with future revenues. In fact, current regulatory accounting frameworks are likely to apply both perspectives depending on the ways a firm has acquired intangibles - whether they have been internally developed or purchased externally.

Applying the recognition and valuation rules to externally acquired intangible assets, such as brands or patents, is not a difficult task since the determination of costs is similar to the approach used for tangible assets. However, identifying, measuring and reporting internally generated intangibles, and assets acquired in a business combination, is causing a serious problem for accounting. Given the full adoption of International Accounting Standards (IAS/IFRS) for consolidated accounts of listed companies from January 2005 onwards in Europe and other countries like Australia, or New Zealand, our analysis of current regulations of intangibles refers to the standards issued by the leading regulatory accounting bodies: IASB and FASB.

The general criteria for whether intangibles can currently be recorded on the balance sheet are: (a) the assets can be identified, (b) its future economic benefits will flow to the enterprise, and (c) the cost can be measured reliably (IAS 38, 1998 and SFAC No 5, 1984). However, while these criteria hold true for most intangibles obtained by an acquisition transaction, the difficulty in recognizing internally generated intangibles has created a great degree of non-conformity among accounting regulators, revealing the difficulties in trying to settle accounting requirements for intangibles (Powell, 2003).

Uncertainty over the control of future economic benefits coming from intangibles (Cañibano et al., 2000) together with the difficulties in reliably establishing the value of internally-developed intangibles are the main arguments against the recognition of these resources on the balance sheet. While acquired intangibles are measured at fair value (SFAS No 142, 2001, par. 9) or at cost (IAS 38, 1998, par. 22), most of the costs of internally developed intangibles are immediately expensed (IAS 38, 1998; SFAS 2, 10 More than a total of 90 countries in the world will adopt IAS/IFRS up to year 2007.

11 The reader should note that any balance sheet recognition has an important effect on the income statement too. When a previously expended item (e.g., R&D) is recognized as an asset, income increases. However, the amortization of the recognized asset decreases future earnings.

12 Fair value refers to the amount at which an asset (liability) could be bought (incurred) or sold (settled) in a current transaction between willing parties, that is, other than in a forced or liquidation sale. Quoted market prices in active markets are the best evidence of fair value and should be used as the basis for the measurement, if available. (FAS 133, par 540, page 234)
1984; APB opinion No 17, 1970; SFAS 142, 2001). This means that the majority of investments in intangibles (e.g. advertising, research costs, training expenses, internally developed goodwill) are not recorded on the balance sheet.

While acquired intangibles must be stated at fair value, APB No. 17 allows for capitalization of the costs incurred for internally developed intangible, other than R&D, as long as the assets are identifiable, have a limited useful life span (i.e. the period of future benefits can be reasonably well determined), and is not part of a subdivision or the firm as a whole (par. 24). Otherwise, outlays related to internally developed intangibles must be expensed, as is the case with internally generated goodwill. Likewise, IAS 38 sets certain criteria linked to technical feasibility and the future economic benefits for internally generated intangibles. It requires capitalization when these conditions are met (par. 45). IAS 38 specifically prohibits the recognition of internally generated brands, mastheads, publishing titles, customer lists and items similar in substance (par 51).

Even though IAS 38 concurs with the conservative accounting treatment of internally developed intangibles in the US, certain differences arise in the recognition of development costs (in contrast with the initial research). SFAS 2 (1974) requires all costs incurred for internally developed research and development activities to be expensed immediately, except for those incurred for computer software to be sold, leased or marketed, once technical feasibility has been achieved (SFAS 86, 1985). In addition, firms are required to disclose information on research and development expenditures in the income statement to provide investors with some information on the innovation activities of the firm. On the other hand, IAS 38 requires research costs to be expensed, while development costs must be capitalized under certain recognition criteria (par. 45).

The abolition of the pooling/uniting of interest method of accounting for business combinations (after the issuance of SFAS No 141, for fiscal years beginning after December 2001) provides users with a more truthful picture of these types of transactions. It means that all identified assets and liabilities of an acquired firm must be recorded in the acquirer's balance sheet (par. 35), along with the corresponding goodwill. SFAS 141 allows recognition of an intangible asset by the acquirer when ‘it arises from contractual or legal rights’ or ‘it is separable from the acquired entity,’ and includes an illustrative list of intangible assets that meet the recognition criteria to categorize them as identified. IAS 22 allows both uniting of interest and purchase methods to account for business combinations. Yet, the former is the exception since most of business combinations are accounted for as a purchase in a similar way to SFAS 141, but this standard sets more general criteria for identified assets and liabilities and allows to account for its fair value (par. 26). Consequently, under both regulatory

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13 Australia is one of the few jurisdictions with a liberal accounting regulation on intangibles. A loose interpretation of AASB 1010 superseded by AASB 1041 "revaluation of non-current assets" allows capitalisation of internally generated intangibles crediting an asset revaluation reserve (Wyatt, 2002). In fact, this issue is creating a great controversy due to the future compliance of Australian firms with IFRS, since IAS 38 does not allow such a degree of recognition for internally generated intangible assets.

14 Goodwill arises as the difference between the price paid for the acquired firm and the fair value of all identified assets and liabilities.

15 IAS 22 allows for two alternative treatments for the recognition of identifiable assets and liabilities. Under the benchmark treatment, assets and liabilities will be measured as the sum of the fair value at the
Frameworks intangibles assets should be recorded separately in the acquirer's balance sheet after an acquisition transaction, while the value of all non-identified intangible resources of the acquired firm will be included in the *goodwill* category. Both IAS 22 and SFAS 141 consider the nature of goodwill as the payment made in anticipation of future economic benefits arising from both identified and non-identified net assets, as well as from the synergies among them (SFAC 141, 2001, par. B201; and IAS 22, 1998, par. 42). Yet, differences in the recognition and valuation criteria of *identifiable* assets and liabilities, may lead to divergences in the amount of goodwill as well as in the recognized assets and liabilities in the acquirer's balance sheet\(^\text{16}\).

Major differences between IAS/IFRS and US GAAP (*Generally Accepted Accounting Principles*) arise in the accounting treatment of both goodwill and certain intangible assets. SFAS No 142 abolished the amortization of goodwill and intangible assets with indefinite useful life and requires annual impairment tests for both categories of intangibles to account for possible value depletion. IAS 38 diverts from current US regulation since amortization of goodwill and intangible assets is required. However, in response to the FASB-IASB Norwalk Agreement on convergence between both regulatory bodies, the IASB has recently issued Exposure Draft 3 ‘*business combinations*’ that aligns with SFAS 141 and 142 requirements of goodwill and other intangible assets\(^\text{17}\). Among other differences in the accounting treatment for intangible assets we highlight the revaluation alternative allowed under IAS 38 of intangible assets. Yet, as previously stated, there is a common objective of both regulatory bodies towards harmonization which should erase differences in future regulatory developments.

The first steps towards this were taken in 2004: IFRS 3 (IASB 2004a), IAS 36 (IASB 2004b) and IAS 38 (IASB 2004c) introduce several changes to converge to US GAAP. The main changes are related to the use of the fair value method to measure intangible assets, and the abolition of amortization of goodwill and intangible assets with indefinite useful life; both categories of assets require annual impairment test\(^\text{18}\), being compulsory to write off potential losses.

Irrespective of the accounting harmonization process worldwide, and the increasing disclosure requirements, information on intangibles in annual accounts is scarce compared to the importance of intangible resources in most businesses. Increasingly, companies feel the need to improve transparency and communication with stakeholders, especially after the burst of the technology bubble and the latest accounting scandals.

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\(^{16}\) When the acquirer is paying an amount lower than the net fair value of all identifiable assets and liabilities, it is assuming possible future losses, thus a negative goodwill arises from the transaction.

\(^{17}\) As explained in Powell (2003), in spite of the changes included in ED-3 (2002), differences between the two standards will remain in the treatment of in-process research and development acquired in a business combination transaction. Under SFAS No 141 the item must be directly expensed while under the ED 3 requirements it can be recorded apart from goodwill if it complies with the corresponding criteria. The FASB, however, is currently proposing capitalization of in-process R&D.

\(^{18}\) IFRS 3 (2004a), IAS 36 (IASB 2004b) and IAS 38 (IASB 2004c) have been issued on 31 March 2004, having starting the endorsement process at the EU.
which negatively affected the confidence of investors (García-Ayuso, 2003). Sánchez et al (2000) state that “there is a need for information on the intangible determinants of the value of companies that will help improve the decision making process of managers and stakeholders”.

Several research projects have developed alternative methodologies to report and measure intangible resources within organizations to complement current accounting standards. General measures such as the book-to-market ratio and Tobin's Q (a ratio of the stock market value of the firm divided by the replacement cost of its assets) were proposed to indicate a more reliable picture to investors (Stewart, 1997). In the management accounting and general management literature, measurement and reporting frameworks were developed to incorporate intangibles. Examples include the Balanced Scorecard (Kaplan & Norton), the Performance Prism (Neely et al, 2002), and guidelines for reporting on intangibles (e.g. Meritum, 2000; DATI, 2000)19. There are significant differences in the way information on IC is published in Europe and the US as well as between different European countries (e.g. Ordóñez de Pablos, 2002). It seems that Scandinavian firms together with some Spanish companies are leading the way and are already publishing information on IC in their annual reports or in separate IC statements. Various Danish firms are producing IC statements, such as the consulting firm Carl Bro A/S20 (e.g. Marr et al, 2003). Companies such as Unión Fenosa or Telefónica in Spain also publish information about their intangibles.

However, from investors’ perspective there is a serious drawback to these reports or any other voluntary information on intellectual capital: the lack of harmonization (comparability) among firms, industries, or different years for which the data are published. This significantly reduces the usefulness of the information. There is a ‘tremendous call for homogenization’ on voluntarily disclosed information on intangibles (Ordóñez de Pablos, 2002) that requires both the management and the accounting field to keep on devoting research efforts to improve the efficiency of the current reporting model, both to manage and communicate to outsiders on the intangible value drivers of firms.

A Look into the future: How will intangibles reporting evolve?

Several studies have proposed different ways of reporting on intangibles so that financial statements will reflect the increasing changes that affect the business environment. Together with the intellectual capital reports in the management field, accounting academics have suggested certain changes of the current accounting system so that the reporting model follows the pace of the modern economy.

According to Francis and Shipper (1999), recommendations of possible changes address both the relevance and timeliness of accounting information. Changes are not only suggested on what to report, but also on its frequency. Criticism of current conservative accounting standards addresses the direct expensing of most of the intangible outlays and supports both capitalization and greater disclosure of information on intangibles (Roslender, 2004).

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19 Upton (2001) provides a detailed explanation of most of these frameworks to report nonfinancial information on intellectual capital.

20 A list of all Danish firms reporting intellectual capital reports is available at www.efs.dk/icaccounts.
The key arguments of the FASB, IASB and other standard setting bodies against recording intangibles on the balance sheet are (a) the uncertainty of future economic benefits, (b) the lack of reliability of monetary value, and (c) the greater degree of discretion given to managers by the capitalization alternative compared to immediate expensing. Yet, there is a strong support towards capitalization that is leading academics to propose alternatives that would offer investors more relevant information without losing the required reliability of accounting measures. Authors such as Lev and Zarowin (1999), Høegh-Krohn and Knivsflå (2000), and Upton (2001) propose less conservative alternatives to accounting for intangible assets supporting either full-cost or fair value capitalization approaches.

Similar to IAS 38 (1998) for development costs, or SFAS No 86 for software development expenditures, Lev and Zarowin (1999) and Høegh-Krohn and Knivsflå (2000) support the condition-based cost capitalization approach to account for certain intangible assets, with attributable benefit streams, together with the corresponding amortization or impairment test to revise the asset's value. Lev and Sougiannis (1996), Abbody and Lev (1996), Barth and Clinch (1998), and Healy et al. (2002) provide evidence on the significant association between intangibles’ capitalization and market values, thus supporting the argument that this approach provides more relevant information. Yet, conversely to the IAS 38 or SFAS No 86 capitalization rules, these authors go beyond a simple cost capitalization approach. They propose adding all previous expenditures related to a project to the capitalized amount, thus recognizing the reversal of expenditures from previous years on current year earnings, and recording the corresponding intangible asset in the balance sheet21 (Høegh-Krohn and Knivsflå, 2000).

Lev and Zarowin (1999) offer a second alternative and suggest accounting for all previous costs of developing intangibles before technical feasibility is achieved. As they explain, condition-based capitalization is easier to be applied to certain intangibles investments with a clear development phase. However, others intangible ‘value-drivers’ such as restructuring, advertising or employee training costs are not directly linked to a product development, thus the simple capitalization approach is more difficult to apply. In contrast to the Høegh-Krohn and Knivsflå (2000) alternative of reversing previous years expenses on current earnings, Lev and Zarowin (1999) propose the restatement of past financial reports, reversing previous years' expensing and recording an asset on the current balance sheet once the benefits of the intangible outlays start to flow into the firm.

There is a danger that the two capitalization methods of intangibles - either crediting to current profits or restating previous financial statements - offer organizations the possibility of earnings management. Myopic behavior and market pressure to meet certain earnings benchmarks may lead managers to use either the expense or capitalization alternative to meet market expectations or smooth earnings irrespectively of the informativeness of accounting information22.

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21 The recorded asset must equal the revenues recognised and amounts of expenditures incurred in previous years minus the corresponding accumulated depreciation since the intangible outlays started.

22 Aboody and Lev (1996) show how the effects of either capitalizing or expensing software development costs have a different impact on earnings depending on the life cycle of software firms. Firms will choose either to capitalize or to expense depending on its effect on future earnings.
The restatement alternative (Lev & Zarowin, 1999; Høegh-Krohn & Knivsflå, 2000) partially constrains firms to delay capitalization since managers have to capitalize all previous expenditures incurred in the corresponding project at some point in the future (Upton, 2001). Notwithstanding, this restatement, capitalization alternatives do not abolish the risk of earnings management since it leaves a certain degree of discretion to capitalize the outlays and the time in which capitalization must be accomplished. To avoid creative accounting practices authors emphasize (Høegh-Krohn & Knivsflå, 2000) the need to (a) clarify the amount of expenses to be capitalized, and (b) settle on a clear condition-based criteria for capitalization. Regarding the first issue, it is proposed to publish annual information in the notes of the outlays devoted to potential intangible assets, so that future capitalization will only be allowed if information has been previously reported. Secondly, they propose to create clear capitalization criteria for intangibles to guide firms in the capitalization process and avoid ‘creative accounting practices’.

Together with the arguments in favor of extending the capitalization approach to intangible outlays, other authors highlight the need for a greater emphasis on additional qualitative and quantitative disclosure of information on intangibles. In fact, the currently frozen FASB project on intangibles aims to increase the amount of information disclosed in the notes about internally generated intangibles not recognized in financial statements\(^23\) (FASB, 2001). Authors such as Amir and Lev (1996) have shown that current accounting practices do not provide the relevant information for high-tech industries and highlight that other firm or industry specific intangibles are critical.

The importance of intangibles as key value drivers is widely accepted, but the lack of control over the future economic benefits of many intangible outlays and the difficulties in setting a monetary value supports the voluntary reporting of qualitative information on intangibles. This view was also supported by the SEC task force report (2001) stating the need for developing a disclosure framework for information on intangibles and other measures of operating performance.

While these alternatives are based on historical-cost measurement of intangibles, other alternatives suggest a fair value recognition approach. Upton (2001) argues that cost-based capitalization of intangibles might not be suitable in certain situations; for instance, in interrelated intangibles projects where separating the outlays for each of the projects can not be clearly identified. Other circumstances where the capitalization approach might not be appropriate are when the costs incurred in the development of a project are unrelated to the future reported revenues. Even though the lack of active markets for most intangibles constrains fair value measurements, special valuation techniques and new markets for certain intangibles such as patent and know-how licensing (Gu and Lev, 2001) have arisen, thus widening the possibility of a fair value approach for valuing intangibles. Moreover, converse to the general belief that there is a lack of measurement reliability, a greater degree of discretion, and possible market

\(^{23}\) The FASB project aims to disclose information on those intangible assets that are not recognised in the financial statements but would have been recognised if acquired in an arms' length or acquisition transaction, including in process research and development. In addition, the FASB proposal comments on the possibility of extending the initial scope to the disclosure of other nonfinancial intangible information or the recognition of research and development.
inefficiencies, Wyatt’s (2002) insight on the fair value accounting practices for intangibles in Australia shows how these concerns are exaggerated.

Accounting regulators are aware of the current reporting deficiencies for intangibles, but regulatory changes will take place slowly. It seems that in the near future the field of accounting for intangibles is going to evolve faster in the management domain, strengthening voluntary disclosure in financial statements and adopting less conservative criteria to record internally generated intangibles in the balance sheet.

Conclusions

In this chapter we have outlined the evolution of accounting for intellectual capital, or intangible assets. We demonstrated that factors such globalization and innovations created buyer’s markets in most developed countries which means that intangible resources such as R&D, relationships, skills, or innovation capacity, increasingly represent the foundation of a competitive advantage of firms and superior business performance. This evolution means that investors and stakeholders require information on all relevant assets and productive resources of a firm in order to be able to assess its performance and future course. Traditional cost-based accounting information needs to be complemented with information on the intangible value drivers. However, the accounting principles and rules developed over the last century to ensure that information reported is accurate and reliable struggle to include information on many intangibles.

In particular, the uncertainty about future economic benefits, the lack of full control, and the absence of markets to measure and value of intangibles reliably, has made accounting regulators reluctant to adopt more liberal measures. We have discussed the current accounting standards for intangibles issued by the leading regulatory bodies, IASB and FASB. This discussion highlights the controversy about the recognition and disclosure of internally-generated intangibles.

We then outlined various proposals of how to overcome the problem of accounting for intangibles. Academic research supports both the capitalization alternative and a fair value approach. Both approaches have advantages and disadvantages. However, at this stage, regulators are still cautious and prefer to devote efforts to harmonize current practices and develop a framework of voluntary disclosure for intangibles. However, further research and experimentation is invaluable if we are to arrive at a point of convergence between the disparate approaches of accounting for intellectual capital.

Acknowledgement

We would like to acknowledge the help of Ana Gisbert, assistant professor at the Autonomous University of Madrid, in producing this chapter.

References


