

WORKING PAPER

**ETHICS AND CREATIVE ACCOUNTING :
SOME EMPIRICAL EVIDENCE ON ACCOUNTING FOR INTANGIBLES IN SPAIN**

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Abstract

Recent research shows that financial reports are losing relevance. Mainly this is due to the growing strategic importance of intangible assets in the performance of a company. A possible solution is to modify accounting standards so that statements include more self-generated intangible assets, taking into account with their inherent risk and difficulty of valuation. We surveyed loan officers who were asked to assess the credit-worthiness of a hypothetical company. The only information given was a simplified version of financial statements. Half the group got statements where research and development costs had been capitalized. The other half got statements in which these costs had been treated as an expense. The findings show that capitalization was significantly more likely to attract a positive response to a loan request. The paper raises the question of whether accounting for intangibles might provide managers with one more creative accounting technique and, in consequence, its ethical implications.

Keywords: intellectual capital, ethics, creative accounting.

Journal of Economic Literature Classifications: M41

1. Introduction

Recent research (Lev and Zarowin, 1999) shows that financial reports are losing relevance because, for example, of the growing differences between a company's market value compared to its book value. Mainly this is attributed to the growing strategic importance of intangible assets in the performance of a company. One of the solutions proposed (Egginton, 1990; Lev, 1997) is to modify accounting standards so that financial statements include more intangible assets.

On the other hand, it is widely recognised that accountants can use their knowledge of accounting rules to manipulate the figures reported in the financial statements. This process has come to be commonly referred to as 'creative accounting' in the UK (see for example Griffiths, 1986; Jameson, 1988; Naser, 1993), or as 'earnings management' in the USA (see for example Merchant and Rockness, 1994; Fischer & Rosenzweig, 1995). The former term has been taken up in Spain, as 'contabilidad creativa' (see for example Amat and Blake, 1996; Lainez and Callao, 1999).

Creative accounting may occur if several accounting treatments are allowed for the same transaction or if value estimates are required. Regulatory institutions must avoid new opportunities to increase this practice. In this paper, we suggest that the accounting treatment offering a more positive image of the company will lead to more favourable decisions by credit analysts. One possible explanation is the existence of an inefficient market, in which analysts can be misled by cosmetic accounting changes. In particular, the objectives of this paper are:

- 1) Carry out a literature review of the accounting treatment for intangibles assets and the phenomenon of creative accounting.
- 2) Explain how research and development costs are one of the few self-generated intangible assets included in the statements.
- 3) Discuss the different accounting treatments available for research and development costs in Spain and the effect of the adoption of International Accounting Standards in 2005.

- 4) Based on a survey of Spanish bank officers, evaluate how the accounting treatment for research and development affects the decision-making process.

2. Intangible assets and financial accounting

The development of a knowledge-based economy has challenged companies to change the ways in which to create value. Whereas in an industrial economy, companies had to optimise physical resources in order to produce value, in a knowledge-based economy the resources with higher potential value are of intangible nature. The origin of the new competitive advantages has been called "knowledge".

It is clear that "knowledge" also existed during the industrial era but it is only over the last decades when this intangible asset has been identified as the main value generator (Stewart, 1997). Naturally, different industrial sectors have been affected to varying degrees. For example, biotechnological industries have always relied heavily on intangible assets such as patents or new formulas and, therefore, it is a sector accustomed to managing these assets. On the other hand, the automotive sector, which traditionally relied on an effective use of physical resources, is learning to create value from intangibles such as customer satisfaction, brand enforcement or new production forms which usually entail subcontracting most of the production line¹.

Although several authors have defined intangible assets, there is no formal and widely accepted definition amongst academics. In the guidelines of the Meritum Project (2002) intangibles are described as "non-monetary sources of probable future economic profits, lacking physical substance, controlled (or at least influenced) by a firm as a result of previous event and transactions (self-production, purchase or any other type of acquisition) and may or may not be sold separately from other corporate assets" (p. 62) which is very similar to the definition of intangible assets provided in the IAS 38.

At the same time as companies and stockholders have realised the importance that intangible assets can have in the performance of a firm, it has become evident that financial statements are not good at reflecting them. The reason is that current accounting regulation

¹ "Ford Remaking Itself into a Cisco", *Forbes*, July 17 (2000).

does not allow the inclusion of some of the intangible assets produced by the company. This line of regulation made sense during the industrial economy for two reasons:

- (1) Firstly, intangible assets once had little impact on the performance of the typical company, which based its activities on the efficient use of physical resources. This is no longer valid, for example, Handy (1989) states that the value of intangible assets is three or four times the book-value of a company and studies by Lev (2001) suggest that intangibles represent between 60 and 75 per cent of total assets of a company.
- (2) Secondly, intangible assets have a higher degree of uncertainty than tangible assets. This argument still remains powerful for the exclusion of these assets from the balance sheet.

There is a generalised agreement about the importance of intangible assets; the main debate concerns the best methods to account for them. Bontis (1998) points out that the main challenge for academics is to develop theories in order to treat in a more rigorous manner this ambiguous concept. Similarly, Stewart (1997) states "Intellectual capital has been considered by many, defined by some, understood by few and valued by almost no one". Two main solutions have been proposed to solve this. The first would be to modify the annual accounts in order to include more intangibles, such as investment in education or the value of recognised brands. The second is to add a new report about intangibles to the traditional financial statements.

The most intuitive measure of the intangible assets of a company is the difference between the market value and the book value (Holland, 2001). For example, in June 2000 the physical and financial assets of Microsoft were less than 10% of its market value and in Cisco those assets were only 5% (Lev, 2001). In some companies, the main difference between the book value and the market value might come from an identifiable brand (for example, Coca-Cola) and in others the origin might be the number of patents or successful research projects (such as in pharmaceutical companies).

These measures accept implicitly that the market value of a company is established efficiently without taking into account possible effects of the general situation of the market or political and legal influences. Also, in most countries, assets are measured on a historical

cost basis which increases the difference between book value and market value. Another limitation is that the measure includes both intangible assets and expectations for future profits, the separation of both values is almost impossible.

3. The nature of creative accounting

Several books in the UK, each written from a different perspective, have considered the creative accounting issue. Griffiths (1986) writing from the perspective of a business journalist, observes:

"Every company in the country is fiddling its profits. Every set of published accounts is based on books that have been gently cooked or completely roasted. The figures, which are fed twice a year to the investing public, have all been changed in order to protect the guilty. It is the biggest con trick since the Trojan horse ... In fact this deception is all in perfectly good taste. It is totally legitimate. It is creative accounting" (p. 1).

Jameson (1988) writing from the perspective of the accountant, argues:

"The accounting process consists of dealing with many matters of judgement and of resolving conflicts between competing approaches to the presentation of the results of financial events and transactions (p. 7) ... this flexibility provides opportunities for manipulation, deceit and misrepresentation. These activities - practised by the less scrupulous elements of the accounting profession - have come to be known as 'creative accounting'" (p. 8).

Smith (1992) reports on his experience as an investment analyst:

"We felt that much of the apparent growth in profiles which had occurred in the 1980's was the result of accounting sleight of hand rather than genuine economic

growth, and we set out to expose the main techniques involved, and to give live examples of companies using those techniques" (p. 4).

Naser (1993) presenting an academic's view, offers a definition:

"Creative accounting is the transformation of financial accounting figures from what they actually are to what preparers desire by taking advantage of the existing rules and/or ignoring some or all of them" (p. 2)

Some common themes run through these books. First, creative accounting involves 'fiddling' and 'figures which have been changed' (Griffiths) to achieve 'misrepresentation' (Jameson) by 'sleight of hand' (Smith) to transform figures from 'what they actually are' (Naser). Explicit in Naser, and implicitly in the other three, is that there is some underlying objective truth and that creative accounting departs from this. Creative accounting is seen as widespread in the UK. Naser perceives the accounting system in Anglo-Saxon countries as particularly prone to such manipulation because of the freedom of choice it permits, observing "The freedom of choice provided by Anglo-Saxon accounting system could be abused ..." (p.1).

The relative extent of creative accounting in the UK and in a continental European country, Spain, is considered in the following section. The ethical debate over creative accounting is then reviewed.

Blake et al. (1998) argue that there are four ways in which creative accounting may arise. Firstly by the exercise of choice between permitted alternative accounting policies. An example would be in choosing whether to write off or capitalise research and development costs. Secondly by applying bias in the making of accounting estimates. An example would be in the estimation of asset life for depreciation purposes. Thirdly by structuring transactions in such a way as to manipulate the results in the financial statements. For example, in a sale and leaseback arrangement, the sale proceeds of an asset might be artificially depressed or boosted with an equivalent adjustment to related rental payments. Finally by timing genuine transactions so as to manipulate accounting. For example, if an

investment with a historical cost of £1 million has a market value of £3 million, then managers can time realisation to boost profits in the year of their choice.

The first two of these might be termed 'accounting manipulation'. The problem of defining an accounting policy choice as 'manipulative', and therefore 'creative' is that where accounting regulation permits such choice then this is likely to reflect legitimate debate over the issue concerned. As an example, Robson (1994) points out that in the mid 1970's the UK Sandilands report on inflation accounting identified twenty possible combinations of net asset and capital maintenance that could define profit. Thus it is not the individual policy choice in itself that constitutes 'manipulation' but the intention behind it. One way to identify a tendency towards a 'creative' bias in company reports is to consider the impact of its overall selection of accounting policies. Thus, Smith (1992) identifies twelve accounting policy choices which tend to put company performance in a favourable light. He observes (p. 184) that "inclusion in the list of any particular technique does not automatically mean that the company is indulging in creative accounting". However, where a number of such accounting approaches arise in one company's accounts then the suspicion of manipulation grows.

4. The ethics of creative accounting

We have seen above that all four UK authors saw creative accounting as inherently disreputable. Similarly in the USA, the then senior partner in Price Waterhouse, termed such an approach 'fraudulent' (Conner 1986, p78). In Australia, Leung and Cooper (1995) report that in a survey of 1500 accountants the three most frequently cited ethical problems were as shown in table 2. It is striking that manipulating accounts ranks in the second position above tax evasion as an issue.

Two surveys of attitudes to creative accounting in the USA both highlighted contrasting attitudes to 'accounting manipulation' and 'transaction manipulation'. Fischer and Rosenzeig (1995) found that accounting and MBA students were more critical than accounting practitioners of manipulated transactions, whereas accounting practitioners were more critical than students of abuse of accounting rules. Similarly Merchant and Rockness (1994) found that, when presented with scenarios of creative accounting, accountants were

more critical of accounting manipulation than transaction manipulation. Merchant and Rockness also found a difference in accountants' attitudes to creative accounting depending on the motivation of management. Creative accounting based on explicit motives of self interest attracted more disapproval than where the motivation was to promote the company. A contrasting view is put forward by Revsine (1991). He offers a discussion of the 'selective financial misrepresentation hypothesis' which can be seen as offering some defence for the practice of 'creative accounting', at least in the private sector, drawing heavily on the literature on agency theory and positive accounting theory. He considers the problem in relation to both managers and shareholders and argues that each can draw benefits from 'loose' accounting standards that provide managers with latitude in timing the reporting of income.

Shareholders also benefit from the fact that managers can manipulate reported earnings to 'smooth' income since this may decrease the apparent volatility of earnings and so increase the value of their shares in the short term. Other effects of creative accounting, such as avoiding default on loan agreements, can also benefit shareholders, providing that the company avoids increasing debt excessively.

At the heart of Revsine's analysis are the implicit views that:

- the prime role of accounting is as a mechanism for monitoring contracts between managers and other groups providing finance;
- market mechanisms will operate efficiently, identifying the prospect of accounting manipulation and reflecting this appropriately in pricing and contracting decisions.

While the second point is supported in relation to shareholders by the literature on market efficiency (for summaries of this see for example Watts & Zimmerman, 1986) there is more limited research on whether other user groups may be misled by accounting manipulation (Lee and Tweedie, 1977). There has been research on the response of bank loan officers to accounts where different accounting policies in respect of one specific area of choice have been presented. These cover three areas:

1. The first is the choice between treating a long term lease agreement in accordance with its commercial substance, so that the leased asset is shown as an asset and the related obligation to make lease payments is shown as a liability, or showing the transaction in accordance with its legal form, so that only the rental payments are

disclosed as an expense. Studies in the USA (Abdel-Khalik et al. 1981), Singapore (Wilkins and Zimmer 1983), and Spain (Blake et al 1995), all indicate that the former accounting policy choice, which portrays a company as having higher borrowings, leads to that company being viewed less favourably by bank loan officers.

2. The second area is the choice between capitalizing several intangibles in a unique set of accounts (R&D, education and brands) or expensing them. The results of a study carried out in Sweden suggest that the more conservative version would obtain a higher amount of credit (Catasús and Grojer, 2001).
3. The third area is the choice between treating development costs and an asset, to be amortised against future income from the related project, and as an expense in the year they are incurred. In the USA, McGee (1984) reports that bank loan officers clearly took a more favourable view of company accounts where the first policy was adopted.

Thus we have evidence from four studies in three countries that a key user group are influenced in their assessment of financial statements by the accounting policy choices made in a specific area. In this study we seek to extend this insight by conducting a similar study in Spain to that conducted earlier in the USA by McGee.

In Spain, in the period 1988 - 1990, a series of laws introduced an audit requirement, prescribed consolidated accounts, and culminated in full implementation of the EU directives on accounting and auditing in the General Accounting Plan of 1990. Concerns that, within this framework, Spanish companies are engaging in creative accounting have been expressed by a range of observers (see Giner, 1992; Rojo, 1993; Rodriguez Molinuevo, 1996; Amat et al., 1997; Rodriguez-Vilarino, 1998; Lainez & Callao, 1999).

We have seen above that some observers in the UK have perceived the British tradition of flexibility in accounting policy choice as giving rise to more scope for creative accounting than the continental European tradition. Amat and Blake (1996) report on a survey of Spanish auditors' views on creative accounting, and compare this with a similar survey in the UK reported by Naser (1993). It is striking that in both countries both the importance and the legitimacy of creative accounting appear to be viewed similarly. Although one third

of respondents agreed that creative accounting was a legitimate business tool, 65% of them considered it to be a serious problem.

5. Accounting treatments for Research and Development costs

Research and development (R&D) costs are the first self-developed intangibles to be considered as assets in some countries. These costs can be capitalised in some countries such as Spain or the UK whereas in others, for example Germany, must be expensed in the year that are produced. In Table 1, there is comparison of the accounting treatments in four countries and the IASB requirement.

Table 1. Accounting treatment for research and development costs

Country	Research costs	Development costs
<i>IAS</i>	<i>expense</i>	<i>some must be capitalised</i>
UK	expense	some can be capitalised
Spain	can be expensed or capitalised	can be expensed or capitalised
Germany	expense	expense
US	expense	expense, except software

The main argument for expensing these costs is the uncertainty associated to R&D projects and the lack of consistent empirical evidence relating future earnings with R&D expenditure. In this line, Lev (2001) suggests that given the uncertainty of R & D projects this option is used by many managers to avoid having to give explanations about failed projects: “Thus companies get the best of all worlds from in-process R&D expensing: no price hit at the time of expensing and a significant boost to future reported profitability” (p. 89). On the other hand, capitalisation, partial or total, is supported by certain regulators (Spain, IAS) if the project complies with determined success factors.

In 2005, with the introduction of International Accounting Standards, the differences between the listed companies in the European Union will disappear. Some of them have already started to adapt its annual accounts to comply with international standards. For example, in 2001 the annual accounts of Volkswagen Group show the reconciliation of the

capital and reserves to IAS. The difference arising from applying German Commercial Code to comply IAS is an increase of 11,107 million € in capital and reserves. Part of this difference, around 4,000 millions € derives from the capitalization of development costs required by IAS 38.

Due to the importance of this intangible and the availability of data in some countries, research and development costs are the intangibles more frequently tested to assess their impact on the performance of the firm. Although empirical studies were contradictory a few decades ago (SFAS 2), recent research shows a significant correlation between development costs and stock prices and future earnings (Green et al., 1996; Lev and Sougiannis, 1999) which would support the capitalization option.

6. Empirical survey

As mentioned above, Spanish accounting legislation allows for two possible accounting treatments. Capitalization is allowed when the project has a high probability of success. Expensing is required when the success of the project is uncertain. R&D has been included in the Spanish financial statements for the last decades therefore, users of financial information are familiar with its possible accounting treatments.

Two summarised versions of the financial statements of a hypothetical company were prepared, one had capitalized R&D and one with expensed R&D. Full disclosure was made of the accounting choice. A questionnaire attached to the accounts asked the following questions:

1. Would the respondent give a short-term loan of 200 million pesetas to the enterprise?
2. If so, at what interest rate?
3. Would the respondent give a five-year loan of 400 million pesetas to the enterprise?
4. If so, at what interest rate?

The questionnaire was given to 80 Spanish bank loan officers attending management development courses at three business schools in Barcelona, Zaragoza and Madrid in Spring 2002. In each case the capitalized R&D version was given to half the class and the

expensed R&D version to the other half chosen randomly. Each version was given out in blocks so as to eliminate the risk of participants seeing both versions, and so being influenced in their choice. Each population has been analysed for gender, age and length of experience, and has an equivalent spread of these factors. This methodology has been previously used in Blake et al. (2001).

Our hypothesis is that creative accounting influences the judgement of bank loan officers and this will be reflected in the more favourable assessment of the capitalized version of the statements than the expensed version. The results, as summarised in table 1, support the hypothesis. The capitalized accounts had a 72,5% probability of getting a positive response for the short-term loan in comparison to only 60% in the expensed. Regarding the results for the long-term loan, 70% of favourable responses in the capitalized version versus 55% for the expensed. In both cases, the interest rates were slightly more favourable in the capitalized version.

For Spanish listed companies, this accounting choice will disappear in 2005 so analyst will not be faced with different accounts and this might improve the comparison between companies. Therefore, in this specific area the future development in Spanish regulation is a step toward reducing the number of creative accounting options available.

Table 1: Summary of results

		OPTION A (R+D as expenses)		OPTION B (R+D capitalized)	
		Number	%	Number	%
Would you give the enterprise a short-term loan of 200 million pesetas?	YES	24	60	29	72,5
	NO	16	40	11	27,5
	TOTAL	40	100	40	100
If yes, at what interest rate?	PREFERENTIAL	9	37,5	10	35
	NORMAL	9	37,5	12	41
	ABOVE NORMAL	6	25	7	24

	TOTAL	24	100	29	100
Would you give the enterprise a 5 year loan of 400 million pesetas?	YES	22	55	28	70
	NO	18	45	12	30
	TOTAL	40	100	40	100
If yes, at what interest rate?	PREFERENTIAL	9	41	9	32
	NORMAL	11	50	14	50
	ABOVE NORMAL	2	9	5	18
	TOTAL	22	100	28	100

7. Conclusion

We have seen that ‘creative accounting’ has been regarded primarily as an ‘Anglo American’ problem, but has caused growing concern in Spain, and is widely perceived as ethically undesirable, but has been defended on the grounds that users will both expect it to arise and be capable of identifying it.

We have taken a hypothetical company, presenting the two different accounting treatments allowed for R & D: capitalization and written off the income statement. From the choice of the accounting policy a contrasting view emerges between a favourable and an unfavourable view of an entity’s performance. Presenting these two different views to Spanish bank loan officers we have found that in loan making decisions a choice of favourable accounting policies does lead to a more favourable assessment of an entity’s financial capacity, even though the alternative unfavourable view is clearly identifiable from brief notes to the accounts.

Our study, therefore, adds to the evidence that for one key user group, at least, bias in accounting policy choice does have an impact on user decision. We would argue that this offers some challenge to Revsine's defence of 'earnings management'.

Therefore, the authors would suggest that the development of accounting regulation should allow for the inclusion of self-generated intangible asset in the statements, but it is important to limit the number of alternatives to account for the same transaction in order to reduce the margin of legal options and to facilitate international comparisons.

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OPTION B

Personal data

Age: 22-34 35-44 45-54 more than 55
 Sex: male female
 Number of years of professional experience:

Data about the entity (in million pesetas):

Balance Sheet		Profit and Loss account	
Assets	Liabilities and Stockholders' Equity	Income	
Fixed intangible assets (1) 4.123	Stockholders equity 10.362	15.636	
Fixed tangible assets 18.638	Retained earnings 9.399	- Expenses(1) - 13.124	
Current Assets 2.776	Contingencies 1.670	Operating profit 2.512	
	Long-term debt 2.941		
	Trade accounts payable 1.165		
Total 25.537	Total 25.537	Net Earnings 2.512	

Notes:

1. The fixed intangible assets include the research and development costs of a new project which amounts to 4.123 million pesetas. All this costs have been incurred during the present accounting year. The Board of Directors has trust in the technical success of the project as well as in its economic and commercial profitability and, therefore, has chosen to capitalize the costs which will be amortized in a period of five years.
2. This company has always repaid its loans and, at present, has no debts with any financial institution.

Questions: Suppose that you are a credit analyst of a financial institution and the only information available is the one you just read:

1. ¿Would you lend this entity a short term loan of 200 million pesetas?
 yes no

If the answer is "yes", which kind of interest would you request?

- Preferential interest (for the best clients)
 Normal interest (for average clients)
 Above normal interest (for clients less solvent)

2. ¿Would you lend this entity a 5-year loan of 00 million pesetas?
 yes no

If the answer is "yes", which kind of interest would you request?

- Preferential interest (for the best clients)
 Normal interest (for average clients)
 Above normal interest (for clients less solvent)