technical

research and development

relevant to CAT Paper 6 and ACCA Qualification Papers F3, F7, and P2

fresh beginnings

This article explains the accounting treatment for research and development (R&D) costs under both UK and International Accounting Standards. Both UK and International Accounting Standards recognise the importance of accounting for R&D, but take a different viewpoint as to the method used.

WHY SPEND MONEY ON R&D?

Many businesses in the commercial world spend vast amounts of money, on an annual basis, on the research and development of products and services. These entities do this with the intention of developing a product or service that will, in future periods, provide significant amounts of income for years to come.

THE ACCOUNTING PREDICAMENT

If, in the future, economic benefit is expected to flow to the entity as a result of incurring R&D costs, then it can be argued that these costs should be treated as an asset rather than an expense, as they meet the definition of an asset prescribed by both the Statement of Principles and the IASB Framework for the Preparation and Presentation of Financial Statements. Equally, the argument exists that it may be impossible to predict whether or not a project will give rise to future income. As a result, both the UK and International Accounting Standards provide accountants with more information in order to clarify the situation.

INTANGIBLE ASSETS

Intangible assets are business assets that have no physical form. Unlike a tangible asset, such as a computer, you can't see or touch an intangible asset.

There are two types of intangible assets: those that are purchased and those that are internally generated. The accounting treatment of purchased intangibles is relatively straightforward in that the purchase price is capitalised in the same way as for a tangible asset. Accounting for internally-generated assets, however, requires more thought.

R&D costs fall into the category of internally-generated intangible assets, and are therefore subject to specific recognition criteria under both the UK and international standards.

R&D – DEFINITIONS

Research is original and planned investigation, undertaken with the prospect of gaining new scientific or technical knowledge and understanding. An example of research could be a company in the pharmaceuticals industry undertaking activities or tests aimed at obtaining new knowledge to develop a new vaccine. The company is researching the unknown, and therefore, at this early stage, no future economic benefit can be expected to flow to the entity.

Development is the application of research findings or other knowledge to a plan or design for the production of new or substantially improved materials, devices, products, processes, systems, or services, before the start of commercial production or use. An example of development is a car manufacturer undertaking the design, construction, and testing of a pre-production model.

UK TREATMENT OF R&D

So far we have established that expenditure on R&D can fall into the category of intangible assets. Under UK accounting standards, intangible assets are accounted for using the rules from FRS 10, *Goodwill and Intangibles*.

Even though R&D can be an intangible asset in the UK, accounting for R&D is governed by its own accounting standard

– SSAP 13, *Accounting for Research and Development*.

Recognition

Research

SSAP 13 states that expenditure on research does not directly lead to future economic benefits, and capitalising such costs does not comply with the accruals concept. Therefore, the accounting treatment for all research expenditure is to write it off to the profit and loss account as incurred.

Development

As a basic rule, expenditure on development costs should be written off to the profit and loss account as incurred, as with the expenditure on research. However, under SSAP 13, there is an option to defer the development expenditure and carry it forward as an intangible asset if the following criteria are met:

- there is a clearly defined project
- expenditure is separately identifiable
- the project is commercially viable
- the project is technically feasible
- project income is expected to outweigh cost
- resources are available to complete the project.

If these criteria are met, the entity may choose to either capitalise the costs, bringing them 'on balance sheet', or maintain the policy to write the costs off to the profit and loss account. Note that if an accounting policy of capitalisation is adopted it should be applied consistently to all development projects that meet that criteria.

Treatment of capitalised development costs

SSAP 13 requires that where development costs are recognised as an asset, they should be amortised over the periods expected to benefit from them. Amortisation should begin only once commercial production has started or when the developed product or service comes into use.

Every capitalised project should be reviewed at the end of every accounting period to ensure that the recognition criteria are still met. Where the conditions no longer exist or are doubtful, the capitalised costs should be written off to the profit and loss account immediately.

Problems with SSAP 13

SSAP 13 is not in line with the newer International Accounting Standard covering this area. As seen previously, the UK allows a choice over capitalisation; this can lead to inconsistencies between companies and, as some of the criteria are subjective, this 'choice' can be manipulated by companies wishing to capitalise development costs.

INTERNATIONAL TREATMENT OF R&D

One notable difference between the UK and international treatment is that the UK has a separate standard for the treatment of R&D (SSAP 13), whereas under International Accounting Standards the accounting for R&D is dealt with under IAS 38, *Intangible Assets*.

Recognition

IAS 38 states that an intangible asset is to be recognised if, and only if, the following criteria are met:

- it is probable that future economic benefits from the asset will flow to the entity
- the cost of the asset can be reliably measured.

The above recognition criteria look straightforward enough, but in reality it can prove to be very difficult to assess whether or not these have been met. In order to make the recognition of internally-generated intangibles more clear-cut, IAS 38 separates an R&D project into a research phase and a development phase.

Research phase

It is impossible to demonstrate whether or not a product or service at the research stage will generate any probable future economic benefit. As a result, IAS 38 states that all expenditure incurred at the research stage should be written off to the income statement as an expense when incurred, and will never be capitalised as an intangible asset.

Development phase

Under IAS 38, an intangible asset arising from development must be capitalised if an entity can demonstrate all of the following criteria:

- the technical feasibility of completing the intangible asset (so that it will be available for use or sale)
- intention to complete and use or sell the asset
- ability to use or sell the asset
- existence of a market or, if to be used internally, the usefulness of the asset
- availability of adequate technical, financial, and other resources to complete the asset
- the cost of the asset can be measured reliably.

If any of the recognition criteria are not met then the expenditure must be charged to the income statement as incurred. Note that if the recognition criteria have been met, capitalisation *must* take place.

Treatment of capitalised development costs

Once development costs have been capitalised, the asset should be amortised in accordance with the accruals concept over its finite life. Amortisation must only begin when commercial production has commenced (hence matching the income and expenditure to the period in which it relates).

Each development project must be reviewed at the end of each accounting period to ensure that the recognition criteria are still met. If the criteria are no longer met, then the previously capitalised costs must be written off to the income statement immediately.

EXAMPLE

A company incurs research costs, during one year, amounting to $125,000, and development costs of $490,000. The accountant informs you that the recognition criteria (as prescribed by both SSAP 13 and IAS 38) have been met. What effect will the above transactions have on the financial statements when following either the UK or International Accounting Standards? (See page 45 for the answer.) ■

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Example: Answer

UK
Option 1: expense all costs

	Profit and loss account extract	**Balance sheet extract**
Expenses:		
R&D	615,000	

Option 2: Expense research as required and capitalise development costs

	Profit and loss account extract	**Balance sheet extract**
Expenses:		
Research	125,000	
Intangible asset:		
Development costs		490,000

International

	Income statement extract	**Balance sheet extract**
Expenses:		
Research	125,000	
Intangible asset:		
Development costs		490,000

Summary

	UK **SSAP 13**	**International** **IAS 38**
Research costs	Expense	Expense
Development costs	Choice policy. If the recognition criteria are met, the company can choose to capitalise (if there is a reasonable expectation of future benefit) or expense.	Must capitalise if the recognition criteria are met (must be able to demonstrate future benefit).
	Amortise when commercial production begins.	Amortise when commercial production begins.
	Review annually to ensure criteria are still met – if not, expense.	Review annually to ensure criteria are still met – if not, expense.
	Expense if any of the recognition criteria are not met.	Expense if any of the recognition criteria are not met.