Influence of Internally Generated Intangible Assets on Financial Statements Prepared in Accordance with IFRS#

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Introduction

Internally generated intangible assets are reported by a number of companies, including multinational corporations, from different industries - ranging from engineering and car industry over pharmaceutical industry to petrochemical industry etc. – that prepare their financial statements in accordance with International Financial Reporting Standards (IFRS); the existence of these assets is closely connected with the issue of research and development (R&D). The scope of using IFRS is in the Czech Republic set out in Act No. 593/1991 Coll., on Accounting, as amended; a brief interpretation of corresponding legislative rules and regulations is provided by Vašek (2012) and can be seen as the basis for this article. As an example, the consolidated income statement of the joint-stock company ŠKODA AUTO (2013) – currently the leader of "Czech Top 100" (2013) – for 2012 prepared in accordance with IFRS shows research and development costs in the amount of CZK 7,345 million, and in the balance sheet as at 31 December 2012 the capitalised development costs, that will influence the consolidated income in the future, amount to CZK 14,333 million. To give another example, in the consolidated financial statements of UNIPETROL, a. s. (2013), the research costs recognised as espenses reduce the net income for 2012 by CZK 10.514 thousand, and the capitalised development costs are reported in the

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Ranking fifth in the current "Czech Top 100".

residual amount of CZK 105,874 thousand as at 31 December 2012. It is evident that these amounts are anything but negligible; especially in the case of ŠKODA AUTO, a. s. the line item has a significant impact on the overall picture provided by the financial statements – capitalised development costs account for 76 percent of consolidated intangible assets (as at 31 December 2012) and 8 percent of all consolidated assets (as at 31 December 2012). In pharmaceutical industry the risk of carrying out R&D is usually considerably higher than in the previously mentioned industries and in the consolidated financial statements of Sanofi group – Zentiva Group a. s., the Czech firm, is a part of this group – consolidated research and development costs run into millions of euros. The last example is a Norwegian group Visma (2013), including the Czech firm Active21, s. r. o., that provides domain names and web hosting related services and reports software research and development costs for 2012 in the amount of NOK 317,639 thousand (about EUR 39 million).

If a company/group wants to be the industry leader or one of the key "players", it simply has to conduct research and development, at least to a certain level, and keep on working on new products and services that will attract new customers in the future, be society and environment-friendly and most importantly generate positive cash flow. Of course, this poses a risk – to varying degrees for individual companies and industries – whether the research and especially development activities will be successful and have a positive impact on the value of the company. This is reflected by IFRS rules and regulations on the recognition of R&D and related costs in the financial statements prepared in accordance with IFRS.

1 Intangible aspect of research and development in financial reporting under IFRS

Research and development under IFRS is regulated by IAS 38 *Intangible Assets* and despite the substantial differences between IFRS and U.S. GAAP in this area and the ongoing convergence project, the standard has seen no recent amendments and no changes are planned for the nearest future. In any case, the long term stability is to companies' advantage. Research and/or development may result in product recipes, prototypes, debugged structures, new composition or design of the product, improved production process, new functionality of an existing product, tested and well-chosen materials or even new internet sites (Procházka, 2011). To simplify slightly, the goal is to develop knowledge that would be useful for the company in its future business activities and

so the area is ruled by the intangible assets standard. As a result, an intangible asset may be recorded and the initial expenditures recognised as expenses only at the time when the development activity starts generating revenues and cash inflows, i.e. at the time of the sale of cars, drugs, fuel etc.

Intangible assets can generally be acquired in two ways: either (i) purchased (separate acquisition of a given intangible asset – licence, franchise, software and even results of research and development activities of another company - or purchased as a part of a business combination when intangible assets, including the results of research and development activities, are identified among the range of acquired net assets), or (ii) internally generated. In the first case, recognition of intangible assets poses no problem; quite the contrary, the IFRS recognition criteria - identifiability, control, future economic benefits and reliable measurement – are expected to have been met. As regards R&D, entities disclose in their financial statements line items called "In-process Research and Development (IPR&D)" measured at historical cost (or at fair value in case of a business combination) and amortised over a period of time in which the entity uses it for the production and sale of its products/services. The entity can also reduce its value when expecting lower or even zero returns (recognises an impairment loss). This approach is similar to that of any other purchased intangible asset.

However, the approach changes when looking at the internally generated intangible assets – the second way of acquiring intangible assets – potentially an outcome of internal R&D; their recognition and measurement is subject to additional specific IFRS requirements because the decision based solely on generally and widely applicable principles can be rather difficult and complex.

Every intangible asset, including internally generated one, from research and development activities, must comply with the intangible asset definition that implies the following characteristics:

• identifiability, i.e. the potential of an intangible asset to be to distinguished from goodwill; this is realised when an intangible asset is (i) capable of being separated from the entity (can be sold, transferred, licensed etc.) or (ii) arises from contractual or other legal rights (acquired licence, franchise, protected recipe, registered trademark etc.). In the case of R&D, there is a risk involved in dividing the results and related costs from the cost of maintaining

- and enhancing internally generated goodwill, i.e. general awareness, knowledge about the entity, its good name in society;
- control, which means the capacity of an entity to obtain the future economic benefits form the given asset and restrict the access of other entities/people to these benefits (based on licences, copyrights, treaties on employees and information confidentiality, registered trademarks etc.);
- the capacity to bring future economic benefits may include revenue from sale of products/services (connected to the intangible asset the outcome of research and development activity) or cost savings (introducing more efficient production process, reduction of personnel costs).

An intangible asset can be recognized in the balance sheet – capitalised – if it meets, apart from the definition characteristics, also the following recognition criteria that consist in (i) the probability that the future economic benefits will flow to the entity; and (ii) the reliability of the measurement. And for the internally generated intangible assets, i.e. results of R&D, here lies a risk and IAS 38, therefore, introduces additional and more detailed rules distinguishing the research from development phase.

2 How and when to recognize research and development in the financial statements

IAS 38 defines research as original and planned investigation undertaken with the prospect of gaining new scientific and technical knowledge and understanding, and as examples of research activities the Standard mentions activities aimed at obtaining new knowledge; searching for, evaluating and finally selecting applications of research findings; looking for alternative materials, devices, products, processes, systems or services; and formulating, designing and finally selecting possible production alternatives. In the context of IFRS, the main point when considering research is the fact that although there is no question about the usefulness of research for the entity, a significantly high risk stems from the inability to fulfill the criterion of probable future economic benefits; in other words, the probability that the future outcome of current research activities will bring the entity positive cash flows to cover all the expenditures incurred during the research phase. The risk is huge, Procházka (2011) describe research activities as "experimental with unpredictable results", and, therefore, IAS 38

requires all expenditures on research to be recognised and disclosed as expenses reducing net income when incurred. Any capitalisation of these expenditures and their presentation in the statement of financial position is forbidden regardless of the nature of the expenditure – it can be wages and salaries, purchased external services, various consumed materials as well as specific equipment used over a longer period of time.

IAS 38 defines development as the advancing or advanced research stage, in particular the application of research findings or other knowledge to a plan or design for the new or substantially improved materials, devices, products, processes, especially before the start of commercial production or use. According to the Standard, development activities include the design, construction and testing of prototypes and models in their pre-production/pre-use phase; the design of tools or forms involving new technology; the design, construction and operation of a pilot plant that is not of a scale economically feasible for commercial production. As such development has more specific characteristics and under the ideal conditions should lead to the creation of commercially feasible product/service. The probability of future economic benefits and cash flows to the entity from the results of the development phase is already higher in comparison with the research stage and the recognition of an intangible asset is essentially expected. Yet the basic principle is further complemented by other rules and an entity must meet all six following requirements in order to recognise and measure the intangible asset (development cost):

- 1. the technical feasibility of completing the intangible asset is such that it will be available for use or sale:
- 2. there is an intention to complete the intangible asset and use or sell it:
- 3. the entity is able to use or sell the intangible asset;
- 4. the entity can demonstrate how the intangible asset will generate probable future economic benefits; it can demonstrate the existence of a market for the output of the intangible asset or the intangible asset itself or, if it is to be used internally, the usefulness of the intangible asset;
- adequate technical, financial and other resources to complete the development and to use or sell the intangible asset are available; and
- 6. the entity is able to measure reliably the expenditure attributable to the intangible asset during its development.

To put it simply, the requirements force an entity to prove that the outcome of the development will provide cash inflows. Yet the requirements are not completely objective, to wit independent of the entity and its management. Fulfillment of requirement (2) depends on stated and declared management intention supported by a business plan and strategy. Requirements (3), (5) and (6) depend on the character of the development activity as the development of a drug, new car or antivirus program differs with respect to a possible regulatory permission prior to the commercial feasibility as is the case for drugs and the financial position of an entity, its health, availability of own resources or ability to borrow necessary resources (so called entity-specific conditions); if necessary, this can be supported by various promises to grant a loan. Requirement (4) is in a way quite restrictive as its fulfillment is linked to the test of assets' carrying amounts, or cash generating units as defined by IAS 36, i.e. include the potential intangible asset from development, or its future impact in the projection of discounted cash flows.

This individualistic character and entity subjectivity impose demands also on auditors when auditing the financial statements to check whether the entity chose the approach satisfying the requirements and whether it (i) does not capitalise still risky intangible assets which are not allowed to be capitalised and the entity's intention is to be overly optimistic in its expectations and so postpone the potential losses into future periods or, on the contrary, (ii) does not capitalise intangible assets due to excessive caution despite the fact that the completion of development and its future usefulness is rather probable. Under IFRS, an entity has no choice and simply has to capitalise development costs as soon as the requirements are met. Of course, past experience and a success of previously completed development do play a role.

The ability to clearly divide the research phase from into the development phase lies at the core of capitalisation. IAS 38 defines R&D and at the same requires research phase expenditures to be recongised as expenses and vice versa development phase expenditures to be capitalised as an intangible asset once the specific requirements are met. While research and development phases are broader terms used to represent certain time periods, R&D is more or less linked to the activities themselves. Research phase is usually longer than the research itself and continues into the period of development activities as long as the requirements are not yet fulfilled and the developed project cannot be seen, with high enough probability, as economically viable for the future. The development phase can also extend into the period after commercial

start when the development results are still "fine-tuned" e.g. as a response to customers' reactions. Certain risk for both accountants and auditors when choosing the right accounting approach lies in the fact that an entity and its employees can already see the activities as development while for IAS 38 they are still only in the research phase. If an entity cannot clearly distinguish between the research and development phase, it must treat all relevant expenditures as if incurred in the research phase only and expense them immediately.

3 Measurement of research and development based on historical costs

Proper identification of the development phase and the following fulfillment of requirements for the obligatory capitalisation play also an essential role in the correct measurement of the new intangible asset. An entity shall not capitalise expenditures that have already been expensed. Expenditures to be capitalised need first to satisfy all IAS 38 requirement; the focus of attention is on periods when expenditures are first recognised as expenses and only then all the requirements are met, and the entity comes with an idea to capitalise the expenditures arguing that it anyway all happened within the same accounting period. This approach goes against IAS 38. Moreover, these expenditures might have been disclosed as expenses in the interim financial statements and with respect to the continuity of accounting periods they cannot suddenly be capitalised.

Capitalised development cost recognised as part of the cost of internally generated intangible asset comprises all directly attributable costs necessary to create, produce, and prepare the asset to be capable of operating in the manner intended by management; IAS 38 supplements this general definition with examples mentioning e.g. costs of materials and services used or consumed in the development, costs of employee benefits arising from the development or fees to register a legal right. Internally generated intangible asset can also become a qualifying asset in which case the borrowing costs (interests and fees) constitute an element of its cost in accordance with IAS 23 *Borrowing Costs*.

In comparison, the following items cannot become components of the cost: selling, administrative and other general overhead expenditure unless this expenditure can be directly attributed to preparing the asset for use, any inefficiencies and initial operating losses incurred before the asset achieves planned performance as well as expenditure on training staff to manage or operate the intangible asset.

As soon as the development phase is finished and an entity starts using the outcome recognised as an intangible asset for its business activities – producing and selling new products, providing new services – the amortization period usually begins. For the amortisation purposes, IAS 38 distinguishes:

- intangible assets with finite useful lives that are amortised usually using the straight-line method over its estimated useful lives determined by economic and legal factors; and
- intangible assets with indefinite useful lives that are not systematically amortised but annually tested every 12 months for impairment.

The outcome of the development belongs usually to the first category and in most cases a finite useful life can be estimated, determined especially by the expected selling period of the new product.

4 Are Requirements on Presentation and Disclosure Sufficient to provide Useful Information?

The conceptual framework for financial reporting based on IFRS specifies the so called qualitative characteristics of accounting information whose fulfillment ought to ensure that presented and disclosed information is useful for the users and their economic decisions. For detailed explanation of individual characteristics see Vašek (2012). Information about R&D is definitely highly relevant – both with respect to the related risk and potentially high rewards in case the entity succeeds – for the users and it is perfectly adequate to demand additional information on the impact of connected transactions on the overall entity's financial situation and performance. From the enhancing characteristics, comparability is to be mentioned allowing the users to compare presented information in time and between individual entities, which increases the usefulness of such information for decision purposes. In this context, presentation and disclosure differ between companies and there are both subtle and noticeable differences in their actual reporting.

It is quite evident that assessing the existence of research or development for the IFRS purposes is not an easy matter; however, this fact is not adequately reflected in the requirements for disclosure in the financial statements, namely in the notes section. An entity has one crucial obligation to present the amount of R&D expenditures recognised as expenses during the period; this amount does not need to be presented directly on the face of the statement of comprehensive income, disclosure

in the notes is enough. Even though IAS 38 does not further elaborate on the issue, the presented amount is to be the sum of (i) R&D expenditures incurred during the given period and not capitalised as the requirements have not yet been met, and (ii) previously incurred and capitalised expenditures amortised during the presented period. Approaches of individual companies differ and not all the presentations fully comply with the IAS 38 obligation, which somehow reduces the above mentioned comparability. The following approach is used in the consolidated financial statements of ŠKODA AUTO, a. s. that recognised in its income statement for 2012 R&D costs amounting to CZK 7.345 million out of which CZK 4,848 million are non-capitalised research and development costs and the rest are, therefore, amortisation and impairment losses of development costs. In comparison, UNIPETROL, a. s. presents in the notes to its consolidated financial statements for 2012 an item called "Research costs" in the amount of CZK 10,514 thousand; however, the amount of costs recognised as expenses or total R&D costs are not disclosed. Yet, there is no question about the existence of capitalised development costs and their amortisation over the period of four years. Sanofi presents directly in the income statement for 2012 an item "Research and Development Costs" of EUR 4,922 million which includes only non-capitalised R&D costs. Capitalised development costs are hidden within the set of intangible assets and their respective amortisation and no detailed information about their size is provided.

Further information disclosed in the financial statement already refers to intangible assets in general and the reconciliation of their values. Information is provided for individual classes that IAS 38 defines as groupings of assets of a similar nature and use in an entity's operations. Capitalised development costs do not need to be an independent class even though it is definitely to be considered. ŠKODA AUTO, a. s. classifies development costs into two classes: (i) capitalised development costs of manufactured products and (ii) capitalised development costs of products under development; the reconciliation table for the opening and closing balances thus shows the amount of newly capitalised costs or the amounts transferred between individual classes when a development phase is completed. In comparison, UNIPETROL, a. s. includes capitalised development costs within the remaining class under the heading "Other Intangible Assets", so there is no detailed information about the changes in their values over time. Similar approach is adopted by Sanofi. And slightly different approaches could be discovered in many other financial statements prepared in accordance with IFRS, which further stresses the importance of maximum caution both when checking this area in the financial statements and when ensuring that all the relevant requirements are met.

Fulfilling the requirements for the capitalisation of development costs impacts not only the statement of financial position, income statement and the notes, but also the statement of cash flows; for more details see IAS 7 Statement of Cash Flows. Expenditure recognised as cost of an internally generated intangible asset is classified in the statement of cash flows within the cash flow from investing activities (Vašek, 2006a, 2006b), while non-capitalised expenditures from both research and development phases are recorded within the operating activities. Taken from an entity's point of view and its financial management, the decision on the development phase and the obligatory capitalisation of expenditures can be influenced by the current level of "CAPEX" or capital expenditures.

To achieve higher level of comparability and, at the same time, to end the recurrent discussions – within the entity or between the entity and its auditors – whether or not to capitalise the expenditure incurred during the development and whether or not all the requirements have been met, all that needs to be done is a minor change in IFRS to reconcile them with the already for long time existing rules and regulations of U.S. GAAP. As stated above, there is a fundamental difference between IFRS and U.S. GAAP in the area of R&D as U.S. GAAP requires all expenditures incurred in the research and development to be immediately recognised as expenses and thus forbids any kind of capitalisation (Vašek, 2005). For example 3D Systems Corporation, that recently focused its long-term business activities on the more and more discussed 3D printing technology and its use for private and industry purposes, presents research and development expenses amounting to USD 23,203 thousand in 2012, with a year on year increase of 62 percent in comparison with 2011 and 216 percent with 2010. Looking at both, its operating income and total income together with highly positive cash flow from operating activities, the company seems to be doing well and yet it must satisfy the strict and categorical requirement forbidding any capitalisation.

Since 2002 IFRS and U.S. GAAP have been part of the convergence process and intangible assets together with the research and development represent one of the issues to be tackled. Nevertheless, in December 2007 any common reconciliation activity – that would also introduce a unified approach to research and development – was interrupted and until now has not been resumed. And that is why there will still be differences

between financial statements prepared in accordance with IFRS or U.S. GAAP, which goes against the goal of worldwide comparability.

Conclusions

Research and development represent a very complex area of financial reporting based on principles and requirements of International Financial Reporting Standards because it addresses entities' internal activities whose outcome can be eventually recognised as an internally generated intangible asset. Companies involved in so distinct industries as mechanical pharmaceutical industry. software engineering engineering. petrochemical industry invest considerable sums of money to gain new knowledge which could be further used in their business activities. Sometimes they are successful, at other times their efforts are fruitless and they must start all over again – search somewhere else and learn something new. In any case, their activities are connected with experimental risk and an uncertainty about the potential outcome and, therefore, the IFRS accounting rules are cautious and very careful. But not to such an extent as U.S. GAAP accounting rules that are still considerably stricter.

Since IFRS require the capitalisation of expenditures incurred during the development phase once all the specific requirements laid down in IAS 38 are fulfilled, entities have no choice but to distinguish between research and development and assess the technological feasibility and commercial viability of the development outcome. And because the assessment, whether or not these requirements are met, is heavily dependent on the entity and its management, there is room for earnings management as pointed out by Welc (2011) in his research paper. In extreme case, certain level of unlawful conduct in accounting can be considered (Molín, 2012).

Comparability of information about research and development provided in the financial statements of various companies is far from perfect as demonstrated by the excerpts from real companies' financial statements – discrepancy in the terms used causes uncertainty about the meaning of the disclosed items – and certain clarification of the requirements would be quite useful for improving the presentation based on IFRS. A possible alternative for IFRS is to move in the direction of U.S. GAAP, not for the first and definitely not for the last time, to disallow development costs capitalisation and to recognise them as expenses when incurred as is the case with research costs. Incidentally, this is also the approach adopted by the IFRS for SMEs. So simple and straightforward, yet so efficient and comparable.

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ABSTRACT

This article looks at the very intricate and highly contentious issue of internally generated intangible assets as presented in the financial statements prepared under IFRS, with a special focus on research and development. In the first section, intangible assets are defined and then further classified as either purchased or internally generated; crucial distinction when choosing the right approach. The second section deals with research and development in a greater detail and provides not only a number of answers, but also raises several key questions, e.g. the question of objectivity and possible earnings management. Third section is devoted to measurement issues and in the last section, the reader finds excerpts from financial statements of different companies from various industries which illustrate the fact that some useful information is clearly missing. The conclusion suggest an easy, yet very efficien solution in tune with the ongoing convergence process between IFRS and U.S. GAAP, namely to move IAS 38 in the direction of U.S. GAAP and to forbid any capitalisation of development costs.

Key words: IFRS; Financial Reporting; Research; Development.

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