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# **The Value Relevance of Accounting in R&D-Intensive Firms**

*A qualitative study of accounting relevance in R&D-intensive firms and what information is considered relevant by CFOs*

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## Abstract

This master thesis aims to investigate how relevant accounting is for R&D-intensive businesses, and what information is or could be used to compensate for the reduced relevance over the years.

There is a wide agreement that accounting for intangible assets is still an unresolved problem, as there is only one existing IFRS standard, *IAS 38 – Intangible Assets* – that covers the accounting treatment for these assets. This standard has a “one solution fits all” for the different kinds of intangible assets, and this thesis will explore if there is a need for a different way to present information regarding R&D.

This study differs from most value-relevance studies in that this is a qualitative study with an explorative approach, rather than quantitative studies measuring how accounting information affects share prices. This is done to gain a deeper understanding of the current challenges of accounting in R&D and intangible intensive industries. The data collected in this study comes from interviewing industry professionals who are responsible for the annual report. These industry professionals consist mostly of CFOs. These individuals have experience in working with the annual report and in providing relevant information to the capital markets, and therefore has practical knowledge of R&D accounting.

The study first aims to understand how relevant CFOs believe their respective financial statements are. Further, it seeks to understand the challenges of providing adequate accounting information on R&D. We later investigate what the CFOs believe is the appropriate or more suitable way to provide relevant information on R&D, as strict accounting rules prohibit them to capitalize these amounts.

Our study has resulted in several interesting findings. First, our study may indicate that the comprehension level of IFRS and accounting standards is low among CFOs. Second, we find that there seems to be an overstated emphasis on capitalizing R&D costs in the balance sheet, as most view accounting information on R&D to be relevant in other section of the financial statements. Lastly, our findings indicate that most R&D intensive firms are more dependent on the management report, rather than the financial statements.

## Foreword

This master thesis is our final task of our master studies at NHH. Our thesis is written within the major “BUS” or “Business analysis and performance management”, and focuses on the accounting relevance of R&D. Our work with this thesis started in January 2022 and was ultimately completed in May 2022. During this time, we have spent a lot of time reading, learning and understanding the problem of accounting relevance, and have further narrowed it down to firms dependent on R&D efforts. Hopefully, the insight acquired will be useful for us when going into the field of auditing. We have both acquired a deeper understanding of the topic investigated here.

We are very grateful for the help received from our supervisor, Kjell Ove Røsok, who aided us in finding a suitable topic to write about. The discussions and feedback we have received has been very helpful for us, and we appreciate the engagement he provided us during guidance meetings.

We would also like to thank all the participants who provided us with rich and informative data, as well as highly interesting discussions. We appreciate them for taking the time to participate during the notoriously busy season of finishing the annual report. Not only was it helpful to receive data, but it was also fun discussing this topic with the participants, as their background and experiences provided us with many interesting perspectives. This thesis would not be possible without their contribution.

We hope this thesis and its findings provides the reader with new perspectives and interesting ideas for further research, as well as new insights. We can assure that this has been a fun learning experience, and hopefully the reading is equally interesting.

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# 1. Introduction

Financial accounting has a long history, and its uses has developed with its increasing complexity. Historically, the financial statements provided by a company used to be the most important form of communication between the firm and the capital markets (Bernhoft, Kvitte & Røsok, 2018). Furthermore, the financial statements are also an important and reliable source of information, providing different stakeholders the necessary information to evaluate a company's performance. Due to digital and information technology, more information is available for the stakeholders, but despite this, financial accounting seems to be losing its relevance. Some point to the fact that the financial accounting rules have remained unchanged over the years, while the economic- and business environment has evolved radically. This seems to indicate that accounting is outdated in terms of the new ways of doing business.

An important reason for this is the fact that the economy is increasingly becoming more dependent on intangible assets, and many of which are not recorded on a firm's balance sheet. While this has been a point of interest over the years, there still does not exist a clear solution. IASB has developed *IAS 38 - Intangible assets* which effectively tries to place all intangible assets under one standard, as if they were similar in nature (with some specific requirements and rules for certain intangibles e.g., R&D). The standard shares some similarities with the standard for tangible fixed assets *IAS 16 - Property, plant & equipment*, but there are some minor differences.

In this thesis, we aim to investigate the relevance of financial statements for businesses dependent on R&D-activities. As current rules on the capitalisation of R&D are very strict, most R&D-intensive firms are prohibited to capitalize internal development in their balance sheets, making their financial statements seem irrelevant to investors and analysts. Our objective is to gather CFOs' views and opinions on the financial statements, and to explore whether there is a need and demand for more information in the financial records of a R&D-firms company. Therefore, we aim to answer the following research question:

*“How relevant does CFOs of R&D-intensive firms believe their financial statements are, and what information on R&D could improve the and relevance?”*

Multiple issues that will be raised here are inspired from Lev & Gu's (2016) book on the relevance of accounting numbers *“The end of accounting”*. This book raises some important

questions and presents interesting views on the matter that will be highly relevant during this thesis. Additionally, European Financial Reporting Advisory Group (EFRAG) has issued a discussion paper on how to improve accounting for intangibles, which proves that this topic is highly relevant.

Following this introduction will be a review of existing theory and literature on the topic, which will lay the foundation for our research. Following the review will be a section describing our methodological choices and approaches to answer our research question. The results will then be presented from our data collection and an interpretation of it. Lastly, we present our findings and our conclusion.

## 2. Literature review

In this chapter, we aim to cover and present existing findings and literature on the topic of accounting relevance in regard to intangible assets, and more specifically R&D. We will begin by describing the current rules set out by IFRS on accounting for intangible assets, and its implications. We then aim to describe the qualitative qualities/characteristics of intangible assets to explain why they matter in today's economy. We will then narrow our review towards the topic of accounting relevance before narrowing further down towards accounting treatments of R&D. After the existing findings have been presented, a summary will be presented, concluding the most important findings and how this research can provide new insights into this topic.

Our focus is on IFRS' treatment of R&D. However, a lot of research is conducted with regards to USGAAP, which have different rules for the treatment of R&D. Therefore, a brief description of the two accounting treatments of intangibles and R&D is necessary. Even though they have different rules regarding the topic, the findings for USGAAP and US firms are still relevant for IFRS to a large extent, in our opinion. We will also consider accounting rules for Norwegian GAAP (NGAAP), since IFRS and NGAAP have similar treatments of intangible assets and R&D.

### 2.1 Intangible assets

Intangible assets may be easy to understand in the broader sense, as it is simply assets that lacks physical embodiment. This means in practice that intangible assets are those one can observe the effects of, but not be able to see, touch and feel ourselves. Lev (2001, p. 5) has defined intangible assets as *“a claim to future benefits that does not have a physical or financial embodiment”*. This definition is very similar to that of IFRS' standard on intangible assets IAS 38 which has defined them as *“an identifiable non-monetary asset without physical substance”* (IAS 38.8), where IFRS has defined an asset as being *“a resource controlled by an entity as a result of past events and from which future economic benefits are expected to flow to the entity”* (IAS 38.8). From these definitions, we see that the intangible assets have an observable effect while the asset itself is not visible due to the lack of physical substance.

When the NGAAP was developed, it was done with the intention of harmonizing with the international standards of IFRS (Bernhoft, Kvifte & Tofteland, 2011). Therefore, there are



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many similarities between the two accounting languages. It is therefore not surprising that the Norwegian definition of intangible assets are very similar to that of IAS 38. NGAAP (NRS 19, 2012) has defined intangible assets as follows: “non-monetary items without physical substance that the entity uses in the production or sale of goods and services, to rent out to other entities, or for administrative purposes, and that are:

- A) Identifiable
- B) Controlled by the entity in a way that the future economic benefits are expected to flow to the entity” (Translated by authors).

Baksaas & Hansen (2010) has described NGAAP’s criteria for identifiability as follows:

1. The asset is separable. This means that the asset can be sold or leased out separately. Examples are trademarks, customer lists and software
2. The asset arises from legal rights. This can be, but not limited to, a public concession, licenses, and patents”

The criteria of identifiability in NGAAP and in IAS 38 are almost identical, and the differences are likely due to translation. In IAS 38, identifiability has the same criterion for separability, and this tests whether an entity has the ability to transfer an asset from other assets and to other parties (Picker, Clark, Dunn, Kolitz, Livne, Loftus & Van Der Tas, 2019). The second criterion for identifiability in IAS 38 is that it “arises from contractual or other legal rights” (Picker et al., 2019). Therefore, there are similarities in how IFRS and NGAAP defines intangible assets.

### **2.1.1 Groups of intangible assets**

While IAS 38 does not explicitly explain which items are classified as intangible assets, it does however present common examples of the types of intangible assets one typically can find. In IAS 38.9, one can see that the list consists of the following examples: computer software, patents, copyrights, motion picture films, customer lists, mortgage servicing rights, fishing licences, import quotas, franchises, customer or supplier relationships, customer loyalty, market share and marketing rights. In a broader definition, the standard mentions scientific or technical knowledge, design and implementation of new processes or systems, intellectual property, market knowledge and trademarks. This thesis will focus on the accounting of R&D and which may be considered the most important intangible asset discussed in IAS 38.

### 2.1.2 Recognition and measurement of intangible assets

Once an asset meets the definition of an intangible asset, it further must fulfil two more criteria in order to be recognised. In paragraph 21 of IAS 38 we find that the criteria are: (1) it is *probable* that the future economic benefits attributable to the asset will flow to the entity; and (2) the *cost* of the asset can be measured *reliably*. These criteria are also found in IAS 16 *Property, Plant and Equipment*. Initial measurement shall however be measured at cost as stated in paragraph 24 of IAS 38, and if cost cannot be reliably measured, but only its fair value, the intangible asset cannot be recognised (Picker et al., 2019). Subsequent measurements can either be done by using the *cost model* or the *revaluation model* which can be found in paragraph 72 of IAS 38. One thing to note with the revaluation model is that the fair value shall be measured with reference to an active market, as is the standard for fair value measurement models. This, however, is very rare for intangible assets. Intangible investments are usually firm specific, and difficult to sell, and therefore there usually does not exist an active market for intangible assets. This means that the cost model is the most appropriate one to use for subsequent measurement of intangible assets.

### 2.1.3 Recognition asymmetries

The recognition rules of IAS 38 have caused some problems and discussions, as there are asymmetries in the recognition of them. The first is the fact that the initial recognition of internally generated assets that are allowed to be recognised, must be recognised at cost, while intangible assets acquired in business combinations shall be recognised at fair value at the date of acquisition in accordance with *IFRS 3 – Business Combinations*; internally generated cannot (Picker et al., 2019). Further, if an entity acquires an intangible asset in a separate acquisition, it shall be measured at the cost of acquiring this asset. Intangible assets acquired separately are usually recognised as assets, as the price paid often reflects the expectations of the future economic benefits that will flow to the entity, thereby fulfilling the probability criterion. The second problem is the issue of which assets can and cannot be recognised. There are many assets that meets the definition of an intangible asset, but there are some internally generated assets that does not quite meet all the requirements. These are, but not limited to, internally generated brands, customer lists and, employee training just to mention a few. The typical shortcoming of these types of assets is that they either do not meet the definition of “control” which is a criterion to be classified as an asset, or that the intangible’s future economic benefits are too uncertain, failing to meet the *probability criterion* for inflow of

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benefits. These types of assets can be recognised if they are acquired in a business combination, and usually if they are acquired separately.

This recognition asymmetry has been debated in terms of the incentives it creates for management to prefer acquiring R&D and other technologies, rather than developing the internally, as it enables them to improve their respective financial records (Lev & Gu, 2016).

### **2.1.4 Characteristics of intangible assets**

In their 2018 book *Capitalism Without Capital*, Haskel and Westlake (2018) highlight and discuss how the economy has shifted towards more investments in intangibles. In this book, they present four inherent characteristics of intangible assets/investments that are not found in the accounting language, but which makes them more comprehensible. The four characteristics, which together make up the “4s” are:

- (1) that they are often sunk cost investments (*sunkness*);
- (2) that they generate spillovers;
- (3) they are scalable; and
- (4) that they often create synergies.

***Sunkness*** relates to the fact that most investments in intangible assets are irreversible and hard to recover, especially when compared to tangible investments (Haskel & Westlake, 2018). Lev (2001) also argues that intangible investments have a higher prospect of total loss of investment, while this is more uncommon for physical or financial investments. Sunkness therefore is an important characteristic of intangibles, as this increases the riskiness of the investments. A common example is the research and development of a new drug. If the money invested in the research yields no results, the investment cannot be recovered, as there is no alternative use. Alternative usage is another reason for the sunkness of intangibles compared to tangibles. Intangible investments are often firm specific, while tangibles are usually more fungible (Haskel & Westlake, 2018).

***Spillovers*** is described by Haskel and Westlake (2018) as a characteristic that makes intangible investments relatively easy for other companies to benefit from, even though they do not invest in them. Lev (2001) mentions that spillovers come from partial excludability, and that the firm

undertaking the investment is unable to prevent others from benefiting of the intangibles. However, this characteristic may have important implications, as it enables organizations to learn from each other (Lev, 2001). This has implications for geographical and newly termed “clusters” to appear, like Silicon Valley in San Francisco. Here, innovation spillovers are high, and the surrounding companies benefit from this, further driving the innovation process (Haskel & Westlake, 2018). Spillovers are also important in that there is a premium for both those who can protect and utilize their intangible investments themselves, and for those who are able to greatly benefit from others’ investments. Griliches (1992) reviewed some studies on spillovers from R&D and found that spillovers are present and large, and that they have strong social rates of return.

*Scalability* relates to how easy it is for companies to scale up their intangible investments with little or no additional cost. This is applied to many sorts of intangible assets, and once an intangible asset has been created, it can be used multiple times at once, at different places (Haskel & Westlake, 2018). In contrast, physical tangible assets cannot. The idea of scalability is derived from the concept of “non-rivalry”, which basically means that even though one firm is using an idea or design (intangible asset), others can use it at the same time, while if one firm is using a machine or equipment, others cannot use that exact same tangible asset (Haskel & Westlake, 2018). What can be inferred from this characteristic, is that once a successful investment in intangibles is completed, the asset can be used repeatedly without having to incur additional costs (or at least very little costs), while still enjoying the benefits.

*Synergies* is the last characteristic, and this relates to the idea that intangible assets alone does not yield much value, but combined with other assets, the value increases (Haskel & Westlake, 2018). Wyatt (2008) highlights the fact that R&D investments are different from traditional capital expenditures in that the investment in R&D is to generate innovations, and the capital expenditures are necessary to produce the outcome of that innovation. For example, there is no use for Tesla to research and design electrical cars if they do not intend to invest in manufacturing plants to produce them.

### **2.1.5 Accounting for Research and Development (R&D)**

Unlike NGAAP, IFRS does not explicitly categorize R&D as an intangible asset. It does, however, acknowledge R&D as an intangible asset, but the accounting treatment for it is rather strict. IAS 38 requires all research to be immediately expensed. Research is defined by IAS

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38.8 as “*Original and planned investigation undertaken with the prospect of gaining new scientific or technical knowledge and understanding*”. When research is conducted internally, all its expenditures shall be expensed immediately. The reason that internal research is not permitted to be recognised as an asset is because an entity cannot prove reliably that there will be economic benefits flowing to the entity (Ernst & Young LLP, 2021).

Development is defined by IAS 38.8 as “*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*”. In contradiction to research, IAS 38.57 requires capitalization of development costs if the entity is able to demonstrate all of the following:

- (a) *The technical feasibility of completing the intangible asset so that it will be available for use or sale;*
- (b) *Its intention to complete the intangible asset and use or sell it;*
- (c) *Its ability to use or sell the asset;*
- (d) *How the intangible asset will generate probable future economic benefits. Among other things, the entity 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;*
- (e) *The availability of adequate technical, financial and other resources to complete the development and to use or sell the intangible asset; and*
- (f) *Its ability to measure reliably the expenditure attributable to the intangible asset during its development.*

As one can see from the six listed criteria, capitalization of development expenses requires judgement and there are several aspects that has to be fulfilled before capitalization is allowed. These criteria are considered strict and stringent by some, but nonetheless ensures that entities do not capitalize unrecoverable costs that are unlikely to generate income in the future (Ernst & Young, 2021).

USGAAP, more specifically SFAS 2, requires full expensing of all R&D activities, arguing that the economic benefits from R&D are more difficult to measure than from those arising from investments in capital expenditures (FASB, 1974). Prior to 2021, NGAAP permitted the recognition of research if certain criteria are met (Baksaas & Hansen, 2010), but this was

changed to become more similar to IAS 38, requiring all research to be expensed. This means that at one point, the three different accounting languages mentioned here all had different rules for what an entity could and could not capitalize.

As mentioned in section 2.1.3 *Accounting asymmetries*, there are different treatments of recognising intangibles depending on whether the entity has developed them internally or through a business combination. R&D is not an exception from this asymmetry, and if an entity acquires these assets through a business combination, then according to IFRS 3, they have to capitalize them (Picker et al., 2019; Plenborg & Kinserdal, 2021).

## 2.2 Accounting- and value-relevance

Accounting relevance has been a point of interest for researchers for a time now and is frequently being discussed in regards to the introduction of IFRS. Most of the research within the topic of accounting relevance focuses on whether something is value-relevant or not. Scott & O'Brien (2020) define accounting information as value-relevant when security prices react to accounting information. Barth, Beaver and Landsman (2001) define an accounting amount as value-relevant if "*it has a predicted association with equity market values*". Wyatt (2008) defines information as value-relevant if investors would use it in a valuation, and therefore be reflected in the stock price. Barth et al., (2001) further adds that value relevance studies are designed to assess if accounting amounts in the financial statements are used by investors in valuing the firms' equity. From the definitions found in the existing literature, an accounting item in value-relevance studies is proven to be relevant if it affects investors beliefs about the stock price, and that the amount will affect the investors/analysts' beliefs about the company, its respective cash flows, and its valuation.

Among the first to conduct this kind of research where one examines the security market's reaction to earnings announcements was by William Beaver and by Ball and Brown, both in 1968 (Scott & O'Brien, 2020). There has been, however, some discussion as to how relevant the studies of value relevance are. Holthausen and Watts (2001) argue against the value of these studies, concluding that they offer little to no insight to standard setters. Further, they also criticise the fact that value-relevance studies often focus on equity investors, neglecting other important stakeholders like lenders and management assessors (Holthausen & Watts, 2001). However, Barth et al. (2001) take the opposite view and argue that these studies do offer valuable insights into questions of interest for both academics and standard setters. Even

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though they provide valuable insights, value-relevance studies typically do not offer specific policy recommendations for standard setters (Barth et al., 2001).

### **2.2.1 Loss of accounting relevance**

Over the years, there have been several research papers and literature pointing out how the financial statements have lost their relevance and usefulness to investors over the years. Lev & Gu (2016) finds that quarterly and annually reports only make up for about 5-6% of information used by investors, which is surprisingly low. Lev & Zarowin (1999) examined the accounting relevance over a 20-year period and found that the accounting amounts, like earnings, cash flows and balance sheet items, has lost its usefulness over that period.

There are many suggestions as to why accounting has lost its relevance over the years. Lev and Gu (2016) argue that the accounting treatment for intangibles is a dominant reason. The modern economy is highly dependent on intangible assets and investments in them (Dihn, Schultze, List & Zbiegely, 2020; Wyatt, 2008; Lev and Zarowin, 1999; Lev & Gu, 2016), but the accounting rules for these assets are still an unresolved issue affecting the accounting relevance (Lev & Zarowin, 1999; Hirschey & Weygandt, 1985). The fact that the financial statements have not changed very much during the last 100 years might be an indication that this system is outdated and not suited for the modern economy dependent on intangible assets (Lev & Gu, 2016).

A persistent problem that distorts the relevance of accounting is the fact that expenditures (or investments as some would call it) on intangible assets are expensed immediately when incurred, while their expected benefits might be years ahead. This creates a mismatch of income and expenses related to the investment, and therefore, when the intangible asset generates income, the income statement might not reflect the actual economic picture of the firm, as the expenditure (investment) was incurred in a prior period (Lev & Zarowin, 1999). This also has consequences for the profitability measurement of intangible-intensive businesses, such as BioPharma, who are highly dependent on R&D-related activities. A study by Scherer (1993) found that pharmaceutical firms on average had an ROE of about 18%, while the non-financial firms on the fortune 500 list on average had 12% ROE. Goncharos, Mahlich & Yurtoglu (2018) found that the average ROE of pharmaceutical companies was 20% when they did their own study, which was 8 percentage points higher than the average

ROE reported by non-R&D intensive firms<sup>1</sup>. The reason for this is the distortion arising from immediate expensing, which leads to a lower asset base (for ROE measurements) and higher reported earnings, as the expensing was done in prior periods, and that amortization is not deducted from the earnings (Richardson, Sloan, Soliman & Tuna, 2006; Lev, Sarath & Sougiannis, 2005). There has also been done studies confirming that the ROE of pharmaceutical firms increases when it expenses R&D (Clarkson, 1977; Megna and Mueller, 1991; Grabowski and Mueller, 1978; Salmi, 1982; Taylor, 1999; Rajan, Reichelstein & Soliman, 2007). Goncharos et al. (2018) also found that pharmaceutical ROE decreased to about 15% when they included empirical amortization rates, which makes the profitability more similar to other industries. Higher ROE due to expensing is, however, dependent on the growth rate of R&D expenditures and for firms who are receiving benefits from their prior expenditures (Aboody & Lev, 1998; Lev et al., 2005; Rajan et al., 2007).

## **2.2.2 Value-relevance of R&D**

While the previous section describes loss of accounting relevance over the years, and how intangible assets play a role in this, we will in this section focus on how the treatment of R&D in accounting also may affect the accounting relevance. We wish to highlight existing findings on the value-relevance of R&D, as this is an important accounting item for R&D-intensive firms. The discussion of whether R&D has value-relevance is concerned with whether to capitalize it or expense all of its costs. Many studies find that there is a positive association with the capitalization of development on a firm's market value (Aboody & Lev, 1998; Kothari, Laguerre & Leone, 2002; Hirschey & Weygandt, 1985; Lev & Sougiannis, 1996; Wyatt, 2008; Jennings, Robinson and Thompson, 1996; Chambers, Jennings & Thompson, 1998). This indicates that there is a value in R&D information in the balance sheet, and that investors do include it in the valuation. However, there are studies that argue and provide evidence that capitalizing development increases forecasting dispersion and decreases forecasting accuracy (Dinh, Eierle, Schultze & Steeger, 2015). They argue that the capitalizing of development expenditures forces analysts and investors to estimate future capitalization rates, development rates and possible write-offs, thereby increasing the forecasting complexity (Dihn et al., 2015). Generally, higher forecast dispersion may indicate that the financial

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<sup>1</sup> Unlike Shcherer (1993), Goncharos et al. (2018) does not specify if the firms were from the fortune 500 list.



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statements have too much room for subjective interpretation, and this conflicts with the *objectivity* goal of financial accounting (Lev & Gu, 2016).

However, these results are more relevant for firms with low underlying environmental uncertainty (which is the unpredictability related to the actions of a firm's customers, suppliers, competitors, and regulators and other factors that can have an effect on a firm's operations (Ghosh and Olsen, 2009)), while those who operate in environments with underlying uncertainty, the forecasting accuracy increases with capitalization, as well as reducing forecast dispersion (Dihn et al., 2015). This may be a result of the signaling effect. When firms with high uncertainty uses discretion to capitalize development expenditures, it may give signals to the market about the future success of its R&D projects (Ghosh & Olsen, 2009; Abody & Lev, 1998; Matolscy & Wyatt, 2006). This supports Oswald's (2008) findings on who typically capitalizes and who typically expenses. Oswald (2008) finds that UK firms who are smaller, have more leverage, higher earnings variability, history of losses, not in a steady-state and who has a lower R&D success are typically those who capitalize. These characteristics indicates uncertainty and higher risk, and therefore these firms can use capitalizing to signal success and positive information.

### **2.2.3 Management reporting**

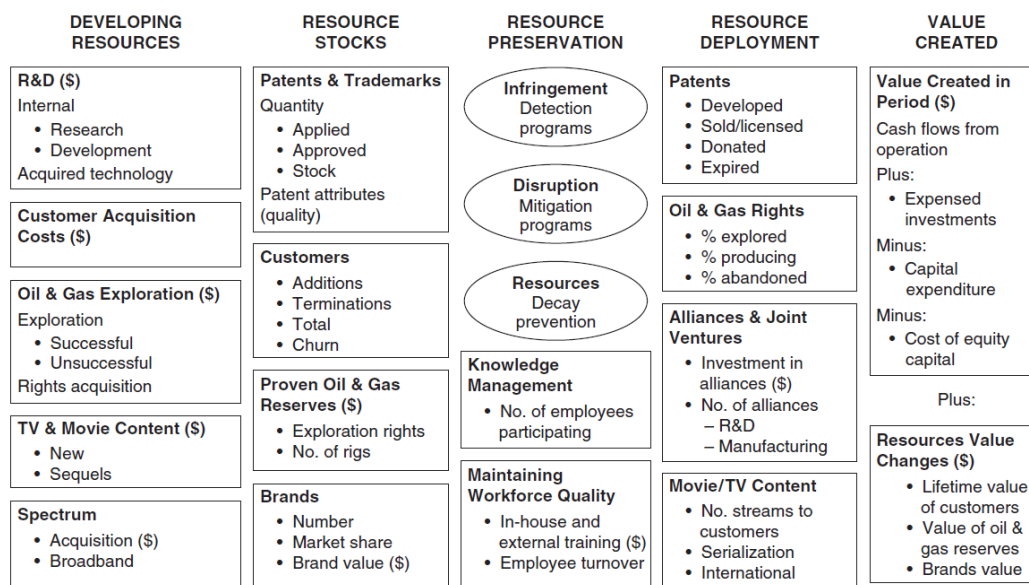
One way accounting has changed over the last 100 years is the length of the annual report and the amount of information provided in it. One thing that prevails in most annual reports is the "management report<sup>2</sup>" section, which is a qualitative description of the business. For many firms, it is a way of providing information about the company's progress and results that accounting does not have a definitive solution for. There is no doubt about these reports' importance in conveying information to stakeholders. Both NGAAP and IFRS<sup>3</sup> has standards on the management report. There are however variations between the reporting format of the different firms. These variations lead to increased complexity when analysing comparable firms, as the comparability is reduced due to lack of standardization.

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<sup>2</sup> When we refer to the management report, we focus on all the qualitative information presented outside of the financial statements in the annual report

<sup>3</sup> IFRS uses the term "management commentary", but this thesis will instead use the term "management report".

Lev & Gu (2016) has suggested a new way of quantifying strategic resources and their respective consequences in what they call a “Strategic Resources and Consequences Report”.



Note: The information in squares is quantitative (\$ denotes monetary values), and in circles is qualitative (narrative).

Figure 1: Strategic Resources and Consequence Report. From Lev, B., & Gu, F. (2016). *The End of Accounting and The Path Forward For Investors and Managers*. John Wiley & Sons, Inc.

The figure provided here is a generic one and contains examples of information that different kind of intangible-intensive businesses could possess. The creators do however specify that this would have to be made industry specific, based on the industry of the firm producing this report. What this report attempts to achieve is to quantify the initiatives of the firm and its results/expected results. This “Strategic Resources and Consequences Report” would effectively summarize the qualitative management report (in a more quantitative format) and become a part of the financial statements, alongside the income statement, balance sheet, cash flow statement, and the notes. This may enable the information to be assured by external auditors. This could be viewed as a complementary to the management report.

## 2.3 Summary & Conclusions

From this review, there are several important implications for the accounting of intangible assets, and especially R&D.

The accounting rules of IFRS provide an asymmetric basis for accounting of intangibles. This is specifically aimed towards the fact that internally generated and acquired intangible assets

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(and those acquired from business combinations) are treated differently, and this might create the wrong incentive for management. Lev & Gu (2016) argues that management might have an incentive to purchase intangibles, rather than developing them internally, just in order to improve their financial records. The acquisition would result in an investment in the balance sheet, rather than an immediate expense as internally developed R&D often would.

Even though capitalisation of development has been proved by research to be value-relevant for investors, there are still some that argue against the capitalisation of them. This is mostly in regards to the increased complexity of forecasting, which leads to higher individual analyst forecast dispersion and decreased accuracy (Dihn et al., 2015). Forecast dispersion is according to Lev & Gu (2016) an important indicator of accounting quality, as higher forecast dispersion may indicate that the financial statements leave too much room for subjective interpretation, and this does meet the *objectivity* goal of financial accounting.

The modern economy is dependent on firms undertaking R&D in order to drive innovation, and therefore, internally generated assets are becoming more important. As there are numerous different intangible assets existing, each one with different attributes and uses, it might seem unfair to place each one under the same accounting standard – *IAS 38*. All intangibles possess the same characteristics of the 4s', but the intangible assets themselves are different, as drug patents and franchising rights are dissimilar in nature. This may indicate that *IAS 38* is an overambitious accounting standard, attempting to regulate too many accounting items with the same rules, which leads to some assets being treated unfavourably.

With the fact that R&D is rarely capitalised in the balance sheets of R&D-intensive firms, a question arises in regards to the relevance of the financial statements of these firms. From own observations, the management report section of the annual report is detailed and comprehensive when it comes to qualitative information regarding their business and operations. When traversing further down the annual report to the financial statements, one can observe that the financial information is of limited use, and less informative than the financial statements of other types of businesses. What is worth being aware of is the fact that the management report is not usually audited by third parties (Only to a small extent), only the financial statements with notes are. This means that these firms can produce a lot of information about their research and operations that analysts and investors cannot verify with certainty. Investors and analysts are therefore forced to use this information without assurance of its objectivity, which is usually the case for financial statements. Also, more time is spent

reading through lengthy management reports to find relevant information, and to compare them with other firms.

## 2.4 Proposed Research

In this section, we seek to present our proposed research question (RQ), a research aim and a set of research objectives that can aid us in clarifying the purpose of this research and how we can accomplish the task of answering the RQ.

### 2.4.1 Research question

Our choice of research question is based on one that effectively captures what the research topic of this thesis will be. How we propose our research question will have further implications for the research- design and strategy

Based on our review of the existing literature, and after observing the financial statements of R&D-intensive companies, we seek to answer the following research question:

*“How relevant does CFOs of R&D-intensive firms believe their financial statements are, and what information on R&D could improve the and relevance?”*

### 2.4.2 Research aim

The aim of this research project is to gather CFOs’ beliefs and opinions on the information provided in the annual report of R&D and intangible intensive firms, and what kind of information on R&D they believe to be relevant for analysts and investors.

### 2.4.3 Research objectives

In order to better explain how we intend to answer our research question, we propose a set of research objectives to operationalise our proposed question. The set of research objectives are as follows:

1. To examine CFOs’ beliefs on the usefulness of R&D-firms’ financial statements.
2. To explore what R&D-information they find relevant to present in their annual report.
3. To explore whether the income statement, balance sheet, cash flow or the notes yields the most relevant information related to R&D.

4. To explore whether more quantitative information related to R&D could improve accounting relevance.
5. To gather CFOs' views and opinions on how the financial statements could become more relevant.
6. To explore CFOs' beliefs on a strategic resources and consequences report in the financial statements.

## 3. Methods

This chapter seeks to describe the chosen research methods used in this thesis. This chapter will present the chosen research design, the methods for collecting data, and how the data has been processed in order to be analysed properly.

### 3.1 Ethical concerns

Before describing the research design and proceeding to gathering data, a brief description about ethical concerns and data anonymisation must be presented.

This thesis will collect, prepare and analyse data derived from selected participants. Therefore, in order to protect the integrity of those participating, we have decided to follow the guidelines from NSD (2022) on what information to record and what not to record in order to keep the data anonymous, and to avoid violating any laws.

### 3.2 Research design

The research design is often described as the *general plan* of how the research questions will be answered (Saunders, Lewis & Thornhill, 2019). In this thesis, the focus is about exploring and investigating what kind of information CFOs find relevant when presenting their firm, and if this information could be included in the financial statements. Since the focus of the thesis is to explore and understand the research question, the natural approach is the qualitative research approach. Qualitative research methods study the participants meanings and the relationships between them. In qualitative research, meanings are derived from words and images and since words and images may have multiple and/or unclear meanings, an effort to analyse this with objectivity is therefore necessary.

#### 3.2.1 Research purpose

This thesis will have an exploratory approach, which enables us to ask open questions to gain insight and a deeper understanding about the topic of interest. An exploratory approach is best suited for this thesis, as there is very little existing research on the qualitative side of this research problem. There are multiple quantitative studies on value-relevance, but very little qualitative to examine beliefs and opinions of those participating. Since there is also

much debate on which way to go regarding intangibles and accounting relevance, exploratory studies are useful when there is uncertainty about the precise nature of the phenomenon one is going to study (Saunders et al., 2019). Also, since we do not have a clear idea of what information CFOs seek to provide, exploratory designs provide us with enough flexibility in order to change direction as new data appear, and new insights are generated (Saunders et al., 2019).

### **3.2.2 Approaches to theory development**

Based on the literature review, and the existing idea of lost value-relevance of financial statements, this thesis does not aim to generate theories, but rather to seek to understand and explore them in-depth. Most qualitative research designs have an inductive approach to theory development (Saunders et al., 2019), but Yin (2018) also points out that a deductive approach might be appropriate in some settings. As this thesis bases its research on existing ideas and theories, a deductive approach to theory is applied in this research design.

### **3.2.3 Research strategy**

As this thesis seeks an in-depth investigation of our proposed topic within a real-life setting, the choice of research strategy is therefore a case study (Yin, 2018). The selected case here is the information CFOs believe to be relevant. With the case defined, boundaries for the research have been set, which is key for this strategy (Flyvberg, 2011). Given our boundaries, there is still room for flexibility due to the nature of the case. Saunders et al. (2019, p.197) argues that case studies *“has the capacity to generate insights from intensive and in-depth research into the study of a phenomenon in its real-life context”*

Case studies are not unusual for exploratory studies, but combined with the deductive approach, the study is better designed to reveal “specific attributes” rather than getting a rich description (Ridder, Hoon & McCandless Baluch, 2014). This fits well with this thesis’ purpose, as data from CFOs might reveal what kind of information is relevant.

### **3.2.4 Data collection**

When collecting data for case studies, a triangulation of methods is normally used where one combines methods such as interviews, questionnaires, and archives (Eisenhardt, 1989). In this thesis, only one method will be used, which is known as a mono method qualitative study

(Saunders et al., 2019). Using more methods for collecting data may have benefits, but there is nothing in the way of relying only on qualitative data, as has been done in previous research (e.g. Sutton & Callahan, 1987).

In this thesis, our choice of method for data collection is semi-structured interviews. Here we set out a predetermined list of themes and key questions to help guide the interview in the relevant direction for this thesis (Saunders et al., 2019). When having a predetermined list of themes and key questions, it is important to remain open and flexible when conducting the interviews. This is because while we have some themes and important questions to investigate, we still want to probe deeper into some questions and allow the participants to speak freely and share their opinions and beliefs on the manner. This is in line with what Saunders et al. (2019) describe as having an interpretivist approach to the predetermined list. As we expect the interviewees to have different opinions and beliefs on what is considered relevant and important, we believe that having the opportunity to probe deeper into their answers and investigating it further to be valuable. By this we mean that if one participant suggests more information in the balance sheet with notes, we could ask further into that topic, while if another participant believes the cash flow statement to be of greater importance, we could ask and investigate this further to gain a deeper understanding.

When the predetermined themes and key questions are based on existing theories and ideas, data collection is then conducted deductively, and we wish to generate a better understanding of the topic (Saunders et al., 2019).

### ***Sample size***

When it comes to deciding how many participants to interview, Saunders et al. (2019) recommends interviewing between 5 and 25 people, based on the resources available. Each interview conducted adds more information to analyse, and therefore a limit must be determined. CFOs are busy people, and therefore not easy to get access to. Because of this, we aim to interview 10 CFOs, but no less than 5.

### ***Sample selection and criteria***

When selecting the participants of this study, a set of criteria had to be set in order to align the data gathered with the research aim and objectives.

The first criterium was that the participant worked and has responsibility in regards to the firm's accounting information. This means that a chief financial officer (CFO) or financial



manager within a firm would be a suitable participant, as these professionals would have enough experience with accounting and presenting information.

The second criterium was that the firm the CFO or financial manager represented used the IFRS framework when reporting and presenting its financial information. This is natural, as this thesis revolves around the IFRS standard *IAS 38* and R&D-accounting.

The third and last criterium was that the selected participant represented a firm which had a sufficient amount of spending/investment in R&D or that its business model revolved around intangible assets such as patents and other technologies it aimed to develop. The amount of R&D was determined by analysing the financial statements, and a subjective judgement was used on whether the business model revolved around intangible assets and R&D.

In the end, we made a list of several firms meeting the criteria for this study and reached out to all of them through email. As the response rate was very low through email, a direct follow-up on the phone was conducted to ask whether the participant could participate in an interview. In the end, we ended up interviewing five managers, where four were CFOs of their represented company, and one financial manager (which had a similar accounting responsibility as the other CFOs, and will therefore, in this thesis, be referred to as a CFO for simplicity), and additionally, before conducting any other interview, we also conducted an interview with a financial analyst. Originally there were going to be seven CFO-interviews, but due to the busy-season of finishing up the annual report, two of the invited participants unfortunately could not spare time to this project.

The interview conducted with the financial analyst was done in order to gain an understanding of the information needs that may not be fulfilled. The selected financial analyst covered BioPharma-companies, which also comprised most of our represented companies in this study. The data gathered from the financial analyst is not intended to answer our research questions but was used to gain a set of relevant questions that could be relevant to discuss during the interviews.

The participants all represented firms that have incurred losses as per their latest published income statement. However, all but one was generating revenues related to their main technology/R&D-efforts. Of the five firms represented, two of them were more “tech-based” focusing more on digital technologies that are less dependent on the “sunkness” characteristic, meaning that they could potentially sell their efforts at a certain stage during

the project. The other three were within the BioPharma segment, focusing their efforts towards developing patents for drugs and other biotechnological discoveries. However, only one of the firms had R&D-investments/expenditures to create a tangible product in the end but were included for the reason of being R&D-based.

### *Interview questions (Interview guide)*

Prior to interviewing the CFOs, we created an interview guide, which contains a set of questions covering important topics we wish to discuss with the participants. This was used first in the interview with the financial analyst (with an angle towards analyst experience, rather than financial management experience). This was then changed to include more relevant and interesting questions aimed towards the CFOs.

The end product of first interviewing an analyst and then reviewing the interview guide led us to the interview guide provided in appendix 1. This guide was not intended to be followed strictly, as some questions could be left out if they were answered sufficiently in another way, or if they seemed irrelevant to ask. The guide rather served as list of topics to discuss, and there was no specific type of answers we expected to receive during the explorative part, except for an informative and rich discussion of the topic.

Not all the questions asked during the interview was included in the interview guide. There were three questions asked during all the interviews that are not provided in the interview guide. They are as follows:

- (1) Would you prefer to capitalize or expense all resources spent R&D and why?
- (2) How has the accounting rules affected your fulfilment of SkatteFunn's requirements for support?
- (3) Why is there not a more detailed separation of what is spent on research and what is spent on development, and do you believe investors and analysts would benefit from this kind of information?

The third question emphasizes the fact that many of these firms has development expenditures that does not meet the IAS 38 criteria for capitalization, and thus must be expensed. The users will therefore only find a R&D-cost, without knowing if there were development expenses that did not meet the all the criteria by IAS 38.57. Therefore, the question ultimately asks whether a more detailed breakdown of R&D spending is relevant to analysts and investors, and why they have not yet provided one.

### *Interview process*

All the participants were invited to conduct the interview digitally through zoom, which enabled us to have a more personalised interaction with the participants and for us to examine and analyse their gestures and expressions. One of the authors had responsibility for asking questions and follow-up questions, and the other was responsible for analysing behaviour and recording information. Prior to the interviews, we planned how to approach them using Saunders et al. (2019) checklist of how to behave when conducting interviews.

When the meeting started, the authors introduced themselves and the aim of this master thesis, and how the interview would be conducted. We asked for permission to collect the data and that no personal or firm-specific data was necessary in this study, and that all parties will remain anonymous. We also made it clear before the interviews that preparation was not necessary, as we only wanted their own honest opinions and beliefs.

When first starting the interviews, we began asking them some warm-up questions in order for the participants to be better prepared for a more comprehensive discussion, and to gain a better understanding of their background. These questions were more descriptive of the participant in the form how well they know IFRS and IAS 38 and how they work with/around this accounting framework.

After the general section of the interview (Question 1-4), the interview got more explorative and in-depth (Question 5-10). This section of the interview had more open questions that were aimed to start a discussion around the topic of interest. This worked very well, as very few gave an explicit short answer to the given question, but rather they shared interesting arguments for their views on the topic. In some instances, however, the participants had not made up an explicit view on the question given, and therefore tried to provide some arguments to topic of the question. These kinds of responses were not necessarily rooted in their opinions and beliefs, but more likely based on professional knowledge and assumptions. In between the questions, when natural, we asked our three specific questions mentioned in the previous section, and we also used the flexibility of having a semi-structured interview to probe and further investigate when necessary. In order to ensure that we interpreted what they said correctly, we would often repeat or reformulate what they said. This helped us avoid misunderstanding what they meant and what we interpreted, ensuring that we had an equal understanding of what had been discussed.

### 3.2.5 Data analysis and data quality

When conducting interviews and collecting rich and informative data, the challenge therefore is to reduce the collected data and determine which information is relevant. The interviews were expected to last between 15 and 25 minutes, but all of them lasted between 30 and 55 minutes.

After each interview was conducted, the data collected was sorted into two main categories: General and explorative part. The explorative part was the furthered divided into the following categories:

- (1) Current practices.
- (2) Relevance.
- (3) Quantitative Information.
- (4) New Framework/Figure

The decision to sort data into these four categories was done to maintain the flexibility of semi-structured interview. As each question provided in the interview guide serves as themes of discussion (except for the general part), similar responses from the participants might arise during different stages of the interview. This decision will also help maintain consistency during the data presentation in chapter 4.

#### *Data quality*

Saunders et al. (2019) highlights the fact that semi-structured interviews are prone to four different data quality concerns. The four different issues are:

- (1) Reliability
- (2) Biases
- (3) Generalisability
- (4) Validity

#### **Reliability**

When conducting semi-structured interviews, the variation of questions asked and the variation in quality of responses to each topic will lead to a lack of standardization. Since the flexibility of this data collection method creates some variation, other researchers might not achieve the same results, and therefore can be viewed as a data quality issue. We have done our best to keep a consistency between the interviews by following the interview guide's order

of topics, but naturally, we also had variances between the interviews (like duration and how much a topic was discussed) that affects the reliability of our data.

### **Biases**

Biases in this context refers to situations where the interview is influenced by the way the interviewer and interviewee speak and communicate. This can be done by either asking questions that might indicate that there is a more correct answer or using non-verbal communication like gestures. In general, Saunder et al. (2019) refers to three types of biases that are common in semi-structured interviews. These are:

- (1) Interview bias: Where the interviewer influences the participant's response by using comments, tone and non-verbal behaviour.
- (2) Response bias: This is when the interviewer has certain opinions or perceptions and may lead to the interviewer interpreting what he or she wants to hear, rather than what has been told.
- (3) Participant bias: This is when the participant is influenced during the interview by things like fatigue or duration. This may lead the participant to give shorter answers or answers of lower quality.

During our interviews, we tried to use open questions in order to avoid the first type of bias. When using open questions, it is harder to indicate that there is a favourable answer and thus influencing the participant's answer. To avoid the response bias, we would use a confirmatory technique after the participant made an important point. This was achieved by repeating or reformulating what the participant just said. When doing this, the interviewers will be corrected if they have misinterpreted what the participant said, and this helps to ensure correct interpretation. The last bias is harder to affect, as this is out of the interviewer's hands. Even though we could not affect this directly, we were cautious and observing of these effects. As far as we are aware, the participant bias did not occur during any of the interviews.

### **Generalisability**

When conducting semi-structured interviews, the sample selection is often small. This has strong implications for the conclusions drawn, and for the transferability of the results to other settings. When the sample selection is as low as it usually is for qualitative studies, the conclusions drawn cannot be definitive, but rather indicative. For our study, this means that our findings are not a definitive description of the phenomenon in which we study. Rather, our

findings will have important indicators that should be investigated further in order to draw conclusions. Explorative studies are not aimed at answering a problem right away, but rather to explore some interesting ideas and findings that might be investigated further to take more confident conclusions on the matter.

**Validity**

Validity is concerned with how well the collected data represents true and realistic findings of the real world. If validity is high, that means that the findings will have a strong representativeness of the outside world, and that the findings are “valid”. If we have conducted the interviews with high validity, we have then been successful in gaining access to the participants true knowledge, opinions and beliefs, and that the data is further interpreted correctly as intended. Since we used a confirmatory technique to ensure correct interpretation, we can argue that validity is increased.

## 4. Analysis

For us to present data in a way that is reliable and to build credibility to any conclusion taken, we present our collected data in section 4.1 of this thesis. The data will be presented alongside the interview it was gathered from. This is done to enable the reader to understand the context of which the data was gathered from. Therefore, we present the interview one after another, but each interview will be presented with the same categories of data. In section 4.2, we connect our finding with our research objectives in order to answer our research question.

### 4.1 Presentation of data

All the interviews conducted in this thesis was done in Norwegian. This means that the data presented in this section is translated by the authors. Additionally, all citations have been translated by the authors. The interview guide provided in appendix 1 was primarily written in Norwegian, but the appendix contains a translated version for readers who can neither speak nor read Norwegian.

#### 4.1.1 Interview with the financial analyst

As briefly mentioned, this interview is not intended to help answer our research question directly, but aided in preparing ourselves and our interview guide for the interviews with the CFOs. There were however some very interesting points that will later be discussed with the findings from the CFOs.

##### *General questions*

The participant is a stock analyst, covering health and biotech companies. The analyst's relation to IFRS was more a necessity, and worked around it for the most part. Further on, the analyst mentioned that most biotech companies, who are cash flow negative and in need of seasoned equity offerings, the difference between NGAAP and IFRS did not matter. Thus, there was no need to understand IAS 38. This was related to firms which had little to no CAPEX in tangible assets and with low working capital. The analyst mostly covers firm which does not have much of tangible assets, but more R&D and technology focused, and therefore felt that IAS 38 is not necessary to comprehend. The analyst further explained that when these R&D and technology firms grows to a bigger size and has wider portfolio of technologies, the

financial statements become more relevant, but when looking in the Norwegian market, the financial statements were not prioritized.

### *Explorative Questions*

#### **Current practices**

Within the topic of current practices of presenting information, the analyst mentioned that firms decide themselves what they present. This has led to the management reports presenting different information over time, and it therefore became hard to compare and analyse the development over time.

When presented the fact that very few (none out the financial statements we analysed prior to the interviews) firms presented a detailed separation of what has been expensed on research (R) and what has been expensed on development (D), the analyst believed that the firms had a very good reason for not doing so. The analyst believed that there is a trade-off between providing this information and focusing on investor relations and further development of the business, and that the latter would be more beneficial. The cost-benefit argues therefore not to have a detailed breakdown of R&D spending. However, the analyst mentioned that they spend time on tasks like estimating/forecasting expenses related for clinical development, and that the lack of separated R&D-cost information makes this more challenging.

#### **Accounting relevance**

When it comes to relevant information, the analyst answered rapidly that cash is often the topic you want to examine. The analyst emphasized firms who on a regular basis are seeking more equity through SEOs. Further on, the most interesting part of the financial statements is the cash position in the balance sheet and the cash flow, and this is to calculate the cash burn rate.

#### **Quantitative information**

When asked where in the financial statements more quantitative information could be useful (with this question, we refer to the income statement, statement of financial position, cash flow statement and the notes), the analyst believed that a more detailed breakdown of costs in the notes could be beneficial. Here, as we discussed earlier, the analyst believed that a more detailed breakdown of R&D could help them when trying to estimate future expenditures. The analyst stated that “There is no transparency on how the money is spent”. As per today, there is a lack of transparency when it comes to what the R&D expenditures goes to, and that a better breakdown of other operating expenditures (Other OPEX) could increase this



transparency. The analyst also mentioned that it feels like Other OPEX has become an item where firms “hide” some information. The analyst added that investors and those offering equity to the firm would very much like to see what their money is being spent on.

### **Figure**

When presented the figure in question 9, the analysts’ first reaction was that this framework could be helpful and useful, but that it depended on the firm size. The argument was that big firms could use this to show analysts and investors how the firm deployed their own cash flow and other resources, and how their intangible investments help to generate returns. The analyst illustrated how this framework could be useful with the example of an income generating firm who stated sales in just monetary terms. The analyst stated that it would be more interesting to know how volume and price changed over time. This would however be very difficult for smaller firms who has yet to generate revenue from their main technology.

### **Final comments**

When asked to share some open thoughts or final comments, the analyst mentioned something interesting. The analyst argued that analysts in the BioPharma industry are not hired for their accounting knowledge and economic intuition, but rather because they understand the technology and the product the firm is trying to develop. The analyst stated that “The knowledge of the companies seems to be the more important factor. It is better to understand what the companies are doing. Therefore, the analyst's argument was that having professional knowledge about the firm’s technology is more important than being able to work with the firm’s financial statements. This may therefore be an indication that firms are better off focusing on presenting information about their business, rather than financial statements. The figure presented in question 9 may therefore aid in quantifying their business strategy and operations.

## **4.1.2 Interview 1 – CFO #1**

### *General Questions*

The participant of this interview is a financial manager of a BioPharma company, working under the firm’s CFO. The financial manager is responsible for following up the external accountant’s actions on their financial statements (as this financial manager performed similar accounting tasks as the other CFOs that participated in the study, we refer to this person as a CFO in this thesis). When asked about the relation to IAS 38, the CFO responded that there

were no prior experience or knowledge about the standard prior to this job but have learned the necessary requirements from the standard and had to acquire more knowledge when being part of an acquisition. Further on, there were no predetermined attitudes towards the standard, but the CFO found it very strange that the firm had to conduct impairment tests when the firm had R&D in early stages. The impairment tests were believed to be strange because of the discounted cash flow (DCF) that had to be done and the input numbers for the DCF were very uncertain.

### *Explorative questions*

#### **Current practices**

Here, the CFO mentioned that their firm did not have much information to share, and that they presented the information that was necessary. The CFO believed that there are limitations to how much information their firm could share in the annual report, but that they would share as much as they could within these limitations.

Questions about the separation of what is R and what is D in the note of R&D, the CFO expressed that it could have been useful, but that it is not as straightforward to separate them as one might think. Here the CFO emphasised the fact that one might not know whether it was research or development before after the project is complete (or after the financial statements have been published). Further on, the CFO mentioned that there is a question of how much resources should be devoted to such a thing. This points to the cost-benefit discussion. When probing this question deeper and asking whether it would be good if they could easily separate R and D and whether it would be beneficial to the users, the CFO responded with an uncertain “no”. The reason for this was that since they only had one technology (or product they spent all their R&D effort on), all their R&D expenditures would essentially go to that product. In addition to this, it is uncertain what they do in terms of R&D all the time, and sometimes testing of the product can be both R and D.

#### **Accounting relevance**

The CFO stated that “The problem is that the financial statement is not that interesting. When there is a quarterly report, no one looks at the numbers, but rather the quantitative information about for example how many patients that are recruited to a study”. The CFO believed that within BioPharma and for their firm, the financial statements are not that relevant on an overall basis. They are necessary, but not the important aspect. The CFO exemplified this by looking at the information that was often highlighted at quarterly announcements. During these

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announcements, it is more important to present the qualitative information regarding progression. When discussing what information from the financial statements that had useful information, the CFO mentioned the cash position and cash burn rate, but that overall, the financial statements for BioPharma-firms in an early stage are not interesting.

### **Quantitative information**

When asked where in the financial statements it could be beneficial to provide more quantitative information on R&D, the CFO believed that they presented what they needed, and that they covered pretty much everything that was necessary. However, the CFO mentioned that information on future expenditures on technology platforms could be useful for investors and analysts, but that this information is to be kept private and classified. When asked where in general more quantitative information could be beneficial, the CFO believed that even though R&D is expensed and not capitalized, a more detailed breakdown on project level of R&D could be beneficial. In short, a more detailed note on quantified R&D spending.

In questions about whether it would be better to capitalize all R&D costs (and to amortize them) or if it were better to expense it as is the current practice, the CFO believed that it would be informative to know what has been spent on the platform/technology, and therefore to have it in the balance sheet as different assets, rather than bundling them all together into one R&D expenditure. The CFO also added that it makes sense to have R&D in the balance sheet as the expenditure/investment most likely has a value. Furthermore, the CFO commented that the result of expensing all R&D costs led to a reduced equity position, and therefore additions to equity is constantly needed in order to avoid breaching SkatteFunn's<sup>4</sup> requirements for support.

### **Figure**

When asked if the figure in question 9 could increase the relevance of the financial statements, the CFO thought that it would make them more relevant, and that this allowed the firm to be more flexible. However, the CFO believed that the framework could potentially reveal to much

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<sup>4</sup> SkatteFunn is a public initiative in Norway that provides R&D-based companies with support through tax deduction in order to incentivise innovation. The requirement mentioned in this interview was specifically the one that a firm cannot, based on its latest financial statements, have accumulated losses amounting to 50% or higher of its total equity

information. The discussion about the figure was limited, as there was no opinion other than that it might have been useful for the users.

### **Final comments**

The CFO wanted to point out that for a specific acquisition, it was not possible to build a DCF to estimate neither fair value nor value in use, and therefore had to take other measures to justify the value it has been recognised at in the balance. Further on, there should exist alternatives to asset recognition measurements other than those based on DCF and fair values. Lastly, the CFO mentioned that maybe more capitalizing could be beneficial and more relevant, but that there might be good reasons for the rules to prohibit this that the CFO lacks the comprehension of.

### **4.1.3 Interview 2 – CFO #2**

#### *General questions*

The participant of this interview works as a CFO and has a team that worked mostly with IFRS. The CFO itself had most of its experience around NGAAP and focused more on the NGAAP part as it is very similar to that of IFRS. The CFO's knowledge of IAS 38 was relatively low during the time of interview. The CFO has a background with auditing financial statements, and had better knowledge of the accounting standard earlier, but as the standard prohibits them for capitalizing R&D efforts, there is little need to work with the standard on a daily basis. The CFO has a general understanding of the standard.

#### *Explorative Questions*

##### **Current practices**

The CFO believed that current practices of presenting qualitative information was a way of presenting the assets that are not capitalized in the balance sheet. This is information that needs to be presented, and what the financial statements lack in numbers is made up in the qualitative section (the management report) of the annual report. The CFO commented that: "if you don't explain what we [our firm] is doing, then it is impossible to estimate a value [of the firm] since the numbers don't give you anything".

When discussing whether the R and the D should have a separation, the response was that research and development are very much connected, and that the whole R&D phase of a product is very long. If one changed anything about the product, then they had to go back to the beginning and do more research. Further on, the CFO believed that clinical

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trials/development is development, and not research as defined by IFRS and industry practices. The CFO explained this with the argument that a true separation of R&D would be challenging, as it is hard to know what is truly research and what is development.

### **Accounting relevance**

When asked the first question of the explorative part regarding current information presentation, the CFO stated that “The financial statements are almost like a byproduct, even though it should be the main product, it feels more like compliance work.”. Here, the CFO added that “All our presentations are 95% non-financial. The only thing stakeholders look for is the cash position.”. Based on these numbers they can estimate how long the cash is going to last. The only financial information the CFO believed to be necessary to present (from the financial statements) were the cash position and cash burn rate.

When asked what information could be necessary to increase accounting relevance, the CFO responded that firms could be pressured to create more cash flow models, like analysts do. The CFO commented that this information naturally will be very uncertain. Cash flow models could be used to e.g., capitalize all R&D and intangible assets, and for valuation to check for impairment. Further on, the CFO mentioned that in Biotechnology, things change rapidly, and there is constantly something new. With that in mind, how would this then affect the valuation at each point in time, the CFO expressed? Internal cash flow forecasting would also provide the analysts with more information. The reason was that the analysts use cash flows in their valuation method, and it is also interesting information to have projections of what the possible cash flows might be. The CFO did however not comment on whether they should provide this information but believed that this information could improve accounting relevance.

### **Quantitative information**

The CFO believed strongly that historic spending is irrelevant, as it is sunk cost. Further on, the CFO believed that information about what the firm already had spent on R&D does not provide a basis for what the value would be on the other end. The CFO also mentioned that capitalizing would only be useful to a certain degree in terms of relevance, as it would be based on historic amounts.

When asked which of the financial statements more quantitative R&D-information could enhance the accounting relevance, the CFO gave the honest answer of not having a good idea of how to give a better presentation and make accounting more relevant. If R&D expenditures

were to be capitalized, the “problem” would only be moved from the income statement to the balance sheet.

When asked explicitly if the CFO would prefer to either capitalize all R&D or to expense, the response was that expensing is more comfortable from the current position. The increased complexity of valuing the capitalized amounts due to both internal and external factors was the main reason. Also, the CFO doubted that the resources and efforts that had to be spent to keep R&D expenditures in the balance sheet to be worth the trouble. The only thing the firm would receive from capitalizing R&D in the balance sheet, testing for impairment annually and adding more auditing complexity is a historic cost in the balance sheet. This does not necessarily give indications of future costs, as the CFO emphasized that this is a sunk cost. When asked whether SkatteFunn’s new requirements had imposed a threat considering the accounting rules for R&D and intangibles, the CFO responded that the technicality of the requirements could be worked around without issues, and as long as they keep acquiring new equity, this is not an issue.

### **Figure**

Immediately, the CFO commented that this could be useful and informative but argued that most of this information is already known from the management report. The figure was described as being a “puzzle pieced together”. The patents are presented, accounting amounts are presented, and a few other are still unknown. The CFO believed that analysts and investors would find this useful, but that it would vary from the individual investor and analyst. Further on, this would increase the workload for the firm, and that this information mostly is already known in the market. Also, this framework would be hard to audit, as many of these items would require judgement, and that every firm would like to promote their product as the best product.

### **Final Comments**

The only thing the CFO wanted to emphasize is that if R&D and more intangible assets are going to be capitalized in the balance sheet, then there would have to be sufficient rewards for all the trouble of valuing and keeping it in the balance sheet.

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#### **4.1.4 Interview 3 – CFO #3**

##### *General Questions*

The participant is a financial director in the firm (CFO) and has the main contact with the auditors and board when it comes to accounting, but has a team working with accounting that is more up to date on the current accounting standards.

The CFO has a background from finance and has no experience from accounting or auditing. Therefore, the comprehension of IAS 38 is not on a detailed level but is enough to manage. Further, the CFO did not have an opinion or attitude towards IAS 38 but would rather point towards the IFRS framework itself.

##### *Explorative Questions*

###### **Current practices**

The CFO believed the non-standardized part of the annual report (the management report) to be the most informative part where the stakeholders would find valuable information. Further down the line, one will find the IFRS required financial statements, which the CFO thought to be less valuable and useful for investors and analysts. When asked whether some firms don't actually need the detailed and complex financial statements that are required by IFRS, the CFO argued that the financial statements are more a compliance to laws and regulations, and that the firms provide investors and analysts with more qualitative information to create a clearer picture of its position. The CFO indicated that R&D-based firms are better off by having a more detailed qualitative section of the annual report than detailed financial statements.

When asked if firms should separate what is spent on R and what is spent on D and if it is relevant, the CFO believed that more internal routines would need to be used. This would increase the administrative burden for both those who conducted R&D and those who are supposed to keep control of the amounts. A part is purely research, another part is purely development, and another section is in between. A big part of the R&D expenses are salaries and usage of other solutions and products, and this has to be registered. The challenge then becomes to determine whether this was used in R or in D? It is possible, the CFO denoted, but questions whether they would benefit from it. When summarizing the discussion, the CFO said that they could separate it, but believed that the costs outweigh the benefits from doing it.

**Accounting relevance**

When asked whether IFRS is the reason for the loss of relevance, the CFO answered both yes and no. It is more based on what the purpose of use is, the CFO stated. Historically, the financial statements were used to measure historic results and performance. With the introduction of IFRS, the financial statements now attempt to express some sort of value, which the CFO believed to be impossible to do with rules and regulations. This was exemplified by comparing the represented firm's book value of equity and market value of equity, which is drastically different. Further on, the CFO believed that the financial statements might be more relevant for more asset heavy companies that are more mature, so the relevance would vary between industries.

When discussing what information is currently useful, the CFO mentioned that the only two parameters that are interesting for investors and analysts to find in the financial statements are the cash burn rate and the cash position. This alone should give the user enough information to consider if the company is going to need more cash soon.

When asked what is necessary to increase the relevance of accounting, the CFO did not believe that putting more information in the financial statements to be the solution. The CFO argued that more information in a historic position would not provide much useful information as the future projections and forecasts might have done instead. The discussion was summarized by saying that more accounting standards will likely not provide more useful information in the financial statements.

**Quantitative information**

When asked whether it was preferred to capitalize all R&D or expense it, the CFO responded that ideally, the capitalization would be done in a way that better fulfils the matching principle. The CFO stated that "there is likely no company, investor or analyst using profitability measures like ROE on the Oslo Stock Exchange within the biotechnology industry". The CFO did however believe that when looking at the bigger BioPharma companies like Roche, Novo Nordisk, and AstraZeneca, then these accounting measures might be more relevant and more stable.

When asked where in the financial statements more quantitative information could be useful, the CFO had no definitive answer. However, there was a comment about the cash flow



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immediately after the questions was raised, and therefore might indicate that the cash flow statement is the most relevant.

When asking about whether SkatteFunn's new requirements had imposed a challenge, the CFO responded with no, and does not believe the accounting rules makes it harder to fulfil the requirements. The CFO did, however, acknowledge that for firms in earlier stages, the prohibition of capitalizing and reducing equity by expensing might lead to unfortunate outcomes.

### **Figure**

When asked to consider the figure in question 9, and whether the CFO would find it valuable and useful to have this in their financial statements, the answer was that the "spinal reflex" said "no". When reviewed further, the CFO denoted that most of this information was already available to the stakeholders. Further on, the CFO identified it as a problem when this information has to be pushed in as a standard, requiring accounting rules to regulate the information presented in this framework. The CFO believed that the market pressure works as a mechanic for regulating the necessary information in the management report. If the market deemed the information provided by a firm of being of low quality, then the market would not provide the required capital to that firm. The framework would be suitable for some firms, and less suitable for others, and that was the other argument for not having an accounting standard for a framework like this. When the discussion of simplifying comparisons of strategic resources between firms was raised, the CFO argued that firms in BioPharma are rarely comparable, and that they are mostly unique.

### **Final Comments**

The CFO had no additional comments to add that were relevant for the topic of this thesis.

## **4.1.5 Interview 4 – CFO #4**

### *General Questions*

The participant is a CFO and has everything with IFRS to do, but due to their size, IFRS does not impose any challenges or complexities. This has led to a relatively low comprehension of the IAS 38 standard. The CFO has acquired enough knowledge to be able to get the job done and re-uses that knowledge each time. The CFO highlighted the fact that they have capitalized relatively much of their investments, as their technology has been commercialized, but in the recent period, there has been no capitalization.

## *Explorative Questions*

### **Current Practice**

The CFO had no formal opinion on the information provided in the management report and believed that this was up to each individual company to decide what they desired to share. However, the CFO believed that the financial statements of the represented firm provided enough information to the users to understand how the business has performed and what they do. This, which the CFO emphasized, was because the firm only had one product, and therefore all the results and accounting items revolved around this one product. The CFO even suggested that their share price is linked to their product. The fact that the accounting only revolved around the one product made their work more transparent and easier to evaluate. The CFO acknowledged that if the firm size and product portfolio increased, then more information would be necessary to understand the product better and their corresponding numbers. In order to saturate analysts' needs, the CFO believed that presenting information in a qualitative format in the annual report to be necessary. The CFO stated that "Qualitative information is better than quantitative information. It has to be described with words". This is where they can present information about the future and what they do. The CFO was in favour of presenting information with current practices, but was aware that the future is uncertain, and this relates mostly for future quantitative information.

When asked about the missing separation of R&D, the expensed development costs, and whether users would find this information useful, the first argument was that it can be challenging to separate research from development. The CFO also commented that since there is no requirement to inform what is R and what is D, the need to separate them has never been present. The CFO did believe that this information could provide the analysts and investors the progression of a project. More development could indicate that the project is close to commercialization and vice versa. The usefulness was however firm specific, and therefore not unanimously useful for every firm.

### **Accounting Relevance**

When asked whether IAS 38, IFRS or the accounting rules in general prohibits the firm in providing relevant and useful information to its users, the CFO believed this not to be the case, as the firm could present whatever information they wanted. Further on, the CFO believed that the IFRS framework only provided them with a minimum basis for what they must provide, but that they could always write more in the management report if they so desire. The CFO also mentioned that the minimum requirements of accounting information to be fair.

The CFO believed that for analysts, the financial statements are not useful or relevant since there is no mentioning of future earnings. This is not to be confused with the earlier statements that the financial statements provide a good picture of the business, as this relates to understanding the historic performance of the product itself. Here, the CFO commented about the usefulness of the financial statements for analysts.

### **Quantitative Information**

When asked where in the financial statements more quantitative information could be relevant and useful, the CFO answered that the notes for R&D was the best place. For the products that are fully developed and are amortized, then more information could be useful in the cash flows and income statement. But when considering a R&D project that is not yet commercialized, then the CFO believed that the notes could benefit from more quantitative information regarding R&D. Further on, the CFO believed that the more useful information that could be provided is information related to the future. The CFO has a cautious approach in “guiding” analysts and investors about the future but acknowledged that the users would like to know more about the future. The CFO also stated that analysts are only looking at what the current cash balance is, and when the firm is going to need more capital. There is an obvious cash focus for analysts.

When asked about information in the financial statements that could be included to increase relevance and usefulness, the CFO believed that all information surrounding future cash flows and earnings potential could be useful for analysts and investors.

When asked whether the CFO preferred to capitalize all R&D costs or to expense them, the CFO responded that capitalization would give the most accurate picture of the firm, and that it would show in the income statement and balance sheet. This was supported by the argument that their technology did certainly have a value (meaning the product they have could be sold today) and it would be misleading to not have it capitalized in the balance sheet. However, the CFO mentioned that having items in the balance sheet increases the costs of the firm. The costs regarded here are mostly related to auditing fees and accounting resources. These costs arise due to the complexity increased by capitalizing, such as impairment testing and documentation. The CFO did however believe expensing all research to be fair, since the related benefits are too uncertain.

When asked about SkatteFunn and fulfilling the requirements, the CFO responded that their firm had not experienced any issues regarding meeting them but acknowledged that how a firm account for R&D could have an impact. Capitalizing reduces losses, and therefore enhances a firm's chances of fulfilling the requirements.

### **Figure**

The CFO believed that the framework could provide the user some value but argued that this information already existed and just has to be put together. Further on, the CFO argued that this would also increase the firm's auditing fees due to the increased workload and information that needed assurance. The CFO seemed hesitant as to whether the benefits provided to the users outweigh the costs incurred by the firm. Despite all of this, the CFO deemed the figure to be more future oriented and something that analysts could want.

### **Final Comments**

The CFO believed that analysts would very much benefit from information related to the future performance/forecasts from the firm but did not comment on whether their firm would like to provide it. This could be expressed well through the framework presented in question 9, as it presents historic amounts and could potentially include future projections. The CFO also believed that standardization is beneficial in order to perform solid analyses and to better compare firms.

## **4.1.6 Interview 5 – CFO #5**

The participant is a CFO with a financial background but has limited knowledge around IFRS and uses an external advisor when working with the financial statements. The CFO has no specific attitudes towards IFRS and IAS 38 but is in favour of more standardization of information to increase comparability between firms.

### **Current Practice**

The CFO stated that it was up to the individual company how much information they wanted to share in the management report. The CFO commented that R&D-intensive businesses are more dependent on the qualitative information in the annual report when communicating their results and progress and stated that in these types of firms (BioPharma), there are more interesting things to look for than the accounting numbers.

**Accounting Relevance**

The CFO did not have an opinion on whether IFRS and IAS 38 has affected the accounting relevance. When asked what kind of information on R&D could help the financial statements become more relevant, the CFO expressed that more standardization of capitalized costs could enhance the comparability of the firm, especially in the technological industry. Further on, the CFO acknowledged that this is not an easy task since R&D costs vary between the different firms. One firm might spend a lot more on the research phase of a project, and others might spend more time on development, and the resources spent on these phases may also vary greatly between the firms.

**Quantitative Information**

When asked where more quantitative information would be beneficial for the users, the CFO believed that more details on R&D in the notes could help. Specifically, a more detailed breakdown of what costs are capitalized might increase the relevance and usefulness of the financial statements. This could increase the comparability of capitalizing firms. However, this could be challenging to implement, stating that not everyone wants to disclose what they are developing. Therefore, investors and analysts would benefit from it, but so would the competitors, and therefore impose unnecessary information spillages.

The CFO remarked that they were considering categorising reported expenses by function in their income statement, rather than by nature, but the challenges of mapping the costs remained a problem. The CFO pointed out that the lack of a standard on this makes this challenging. When asked why the CFO would like to have R&D as a line item in the income statement, the reply was that if this information is presented more detailed, it will become easier for investors and analysts to understand the drivers of the business. This would also increase the visibility of what drives the costs, and the scalability of the business model.

The CFO explained how they break down the capitalization of R&D, and what is amortized, but mentioned that they did not provide details on what is spent on expensed development and what is spent on maintenance and similar activities. When asked whether this information would be beneficial to provide, the CFO believed that it would increase transparency and takes this into consideration when prompting the change to report cost by function in the income statement.

When asked if SkatteFunn's new requirements had imposed some challenges, the CFO responded that their capitalization rate is sufficient to keep their equity at a preferred level.

The CFO was a strict believer of capitalizing only those costs that are aimed to produce income in the future, in accordance with the accounting rules. The CFO believed that this could increase the comparability between firms, and to better match income and costs, making it easier to measure their results.

### **Figure**

When discussing the figure in question 9, the CFO believed that most of this information could be relevant, but that it might be too many details. The CFO believed the increased costs and resources it takes to have this audited would outweigh the benefits, as well as fears that this might increase bureaucracy if it were implemented as a standard. Further, the CFO commented that many firms do not keep track of the relevant information provided in the illustrative figure, and that a standard would force them to devote more resources to acquire this information. The CFO also added that this might reduce the information provided in the management report, and that it might lead to a less effective solution.

The figure was suggested to be more suitable for BioPharma companies that burn cash and are dependent on showing progress, but for firms that capitalize and develop most of its efforts, this would just increase the workload and costs. When probed further, the CFO argued that for firms that have "richer" financial statements, this figure would not provide much value. However, for firms where the financial statements are less relevant (like BioPharma), this could be a strong supplement for the financial statements and aid in quantifying progress and strategic efforts.

## **4.2 Discussion**

In this section, we present the overall findings from our data, and connect it to the theory and existing literature. As this is an explorative study, there is a limitation to how much of our findings can be connected to the existing literature and theory. With the exception of 4.2.1 – "*Findings from the general section*", we have structured this section to answer our proposed research objectives. The research objectives presented in chapter 2 were presented as objectives we aimed to investigate. In this section we present the findings from this investigation. This section is however structured different from that of the data presentation.

While the data presentation was sorted into discussion themes raised during the interviews, this section tries to fulfil the research objectives by drawing data from the themes of discussion.

### **4.2.1 Findings from the general section**

During every interview, in the general section, we asked the participants how well they understood and comprehended IAS 38 and IFRS. The surprising answer here was that most of the participants had little knowledge of the accounting standards and knew just enough to “get the job done”. The one with most experience was the CFO with auditing background, but this CFO admitted that the level of knowledge was not detailed these days. This general finding might indicate that the need for detailed and extensive standards are too overstated. One CFO even believed that IFRS was academically developed and that it lacked a thorough practical view. This may indicate that IFRS and IAS 38 are too extensive and detailed for practical purposes of financial reporting in the real world of small and medium sized entities (SMEs).

### **4.2.2 RO #1 - CFOs beliefs on the accounting relevance**

When discussing whether the accounting information provided in the financial statements was relevant for analysts and investors, all the participants (including the analyst) believed that their financial statements were mostly irrelevant. It was also stated that the financial statements felt more like compliance, rather than an important source of information.

One important notion here is that all managers representing loss-making firms that are pre-commercial and who did not capitalize R&D costs, believed that their financial statements were of little use and irrelevant. These were all BioPharma firms that cannot capitalize any R&D costs before they have a marketable product. The remaining two firms had capitalized some R&D costs, where one was generating operating income. The latter participant stated that their financial statements were relevant and useful (all though in general believed that non-financial information was more important). The loss-making capitalizer also believed that their financial statements had a little more value than those who did not capitalize. This belief was supported by the notion that their R&D efforts would lead to a tangible asset, and since their financial statements only revolved around their one product, their progress was easier to track and measure. This finding seems to indicate that the further a firm is in its commercial stage, the more relevant they find their financial statements to be. Additionally, if the firm produces a technology or platform that has a lesser uncertain environment, the more they can

capitalize and thus marginally increasing their accounting relevance. This finding is supported by theory which has pointed to the fact that investors and analysts use capitalized R&D in their valuations, and therefore find the information relevant. As discussed earlier, the effects might be increased forecast dispersion and decreased forecast accuracy, depending on the environmental uncertainty.

An important finding here is that none out of the participants believed IAS 38 to be the reason for the reduced relevance. Instead, they believed that either IFRS in general or accounting principles like the conservatism principle was the main reason for this, along with the type of uncertainty their product possessed. Some of the participants believed that the full expensing of R&D was fair, arguing that the conservatism principle prevents inflating the balance sheet, capitalizing unrecoverable costs that will not generate income, and misleading investors and analysts.

#### **4.2.3 RO #2 - What information do CFOs and CFOs find relevant?**

The findings seem to indicate that the R&D-intensive businesses are highly dependent on non-financial and qualitative information when communicating with the capital markets. This information is often presented in their management report and is believed to be the most relevant part of the annual report. One CFO said that it is in this section where you can present the assets that IFRS does not permit to recognise in the balance sheet. It was pointed out during one of the interviews that you cannot determine a firm value from the financial statements alone [or at all] but had to understand the business from the management report. Others pointed to the fact that the management report provides the users with relevant information on their progress and future expectations, which the financial statements cannot adequately do.

There also seems to be a unanimous agreement between the participants that the firms dependent on R&D are better off by spending more time and resources on providing a more detailed and comprehensive management report instead of detailed and complex financial statements. Some of the participants does however acknowledge that these management reports are not regulated or standardized, and that firms are free to provide what kind of information they so desire. This may (and often does, as mentioned by a participant) increase the complexity and time spent on comparing.

When interviewing the financial analyst who covered BioPharma companies, an interesting finding here was the fact that this participant had no economic or business background. This



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participant was educated within the field of analysis and mentioned the fact that when analysing a company within BioPharma, it is important to be able to understand the technology, rather than the accounting numbers. The analyst pointed out that having a background within the field one analyses could ensure that the business is understood adequately and to avoid investing in a fraudulent firm. This may indicate that the BioPharma industry is not dependent on financial statements in a pre-commercial phase. This may indicate that for these types of firms, a more comprehensive version of the current IFRS standard on management reporting might be beneficial. If performed in a way that enables more standardization in the format, it could help reduce the challenge of comparability between firms. To counter this argument, one CFO noted that most firms within BioPharma are not truly comparable due to their immense differences in technology. Another counterargument provided by one CFO is that a strict accounting standard on this kind of information might increase the bureaucracy and that being forced or guided to provide information might have a counterproductive effect. The counterproductive effect might, according to the CFO, be a reduced incentive to provide information, and that firms end up providing just the information required, thus reducing the information they otherwise would share.

#### **4.2.4 RO #3 - Where in the financial statements is there relevant information?**

When the participants were asked if there were any parts of their financial statements that yielded relevant and useful information, almost everyone pointed out that there are two things that investors and analysts look at. The first is the cash position, that is how much cash does the firm possess. This, the participants explained, was for analysts and investors to evaluate how much they are able to spend on R&D efforts before requiring additional capital. The second, which complements the first, is the cash burn rate<sup>5</sup>. Plenborg & Kinserdal (2021) also points out that this is a very typical ratio to use for start-up firms, biotech and other businesses that do not yet have adequate earnings, and who are often incurring losses. This ratio is then used to measure how much of their liquidity reserve is being burned each period, and can therefore with the cash position, estimate how long the firm can operate before requiring additional capital (Plenborg & Kinserdal, 2021).

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<sup>5</sup> The cash burn rate is a financial ratio that looks at the relationship between Cash and cash equivalents + securities + receivables and the firms EBIT

This information is considered a complementary to the management report, as investors and analysts can use this information to evaluate the duration of their business model presented in the management report before new additional capital is required.

#### **4.2.5 RO #4 - Would more quantitative information related to R&D increase the accounting relevance?**

When we discussed whether there should be a more detailed breakdown and separation of research activities and development activities, the participants all said the same. There was a large agreement that investors and analysts could benefit from this separation and information. However, the general argument here was the fact that truly separating the activities from each other was not an easy task, and therefore had to expense in accordance with IAS 38. One CFO noted that one could not truly know whether an activity was related to research or development before after a certain phase, and that this might be too late for reporting purposes. One CFO also mentioned that in a R&D project, one might have to go back to an earlier stage and thus become uncertain if they are in research or development. What almost everyone agreed upon was the fact that this separation would increase the resources spent and the administrative burden. In the end, they believed that the cost of providing a detailed separation would outweigh the benefit provided to the analysts and investors. The financial analyst believed that this information would be nice to have but acknowledged that the firm might be better off by spending that time on business activities or providing more qualitative information.

#### **4.2.6 RO #5 – What R&D information could increase accounting relevance?**

When exploring this objective, we observed something interesting. Most of the discussion around R&D revolves around capitalizing and presenting more information in the balance sheet. Our observations find that none of the CFOs believed the balance sheet to be the definitive answer. One CFO noted that only historic costs would be provided in the balance sheet, and that this would be of low interest (within the BioPharma industry). There was, however, a general agreement that either the notes or the cash flow could help increase the relevance of the financial statements.

The cash flow statement could provide users a better description of how cash has been spent. Additionally, cash flows could be used to provide users a forecast/expectation of results that would help guide the users. This would of course contain risks and uncertainties. One CFO

was hesitant to provide forecasted spending/results, as this could be considered sensitive information. They did however believe that analysts and investors would benefit from this kind of information.

Almost everyone believed that more R&D-information in the notes could increase accounting relevance, as stated earlier. The reasons varied among the CFOs. In general, breaking down R&D costs and expected spendings seems to be the most viable information to provide, and breaking down information on a project basis. This, they mostly argued, would increase the transparency of operations, and better illustrate how resources are spent.

This finding is interesting, since the existing literature often focuses on capitalizing and recognising R&D in balance sheet. One CFO noted that capitalizing the R&D costs would only move the problem from the income statement to the balance sheet. Additionally, it was noted that capitalizing R&D meant that more resources had to be spent on defending its recognised value through impairment testing and that this would increase the auditing fees. Also, capitalizing historic costs would not provide users with information on future spending, which is believed to be relevant since the cash position and cash burn rate is what many analysts and investors consider important.

The story seems to change, however, when interviewing a participant from a firm who capitalizes significant amounts of R&D costs and also who generates revenues. Here, the CFO believed that this information would be relevant. This was mainly due to the matching principle.

When asked whether they would prefer to expense or capitalize their R&D costs, the answer varied between them. The firms with a stable supply of capital and who were in a later phase of the research project preferred expensing, as it was much easier than to capitalize (due to increase costs and complexity of recognising and defending the amounts). One interesting finding here was that the one firm who would prefer to capitalize more of its R&D costs, was also the one firm who had felt pressure from SkatteFunn's requirements to receive governmental tax incentives. The CFO mentioned that more capitalizing would help them reach the incurred losses to equity ratio, which was mentioned as a requirement. This finding indicates that the accounting standard's "one solution fits all" might enable some R&D-intensive firms to easier fulfil the requirements from SkatteFunn, while those with stricter capitalization requirements are weaker positioned to fulfil this requirement. The

counterargument to this, as some CFO's mentioned is that SkatteFunn is not going to incentivise research projects which are obvious loss makers.

#### **4.2.7 RO #6 - Beliefs on a strategic resources and consequences report**

The figure in question 9 of the interview guide was presented as a potential solution to quantify qualitative information about the firm's strategic resources. Here, most firms believed this information to be relevant and that it would be useful for investors and analyst. However, they also believed that most of this information was already provided in the management report, and that this report would only "fit the pieces together in the puzzle". They argued that this report only would repeat themselves. Also, as one CFO noted, this report would not necessarily help the financial statements become more objective, as many of these items included would require judgment to measure. Two CFOs also feared that making this information regulated by an accounting standard could reduce incentive to provide high quality information, as bureaucracy and rules could potentially demotivate them from providing information freely.

Additionally, they feared that the costs and resource spendings would increase if this was something that had to be assured by a third party. Some of the participants believed that the cost-benefit relationship was unfavourable for the firms, as the costs exceed the benefit provided to the users. This was usually argued with the fact that the information already exists in the market.

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## 5. Conclusion

The research in this thesis has provided some expected findings and has also explored some interesting new findings but are nonetheless not generalisable. Historically, the financial statements was considered the most important communication channel between firms and the capital markets (Bernhoft et al., 2018), but the increased importance of the intangible economy may have changed this. The indicated findings are that R&D-intensive businesses which operates in more uncertain environments are less dependent on financial statements when communicating to the capital markets. Instead, they now depend on the management report to provide detailed information on operations, progress, and future plans. The challenge with this form of communication today is that there is no comprehensive regulation on this information, and that the information is not fully assured by a third party. This has implications like reduced comparability between firms, and need for more industry (or technology) specific knowledge to really understand the business. With the rise of this new intangible economy, there might be a need for more industry-specific accounting regulations that enables firms to present more assured qualitative information related to their business, and in a format that enables comparability between firms in the industry.

Providing more information in the financial statements does not seem to solve the value gap between book value of equity and market value of equity, as the historical amounts does not provide an adequately description of the future. Our findings may also indicate that there is too much focus on the capitalizing and recognition of R&D in the balance sheet. If there were going to be more accounting numbers, the more informative notes and cash flow statements may, according to the CFOs and the financial analyst, provide the most valuable information through increased transparency. This problem might have led CFOs to conclude that the cost-benefit relationship of breaking down R&D costs in detail is unfavourable, and that focusing on the more qualitative aspect in the management report has better results for solving the value gap. Even though there seems to be opposition against regulating the management report, it may still be beneficial to provide a recommended format for this section of the annual report. This may lead to increased comparability of firms' qualitative aspects and maybe even assurance of the information provided.

Our findings also indicate that the accounting treatment of R&D may have implications for the fulfilment of SkatteFunn's requirement for tax benefits. As capitalizing, rather than

expensing R&D, increases the firm's equity, those who are prohibited from capitalizing might have more unfavourable conditions than those who are able to capitalize much more.

The Strategic Resource and Consequences Report presented by Lev and Gu (2016) was also investigated in this thesis. The overall belief here was that this report would be beneficial to outside users, to the extent that it summarizes already existing information provided in the management report. However, most agreed that this would increase the workload and complexity, and also the costs related to providing this information and having it audited by third parties.

If asked whether accounting has met its end, our answer would be no. Business has changed over the last hundred years, and so has both investing and analysis strategies. The indications point towards understanding the business and its operations, rather than relying more on the financial statements and key ratios one can interpret from them. The financial statements might explain more in industries which are more tangible asset dependent, while the intangible economy requires richer descriptions through management reports. Does this mean that the financial statements are totally irrelevant for industries such as BioPharma? We do not believe so, since the financial statements does provide some relevant information about the firm's current position, as well as the aforementioned cash position and cash burn rate. From our findings, however, we believe that there is more relevant information to be found outside the financial statements to help explain the firm value when analysing firms who are not yet generating income and are pre-commercial. When the firms grow bigger and starts to generate more revenues, then the financial statements may yield more relevant information.

## 5.1 Suggested Future Research

The research conducted in this master thesis has been done qualitatively and is based on a narrow selection of firms. This means that our findings are indicative, rather than generalisable findings where more certain conclusions can be drawn. We do, however, believe that some of our findings could be researched further quantitative or even qualitatively.

Our first suggested study could be based around the CFOs' knowledge and comprehension of IFRS. As our thesis found that none of our participants had extensive knowledge of the accounting standards provided by IFRS, a more comprehensive study could be conducted in

order to determine whether it is useful to have large and detailed accounting standards like the ones provided today.

Another study could be to investigate how accounting rules affect various governmental incentive schemes and its fulfilment requirements. During our research, this was an unexpected finding but still interesting. One could investigate how prohibition of capitalizing has affected firms' ability to meet the requirements for support and other various incentive schemes.

Lastly, one could conduct a study on the issue of industry-specific accounting standards. As the current standard of IAS 38 provides some indications that not all industries can be treated the same, one might investigate the need for more specific accounting regulations for specific industries.

## 6. Appendix 1 – Interview Guide

### Intervjuguide

#### Del 1: Generelle spørsmål

**Spørsmål 1:** Hva er din stilling/rolle og hvordan arbeider du med eller rundt IFRS?

**Spørsmål 2:** Hva er din kjennskap til IAS 38, og hvor godt forstår du reglene den utgir?

**Spørsmål 3:** Hva er din holdning til IAS 38 og behandlingen av immaterielle eiendeler

**Spørsmål 4:** Føler du IAS 38 er en rettferdig standard, eller omfatter den for mange ulike eiendeler som burde behandles ulikt?

#### Del 2: Eksplorerende del

**Spørsmål 5:** Hvordan synes du dagens standard og gjeldende praksis fungerer for presentasjonen av immaterielle eiendeler?

Er du fornøyd med måten informasjon blir presentert i årsrapporten? (Her fokuserer spørsmålet på hele årsrapporten og ikke bare regnskapene)

**Spørsmål 6:** Hvordan føler du relevansen til regnskapet blir påvirket av gjeldende standarder?

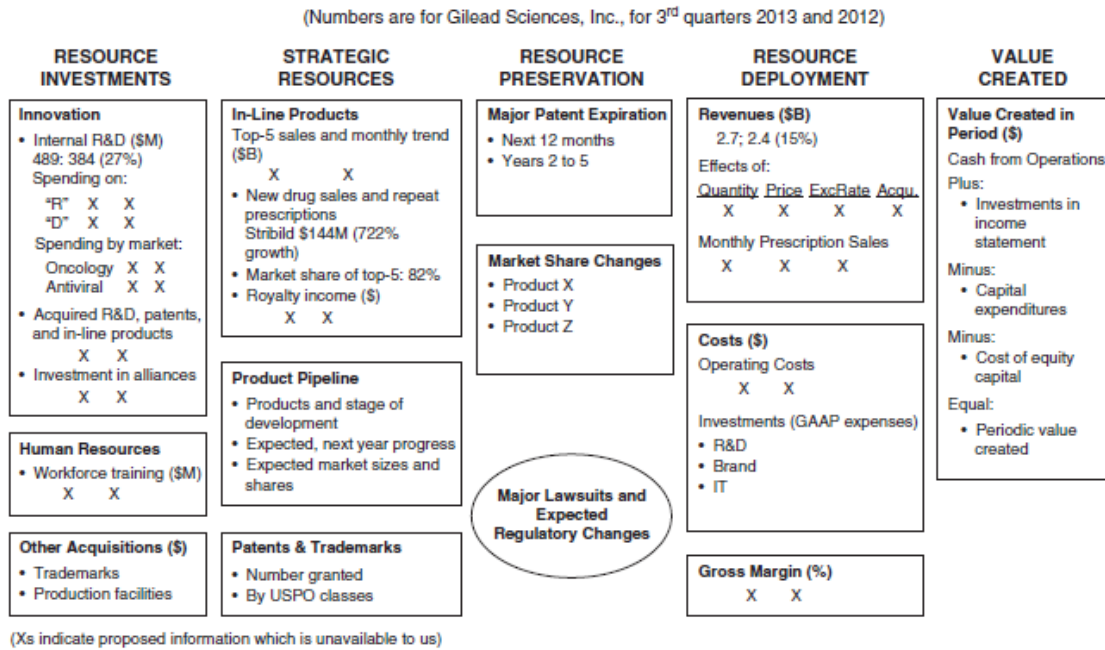
**Spørsmål 7:** Er det noen av stedene i regnskapet du føler det burde være et større fokus på kvantitativ informasjon om immaterielle eiendeler? (Resultatregnskapet, balansen, kontantstrømmen eller notene).

Hvorfor?

**Spørsmål 8:** Hva føler du skal til for å øke relevansen for selskaper som er avhengig av immaterielle eiendeler i forretningsmodellen sin, men ikke får lov til å innregne mye, men heller må kostnadsføre?

**Spørsmål 9:** Hva tenker du om en ny del i regnskapet som forsøker å standardisere strategiske tiltak av selskaper som denne foreslått av Lev & GU (2016)?





**FIGURE 14.1** Pharmaceutical and Biotech Companies: A Strategic Resources & Consequences Report

**Spørsmål 10:** Har du noen åpne tanker du ønsker å dele med oss eller avsluttende kommentarer til veien videre for regnskapsføringen av immaterielle eiendeler?

## Interview Guide

### Part 1: General questions

**Question 1:** What is your position/role, and how does your work relate to IFRS

**Question 2:** How well do you know the accounting standard IAS 38 and the rules it sets out?

**Question 3:** What are your thoughts on IAS 38 and how it treats intangible assets?

**Question 4:** Do you feel IAS 38 is a fair standard, or does try to regulate too many different items that should be treated differently from each other?

### Part 2: Exploratory part

**Question 5:** How do you believe the current standard and practices works for the presentation of intangible assets?

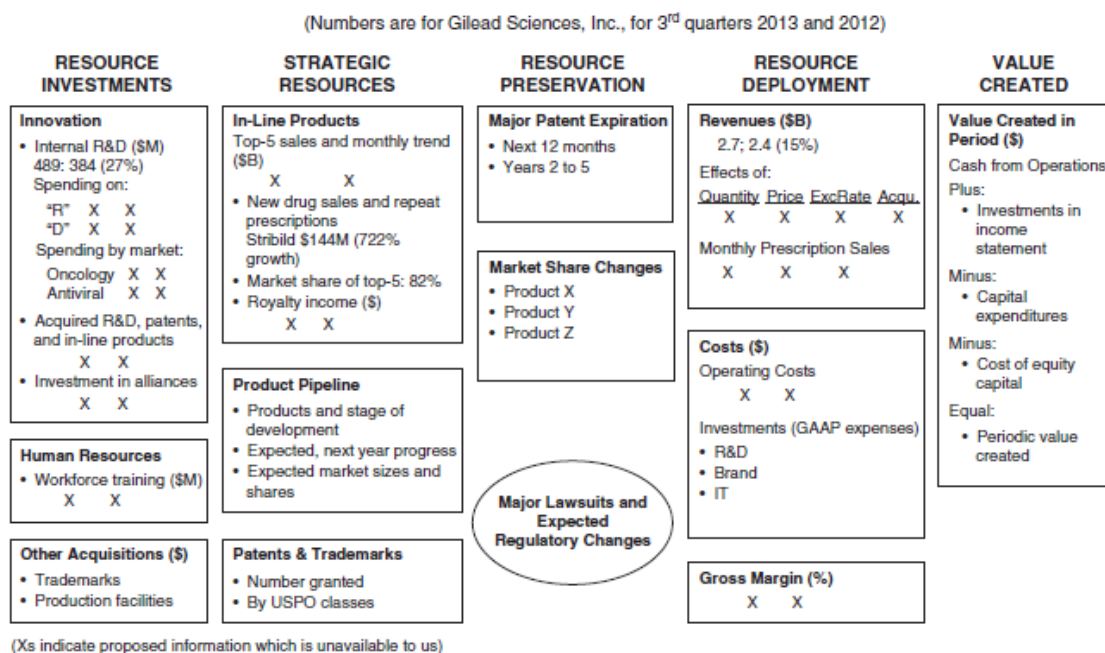
Are you satisfied with the way they are presented in the annual report? (This question focuses on the whole annual report, and not just the financial statements).

**Question 6:** How do you think current accounting standards affects the degree of accounting relevance?

**Question 7:** According to your opinion, where in the financial statements should there be a greater focus on when presenting quantitative information? (Should intangible assets/investments be more present in the income statement, statement of financial position (balance sheet), the cash flow statement or the notes?).

**Question 8:** What do you believe is necessary in order to increase accounting relevance for companies who depend on intangible assets and investments in R&D? These companies are usually those who has to expense, rather than capitalize R&D expenditures and other intangible investments?

**Question 9:** What are your thoughts/opinion about a new strategic report presented alongside the financial statements that quantifies intangible investments and strategic initiatives undertaken by a company, like this suggested by Lev & Gu (2016)?



**FIGURE 14.1** Pharmaceutical and Biotech Companies: A Strategic Resources & Consequences Report

**Question 10:** Do you have any open thoughts you would like to share with us and/or finishing comments on the way forward for accounting for intangibles?

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