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A NEW APPROACH TO ACCOUNTING DISCLOSURE

Abstract

This paper aims to contribute to the growing literature focused on how to improve or to better interpret accounting information in today's business world. Lev and Gu (2016) shed light on a problem which already existed in the accounting, finance and management world. This paper provides an accurate understanding of the issues surrounding the topic of accounting disclosure, from both an academic and an industry-oriented perspective. It describes the proposed solutions and presents a final discussion, seeking to contribute to what is probably one of the most important debates the accounting profession is facing.

Introduction

Today's world is characterised by the increasing presence of highly innovative companies whose strengths lie in their ability to disrupt the market. A classic example of such companies would be Apple. Service firms, such as banks and insurance companies, just to mention two kinds of enterprises belonging to the business service field, keep playing a key role in society, allowing businesses to operate and invest in their profitable projects. Generally speaking, it appears that creativity is coming back as an invaluable skill for success. Indeed, many innovative companies have abandoned a very hierarchical structure in order to allow their employees to find creative moments to contribute to the development of new ideas.

All changes come with associated challenges and in this particular case probably the biggest challenge is for the standard setters and regulators to make sure investors have clear valuable information available to make appropriate investment decisions. Unfortunately, according to the evidence provided by Lev and Gu (2016), it seems that regulators have failed in this task, even though there have been some meaningful discussions in connection with this topic. For example, in the issue involving R&D capitalisation there is still a significant gap between the actual value of a company and what investors can abstract from the financial statements. Companies are trying to provide such relevant information to investors in several ways, for instance by providing long and detailed footnotes or by using other communication means to convey their innovations or strategic advances. In fact, it is now common practice for corporations to engage in communications through Twitter, Facebook or social networks in general to pass relevant information on to investors.

From this brief introduction, it is clear that the need for a new approach to accounting disclosure is far from superficial, especially because accounting is considered to be the language of business and investors need to be able to understand it properly to engage in the investment world. Even academics in the finance and accounting field understand that the numbers in financial statements have probably either been over-analysed or are less significant than they used to be. Indeed, textual analysis research is becoming an important tool for accounting and finance academics to provide significant advances in this field and this is documented by the increasing number of

articles in top academic journals adopting this technique to gather relevant data. Moreover, several significant research questions related to voluntary disclosure, valuation and value relevance have been re-explored in the light of these big changes. As Lev and Gu (2016) correctly point out, however, there is not too much difference between the financial statements produced a century ago and those investors can use today to make their investment decisions. The balance sheet, income statement and statement of cash flow maintain a structure that is extremely similar to that of the ones which were drafted in the past, when the main industry and, as a consequence, the main economic driver was the manufacturing industry. Consequently, this confirms that regulators and standard setters may have failed to meet this challenge up to now. They may have overlooked the importance of restructuring and of better supplementing the existing financial statements with other documents helping investors make better investment decisions.

On the basis of this introduction, we will now make a review of literature, give a description of the solution to the problem proposed by Lev and Gu (2016), comment on how to apply their proposed disclosure approach and offer some concluding remarks.

Literature review

To understand how the academic community is seeking to shed light on the importance of strategic information for the making of informed investment decisions, this literature review will touch on the fields of accounting research which are most closely involved by the issue which we are discussing. The first piece of work we should mention is Lev and Gu (2016). They prove that there is a need for change in the financial accounting regulations due to the growing importance of strategic assets. Actually, Prof. Lev along with other eminent scholars such as S. P. Kothari, Mary Barth and David Aboody, already saw and acknowledged the changes the business world was going through and the need to better understand how to properly inform investors about the new important features which companies were developing. Their work always had the aim of helping both investors and standard setters to understand the evolution of business performance and the prediction of future value through financial information. In fact, this is the actual aim of accounting research.

Some prominent examples of what we are talking about are Aboody and Lev (1998) who, exploiting the very special case of software capitalisation, examine the relevance to investors of information on the capitalisation of software development costs in accordance with SFAS No. 86. In particular, bringing to bear the fact that software capitalisation, at least at the time when the paper was developed and published, was the only case officially recognised as belonging to the «D» part of R&D and consequently did not need to be fully expensed, Aboody and Lev (1998), taking into account that the Software Publishers Association (SPA) issued in 1996 a petition to abolish the standard, tried to make this challenge meaningful by providing a rigorous analysis and assessment of the situation. They concluded that capitalisation-related variables are significantly associated with capital market variables and future earnings. This is a cornerstone example of the important role that intangible assets play for corporate performance and valuation. In fact, the academic community has been giving growing importance to such factors over the course of time. For instance, Kothari, Laguerre and Leone (2002) test a new method to estimate the relation between R&D investments and the uncertainty of future benefits from those investments. They conclude that R&D investments generate future benefits that are far more uncertain than benefits from investments in tangible fixed assets. Once again, this is evidence supporting the need to update the financial disclosure methods in order to better incorporate the importance of strategic assets and investments.

Lev and Sougiannis (1996) is another very important paper documenting the value relevance of R&D investments, hence their relevance for investment decisions. More recently, Chen, Gavigo and Lev (2017) related the importance of R&D capitalisation to the standards imposed by the IFRS, concluding that the capitalisation of R&D investments generates positive externalities to investors.

It is clear that, even as we begin to go through the literature related to valuation and value relevance, there is an intersection with the subfields of regulation and voluntary disclosure. We will discuss the latter a little more thoroughly as we proceed with this paper. Before doing so, however, another accounting subfield which has been touched by the gap between standard

setters and investors is definitely the one involving the study of financial analysts. For instance, Barth, Kasznik and McNichols (1999) find a statistically significant relationship between analysts' coverage and firms with more intangible assets. This is a key finding because analysts are the ones in charge of forecasting companies' future profitability as well as recommending which investments to make. If they have more incentives to cover firms with more intangible assets it means two things. First, firms with more intangible assets might yield higher future profitability and/or, taking Barth, Kasznik and McNichols' (1999) point of view, these firms might be covered more by analysts simply because their financial disclosure is not as informative as it is for firms possessing mainly tangible assets. In fact, intangible assets are typically unrecognised and estimates of their fair values are not disclosed. To fill the gap, academics started using textual analysis to figure out if, in the footnotes or in the Management Discussions and Analysis part of the financial statements, there is something to be found which would help to better understand the actual value of a firm and to communicate it to investors.

Since an in-depth explanation of the textual analysis approach goes beyond the scope of this paper, interested readers are referred to Loughran and McDonald (2016), which is a very good survey of the advances in textual analysis within the accounting and finance field. However, it is important to take into account the fact that the academic community is increasingly relying on this methodology to answer research questions in valuation: for instance, Bartov, Faurel and Mohanram (2018) show how company tweets are able to help to predict future company performance. The methodology we are presenting has also been extensively used to answer questions related to voluntary disclosure. For instance, Bushee, Gow and Taylor (2017) investigate whether the language complexity used by companies in their disclosure is the result of having to disclose complex information or whether it is simply a tool that managers use to hide unfavourable information. Another important example related to voluntary disclosure is Lundholm, Rogo and Zhang (2013), who study how foreign companies communicate their value to foreign investors.

In summary, it is easy to appreciate how the gap between accounting standards and the current business world is pushing both academics and practitioners to find new solutions to it. The next section of this paper will

provide an overview of the most concrete solution that has been postulated so far, namely, the Strategic Resources and Consequences Report proposed by Lev and Gu (2016).

Overview of the Strategic Resources and Consequences Report

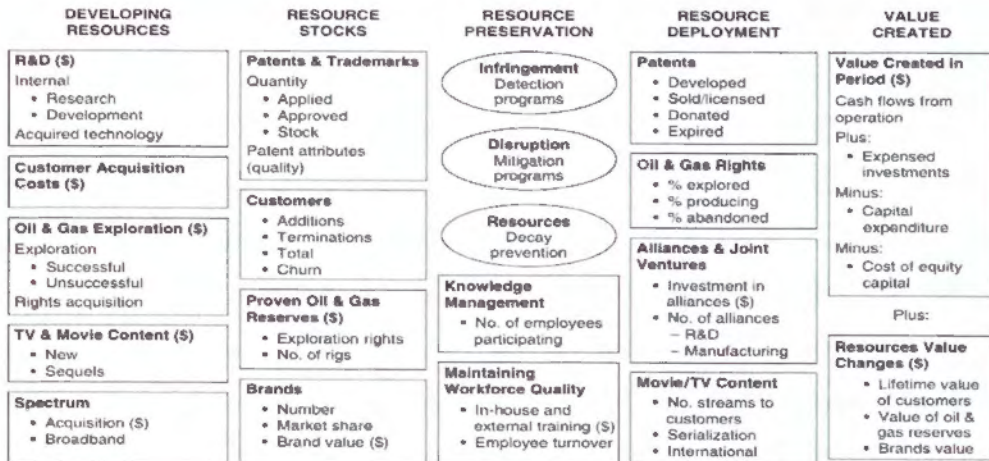
The model proposed by Lev and Gu (2016) challenges the accounting profession and the accounting world in general. It states that, due to the changes the corporate world has been going through in the last decades, accounting standards and procedures are no longer appropriate to disclose the actual value of a company – let alone its growth perspective. This is because while the corporate world has been evolving, the accounting world has become static in comparison. To solve these issues, the authors developed the so called Strategic Resources and Consequences Report, which has the aim of providing investors with enough information to assess whether a company has been developing a sustainable competitive advantage or not. This sustainable competitive advantage depends on the ability a company has to generate financial profits. According to Lev and Gu (2016), a company creates a sustainable competitive advantage by efficiently operating its strategic assets. Strategic assets are those which are:

- **Valuable:** They must be able to generate a stream of profits exceeding costs, such as patents underlying profitable goods and service.
- **Rare:** A limited amount of these assets is usually available, such as the landing rights of an airplane company.
- **Difficult to imitate:** Competitors cannot easily imitate or acquire such assets.

Therefore, this new financial disclosure approach should inform investors about a company's strategic assets, how it develops or acquires them, the risks to which these assets are exposed and how the company intends to use them. To show the validity of this report, the authors tested it in several industry sectors: media, insurance, pharmaceutical, biotech, and oil and gas. The picture below clearly shows how the model works.

A picture is worth a thousand words so, after having narratively introduced the Strategic Resources and Consequences Report, let's go through it using Figure 1, taken from Lev and Gu (2016), to better grasp this new disclosure

approach. The model is based on economic theory and the information which is presented in the report is that which, according to theory, is considered useful for investors. This information focuses on enterprises' strategic assets and their creation, preservation and deployment with the final aim of creating corporate value. The model pictured in Figure 1 is a generic one. There are five columns from left to right, each of which represents a set of information that is of key importance for a company to create a sustainable competitive advantage. Much of the information is in monetary amounts (\$) and some is quantitative, such as the number of new customers: this information appears in the rectangles. The information in the circles is qualitative information.



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

FIGURE 1. Strategic Resources and Consequences Report.

An important thing to understand is that most of this information is not required to be disclosed in the financial statements but financial analysts are very interested in it. In fact, they try to extrapolate as much of this information as possible through the conference calls and the footnotes of the financial statements.

To make the reader feel at ease with the Strategic Resources and Consequences Report, we will go through it step by step. The first column on the left lists developing resources. There are five squares in this column, meaning that we are dealing with quantitative amounts or, more precisely, \$ amounts. This column simply describes and lists the resources which

a company can develop in order to achieve a sustainable competitive advantage. For instance, the company might want to invest in research and development. Such investment could be an internal process if the company decides to exploit its own R&D department, or external if the company acquires technologies from other firms or exploits external labs. Either way, the company will incur costs and these are quantifiable. This is the reason why these items are enclosed in a square. Customer acquisition costs are a quantifiable item as well. These are all the costs a company has to incur in the attempt to attract and retain new customers. They could be agreements with other companies to allow customers to appreciate the product. As discussed in Lev and Gu (2016), the value of customers acquisition is one of the most undervalued items in the standard financial statements, even though for highly innovative companies such as Netflix this item is key to creating a sustainable competitive advantage. The next square includes oil and gas exploration costs. These items are clearly applicable to oil and gas companies or even to companies working in the energy sector in general. For these kinds of companies, what they invest searching for new sources of energy is a fundamental part of their business. Such explorations require large investments and there is always a percentage of successful and unsuccessful results. However, these activities are at the core of their sustainable competitive advantage. The same reasoning applies to the following two squares in the column: TV and Movie content and spectrum. These two items clearly belong to the media and telecommunication industries. How much a TV company invests to create a sequel of a successful TV show or movie can affect its long-term visibility and success. How much a telecommunication company invests in acquiring spectrum might push it ahead of the competition.

The next column identifies the resources stock. These are the items quantifying how a company strategically stocked its strategic assets and in this case as well there are only squares in the column. For instance, the first square listing patents and trademarks quantifies the value of those owned by a company. This item is vital if a company invests heavily in R&D. The company must be aware of how many approved patents it possesses and how many are in stock. On the other hand, the second square in the column is crucial for all companies which are heavily dependent on customers. We have previously taken Netflix as an example but this item could also be applied to

iTunes as a case in point. The square quantifies the additional customers in dollar amounts as well as the termination costs and churn rate. The square immediately below quantifies the proven oil and gas reserves in terms of exploration rights and the number of rights. If we move to the last square in the column, we see the dollar quantification of brands: the number of brands, their market share and their market value.

Then we move to the resources preservation column: the only one so far containing both circles and squares. If we look at the information within the circle, the information is qualitative in nature and includes strategies to protect a company's strategic assets from possible threats. For example, the first circle shows how a company can protect its strategic assets from infringement. This could also be done through detection programmes. A company could protect its strategic assets through mitigation programmes and its resources by prevention. The quantifiable part of the preservation column is given by knowledge management and the maintenance of workforce quality. To maintain certain skills there is the possibility of implementing either internal or external training programmes. Alternatively, a company might decide to implement a large employee turnover.

Before discussing the value created by the company's strategic assets, there is another column to be analysed: the resources deployment column. This is another column containing only squares so we are dealing with monetarily quantifiable information. The deployment of resources in this case involves their efficient allocation. For instance, a company might want to quantify how many patents expired and how many have been developed or donated. Along the same line, an oil company might want to quantify the percentage of exploration rights abandoned or the percentage of exploration rights produced. The square listing alliances and joint ventures quantifies the investment in the alliances that a company makes. Sometimes, to obtain a sustainable competitive advantage and to be ahead of the game, a company may engage in an alliance contract to develop a new product. Such an agreement might have the effect of reducing R&D costs, speeding up the development process and exploiting another company's complementary knowledge. The last square in the column is self-explanatory and is mainly intended for television and broadcasting companies.

In the last column, we can understand how this model is an important complement to the existing financial statements. In fact, under the value creation column we find two complementary squares, one showing the value created for the period in an amount in dollars. This value is calculated using a traditional accounting approach. An interesting addition is the square right below the accounting formula. This square is designated as Resources Value Changes and it is connected to the accounting formula above by a plus sign. This square includes the change in value of a company's strategic assets and it is a very distinctive feature of the Strategic Resources and Consequences Report.

It looks like this model has many pros but for sake of completeness it is worth mentioning that there is a trade-off in adopting this model. The biggest trade-off is between the value a firm can gain by attracting investors interested in its sustainable competitive advantage and the value of the information to disclose which might have a competitive implication. This is also a topic which academics are trying to tackle and some of the references we mention in the literature review touch on this issue as well. Given the industry-specific nature of each type of information listed in the Strategic Resources and Consequences Report, we will borrow an example from Lev and Gu (2016) to show the reader how the new disclosure model works.

Example

Since we mentioned the importance of innovation and creativity in the introduction to show how the strategic resources and consequences model works, we will now analyse the media and entertainment industry example from Lev and Gu (2016). This industry is an interesting example to study because of the fierce competition within it, mainly due to low entry barriers and to the fact that customers are media companies' most important strategic asset. Sometimes firms of this kind even need to manage customers' data to develop algorithms or other resources to build a sustainable competitive advantage.

It is also important to notice that the media and entertainment industry includes several subindustries such as television and social media. All of them are very sensitive to technological disruption. Figure 2 below is from Lev and Gu (2016) and it is a very accurate example of a company in the media and entertainment sector.

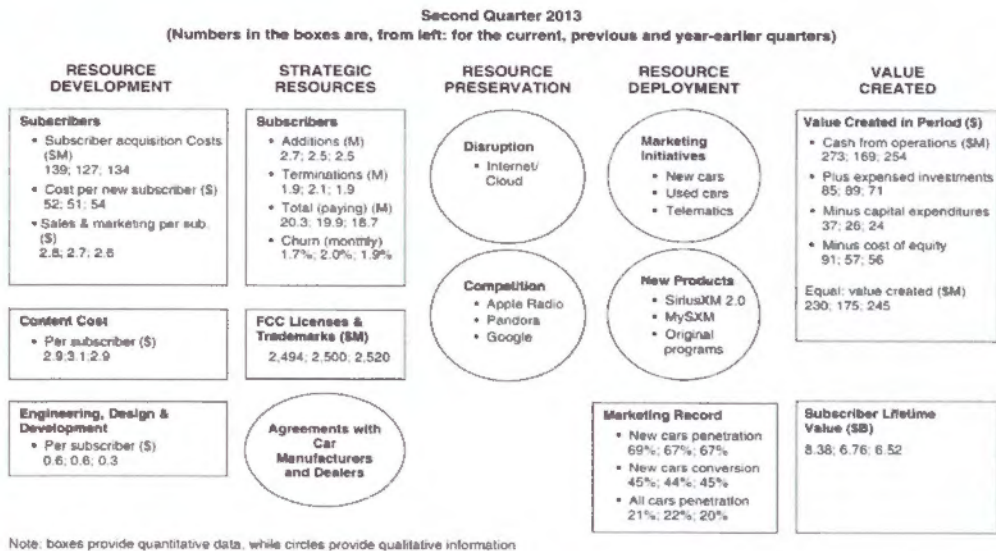


FIGURE 2. Strategic Resources and Consequences Report of Sirius.

If we analyse the report from this company named SIRIUSXM Inc. we notice a set of characteristics. We see that in the column designated as Strategic Resources there are two square boxes and one round box, meaning that two boxes will provide quantitative information and one will give qualitative information. We need to read the numbers within each box from left to right because the number furthest to the left is the figure for the current period. For instance, we can see that in the current period the company has 2.7 million new customers, an 8% increase over the last period, when it acquired 2.5 million customers. The number of terminations decreased, as well as the churn rate (defined as the annual percentage rate at which customers stop subscribing to a service). The same reading can be applied to the box of FCC licenses and trademarks.

The circle, on the other hand, explains how the company is qualitatively developing and employing its strategic resources. In this particular case, the company is engaging in alliances with car manufacturing companies and dealers. This move is key to letting customers experience and appreciate the product.

Moving to the Resource Development box, we see the costs required for the development of these strategic resources which, as expected, increased for

the current period. In fact, we can see that subscribers acquisition costs, cost per new subscriber and sales and marketing per subscriber all increased with respect to the last period. Respectively, subscribers acquisition costs increased from 127 million dollars to 139 million dollars; cost per new subscriber increased from 51 to 52 million dollars; and sales and marketing per subscriber increased from 2.7 to 2.8 million dollars. The engineering & design development costs remained stable at 0.6 million while the content cost per subscriber fell to 2.9 million dollars from an increase to 3.1 million dollars.

The column describing the resource preservation only contains qualitative information about the possible competition and the disruptions that the company might face. In the first circle within the column we find the cloud and the Internet in general as disruptive initiatives within the market that the company is competing in. The circle right below lists the competitors which are identified as Apple Radio, Pandora and Google.

The last two columns are easy to comprehend at this stage because they are self-explanatory. The Resource Deployment column shows how the company allocates its resources, for instance through developing new products or undergoing marketing initiatives. To attempt to quantify this strategy, the report also shows the marketing records achieved by the firm. If we go into greater detail in the Resource Deployment Column, we can see another set of features. There are two circles containing marketing initiatives and new products, respectively. Both are qualitative information. Indeed, the marketing initiatives list possible strategies to reach a greater customers base. Based on the report, the company could do it through the used car market, the new car market and even telematics. New products which might be developed to achieve a sustainable competitive advantage are listed in the New Product circle. Finally, the last part of the column is a square describing the company's marketing records. We can see an increase both in new cars penetration (from 67 to 69 percent) and in new cars conversion (–from 44 to 45 percent). However, although the overall cars penetration decreased from 22 to 21 percent it should be noticed that it increased from 20 to 22 percent in the previous period, so the decrease might be due to stabilization.

Lastly, the Value Created column provides quantitative data in millions of dollars about the benefits explained by the initiatives and items presented in the previous columns. The most interesting part of this new approach towards

accounting disclosure is that most of the information used is not gathered directly from the financial statements but rather from the footnotes in the financial statements and the management calls. In fact, the last column is composed of two squares. The one at the top shows the value created in accounting terms for the period and the second one shows the subscriber lifetime value for the period. The latter focuses on the main strategic asset of the company, namely customers. Both squares show positive results for SIRIUS XM. In fact, the value created for the period increased from 175 to 230 million dollars and the subscribers lifetime value increased from 6.76 to 8.38 billion dollars.

Conclusion

In conclusion, the accounting world appears not to have followed the pace of the business world. In fact, even though prominent academics proved through their studies that there is need for a change in the way companies are required to disclose their information, the first actual concrete proposal to meet this challenge is the Strategic Consequences and Resources Report presented by Lev and Gu (2016). This report is meant to be a complement to the current financial statements and it is intended to capture those items which lie at the core of the firm's sustainable competitive advantage. Such strategic assets are the result of research, development and creativity and companies nowadays tend to disclose them either through footnotes to their financial statements or through management calls.

To summarize, there is definitely a need for a dynamic change in the way companies are required to disclose their financial information because the business world demands it. The model proposed by Lev and Gu is a solution to the problem through a new report which should supplement the financial statements. The availability of such a report would benefit both investors, by making them aware of the real value or potential of the company they are investing in, and companies themselves because they would be able to effectively communicate to investors and creditors their long-term plans and value creation.

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