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The Impact of Accounting Measurement on the Financial Reporting

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Abstract: This article provides an in-depth discussion of the impact of accounting measurement on financial reporting. After confirming the centrality of accounting measurement in financial reporting, the article analyses the impact of accounting measurement on corporate financial reporting in four accounting items: intangible assets, R&D, goodwill and pensions. The study points out that the assessment of enterprise value and stability can be significantly affected by improper measurement of intangible assets. Accurate R&D accounting measurement is essential for financial report users to reveal the true value and potential earnings of a business. Goodwill arises mainly from accounting for business combinations or mergers and acquisitions, and accurate measurement is an important basis for business risk assessment and strategic planning. Pension accounting measurement affects the prediction of future cash flows of enterprises, and therefore has an impact on the users of financial reports, especially on investors. This paper demonstrates, through five case studies, the use of accounting measures for the above four accounting subjects in actual financial reporting and their specific impact on decision makers. In conclusion, the accuracy of accounting measures plays an indispensable role in improving the transparency and comparability of financial reporting and can have a decisive impact on the decisions of investors and other stakeholders.

Keywords: Accounting Measurement, Financial Reporting, Intangibles, Research & Development, Goodwill

1. Introduction

Financial reporting plays an indispensable role in modern economies, providing investors and decision makers with key information to assess the economic condition and operating results of enterprises, and contributing to market transparency and efficiency. As business activities have become more complex and globalized since the industrial revolution, regulators and international standard-setting bodies have strengthened the development and monitoring of financial reporting standards to enhance financial transparency and prevent future market crashes. The role of financial reporting is also relevant to credit assessment, tax planning, internal management decisions and meeting compliance requirements. Driven by information technology and the Internet, the manner and speed of financial reporting has also been revolutionized, with the use of technologies such as real-time data processing and cloud computing making disclosure of information more instantaneous and transparent. High-quality financial reporting is positively correlated with the resource allocation

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efficiency of the company issuing the financial report, and there is a positive correlation between high-quality financial reporting and the efficient allocation of resources in the real sector, which results in benefits for the company's employees, consumers and other market participants [1]. In today's globalized world, multinational corporations are more dependent on the trust of national markets and investors, which increases the need for high-quality financial reporting.

Accounting standards affect changes in the structure and content of financial statements, but as global economic integration accelerates, international harmonization of accounting standards is inevitable. From the end of the 20th century to the beginning of the 21st century, organizations such as the International Accounting Standards Board (IASB) and the U.S. Financial Accounting Standards Board (FASB) played a key role in promoting the convergence of international accounting standards with U.S. Generally Accepted Accounting Principles (US GAAP). In this process, the harmonization of accounting measurements is particularly important, such as the application and optimization of fair value measurements and historical cost measurements, and the accuracy of accounting measurements has had a profound impact on the transparency and comparability of corporate financial reporting. Nowadays, the rapid development of technology, especially the progress of information technology, has redefined the collection, processing and reporting process of accounting information, making real-time and more accurate accounting information possible. Especially in recent years, the use of emerging technologies to shape the future of accounting is exciting and its impact on the accounting profession is growing [2]. The development and implementation of accounting measurement standards are also facing the need to be revisited in light of emerging technologies. In the aftermath of the global financial crisis, accounting standards have come under particularly intense scrutiny, especially with regard to accounting measures such as intangible assets. Accounting measurement, as a method of determining the value of assets, liabilities and owner's equity in financial reporting, has a decisive impact on the strategic decisions of companies. Different accounting measures, such as historical cost, replacement cost, current value and fair value, can lead to significant differences in financial reporting in showing the financial position of an enterprise. Therefore, the accuracy of accounting measurements is particularly important. Correct accounting measurements have a fundamental impact on the strategic decisions of an enterprise, as they are directly related to the reliability and validity of financial reports. Accounting measures include the valuation of items such as assets, liabilities and shareholders' equity, and these valuation methods must be able to reflect the true financial position of the enterprise, thereby providing management with a basis for formulating policies, planning future investments and managing risks. For example, an enterprise that is too conservative or too aggressive in its valuation of intangible assets may result in significant capital fluctuations that are noticeable on the financial statements, thereby affecting the enterprise's recapitalization and long-term growth strategy.

2. Intangibles

Financial statements describe the financial position and results of operations of an entity. In order to disclose that an entity's financial statements comply with financial reporting standards, management needs to make estimates and assumptions that affect the amounts reported in those statements and in the notes [3]. Since judgements are inherently subjective, management should use all available and sufficient information when making accounting measurements. Particularly critical is the measurement of intangible assets, which do not have the same physical existence as tangible assets, but which have a non-negligible impact on the financial health and market value of the business. The specificity of this category of assets is reflected in their valuation and measurement, which are challenging but critical processes. The choice and implementation of accounting measurements have a direct impact on the presentation of the balance sheet as well as profit fluctuations in the income statement. Inefficient valuation of intangible assets, coupled with improper accounting treatment, has

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significant implications for the company, its shareholders and society as a whole. If a company fails to provide appropriate and value-related information to shareholders and potential investors, it may suffer a number of socio-economic consequences. These consequences, such as information asymmetry, high cost of capital, risk and illiquidity, may lead to misallocation of resources in the capital market [4]. Therefore, the accounting treatment of intangible assets is not only a technical issue of financial reporting, but also a key factor influencing the strategic decisions of companies and the judgement of external investors.

Companies in the technology and entertainment industries need to pay extra attention to intangible assets, mainly because the business models and value creation methods of these industries are closely related to the characteristics of intangible assets. The core assets of both types of companies are often the intellectual property they own, such as patents, copyrights, trademarks and research and development results. While technology companies rely on technology patents and software development results to drive innovation and competitiveness in the marketplace, entertainment companies rely on film copyrights, musical compositions and other creative outputs, and entertainment companies rely on technology patents and software development results to drive these intangible assets are also important factors in attracting investment and attracting customers to the products and services they provide. For example, Google in the technology sector and Disney in the entertainment sector have intangible asset values of $1,968 million and $17,115 million in 2023. These figures reflect the significant proportion of intangible assets in their total assets. Google, as a leading global technology company, has intangible assets that include technology patents, software, trademarks, and other intellectual property that are central to its innovation-driven strategy. Disney's high level of intangible assets highlights the sheer size of its media and entertainment empire. Disney's intangible assets consist primarily of film rights, brands, trademarks, and its extensive franchise rights, which underpin its global entertainment business and product diversification. Investors rely on financial reports to assess the value of the companies, and the high share of intangible assets of both companies can provide an important competitive advantage and a potential source of revenue, but because their valuation often involves complex and subjective judgements, which significantly increases the uncertainty of investment decisions, investors are likely to need to be more careful in evaluating the true value and potential risks of these assets. A company's management will use financial reporting to make strategic decisions such as asset investment and cost control. The existence of intangible assets will require management to formulate business strategies that take into account how these assets can be used effectively to create value while managing the risks associated with them. Managers' assessment of performance can also be affected by the effectiveness of measuring and managing intangible assets. For example, an increase in the value of the Disney brand may be seen by managers as an indicator of successful marketing.

Overall, the accounting measurement of intangible assets is an important part of financial reporting, and the high percentage of intangible asset values has a profound impact on corporate decision-making and users of financial reports, while at the same time posing a significant challenge to the financial stability and valuation of corporations.

3. Research & Development

The link between research and development, technological change and economic growth has been demonstrated theoretically and confirmed empirically at the firm, industry and national levels. In particular, the finding that R&D leads to subsequent gains in productivity, earnings, and shareholder value suggests that R&D and technological change expenditures may help drive economic growth [5]. Therefore, in today's society, more and more governments and corporations are increasing their spending on R&D, which results in the accuracy of the accounting measurement of R&D having an extraordinarily far-reaching impact on a company's financial reporting. This is especially true in the

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healthcare industry, which is particularly dependent on technological advances and the development of new products to meet market demand, such as new drugs, medical devices, and diagnostic tools, which are often subject to rigorous clinical trials and regulatory approvals. This process is long and costly, and R&D expenditures are relatively large. Not only that, the healthcare industry is under constant pressure to update technology and innovate. In order not to be eliminated by society, companies need to continuously invest in R&D to remain competitive and respond to rapidly changing treatments and patient needs. A study has shown that the higher the government R&D subsidy to a company in the healthcare industry, the better its company's performance will be in the following year, which also proves the importance of R&D investment to the healthcare industry [6]. For example, Johnson & Johnson in the healthcare industry, according to its 2023 financial statement, Johnson & Johnson's R&D in 2023 will be $9,215million, which is a very significant value, showing that Johnson & Johnson attaches importance to innovation and dedicates to the research and development of new products, and such a high R&D expenditure also reflects Johnson & Johnson's determination to maintain its leading position in the global healthcare industry through This continuous technological innovation and product disc development, the company is able to remain competitive in a highly competitive market and is part of the company's long-term business plan.

The high percentage of R&D is reflected on the balance sheet as larger intangible assets or capitalization in terms of R&D expenditures, which affects the performance of the company's total assets and shareholders' equity, and Johnson & Johnson's investment in R&D has a direct impact on the composition of its balance sheet. Capitalized R&D expenditure increases the carrying value of intangible assets, which has a significant impact on total assets and asset structure. On the income statement, high R&D expenditures also compress profits in the short term. This accounting treatment increases the long-term value of assets, but it also imposes a burden of future amortization, which can affect the company's financial flexibility and profitability in future years. Johnson & Johnson's high R&D expenditures are usually reflected in the income statement as a large amount of R&D expenses, which directly affects the company's profit level. For investors who use profitability metrics as an assessment of performance, this leads to negative investor perceptions of the company's short-term profitability, despite the fact that such expenditures are an important investment in future earnings and growth potential. If Johnson & Johnson chooses to capitalize a portion of its R&D expenditures, these expenditures will be gradually converted into intangible assets in the future through amortization that will be reflected on the balance sheet and affect profitability. This accounting treatment would have improved the profit performance in the current period, but would have increased the cost burden in future periods. Understanding the use of this accounting policy and how it affects future earnings forecasts is essential for financial analysts and investors alike. The impact of the accounting treatment of R&D expenditures on the financial soundness of the company is also something that management needs to consider when making strategic decisions. For example, capitalized R&D expenditure may increase debt ratios, but there are trade-offs that management needs to make in order to decide on the best strategy for allocating funds.

Overall, although high R&D investment may compress profits in the short term, it is an important investment for a company to remain competitive in the marketplace and to continue to grow, and the accurate accounting measurement of R&D affects investor decision-making as well as management's strategic planning of R&D investment and reveals the real value of its potential returns. Therefore, the key to maximizing a company's long-term value is to present R&D accurately in its financial statements.

4. Goodwill

Goodwill usually arises in business mergers and acquisitions and represents the payment of an amount in excess of the fair value of identifiable assets. The accounting treatment of goodwill is critical because it provides ample scope for management discretion, which may threaten the reliability of financial reporting [7]. The measurement of goodwill needs to capture those intangible and sometimes subjective values, such as brand power, customer loyalty and employee expertise, which are often difficult to quantify but have a significant impact on the long-term success of a business, for example, in some large companies, a high level of goodwill can positively affect the company's performance [8]. Goodwill, as an important intangible asset, occupies an important position on the balance sheet. If goodwill measurement is overvalued or undervalued, it will directly affect the total value of the firm's assets, which in turn will affect the balance sheet ratio and shareholders' equity. Goodwill is subject to periodic impairment testing. If goodwill is found to be impaired, an impairment loss needs to be recognized immediately in the income statement, which will reduce net profit for the period and affect profit distribution and tax liabilities.

Goodwill often occupies a higher percentage in the financial industry than in other industries, as the frequent nature of merger and acquisition activities within the financial industry leads to the creation of a large amount of goodwill. License acquisition and regulatory compliance are highly valuable in the financial industry and these elements are also considered assets in M&A transactions, further pushing up the measurement of goodwill. The extensive network of customer relationships, reputation and know-how that a financial institution builds in providing its services are assets that are difficult to specifically quantify in financial statements, and their value is converted into goodwill during the M&A process. For example, Wells Fargo in the financial sector has goodwill of $25,175million according to its 2023 financial statements, a high value of goodwill that is often closely associated with historical M&A activity. Wells Fargo has expanded its business and market share by acquiring other financial institutions at a cost that exceeds the value of the acquired company's identifiable assets, and has developed high goodwill as a result. Such high goodwill also reflects Wells Fargo's strong brand presence and solid position in the financial services industry, and suggests that the market and its investors have a positive view of Wells Fargo's future profitability and growth potential. Nonetheless, in the event of an impairment of Wells Fargo's goodwill, which could raise doubts in the market about Wells Fargo's financial health and affect its share price and market credibility, investors also need to assess the stability and sustainability behind the goodwill, as well as management's ability to maintain this value. For the company's management, management needs to make adjustments to the company's long-term strategy and resource allocation based on the results of the impairment test and projected market changes to address the precise financial strategy and risk management required to account for Wells Fargo's high goodwill.

Overall, the accounting measurement of goodwill and the accuracy of financial reporting affects the generation of behaviors and decisions of the users of financial information, a higher value of goodwill enhances the total asset value of the balance sheet, but it also poses the risk of goodwill impairment that directly leads to the income statement of the company. In addition, goodwill is an important consideration in the assessment of the value and credit risk of a company by its investors and creditors, and the management of a company makes strategic plans based on the maintenance of the value of the company and the measurement of goodwill.

5. Pension

As life expectancy increases, so does the cost of pensions paid by companies to their employees, a cost that has become a burden for many companies and poses a risk to their activities [9]. Moreover, there is a negative and economically meaningful relationship between this pension risk and investments [10]. Therefore, accounting measurement of pensions has become particularly important. Pension accounting measurement is a complex area of modern corporate financial reporting that involves forecasting future pension obligations and estimating the current funding position, and the value of the accounting measure affects the financial position and performance of the company.

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Expected pension costs that are underestimated may expose a company to the risk of future cash outflows, and conversely overestimates may lead to unnecessary accumulation of funds, limiting the capital available to the company for other investments. The accounting measurement of pensions is particularly important for the public sector, the financial services industry, and other traditionally large manufacturing enterprises, which tend to have larger pension obligations because of the more generous benefits provided by their employees. In addition, the accounting for pensions at senior and large companies, which typically have a large number of long-term employees and a heavy pension obligation, also requires special attention.

One example of a company with a high pension ratio is The Boeing Company, which reported a pension of $6,516 million in its 2023 financial statements. As a large aerospace manufacturer that has been around for many years, Boeing has a large number of employees, including many long-serving employees, and provides them with generous retirement benefits, which results in a high pension value in its financial statements. . This long-term retirement obligation may result in a high financial burden for Boeing, requiring a fine-grained accounting measurement to reflect the present value of the pension obligation and future funding requirements. Boeing's large pension values figure prominently in its financial reporting. A high pension obligation that exists as a long-term liability on the balance sheet has a direct impact on the company's financial leverage ratio. High pension obligations typically require companies to significantly reduce earnings and comprehensive income in their financial reporting in order to hold corresponding investment assets to meet future payments. Pension-related expenses on the income statement would be included as part of operating expenses, which would have an impact on the company's operating profit. Any impairment or revaluation made by Boeing for the pension scheme would result in a material change to the income statement, which in turn would have an impact on net income for the period. For potential investors, a high pension obligation in the financial report can lead to potential future cash flow pressure on the company, as the company must maintain sufficient funds to meet these long-term commitments, which results in a more conservative approach to stock valuation, especially when considering the future earnings and dividend potential of the stock. The impact of pension obligations on financial strategy must also be factored into the considerations of decision makers within companies. They need to balance the continuity and stability of pension obligations in their budgeting and financial planning to ensure that pension assets are appropriately allocated and investment returns meet future contribution obligations.

Overall, the accounting and measurement of the pension component of a company's financial statements cannot be ignored; it involves projections of future obligations and estimates of the current funding position, and has a significant impact on a company's financial stability and performance, especially critical for large corporations that offer generous benefit packages. The financial statements of Boeing, among others, indicate an extremely high level of pensions, a value that has a significant impact on its long-term financial health and on the assessment of investors and internal decision makers, but also reflects a commitment to long-term employee retirement benefits.

6. Conclusion

This paper delves into the multidimensional aspects of the impact of accounting measurement on financial reporting. It first describes the centrality of accounting measurement in financial reporting. The impact of accounting measurement on financial reporting is then explored in four accounting subjects, namely intangible assets, goodwill, pensions and accounting entries, respectively. For intangible assets, the accounting measurement of intangible assets, if not measured properly, can have a significant impact on company managers, shareholders and potential investors, especially for some companies with a high proportion of intangible assets, which will affect the assessment of the value of the enterprise and the stability of the enterprise as a whole. As for R&D, more and more companies are focusing on product research and development in order to achieve long-term strategic goals, especially in the medical industry. Accurate accounting measurement of R&D can correctly reveal the actual value of the R&D investment and its potential return, and its accuracy is crucial for investors and the management of the enterprise to make decisions. Goodwill arises in mergers or acquisitions of enterprises, and the overvaluation and undervaluation of goodwill affects the total value of assets in financial reporting, which directly affects the credibility and authenticity of financial reporting. Goodwill in financial reporting is an important part of assessing corporate risk, and the accuracy of its accounting measurement directly affects the strategic planning of investors and managers. In the case of pensions, the accounting measurement of pensions affects the firm's forecasts of current and future cash flows, which can influence the results of financial report users' assessment of the firm's stability. Therefore, from the results of the analyses in this article, individual firms and governments should deepen the reform of accounting measurement to enhance the transparency and comparability of financial reporting so that it can better serve the decision-making needs of investors and other stakeholders. This will not only enhance the quality of enterprises' financial disclosure, but also help to improve the efficiency and fairness of the whole market.

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