

Subsequent Measurement of Goodwill: The Influence of Activity Sectors and Business Digitalisation

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Abstract: In 2020, the International Accounting Standards Board (IASB) published the Discussion Paper (DP)/2020/1 - *Business Combinations - Disclosures, Goodwill and Impairment*, to receive contributions on more useful disclosures about business combinations, bringing the issue of the subsequent measurement of goodwill back into the discussion. When analysing the comment letters from preparers by sector of activity, in some sectors (Automotive, Banking, Luxury Goods, Household Appliances, Energy and Technology) no preparer prefers the impairment-only model, which suggests that perhaps, in these industries, this model is not appropriate. Some respondents say that the pace of change in technology, customer preference, competition in the market and substitute products, among others, contribute to the loss of value of goodwill acquired over time and that it is systematically replaced by internally generated goodwill (D'Orey and Carvalho, 2023). This study aims to identify the main criticisms of goodwill accounting and to analyse the influence of the sector of activity and level of business digitalisation on the subsequent measurement of goodwill. To this end, semi-structured interviews were conducted with Portuguese preparers, auditors and financial analysts. The study makes it possible to compare the perception of Portuguese stakeholders on the subsequent measurement of goodwill and to understand whether the sector of activity and the level of digitalisation of the business influence the subsequent measurement of goodwill, a pioneering aspect in goodwill research. This study contributes to the debate on the subsequent measurement of goodwill, identifying new practical and conceptual arguments adjusted to current business models, highly influenced by digital transformation, in a legal context that is still very little explored, as is the case in Portugal.

Keywords: Goodwill; Impairment; Amortisation; Subsequent Measurement; Activity Sector; Digitalisation

1. Introduction

According to IFRS 3 - *Business Combinations*, goodwill represents the excess of the purchase price over the fair value of the identifiable net assets in a business combination. A company can generate goodwill internally or acquire it during a business combination. However, only the acquired goodwill is recognised in the acquirer's balance sheet and internally generated goodwill is not recognised as an asset.

The subsequent measurement of goodwill is a topic that has generated successive discussions over time, due to its complex nature and the important impact it has on financial statements and decision-making. In 2020, the IASB published DP/2020/1, to gather input on more useful disclosures about business combinations, bringing the controversial issue of impairment testing versus goodwill amortisation back into the discussion.

As mentioned by the IASB (2020a) in the DP, some of the stakeholders' concerns about goodwill relate to the fact that investors don't get enough information about acquisitions and their subsequent performance, and that goodwill impairment losses are recognised at low values and too late.

Therefore, this study aims to identify the main criticisms of goodwill accounting, based on semi-structured interviews with Portuguese experts, and to analyse whether the sectors of activity and the level of business digitalisation influence the subsequent measurement of goodwill, a pioneering aspect in goodwill research.

In order to contribute to the debate around the measurement of goodwill and to meet the IASB's call (IASB, 2020a) for new proposals and arguments on how to account for goodwill, we carried out this research through interviews, to obtain an overview of the perception of Portuguese stakeholders on the measurement of goodwill, thus allowing a more in-depth look at the subject under analysis.

The study is organised as follows. After this first section of the introduction, section 2 presents the theoretical basis of the research. Section 3 explains the methodology used to conduct and analyse the interviews. Section 4 presents and analyses the results of the interviews and section 5 presents the main conclusions of the study.

2. Background

2.1 Accounting for Goodwill

According to IFRS 3, companies must test goodwill for impairment annually, but stakeholders have differing opinions on the effectiveness of this test (D'Orey and Carvalho, 2023). In March 2024, the IASB published for public comment the Exposure Draft (ED) - *Business Combinations -Disclosures, Goodwill and Impairment*. The ED contains proposed amendments to IFRS 3 and IAS 36 - *Impairment of Assets*, suggesting improvements to the disclosure of information on company acquisitions.

Although some parties have suggested reintroducing the amortisation of goodwill (D'Orey and Carvalho, 2023), the IASB has chosen to maintain the impairment-only approach, as there is no clear evidence that amortisation would significantly improve the information provided to investors (IASB, 2020a). The IASB also tried to define a more effective impairment test but concluded there is no suitable and economically viable alternative to the current test. The new disclosure requirements are expected to provide investors with relevant information on the performance of acquisitions.

2.2 Literature Review

2.2.1 Main Criticisms of Goodwill Measurement

The main criticisms of the initial measurement of goodwill emphasise its subjectivity and potential manipulation by management, allowing its value to be overestimated (Hamberg et al., 2010; Li et al., 2017). Thus, the strategic allocation of the cost of an acquisition favours goodwill over other assets subject to depreciation (Bugeja and Loyeung, 2015; Zhang and Zhang, 2017). Linsmeier et al. (2020) identify three components of goodwill - expected synergies, going concern value and overpayment - the latter being associated with a greater risk of future impairment losses. Due to the heterogeneity of these components, it is difficult to apply a single appropriate treatment to all entities.

Goodwill impairment tests are complex and costly, favouring the untimely recognition of losses (Noland et al., 2013; Plotnikov and Plotnikova, 2019), which undermines investors' perception of companies' financial health (André et al., 2017; Ashmarina et al., 2020; Gray et al., 2016; Noland et al., 2013).

Timely recognition of goodwill impairment losses is crucial for the relevance of financial statements. However, the literature shows that the recognition of these losses is not timely, leading to inflated goodwill values (Bepari and Mollik, 2017; Li and Sloan, 2017; Pechlivanidis et al., 2022).

2.2.2 The Subsequent Measurement of Goodwill for Preparers, Auditors and Financial Analysts

Agency theory predicts that managers will use write-offs of unverifiable assets in financial reports to maximise advantages (Ramanna and Watts, 2012). Additional studies emphasise that cultural aspects affect the application of controversial accounting standards (André et al., 2016; Mazzi et al., 2017), with the Chief Financial Officer (CFO) and management being able to account for write-offs taking into account, not only financial and economic conditions, but also their individual, business and cultural interests and the characteristics of the external auditor (Ferramosca and Allegrini, 2021).

Thus, preparers tend to take advantage of the flexibility allowed in the subsequent measurement of goodwill, either to overestimate or anticipate a goodwill impairment loss or to increase results when they are close to the limit for avoiding impairment. Despite the importance of impairment tests to ensure the timely recognition of losses and accounting conservatism (Amiraslani et al., 2013; Roychowdhury and Martin, 2013), their application requires the use of estimates, assumptions and unverifiable cash flow projections, making

assessment by auditors and regulators difficult (Hayn and Hughes, 2006; Hilton and O'Brien, 2009; Li and Sloan, 2017; Ramanna and Watts, 2012). There are therefore auditors reporting that goodwill impairment losses are not always recorded, although it would be appropriate to do so (Saastamoinen et al., 2020).

The disclosure of the assumptions used in impairment tests also varies widely (Amiraslani et al., 2013). Consequently, the role of auditors in ensuring the objectivity and transparency of impairment tests is more pronounced, being one of the areas in which professional scepticism is most evident (Chambers and Finger, 2011), referenced in the inspection reports of the Public Company Accounting Oversight Board (PCAOB) as an audit deficiency (Ayres et al., 2019).

Given that goodwill impairment tests are comparable to a company's valuation, transparency in the respective disclosures is very useful to analysts, reducing the divergence between them and managers (Andreicovici et al., 2019). However, studies show that analysts tend to ignore goodwill and impairment losses in their valuation models and rarely use the information disclosed about goodwill to adjust their projections of future cash flows (Cascino et al., 2021; Durocher et al., 2022; Schatt et al., 2016). This is because the inconsistent application of IAS 36 and the generic nature of the associated disclosures does not result in quality information to assess the performance of each acquisition and verify whether the expected synergies have been achieved (Andreicovici et al., 2019; Durocher et al., 2022). There are, however, other analysts who use information on goodwill and impairment losses, despite being disappointed with the quality of those disclosures (Silvola et al., 2024).

2.2.3 Influence of Activity Sectors and Business Digitalisation on the Subsequent Measurement of Goodwill

Economic sectors with high growth and innovation rates can face unique challenges in assessing goodwill, due to rapid technological obsolescence and changing consumer preferences (Bugeja and Gallery, 2006; Gray et al., 2016; Plotnikov and Plotnikova, 2019).

Digital technologies have transformed industries (Dal Mas et al., 2020), introducing "Industry 4.0" or the "smart factory" (Lasi et al., 2014). Digital platforms have created a new "business ecosystem" (Presch et al., 2020), with digital infrastructures such as data analysis, cloud computing and 3D printing accelerating their expansion (Huang et al., 2017). The digital transformation has affected the creation, delivery and capture of value in almost every sector, giving rise to new business models such as frugal innovation and the circular economy (Vaska et al., 2021). The widespread use of digital technologies and the efficient use of information increase productivity, reduce costs and increase efficiency, generating a multiplier effect for economic development (Ullberg et al., 2021).

The subjectivity inherent in the measurement of goodwill often involves estimates and judgements, which can lead to significant variations in reported values between similar companies (Gray et al., 2016; Noland et al., 2013). This subjectivity is especially problematic in the current context, with the development of the digital economy offering the opportunity to expand the factors that influence the formation of goodwill (Tiesheva and Smyrnov, 2023). These authors demonstrate a lack of public understanding of digital goodwill, despite the evident paradigmatic changes in the formation of company value in the digital economy.

The digitalisation of business has a growing impact on goodwill through both digital transformation and the valuation of digital intangibles. Companies that invest significantly in technology and digitalisation tend to have higher goodwill values, reflecting expectations of future economic benefits derived from their digital capabilities (Plotnikov and Plotnikova, 2019; Yang et al., 2024). However, recognising digital intangible assets, such as software and online platforms, can complicate the measurement of goodwill, requiring new valuation and impairment methods (Ashmarina et al., 2020) to better reflect the value of digital assets (Tiesheva and Smyrnov, 2023).

3. Methodology and Sample

This study aims to identify the main criticisms of goodwill accounting and to analyse the influence of the sector of activity and the level of business digitalisation on the subsequent measurement of goodwill, from the perspective of different Portuguese stakeholders, a pioneering aspect in goodwill research.

To this end, the following research questions were defined:

1. What are stakeholders' perceptions of the subsequent measurement of goodwill and why?
2. Does the sector of activity influence the subsequent measurement of goodwill and why?
3. Does the level of business digitalisation influence the subsequent measurement of goodwill and why?

For this purpose, twelve individual semi-structured interviews (Ruslin et al., 2022) were carried out with Portuguese stakeholders who have extensive knowledge of goodwill in their respective areas of expertise, namely: four auditors from Big-4 and two auditors from large non-Big-4 audit firms; four preparers of IFRS financial statements (three from EURONEXT-LISBON listed companies and one from an unlisted company); and 2 financial analysts. The interview script was prepared based on the DP of the IASB and the literature review.

The interviews were conducted between 12/3/2024 and 23/5/2024, in person or online, and lasted a total of 1,170 minutes. All the interviews were recorded, with the prior authorisation of the interviewees, and then transcribed into a content analysis grid.

When selecting the individuals in the sample, it was considered a fundamental requirement that the interviewees had extensive professional experience in their current role, guaranteeing their mastery of the subject under study, which in itself is highly complex and subject to successive regulatory changes. The auditors interviewed (A1, A2, A3, A4, A5 and A6) are partners in their firms and have between 23 and 30 years of professional experience. The preparers (PA, PB, PC and PD) also have between 24 and 26 years of experience and are responsible for the financial reporting of companies with significant goodwill on their balance sheets. Finally, the financial analysts (AA and AB) have between 21 and 30 years of professional experience as credit analysts for large companies, working for two large Portuguese banks.

4. Analysis and Discussion of Results

4.1 Stakeholders' Perception of the Subsequent Measurement of Goodwill

4.1.1 *Criticism of the Current Model for Subsequent Measurement of Goodwill*

The preparers of the financial statements pointed out several criticisms of the current goodwill measurement model, based on impairment-only. According to the preparer PA, the subsequent measurement of goodwill involves complex judgements due to the difficulty of predicting the future of the business and frequent internal restructuring. PD emphasised the great speed of change, which makes it uncertain whether the objectives and synergies expected when acquiring a business will remain relevant over time. Impairment tests are considered to be highly subjective, making it difficult to assess cash-generating units, especially when businesses are integrated differently than initially anticipated (PC and PD).

Another criticism of the impairment-only model is that goodwill impairment losses are irreversible, which can lead to the late accounting of these losses in the hope of a future improvement in business performance. The preparers were unanimous in stating that goodwill impairment losses are not recorded in a timely manner, adding PB that the impairment-only model does not balance income and expenses in the same economic period.

The complexity of impairment tests and the sophistication of valuation models are highlighted by auditors, especially those in favour of amortisation, arguing that the tests are based on subjective future projections, susceptible to earnings management (A2, A3, A4, A6). Managers prefer impairment-only because of its discretion, while technical preparers prefer amortisation because it is less subjective, resulting in information asymmetries (A3).

The pessimistic or optimistic culture of management impacts the estimation of future cash flows, more than the discount rate itself. Optimistic managements tend to set ambitious budgets, while prudent managements prefer conservative forecasts, generating different results, particularly in sensitivity analyses and impairment tests for the same company (A2).

The definition of cash-generating units (CGUs) for allocating goodwill is also critical. Especially in fast-moving sectors, business changes can detach the goodwill initially attributed to a CGU from that unit's current products, even though it continues to generate profits (A2, A4).

The irreversibility of goodwill impairment losses is also criticised, because recognising a loss implies admitting recognising such losses, and their accounting is postponed, even though business synergies dissipate over time, not justifying the perpetuation of goodwill (A2, A4).

The auditors report that, in terms of disclosures, the tendency is to disclose as little as possible, with A4 stating, *"When we ask a listed company to increase its disclosures, they compare it to the benchmark. If other companies don't disclose, they don't either, especially when compared to Portuguese and European listed*

companies in the same sector." Auditor A2 emphasises: *"Increasing disclosures can exacerbate the problem, as unverifiable information can lead managers to provide inaccurate data, introducing more noise and compromising the reliability of financial information."*

The financial analysts interviewed, with experience in companies using the IFRS (impairment-only model) and Portuguese standards (amortisation of goodwill), have different opinions on the importance of goodwill. For AB, the importance depends on the weight of goodwill in the entity's equity, while for AA it depends on the weight of goodwill in the company's total assets, equity and financial autonomy.

Analysts tend to exclude goodwill from their analyses because they consider it to be an asset of questionable realisation. According to AB, the exclusion is made to assess the company's ability to meet its obligations assuming no realisation of goodwill. AA, on the other hand, analyses operating flows before depreciation to avoid distortions and tests extreme scenarios, such as the total exclusion of goodwill, to understand the impact in adverse situations.

Both analysts criticised the insufficient disclosures in the impairment-only model. AB pointed out the lack of clarity and indicators in the information disclosed and highlighted the manipulation and delays in recording impairment losses. For AA, the accounting of impairment losses reflects flaws in the projections, suggesting unexpected events that require investigation.

4.1.2 *Preference for the Subsequent Goodwill Measurement Model*

Financial preparers and auditors have varying opinions on the subsequent measurement model for goodwill, with criticism of the impairment-only model and diverse preferences for amortisation followed by impairment testing.

Three preparers (PA, PB, PD) prefer the amortisation model, followed by impairment tests, when necessary, while another (PC) prefers the impairment-only model. PB, in favour of amortisation, argues that the goodwill initially recorded may no longer reflect reality due to market changes, but the tendency is to delay recognition of impairment, so he is always wary of high goodwill values on the balance sheet.

PC, on the other hand, defends impairment-only, stating that this model reflects the market valuation of the business, unlike amortisation, which distances the group's book value from its market valuation. Therefore, managers look at the market price to determine the need to recognise impairment.

PA and PD support amortisation because it allows for a balance between income and expenses, making it easier to match the return obtained with the amortisation of the amount overpaid and avoiding the perpetuation of goodwill. For PA, even in successful businesses, after 20 years goodwill no longer makes sense as an asset.

Among the auditors, three (A2, A3, A4) prefer amortisation followed by impairment tests, two (A1, A5) prefer the impairment-only model and one (A6) suggests that it should be a choice of accounting policy. Proponents of impairment-only consider this model to be conceptually more robust, adequately capturing the initial value and eventual loss of goodwill, and that goodwill can increase in value. They also criticise the arbitrary definition of the useful life in the amortisation model.

The auditors in favour of amortisation (A2, A4) believe that this model is more appropriate, as the useful life of goodwill can be defined based on an economic rationale captured during the PPA, or by the expected period of realisation of the synergies acquired. They suggest that amortisation should reflect the expectation of future profits, unlike impairment-only, where internally generated goodwill can protect acquired goodwill against impairment. A4 disagrees with setting a maximum period for amortisation but points out that it is unlikely to last more than 10 years.

A6, which defends the choice of accounting policy, suggests keeping the impairment-only model with more disclosures and considering amortisation as an alternative method. It considers impairment an event and amortisation a fact based on expectations and argues that goodwill should be removed from the balance sheet through impairment losses or amortisation.

The financial analysts interviewed did not express a specific preference as to the subsequent measurement model for goodwill, emphasising the importance of having access to the client's calculations and assumptions in order to carry out an accurate assessment of goodwill.

4.2 Influence of the Sector of Activity on the Subsequent Measurement of Goodwill

When asked about the influence of the sector of activity on the subsequent measurement of goodwill, the preparer PA mentioned that a different measurement model may make sense for specific cases, such as concessions with a defined useful life. PB pointed out that technological business models, which change rapidly, may need a different approach compared to more traditional and stable businesses. PD believes that comparability would be compromised if there were more than one measurement model, although he recognises that the characteristics of the activity sector should influence the definition of the useful life of goodwill. Thus, sectors that become obsolete quickly and need constant innovation should assign shorter useful lives to goodwill.

Auditor A4 pointed out that there are sectors of activity in which the speed with which they evolve and change can make it more difficult to carry out impairment tests. He compared sectors such as paper, which change little, with sectors such as telecommunications, which evolve rapidly. As A1 points out, these changes *"affect the ability to maintain the business with the original assumptions of profitability and synergies"*.

Despite A3's preference for amortisation in traditional business models, he finds no theoretical justification for there being separate models by sector, not least because the large groups are multi-sectoral.

Interviewee A6 takes the opposite view, arguing that in certain more technological sectors, the existence of a single model for the subsequent measurement of goodwill seems misaligned with the number of existing business models, not least because *"there are activity sectors that are more exposed to technological disruption, market discontinuity and consumer and generational preferences"*.

As for financial analysts, AA emphasised the importance of understanding the type of activity of the entity in order to measure goodwill. For AB, the financial analysis is carried out regardless the sector, always considering the different goodwill measurement models used between companies and competitors, to avoid bias in the analysis.

4.3 Influence of the Level of Business Digitalisation on the Subsequent Measurement of Goodwill

When asked about the influence of the business digitalisation level on the subsequent measurement of goodwill, the PA preparer pointed out that the speed and dynamics of change in businesses make long-term projections difficult, with five-year plans being replaced by three-year plans and rolling forecasts. PC emphasised that in more digital businesses with fewer physical assets, it can be more difficult to separate goodwill from other intangible assets.

With increasing digitalisation and the reduction in the useful life of business models, the preparers agree that goodwill tends to lose value more quickly, underlining PA that rapid change in business increases subjectivity and uncertainty in financial projections, and PD that the speed of change in digital businesses can shorten the useful life attributed to acquisitions in these sectors.

New customer habits and behaviours also influence how goodwill is consumed or integrated into the business. PB emphasised that in technological areas, products and services evolve over time, increasing the value and substance of the original goodwill with internally generated goodwill. Hence his preference for the amortisation model, as it assigns a cost to each financial year, like companies that grow organically and cannot recognise internally generated goodwill.

From the auditors' perspective, most digital businesses change rapidly, increasing the complexity of the subsequent measurement of goodwill. A1 and A5 considered that, in technology businesses, there are business models based on employees and others on organisational platforms and processes, with different expectations of identifiable assets. A4 emphasised that in sectors intensive in technological innovation, it is difficult to sustain the impairment test, since *"it is complicated to say that the goodwill you are testing today is the same 5 years later."*

Auditors in favour of the amortisation model also consider that new customer habits influence how goodwill loses value. A2 emphasised that rapid change reduces the life cycle of goodwill, reinforcing the need for amortisation. A3 argues that non-amortisation presupposes non-existent perpetuity in businesses, which change completely in five years. A4 also emphasised that technological innovations, such as artificial intelligence, change business models, making it difficult to apply traditional impairment tests and to separate acquired and internally generated goodwill.

Financial analysts also admit the impact of digitalisation on financial analyses, highlighting the need for tangible guarantees in banking. They believe that banks need to project pessimistic scenarios and that the intangible assets of digital businesses are insufficient as guarantees because they don't create liquidity quickly. AB also emphasised that the rapid change in customer habits could lead to goodwill acquired years ago being replaced by new goodwill.

5. Final Considerations

The debate on the subsequent measurement of goodwill, which is clear from the analysis of the interviews, reveals significant criticism of both models (amortisation versus impairment tests). Common concerns include subjectivity, complexity and the impact on the comparability of financial statements.

As most of the preparers and auditors interviewed pointed out, goodwill is more related to the future than to the company's history and is a subjective judgement and difficult to predict. It is therefore essential to assess the quality of the business project, the management team, the market in which the company operates and macroeconomic factors because the future is being audited.

Some auditors consider that, conceptually, the impairment-only model is perfect, but in practice it is very difficult to apply due to the great inherent subjectivity in the projection of future cash flows resulting from management estimates and associated assumptions, internal reorganisations and reallocations of goodwill, as well as the fact that acquired goodwill is being protected against impairment due to internally generated goodwill.

Therefore, both measurement models have pros and cons for the interviewees. While the amortisation model has the advantages of simplicity of application and predictability, determining the useful life can be challenging and provide useful information insofar as it manages to capture the period of realisation of the synergies expected from the concentration. Advocates of the impairment model consider that it provides a more accurate reflection of a company's economic condition, despite its inherent subjectivity and potential for earnings management. These perceptions highlight the need for a balanced approach that addresses the shortcomings and virtues of both models in order to improve the reliability and comparability of financial reports.

The nature of this asset is closely linked to what the business is and what it is, or was, intended, to achieve with that acquisition. So, the influence of the activity sector and level of business digitalisation on the subsequent measurement of goodwill is also highlighted. Technology sectors and more digital businesses, with rapid changes and shorter useful lives of business models, present additional challenges for the measurement of goodwill. Growing digitalisation and new customer habits increase subjectivity and uncertainty in financial projections, suggesting the need for measurement models that reflect the dynamic reality of these sectors.

In short, the subsequent measurement of goodwill continues to be a debated topic, with different needs depending on the sector of activity and the level of business digitalisation. The search for a model that balances subjectivity and objectivity, and that offers transparency and reliability in financial information, remains a central challenge for the stakeholders involved.

The main limitation of this study is that the data was collected through interviews, which means that the results cannot be extrapolated. However, the results of this study could serve as a basis for future research, namely, to carry out a questionnaire aimed at a wider sample of stakeholders. Extending the research to include stakeholders from different countries could provide a global perspective and allow for international comparisons of goodwill measurement practices.

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