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INTANGIBLE ASSETS, GOODWILL AND EARNINGS MANAGEMENT: EVIDENCE FROM FRANCE AND THE UK

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Abstract

Research background: The literature has argued that accounting for intangible assets and goodwill provides a wide range for managers to manipulate earnings.
Purpose: This paper aims to investigate the impact of accounting treatment of intangible assets and goodwill on earnings management.
Research methodology: The study included 115 French companies and 100 UK companies, during 2011–2019, employing multiple regression, where earnings management was measured through discretionary accruals; while accounting for intangibles and goodwill was divided into the capitalization and decapitalization of intangible assets, recognition and derecognition of goodwill, and depreciation and impairment of intangible assets and goodwill.
Results: According to the results, accounting for intangible assets and goodwill has an impact on earnings management, while it is used differently between French and UK companies. In France, companies employ intangible assets capitalization to manipulate earnings, while UK companies use intangible assets capitalization and goodwill recognition.
Novelty: This study provides supplementary evidence for standards setters, managers, and auditors about the contribution of accounting for intangible assets and goodwill in the quality of financial reporting and explores the new tools and practices of earnings management.

Keywords: Earnings management, Discretionary accruals, Intangible assets capitalization, Goodwill recognition, Depreciation and impairment of intangibles and goodwill

JEL classification: E22, G32, M41

Introduction

Recently, intangibles have acquired a fundamental economic prominence, leading companies to be more intangible-based (Zambon, Marzo, Girella, Abela, D'Albore, 2020; Barker, Lennard, Penman, Teixeira, 2020). Today's economy is driven primarily by the development and management of intangible assets, which become the key factor of competitiveness and the main instigator of a firm's growth (Córcoles, 2010; Zambon et al., 2020).Intangible assets are the main driver of changes in the economic value creation chain since the economy has shifted from one based on tangible assets to one increasingly based on intangible assets (Kimouche, 2016; Lev, 2018). However, accounting rules are not yet able to reflect that shift, causing a deterioration of the usefulness of financial reports.

Many studies have highlighted a decrease in the relevance and usefulness of financial reports due to the growing gap between a company's market valuation and its book valuation, and the inability of reported earnings to reflect companies' performance (Penman, 2009; Lev, 2018; Kimouche, Rouabhi, 2016a). That is because the traditional accounting model oriented towards the past became unable to take into account the accelerating economic mutations caused by intangibles that are oriented towards the future (Kimouche, 2016). Therefore, previous studies consider that the omission of intangibles from the financial position statement is a serious failure of accounting (Penman, 2009).

One of the proposals of Lev (2018) to restore the usefulness of financial reports is the capitalization and amortization of expenditures on value-creating assets, especially those that relate to intangibles, to improve the income-expense matching in the profit and loss statement. The same conclusion was adopted by many other studies, arguing that the recognition and reporting of intangible assets is a means to restore the relevance and usefulness of financial information (Wyatt, Abernethy, 2008; Kimouche, Rouabhi, 2016b, Kimouche, 2019).

Consequently, IASB and accounting standards setters at the national level have attempted to develop requirements for the recognition and reporting of intangible assets to enhance the quality of financial reporting. According to IAS 38, companies are required to recognize all intangible assets arising from their internal development activities when the conditions of capitalization are met. Moreover, IFRS 3 requires acquirers to recognize and report all identifiable intangible assets separately from goodwill in business combination even if the acquired company had not previously recognized them as intangible assets.

The results are not conclusive about the role of accounting standards in the recognition, measurement, and reporting of intangibles (Zambon et al., 2020, p. 37). Dionysiou, Slack,

Tsalavoutas and Tsoligkas (2021) documented a growing trend by companies to identify and recognize intangible assets. According to their results, 62.2% of the firm-year observations in an international sample of companies from 39 countries capitalize software development costs. Moreover, more than 80% of the firm-year observations from emerging countries are among companies that capitalize development costs.

The growing trend towards the recognition and reporting of intangible assets under the pretext of improving the quality of the financial reports is the subject of many criticisms. The supposed relationship between the recognition of intangible assets and the quality of financial reports is not always positive. According to Nwogugu (2015), the available accounting practices of goodwill and intangibles are inefficient and are a source of biases. These practices lead to an erosion in the quality of financial reports, decreasing their objectivity and verifiability, and are potentially open to manipulation and fraud (Watts, 2003, 2006).

Thus, the objective of this study is to investigate the impact of accounting treatments of intangible assets and goodwill on earnings management. In other words, it attempts to determine whether accounting for intangibles and goodwill provides a window for companies to manage earnings. Accounting treatments that have been focused on by the study are the capitalization and decapitalization of intangible assets, the recognition and derecognition of goodwill, and the amortization and impairment of intangible assets and goodwill.

1. Literature review and hypotheses development

The impact of accounting for intangibles on the quality of financial reporting is not a new debate; it was the subject of many studies. The novelty in this matter is the accounting treatments that got the attention of studies and the measures used for the quality of financial reporting. The accounting treatments of intangibles require a trade-off between reliability and relevance (Guidara, Boujelbene, 2014), for example, although the capitalization of intangibles makes financial reports more value-relevant, it opens a window for earnings management. Contrarily, although the immediate expensing of intangibles increases the reliability, it is more conservative, causing a distortion of the matching principle.

The relationship between accounting for intangibles and earnings management is ambiguous since accounting for intangibles can be used for several earnings management strategies. Companies can capitalize intangibles to enhance current performance or expense them to improve future performance. Many studies have argued that a substantial argument against intangibles capitalization is earnings management (Triki-Damak, Halioui, 2013;

Garanina, Nikulin, Frangulantc, 2016). This is because accounting for intangible assets includes a lot of discretion for managers (Ji, 2020) and intangible assets do not get enough attention from auditors (Istanti, Chariri, Juliarto, 2021).

Many studies have verified the assumption that intangibles capitalization contains a wide range of flexibility, motivating earnings management. Jones (2011) provided evidence that intangible assets capitalization is used opportunistically by failing companies, which capitalize intangible assets more aggressively than non-failed companies, especially during the five years preceding the failure. Additionally, he suggested that the managers' tendency towards intangible assets capitalization is strongly associated with earnings management.

Guidara and Boujelbene (2014) indicated that accounting for R&D supports the ability of managers and their incentives for earnings management. Even though the IAS 38 imposes the capitalization of development expenditures if specific requirements are met, companies can exercise judgments to distinguish between research and development phases and assess the commercial viability and technical feasibility of the outcomes. Also, the assessment of the fulfilment of requirements is under the estimation of managers (Vašek, Filinger, 2013).

Fuentes and Persson (2011) found that Swedish listed companies capitalize R&D to smooth earnings. Fabre, Nogatchewsky and Oxibar (2015) provided evidence that the French group Air Liquide use intangible expenses as a device for earnings management according to the changes in its financing structure. Garanina et al. (2016) showed that managers, whether in Russian or German companies, engage in earnings management, employing R&D costs with different incentives.

Few studies have revealed the positive impact of intangible assets on the quality of financial reporting in terms of earnings management, like Lakhal and Dedaj (2020), who showed a negative association between R&D disclosures and earnings management and the role of IFRS in reducing earnings management, complementing the role of R&D disclosures. Costa Lopes, Peixoto and Carvalho (2021) suggested that the share of intangible assets in the financial statements of Brazilian companies improves the quality of accounting information.

Goodwill is a special intangible asset that provides a wide margin of manoeuvring for earnings management due to the discretion included in its accounting policies, which motivate earnings management (Saastamoinen, Djatej, Pajunen, Gorton, 2020). Managers can easily decide on the value of goodwill and control the timing and amount of its impairment losses and the reversal of those losses (Ueno, Sakakibara, Uchino, 2015). Therefore, most previous studies have more interest in the impairment of goodwill which is considered an opportunity to practice big bath accounting (Laskaridou, Vazakidis, 2013).

Jordan, Clark and Vann (2007) indicated that companies employ goodwill impairment to adjust earnings during the adoption of SFAS No. 142 and later. Abuaddous, Hanefah and Laili (2014) found that companies listed on Bursa Malaysia employ goodwill impairment to manage earnings through big bath accounting and adopt extreme accounting treatments. Vogt, Pletsch, Morás and Klann (2016) indicated that the reporting of impairment can be qualified as an incentive for earnings management practices, which means that the recognized goodwill impairment losses can be used to achieve target results.

Hassine and Jilani (2017) determined some opportunistic motivations for goodwill impairment in French companies that reflect several aspects of earnings manipulation, such as earnings smoothing, big bath accounting, earnings management related to CEOs' change, and responding to the debt renegotiation hypothesis. Lhaopadchan (2010) stated that managerial self-benefits and earnings management ambitions motivate many goodwill impairment decisions without any expected misleading of users or reduction of financial statements quality since investors and analysts can adjust or ignore the reported accounting numbers.

The recognition of impairment losses and their reversals in subsequent periods involves judgments and estimates, providing a window for managers to manipulate earnings (Gaio, Gonçalves, Pereira, 2021). In this context, Jahmani, Dowling and Torres (2010) revealed that companies use goodwill impairment to manage earnings volatility. Bisogno (2015) showed a positive relationship between discretionary accruals and the variation of goodwill in Italian companies. Korošec, Jerman and Tominc (2016) indicated some incentives for earnings management associated with the recognition of goodwill impairment losses.

Albersmann, Friedrich, Hohenfels and Quick (2020) concluded that companies use goodwill impairment as a device for earnings management, revealing that in addition to economic and other factors, the recognition of impairment losses in German companies is influenced by earnings management incentives, like big bath accounting, income smoothing, beating earnings targets, and senior management changes. Generally, Peng and Chang (2020) provided evidence that assets impairment influences earnings management, while the impact of the reversal of assets impairment on earnings management is not confirmed.

The literature review shows that most studies have focused on R&D capitalization and goodwill impairment and provided evidence about the role of the accounting treatments of intangibles in earnings management. This study started from that evidence; while it distinguishes between the following treatments: capitalization of intangible assets, including development expenditures, recognition of goodwill, and depreciation and impairment of intangibles, including goodwill. Thus, we adopt the following hypotheses:

Hypothesis1: Intangible assets capitalization affects positively earnings management in French and UK companies.

Hypothesis2: Goodwill recognition affects positively earnings management in French and UK companies.

Hypothesis3: Depreciation and impairment of intangible assets and goodwill affect negatively earnings management in French and UK companies.

2. Methods

2.1. Sample and data collection

The study was carried out using the data of 115 French companies listed on the CAC All-Tradable index, and 100 UK companies listed on the FTSE All-Share index, during the period 2011–2019, so a total of 1035 firm-year observations from France and 900 firm-year observations from the UK. The firm-year observations decreased to 920 and 800, respectively, due to the time lag in some variables that were calculated in reference to the previous period (CAP, DCAP, REC, and DREC). The required data were directly collected from the annual reports of companies available at their electronic site.

2.2. Model specification

The model study is a multiple linear regression that relates earnings management with some measures of intangibles as independent variables, and the company size and financial performance as control variables as shown in Equation (1).

$$EM_{it} = \beta_0 + \beta_1 IA_{it} + \beta_2 GW_{it} + \beta_3 CAP_{it} + \beta_4 DCAP_{it} + \beta_5 REC_{it} + \beta_6 DREC_{it} + \\ + \beta_7 DI_{it} + \beta_8 SIZE_{it} + \beta_9 PER_{it} + \xi_{it} \quad (1)$$

where EM_{it} is the level of earnings management; IA_{it} is the intangible assets at the end of the period; GW_{it} is the goodwill at the end of the period; CAP_{it} is the capitalization of the intangible asset during the period; $DCAP_{it}$ is the intangible assets decapitalization during the period; REC_{it} is the goodwill recognition during the period; $DREC_{it}$ is the goodwill derecognition during the period; DI_{it} is the depreciation and impairment of intangible assets and goodwill during the period; $SIZE_{it}$ is the company size; PER_{it} is the financial performance; α_0 is an intercept; β_1, ..., β_9 are regression coefficients; ξ_{it} is the error term.

2.3. Measurement of the variables

Earnings management was measured through the discretionary accruals based on the model of Kothari, Leone and Wasley (2005) shown in Equation (2).

$$TAC_{it}/A_{it\text{-}1} = \alpha_1(1/A_{it\text{-}1}) + \alpha_2[(\Delta REV_{it} - \Delta REB_{it})/A_{it\text{-}1}] + \alpha_3(PPE_{it}/A_{it\text{-}1}) + \alpha_4 ROA_{it} + \varepsilon_{it} \quad (2)$$

where TAC_{it} is the total accounting accruals for the period; $A_{it\text{-}1}$ is the total assets; ΔREV_{it} is the change in sales during the period; ΔREB_{it} is the change in receivables during the period; PPE_{it} is the property, plant, and equipment; α_1, ..., α_4 are regression coefficients; ε_{it} is the residuals that measure discretionary accruals. We calculated earnings management (EM_{it}) as the absolute value of discretionary accruals because the increase of discretionary accruals as a positive or negative value represents an increase in the earnings management level.

The independent variables were directly abstracted from financial statements by separating the increases and decreases in intangible assets and goodwill from their depreciation and impairment. Table 1 below summarizes how independent variables are measured.

Table 1. Measurement of independent variables

Variable	Abbreviation	Measure
Intangible assets	IA	Book value of intangible assets
Goodwill	GW	Book value of goodwill
Intangible assets capitalization	CAP	The increase in book value of IA during the period outside the depreciation and impairment
Intangible assets decapitalization	DCAP	The decrease in book value of IA during the period outside the depreciation and impairment
Goodwill recognition	REC	The increase in book value of GW during the period outside the depreciation and impairment
Goodwill derecognition	DREC	The decrease in book value of GW during the period outside the depreciation and impairment
Depreciation and impairment of IA and GW	DI	depreciation and impairment of intangible assets and goodwill during the period
Company size	SIZE	The logarithm of total assets
Financial performance	PER	The return on equity

Source: own elaboration.

3. Results and discussion

3.1. Descriptive statistics

Table 2 summarizes the descriptive statistics for 920 firm-year observations of French companies. The table shows that the level of earnings management represents 7.4% of total assets, on average. The book value of intangible assets reached 15.9% of total assets, on average, with an annual change of 3.5% as capitalization and 2.1% as decapitalization. However, the book value of goodwill reached 34.5% of total assets, on average, with an annual change of 4.5% as recognition and 3.1% as derecognition. The annual depreciation expenses and impairment losses of intangible assets and goodwill reached 3.5% of total assets, on average. Finally, French companies earn10.5% of equity annually, on average.

Table 2. Descriptive statistics for data from French companies

Variables	EM	IA	GW	CAP	DCAP	REC	DREC	DI	SIZE	PER
Mean	0.074	0.159	0.345	0.035	0.021	0.045	0.031	0.035	6.368	0.105
Median	0.065	0.189	0.389	0.009	0.009	0.006	0.008	0.018	5.564	0.083
Maximum	0.164	0.429	0.731	0.099	0.083	0.146	0.147	0.126	11.281	0.171
Minimum	–0.227	0.101	0.001	0.000	0.000	0.000	0.000	0.000	4.132	–0.199
Standard Deviation	0.164	0.199	0.376	0.003	0.006	0.066	0.087	0.058	5.657	0.165
Observations	920	920	920	920	920	920	920	920	920	920

Source: Source: own elaboration.

Table 3 summarizes the descriptive statistics for 800 firm-year observations of UK companies. The table shows that the level of earnings management represents 11.3% of total assets, on average, which means that UK companies are practicing earnings management more than French companies. The shares of intangible assets and goodwill in total assets for UK companies are less than those for French companies, they reached 13.2% of total assets, on average, for intangible assets with an annual change of 4.8% as capitalization and 2.6% as decapitalization, and 24.3% of total assets, on average, for goodwill with an annual change of 5% as recognition and 4.8% as derecognition. Depreciation and impairment of intangibles reached 4.5% of total assets, on average. In terms of financial performance, UK companies are better than French companies with a return on equity ratio of 14.6%.

Table 3. Descriptive statistics for data from UK companies

Variables	EM	IA	GW	CAP	DCAP	REC	DREC	DI	SIZE	PER
Mean	0.113	0.132	0.243	0.048	0.026	0.050	0.048	0.045	7.986	0.146
Median	0.136	0.119	0.475	0.006	0.010	0.009	0.009	0.026	5.112	0.165
Maximum	0.442	0.586	0.811	0.102	0.112	0.165	0.162	0.133	15.742	0.355
Minimum	–0.330	0.000	0.002	0.000	0.000	0.000	0.000	0.000	2.395	–0.308
Standard Deviation	0.273	0.136	0.215	0.113	0.109	0.150	0.117	0.091	8.313	0.180
Observations	800	800	800	800	800	800	800	800	800	800

Source: own elaboration.

3.2. Correlation results

Table 4 shows the results of the correlation between variables for French companies. The results indicate significant positive and weak relationships of earnings management with goodwill, intangible assets capitalization, and company size. The relationships of earnings management with goodwill derecognition and depreciation and impairment of intangible assets and goodwill are also significant and weak, but they are negative. The only significant strong relationship was recorded between earnings management and financial performance, which is positive. The relationships of earnings management with intangible assets, intangible assets decapitalization, and goodwill recognition are not significant. These results suggest the potential

Table 4. Correlation between variables for French companies

	EM	IA	GW	CAP	DCAP	REC	DREC	DI	SIZE	PER
EM	1.000									
IA	–0.022	1.000								
GW	0.119**	0.317**	1.000							
CAP	0.149*	0.533**	0.223**	1.000						
DCAP	–0.017	0.194**	0.011	–0.023	1.000					
REC	–0.015	0.238**	0.489**	0.398**	–0.037	1.000				
DREC	–0.173*	0.034	0.097**	–0.021	0.302**	–0.065	1.000			
DI	–0.221**	0.444**	0.271**	0.165**	0.124**	0.081*	0.093**	1.000		
SIZE	0.158**	0.244**	0.608**	0.175**	0.026	0.301**	0.032	0.335**	1.000	
PER	0.685**	0.063	0.117**	0.062	0.001	0.146**	–0.048	–0.118**	0.468**	1.000

* Correlation significant at 5%.
** Correlation significant at 1%.

Source: own elaboration.

impact of accounting for intangible assets and goodwill on earnings management. However, they require the use of regression due to the relationships found between independent variables that perturb their bivariate correlations with earnings management.

Table 5 shows the results of the correlation between variables for UK companies. According to the results, a significant positive and strong relationship exists between earnings management and financial performance, and significant positive and medium relationships of earnings management with intangible assets and company size. The relationships of earnings management with goodwill, intangible assets capitalization, and goodwill recognition are significantly positive and weak. On the other hand, the relationship between earnings management and intangible assets decapitalization is significantly negative and weak. The relationship of earnings management with goodwill derecognition and depreciation and impairment of intangible assets and goodwill are not statistically significant. Compared to French companies, the correlations are relatively more in UK companies, while the relationships found between independent variables also perturb their bivariate correlations with earnings management, which imposes the employment of regression.

Table 5. Correlation between variables for UK companies

	EM	IA	GW	CAP	DCAP	REC	DREC	DI	SIZE	PER
EM	1.000									
IA	0.311**	1.000								
GW	0.275**	0.374**	1.000							
CAP	0.266**	0.557**	0.248**	1.000						
DCAP	–0.104**	0.102**	0.098**	–0.069	1.000					
REC	0.191**	0.273**	0.435**	0.454**	0.156**	1.000				
DREC	–0.057	0.001	0.104**	–0.027	0.406**	–0.056	1.000			
DI	–0.009	0.172**	0.224**	0.034	0.109**	0.061	0.053	1.000		
SIZE	0.430**	0.336**	0.493**	0.228**	–0.009	0.191**	0.030	0.110**	1.000	
PER	0.759**	0.368**	0.361**	0.242**	0.013	0.177**	–0.042	–0.011	0.581**	1.000

* Correlation significant at 5%.
** Correlation significant at 1%.

Source: own elaboration.

3.3. Univariate analysis

In order to test the differences between French and UK companies in terms of variables, the Mann-Whitney test as a nonparametric test has been used because the distribution of data for

all variables is not normal. As shown in Table 6, the Mann-Whitney test is significant at the 1% level for all variables; hence, differences between French and UK companies in terms of variables are statistically significant. According to the Means, UK companies have a greater tendency to manage earnings even though the share of intangible assets and goodwill in total assets for French companies is more than those for UK companies. This can be assigned to the tendency of UK companies to employ more accounting treatments of intangibles. The mean indicates that UK companies are more capitalizer of intangible assets and more recognizer of goodwill, and at the same time decapitalize more intangible assets, derecognize more goodwill, depreciate and impair more intangible assets and goodwill.

Table 6. Differences test between French and UK companies regarding the variables

		EM*	IA*	GW*	CAP*	DCAP*	REC*	DREC*	DI*
Mean	French companies	0.074	0.159	0.345	0.035	0.021	0.045	0.031	0.035
	UK companies	0.113	0.132	0.243	0.048	0.026	0.050	0.048	0.045
Median	French companies	0.065	0.189	0.389	0.009	0.009	0.006	0.008	0.018
	UK companies	0.136	0.119	0.475	0.006	0.010	0.009	0.009	0.026
Mann-Whitney U test		23,119**	14,315**	9,571**	32,184**	31,472**	31,413**	31,912**	13,408**
Asymp. Prob.(2-tailed)		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

* Grouping Variable: Country.
** Test significant at 1%.

Source: own elaboration.

Additionally, we tested the differences in terms of earnings management level between companies when they capitalize intangible assets and when they decapitalize intangible assets on the one hand, and the differences between companies when they recognize goodwill and when they derecognize it, on the other hand. The results in Table 7 indicate that the differences between capitalizer and decapitalizer companies and the differences between recognizer and derecognizer companies are statistically significant at the 1% level, whether in France or the UK. This could be evidence of an expected impact of accounting for intangible assets and goodwill on the level of earnings management. According to the Means, intangible assets capitalizer and goodwill derecognizer French companies are more practitioners of earnings management compared to the decapitalizer and recognizer companies. In contrast, the recognizer and capitalizer companies are the most common practitioners of earnings management in the UK.

Table 7. Differences test between companies regarding earnings management

Variable: EM	French companies				UK companies			
	CAP*	DCAP*	REC*	DREC*	CAP*	DCAP*	REC*	DREC*
Mean	0.102	0.046	0.075	0.092	0.123	0.103	0.141	0.085
Median	0.083	0.035	0.061	0.069	0.135	0.128	0.129	0.107
Mann-Whitney U	85,035**		83,487**		58,794**		56,957**	
Asymp. Prob.(2-tailed)	0.0000		0.0000		0.0000		0.0000	

* Grouping Variable.
** Test significant at 1%.

Source: own elaboration.

3.4. Model estimation results

To explore the nature of the relationship of earnings management with accounting for intangible assets and goodwill, we estimated Model (1) using the Fixed Effects Method, which was selected over the Pooled Regression and Random Effects Method relying on the restricted F-test and Hausman test, respectively. Table 8 summarizes the results of Model (1) estimation, indicating that the model is valid in terms of multicollinearity and autocorrelation since the variance inflation factors (VIF) are very low, and the Durbin-Watson statistics are close to the value of 2, both for the French and UK companies. Furthermore, Table 8 shows that Model (1) is significant at the 1% level for the French and UK companies. However, the explanatory power of Model (1) in the case of the UK data is more than that of the French data.

Table 8 shows that the coefficients of book values of intangible assets and goodwill are not statistically significant, except for intangible assets in the UK companies, which is significant at the 1% level, suggesting a positive impact of intangible assets on earnings management for the UK companies. The results present some differences between the French and UK companies concerning the impact of accounting for intangibles and goodwill on earnings management. The coefficient of intangible assets capitalization (CAP) is significant both for the French and UK companies at the 5% and 1% level, respectively, where the regression coefficients indicate the positive impact of intangible assets capitalization on earnings management, while that impact is very low for France compared to the UK.

The coefficients of intangible assets decapitalization (DCAP) and goodwill recognition (REC) are not statistically significant for the French companies, while they are significant at the 5% level for the UK companies, indicating a negative impact for intangible assets decapitalization and a positive impact for goodwill recognition. However, the coefficient

of goodwill derecognition (DREC) and depreciation and impairment of IA and GW (DI) is not statistically significant for the UK companies, while it is significant at 5% level for the French companies, indicating negative impacts on earnings management. Finally, the results show a significant negative impact of company size and a significant positive impact of financial performance on earnings management.

Table 8. Model estimation results

Variables	French companies				UK companies			
	VIF	coefficient	T-stat.	prob.	VIF	coefficient	T-stat.	prob.
IA	1.88	0.013	0.606	0.545	1.77	0.183	5.379	0.000
GW	2.16	0.055	1.189	0.235	1.74	0.003	0.138	0.890
CAP	1.63	0.054	2.009	0.045	1.83	0.199	3.092	0.002
DCAP	1.18	–0.021	–0.383	0.702	1.35	–0.197	–2.245	0.025
REC	1.54	0.030	0.548	0.584	1.61	0.112	2.218	0.027
DREC	1.14	–0.089	–2.065	0.039	1.27	–0.020	–0.814	0.416
DI	1.54	–0.289	1.912	0.040	1.10	0.019	0.253	0.800
SIZE	2.46	–0.094	–4.553	0.000	1.78	–0.050	–2.529	0.012
PER	1.55	0.957	22.335	0.000	1.64	0.834	19.315	0.000
Intercept	–	2.097	4.332	0.000	–	0.001	0.021	0.983
Adj. R-squared	0.518				0.601			
F-Stat.	8.541*				11.430*			
Prob.(F-stat.)	0.000				0.000			
Durbin-Watson	2.201				2.145			

* Significant at 1%.

Source: own elaboration.

In general, these results confirm the hypotheses of the study, providing evidence that intangible assets capitalization affects positively earnings management in the French and UK companies. However, goodwill recognition affects positively earnings management only in the UK companies, and depreciation and impairment of intangible assets and goodwill affect negatively earnings management only in the French companies. Consequently, accounting for intangible assets and goodwill has an impact on earnings management, so managers in France and the UK use intangibles and goodwill to manipulate earnings. However, there are some differences between France and the UK regarding the used accounting treatments, earnings management in France depends only on intangible assets capitalization. In the UK, earnings management depends on intangible assets capitalization and goodwill recognition.

Conclusions

Several previous studies stated that accounting for intangible assets and goodwill includes a lot of discretion for managers and involves judgments and estimates, leading to biased situations. Consequently, most of those studies argued that accounting for intangible assets and goodwill provides windows for earnings management (Watts, 2003, 2006; Jordan et al., 2007; Jones, 2011; Nwogugu, 2015; Ji, 2020; Gaioet al., 2021). In this study, we investigated the impact of accounting treatments of intangible assets and goodwill on earnings management for a number of French companies listed on the CAC All-Tradable and UK companies listed on the FTSE All-Share, during the period 2011–2019.

Consistent with the previous studies, the results indicate that accounting for intangible assets and goodwill has an impact on earnings management levels both for the French and UK companies in the research. Consequently, the accounting treatments of intangible assets and goodwill are used to manipulate earnings due to the high level of discretion available when accounting for intangible assets and goodwill. Moreover, the results show that these accounting treatments are used differently between French and UK companies. In France, companies employ intangible assets capitalization in order to manipulate earnings. In the UK, companies employ intangible assets capitalization and goodwill recognition for earnings management.

The differences recorded between the French and UK companies in the study in terms of accounting treatments of intangible assets and goodwill that are used to manage earnings can be assigned to several factors. First, there are wide differences between France and the UK regarding the economic and institutional environment in which the companies operate, such as sources of financing, control and regulations, institutional investors, societal culture, etc (Nobes, Parker, 2020), which can affect the accounting choices of managers. Second, the French and UK companies present different characteristics of governance systems, leading to different mechanisms of managerial and accounting decisions making and internal control.

Third, as suggested by the literature, the level of accounting conservatism differs between France as a code law country and the UK as a common law country (Mora, Walker, 2015; Kimouche, 2020), so managers adopt accounting choices following their tendencies towards conservatism since accounting treatments reflect different levels of conservatism. Therefore, the accounting treatments of intangible assets and goodwill in the French companies (goodwill derecognition, depreciation and impairment of intangible assets and goodwill) reflect a higher tendency of managers towards conservatism. However, accounting treatments in the UK

companies (intangible assets capitalization, goodwill recognition) reflect a lower tendency of managers towards conservatism.

This study contributes to the literature about accounting quality, in particular, earnings management literature. On one hand, the study provides supplement evidence for standards setters, managers, and auditors in France and the UK about the effect of accounting for intangible assets and goodwill on the quality of financial reporting. On the other hand, this study explores new tools of earnings management (capitalization and decapitalization of intangible assets, recognition and derecognition of goodwill), showing that accounting for intangible assets and goodwill are used differently between companies for the purpose of earnings management according to the characteristics of their environment.

This study has several implications for different parties related to the preparation and presentation of financial reports; it requires standards setters to review accounting standards of intangible assets and goodwill to reduce the available accounting flexibility, thus reducing the opportunistic behaviours of managers. The study also requires that boards of directors and auditors give more attention to accounting for intangible assets and goodwill in audit committee meetings and audit missions. Managers are required to provide an additional disclosure that explains how intangible assets and goodwill are recognized and measured, and thus reassure the users of financial reports and increase their confidence.

Despite the importance of this study, future researchers are invited to explore other aspects of the subject, in so doing extending their perspectives. This study requires future research to explore other environments that have different economic and institutional characteristics, especially emerging and developing countries to provide additional evidence about the role of accounting for intangible assets and goodwill in earnings management. Future studies need to use other proxies for earnings management and to also divide intangible assets into their basic components by nature to determine which one contains a higher level of accounting flexibility. We encourage studies in the international context, using control variables that reflect the importance of intangibles among countries.

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