



E-ISSN: 3108-4176

APSSHS

Academic Publications of Social Sciences and Humanities Studies

2024, Volume 5, Page No: 187-199

Available online at: <https://apsshs.com/>

Annals of Organizational Culture, Leadership and External Engagement Journal

Voluntary vs. Mandatory Non-Financial Reporting in Spanish Listed Companies: Evidence from the IBEX 35

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Abstract

Large corporations have traditionally prepared and verified non-financial information on a voluntary basis. In Spain, following the enactment of Law 11/2018, this practice became mandatory. These regulatory changes prompted an investigation into how prior voluntary practices were altered and whether a relationship exists between the auditing firm and the assurance provider. The research sample consists of companies listed on the IBEX 35 in 2018, analyzing both the first year of mandatory compliance under Law 11/2018 and the preceding year, 2017, when disclosure was voluntary. A database was constructed with the characteristics of non-financial information, enabling a descriptive analysis that segmented the sample by year, employed cross-tabulations, and applied chi-square tests. Big Four firms typically provide assurance for non-financial information while also auditing the financial statements of listed companies. Law 11/2018 did not significantly alter practices within IBEX 35 firms, as most had already adopted GRI (Global Reporting Initiative) standards voluntarily and continued reporting non-financial information in management reports once it became mandatory. Additionally, auditing and assurance providers show specialization according to industry sectors. Ongoing discussions about the future of non-financial information regulation in Europe highlight the relevance of contextualizing Spain's starting point. Anticipated changes at the European level are expected to influence domestic regulation.

Keywords: Non-Financial Information, Assurance, Auditing, GRI, Law 11/2018, IBEX 35

How to cite this article: Markou EK, Papadopoulos GA, Stavros ND. Voluntary vs. mandatory non-financial reporting in Spanish listed companies: Evidence from the IBEX 35. *Ann Organ Cult Leadersh Extern Engagem J.* 2024;5:187-99. <https://doi.org/10.51847/1CkOkh8eTx>

Received: 01 November 2023; **Revised:** 24 January 2024; **Accepted:** 26 January 2024

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Introduction

The contemporary business environment is marked by globalization and unrestricted information flows, leading to a broader spectrum of stakeholders interested in corporate data. Stakeholders now demand information beyond traditional financial statements, encompassing areas such as environmental performance, social responsibility, employee matters, human rights, and anti-corruption initiatives. This type of disclosure is referred to as non-financial or sustainability information and is often presented in a dedicated report [1].

Globally, organizations often rely on standards from the Global Reporting Initiative (GRI), a private international body, to structure these reports. Occasionally, companies supplement GRI standards with additional frameworks. While non-financial reports are commonly reviewed by auditing firms, the verification process—known as assurance—can also be performed by any independent expert, including the auditor of financial statements. Before Law 11/2018, GRI-based non-financial reports were voluntarily assured.

The 2014 European Directive mandates that large companies in Europe disclose non-financial information and recommends—but does not require—assurance. In Spain, this Directive was implemented through Law 11/2018 [2], published in December



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2018 and effective from 1 January 2018, which requires non-financial information to appear in the management report or, at minimum, for its location to be indicated. Law 11/2018 also mandates that assurance must be provided by an independent expert. This study examines the impact of these compulsory requirements on prior voluntary practices, with a focus on the roles of auditors and assurance providers. Auditors are responsible for confirming the inclusion of the information in the management report, while assurance providers issue opinions on the non-financial content, potentially serving also as financial auditors.

This topic is particularly relevant because mandatory non-financial reporting is relatively new in Spain and because Europe is undergoing an intensive process of harmonization and standardization in this field. One objective of the European Green Deal strategy is to revise the Non-Financial Reporting Directive. Concurrently, the European Commission tasked the European Financial Reporting Advisory Group (EFRAG) with developing proposals for European Non-Financial Reporting Standards. To achieve this, EFRAG formed the Project Task Force on Non-Financial Reporting Standards (PTF-NFRS), which published its final report on 8 March 2021, recommending approaches for standardized European sustainability reporting while considering sector, company size, independent verification, and alignment with global frameworks [3].

EFRAG also released a report on the governance of future non-financial standards on the same date, proposing two interlinked boards—one for financial and one for non-financial reporting—to ensure compliance with forthcoming European standards [4]. Finally, in April 2021, the European Commission issued a proposal for a Directive on sustainability reporting, completing the three-stage process designed to accelerate international harmonization and standardization of non-financial reporting [5]. This study aims to examine the effects of Law 11/2018 during its initial year of enforcement in Spain on the 35 companies listed on the IBEX 35. Data from 2017 and 2018 were analyzed to compare the last year when non-financial information (NFI) preparation and assurance were voluntary with the first year of mandatory reporting. Initially, we compared the key characteristics of non-financial information from 2017, when reporting was still voluntary, with those of 2018 under compulsory rules. We also included data on traditional financial statement audits, as in large firms, the auditing company often also provides assurance for non-financial information. The final phase of the analysis examines the relationship between auditing and assurance providers, specifically whether the same company performed both roles across the two years and how assurance practices shifted from voluntary to compulsory. The study also explores potential links between the sector of activity and the choice of auditing or assurance firm. The paper is structured as follows: first, the relevant background is outlined; next, the sample and methodology are detailed; finally, the results are presented and main conclusions are drawn.

Background

Historically, corporate reporting focused on accountability, primarily to meet shareholders' information needs. Today, due to easier access to data, the prominence of capital markets, globalization, and the international scope of many companies, the group of interested parties—stakeholders—has expanded significantly [6]. Large multinational listed firms have long disclosed non-financial information, which serves as a communication tool to enhance corporate image, influence public perception, and increase credibility [7]. Non-financial reporting also helps boost investor confidence and provides insights into societal risks by offering performance data [8]. Investors generally value sustainability reporting positively [9], which can enhance market value [7] or yield direct benefits aligned with the “win-win proposition” theory [10].

The publication of non-financial information has traditionally been accompanied by voluntary external assurance. This assurance is carried out by an independent expert responsible for verifying the information. In Spain, auditors check whether non-financial data is included or referenced in the management report, as Law 11/2018 allows non-financial information to appear in a separate report. Assurance providers, however, are responsible for confirming that the content meets the applicable standards. Assurance can coexist with financial audits, though it is costly, and smaller firms often forgo it voluntarily. Even large companies must enhance reporting practices, as mandatory assurance requires compliance with non-financial standards and subjects them to independent evaluation, which can have reputational consequences if exceptions are noted in the assurance report [11]. In 2016, 60% of large firms across Spain, Italy, France, the UK, and Germany had assurance covering only parts of their non-financial reports, limiting the quality of verification [12]. According to KPMG [13], more than half of Spanish companies had independent assurance, exceeding the average by over 10 points.

Studies of IBEX 35 firms indicate that non-financial reporting remains inconsistent, even when GRI standards are consistently applied [14-18], alongside complementary frameworks such as Global Compact or ISO 26000 [19]. External assurance is largely voluntary and primarily performed by major auditing firms [16].

Traditionally, companies have separated financial and non-financial information, though integrated reporting is becoming more common, including in Spain [12]. Integrated reports, based on the International Integrated Reporting Council (IIRC) framework, combine multiple capital perspectives to provide a comprehensive view of the company, enhancing transparency for stakeholders and enabling inter-company comparisons [12]. The extent of integration varies by company size and leverage [20], and many reports still fall short of full compliance with the IIRC framework [21]. Spain ranks third globally for integrated reporting adoption [13].

Non-financial reporting and assurance have historically been voluntary. In April 2013, the European Commission and Parliament proposed the 2014 Non-Financial Information Directive, standardizing reporting and assurance requirements for European groups and public-interest entities [22]. Spain implemented this Directive via Law 11/2018 [23], extending its scope to both consolidated and individual statements of large companies and public-interest entities (Law 11/2018 [2], Preamble II). Since affected companies previously prepared and assured non-financial information voluntarily, the law represents a continuation rather than a major change in practice.

Law 11/2018 requirements

Law 11/2018 mandates that companies' reports must provide a description of the corporate (or group) business model, outline the policies implemented along with their outcomes, and identify the principal risks facing the company. The law also specifies the topics that the report should cover, including environmental issues, social matters, employee-related concerns, human rights, anti-corruption and anti-bribery measures, as well as recent information about the broader business environment, such as suppliers, customers, subcontractors, and fiscal matters [2].

The introduction of this legislation represents a significant development in Spain. Therefore, the purpose of this paper is to analyze its initial year of implementation across the 35 main companies listed in Spain, comparing it with the last voluntary year of non-financial information (NFI) preparation and assurance. First, we compare the two consecutive years, examining the core characteristics of NFI to answer the following research question:

1. Has Law 11/2018, which mandates both the preparation and assurance of non-financial information, resulted in significant changes compared to the previous year?

Given that in large listed companies, financial auditing is typically performed by major auditing firms that also provide assurance for non-financial information, we propose additional research questions:

1. Is there a link between the auditor of financial statements and the firm providing assurance for NFI?
2. Does the auditor of financial statements change when assurance becomes mandatory rather than voluntary?
3. Does the assurance provider change when moving from voluntary to compulsory assurance?
4. Is there a relationship between the auditor and the sector of the audited company?
5. Is there a relationship between the assurance provider and the sector of the assured company?

Methodology and Sample

Methodology

The study focuses on companies listed on the Spanish IBEX 35. These large firms are required to publish NFI on their websites and to have it assured, which facilitates access to the data. The sample was based on the companies listed in 2018. Although the composition of the index differed slightly from 2017, this variation was not considered significant.

Table 1. Variables Analyzed and Their Categories

Category	Rephrased Variable	Possible Values
Non-financial disclosure variables		
Standards applied for non-financial reporting	Frameworks adopted to prepare non-financial disclosures	GRI Other standards
Level of GRI standards adoption	Degree to which GRI guidelines are followed	Core Exhaustive Non-GRI
Placement of non-financial disclosures	Section or document where non-financial details are placed	Separate from annual accounts (AACC) Integrated into the management report (MR) Appendix to annual accounts Appendix to management report
Publication channel for non-financial disclosures (when absent from the Shareholders section on the company website)	Alternative locations where non-financial content is made available if not in the Shareholders area	Annual accounts Management report Annual report Corporate Social Responsibility (CSR) Other
Dedicated section for non-financial disclosures outside the Shareholders area on the company website	Presence of a specific standalone area beyond the Shareholders section	No dedicated section Sustainability Corporate Social Responsibility
Title of standalone report containing non-financial disclosures (when separate from annual accounts)	Name given to the independent document that presents non-financial details	Corporate Social Responsibility report Non-financial information Sustainability report
Auditing and assurance variables		
Auditor of financial statements	Professional services firm conducting the financial audit	Deloitte PWC EY KPMG
Provider of non-financial assurance	Organization responsible for verifying or assuring non-financial disclosures	No assurance Deloitte PWC EY KPMG Other company

Type of assurance opinion issued	Nature of the conclusion in the assurance report	Positive
Coverage depth of non-financial disclosures	Breadth and completeness of topics addressed in non-financial reporting	Exhaustive Limited
Additional control variables		
Reporting period	Fiscal year under analysis	2017 2018
Industry sector of the firm	Primary operational sector of the company	Banking Energy Construction Services Industry

Using this sample, a database was constructed covering the two years under study. The variables were organized into three groups: features of non-financial information, characteristics of auditing and assurance, and other variables such as year and company sector. All data were collected through a detailed review of the NFI and auditing reports available on the companies' websites, and each variable was coded according to the categories outlined in **Table 1**.

Companies within the scope of Law 11/2018 are capital companies with at least an average of 500 employees that qualify as public interest entities or are considered large under Directive 2013/34. Being large entities, all companies publicly disclose their information online. In 2017, the publication of NFI was voluntary, except for certain governance-related information required by the market supervisor. In 2018, reporting became compulsory under Law 11/2018.

The law specifies that NFI should be included within the management report as a non-financial information statement. However, it also allows for a separate report, provided its location is indicated in the management report. Such reports may be labeled differently, for example as a "sustainability report." In cases where NFI was published outside the management report, we recorded the report title as a new variable in the database. While the law recommends the name "non-financial information statement" in the management report, the flexibility to publish a separate report meant that NFI could appear under alternative names.

All data were analyzed using SPSS to generate descriptive statistics segmented by year. Contingency tables and chi-square tests were employed to examine significant relationships between pairs of variables. A 95% confidence interval was used to determine statistical significance.

Sample description

Initially, the study compiled information from companies that had their financial statements audited. Most of these audits were performed by the Big Four firms. The analysis shows that 32.9% of the companies were audited by PwC, 30.1% by Deloitte, 15.1% by EY, and 17.8% by KPMG. Another aspect of the audit is the auditor's opinion, which was positive for all companies across both years examined (2017 and 2018).

Regarding external assurance of non-financial information, this was also predominantly provided by the Big Four. In 2017, before the enactment of Law 11/2018, 16 companies did not obtain assurance, whereas in 2018 only one company lacked it. In certain cases in 2017, assurance was labeled as "social responsibility" rather than "non-financial information" as in 2018. PwC led in assurance provision, covering 30.1% of the sample, while the other Big Four firms provided approximately 12–15% each.

The scope of non-financial information includes all topics specified in Law 11/2018: environmental issues, social matters, employee concerns, human rights, anti-corruption and anti-bribery efforts, and information regarding society (Law 11/2018 [2], Article 1). Companies that address all these areas are considered to have an exhaustive scope. Although the 2017 reports were generally shorter than those in 2018, all companies included the required topics both years, resulting in comprehensive coverage.

All companies followed GRI standards to prepare their non-financial information, with a single exception in 2017 where the reporting standards were not specified (**Table 2**). The application of GRI standards can vary in depth (**Figure 1**). The "core" scope covers essential information for each topic, while the "exhaustive" scope provides detailed information across all areas. In the sample, 72.6% of companies used the core scope, whereas 21.9% adopted the exhaustive approach, mostly in the banking sector.

Table 2. Standards Used in Non-Financial Information

	%
Other	1.4
GRI	98.6
Total	100.0

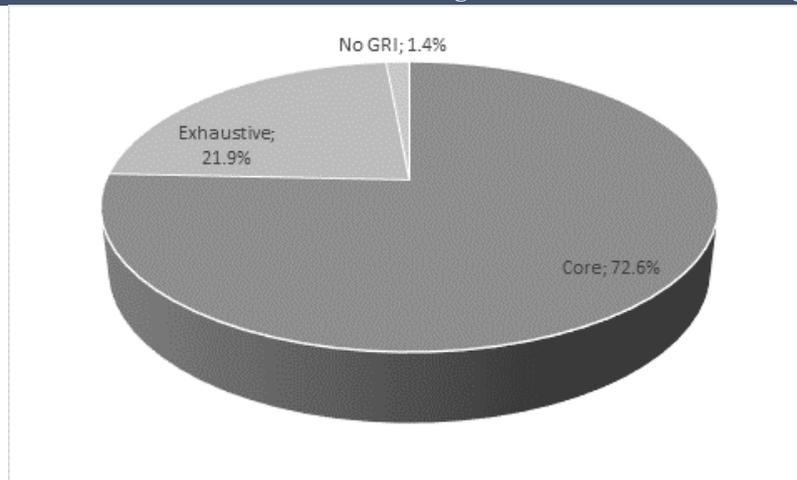


Figure 1. Scope of GRI Standard Application in the Sample

The variable “web” indicates the accessibility of reports. In 79.5% of companies, the reports were easily accessible online in both years. Difficulties in access were due to:

- Reports requiring download,
- Non-financial information being separated from shareholders’ information in the annual accounts,
- Reports not being organized systematically on the website.

Non-financial information was included within 67.1% of management reports, indicating that most companies complied with Law 11/2018. Another 19.2% included it separately from the annual accounts while referencing its location in the management report, with only one company failing to indicate this. Seven companies included NFI as an annex to either the annual accounts or the management report, thereby meeting the law’s requirements (**Figure 2**).

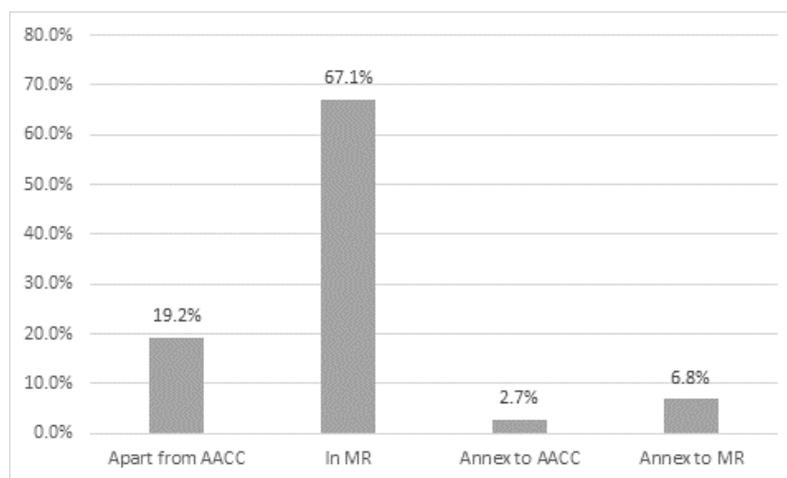


Figure 2. Location of Non-Financial Information in the Sample

The “location” variable specifies where NFI is presented on the shareholders’ section of company websites (**Figure 3**). In most companies, 60.3% included NFI in the annual accounts, 15.1% in the annual report, and 19.2% outside the annual accounts in CSR sections, management reports, or standalone non-financial information statements.

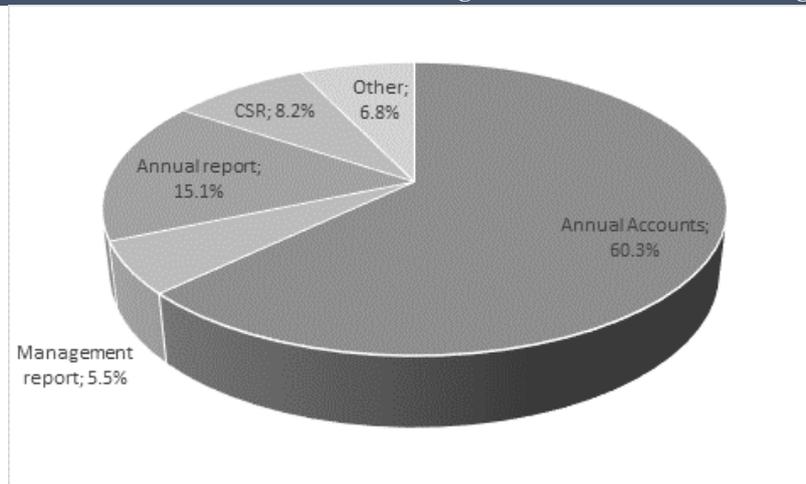


Figure 3. Location of Non-Financial Information on Company Websites

The study also examined whether NFI appeared outside the shareholders’ section of the website. Only 37% lacked a dedicated section, meaning their NFI was incorporated within the annual accounts. Of the remaining firms, 34.2% had a dedicated sustainability section, while the rest used a CSR-specific section.

Another variable analyzed was the title assigned to NFI when not included in the management report. Among the sample, 27.5% labeled it a CSR report, 20.5% as non-financial information, and 17.8% as a sustainability report; the rest did not assign an alternative name since the information was included in the annual accounts.

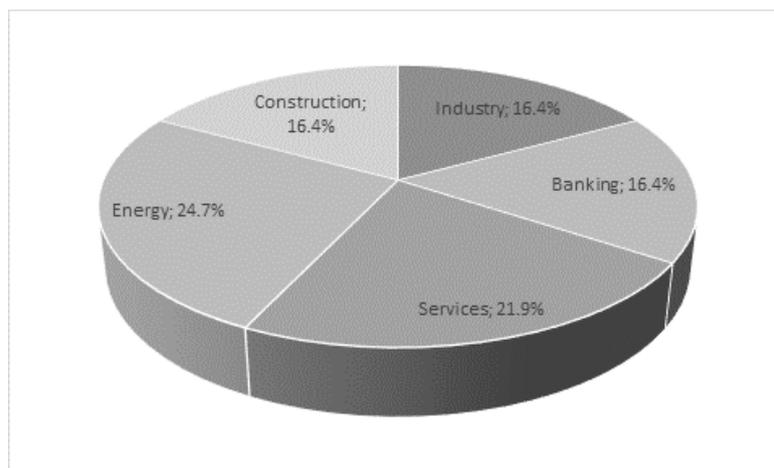


Figure 4. Sectors of Companies in the Sample

IBEX 35 companies operate across various sectors, which were grouped into five categories: banking, energy, construction, services, and industry (**Figure 4**). The banking sector covers financial institutions and banks. The energy sector includes renewable energy and gas companies. Construction encompasses real estate, construction firms, and hotel holdings. Services cover insurance, consulting, telecommunications, and airport operators. Industry includes steel, iron, automotive, textile, plastic manufacturing, and pharmaceutical companies.

Results

Disclosure and assurance of non-financial information: comparing the last voluntary year and the first mandatory year

This section compares 2017 and 2018 in terms of non-financial information (NFI) disclosure and assurance. With the implementation of Law 11/2018, companies are required to present NFI either as part of the management report or as a separate document, provided the management report indicates its location. Auditors’ responsibility is limited to confirming the inclusion or reference of NFI in the management report.

The sample was divided by year to assess differences between the last voluntary reporting year (2017) and the first year under mandatory reporting (2018).

In 2017, Deloitte (37%) and PwC (31%) were the primary firms auditing IBEX 35 companies. By 2018, Deloitte’s share decreased to 26%, while PwC increased to 37%, becoming the most active auditing firm, followed by KPMG and EY (**Table**

3). These data demonstrate that despite the new legal requirements, the Big Four remain the dominant providers of audit and assurance services, confirming previous research [14-18].

Table 3. Distribution of Auditing Firms by Year

	%	%
	2018	2017
EY	17.1	14.3
Deloitte	25.7	37.1
KPMG	20.0	17.1
PWC	37.1	31.4
Total	100.0	100.0

The changes within the Big Four may reflect the introduction of compulsory assurance in 2018, which can be provided by the same firm auditing the financial statements. When analyzing external assurance specifically, the ranking of firms differs from financial audits (**Table 4**). In 2017, 42% of companies did not obtain any assurance, while 58% mainly relied on PwC (31%) and Deloitte (11%). After the enforcement of Law 11/2018, only one company did not secure assurance in 2018. PwC remained the leading assurance provider at 31%, while KPMG and EY increased their shares from 5.7% and 8.6% in 2017 to 20% in 2018. Only one company engaged a non-Big Four provider. These results confirm that major multinational audit firms dominate both financial audits and NFI assurance for large listed companies.

Table 4. External Assurance Providers by Year

	%	%
	2018	2017
There is no assurance	2.9	42.9
EY	20.0	5.7
Deloitte	20.0	11.4
KPMG	22.9	8.6
PWC	31.4	31.4
Other	2.9	0
Total	100.0	100.0

Regarding the standards applied to NFI, auditor opinions, and reporting scope, there was consistency across both years. All companies applied GRI standards, with exhaustive coverage of all topics, and auditors issued positive opinions. The data also show growth in exhaustive GRI application: while core application remained prevalent (71.4% in 2018), exhaustive application increased from 17% in 2017 to 28.6% in 2018 (**Table 5**).

Table 5. Auditor Opinion, Reporting Scope, Standards, and GRI Application by Year

		2018 (%)	2017 (%)
Stakeholder Opinion	Favorable	100.0	100.0
Report Coverage	Comprehensive	100.0	100.0
Applied Standards	Non-GRI	0.0	2.9
	GRI	100.0	97.1
	Total	100.0	100.0
Level of GRI Application	Core option	71.4	80.0
	In accordance - Comprehensive	28.6	17.1
	Other	0.0	2.9
	Total	100.0	100.0

In 2017, 74% of companies included NFI in management reports, while 20% presented it outside of them. In 2018, 65.7% continued to report within management reports. The slight decrease is explained by two companies including NFI as an annex to the annual accounts and one as an annex to the management report (**Table 6**). These results indicate that the management report remains the primary location for NFI, consistent with the requirements of Law 11/2018 and the guidance of the EFRAG PTF-NFRS proposal [3].

Table 6. Location of Non-Financial Information by Year

	%	%
	2018	2017
Apartfrom AACC	20.0	20.0
Included in MR	65.7	74.3

Annex to AACC	5.7	0.0
Annex to MR	8.6	5.7
Total	100.0	100.0

Cross-tabulating the location of NFI in both years and applying chi-square tests revealed a statistically significant association (**Table 7**). In 2017, 74.3% of NFI appeared in management reports, 20% outside annual accounts, and 5.7% as an annex. In 2018, 65.7% appeared in management reports, 20% separately, 8.6% as an annex to the management report, and 5.7% as an annex to the annual accounts. These findings suggest that prior to Law 11/2018, companies preferred locating NFI within management reports. After the law came into force, a few companies opted to separate NFI from the management report, attaching it as an annex either to the annual accounts or the management report itself.

Table 7. Association between Non-Financial Information Location and Year

Category	Metric	2018	2017
Separate from Annual Accounts (AACC)	% placed in the section for non-financial information	50.0%	50.0%
	% of total non-financial disclosures for the year	20.0%	20.0%
Within the Management Report (MR)	% placed in the section for non-financial information	46.9%	53.1%
	% of total non-financial disclosures for the year	65.7%	74.3%
Annex to Annual Accounts (AACC)	% placed in the section for non-financial information	100.0%	0.0%
	% of total non-financial disclosures for the year	5.7%	0.0%
Annex to Management Report (MR)	% placed in the section for non-financial information	60.0%	40.0%
	% of total non-financial disclosures for the year	8.6%	5.7%
Overall Total	% placed in the section for non-financial information	47.9%	47.9%
	% of total non-financial disclosures for the year	100.0%	100.0%
	Total percentage in designated non-financial section	47.9%	47.9%

Note: $X^2(8) = 75.486, P < 0.001$

The way non-financial information (NFI) was presented changed slightly between 2017 and 2018. In both years, 62.9% of companies included NFI in the consolidated annual accounts under the “Shareholders” section. In 2017, 8.6% of firms placed it outside the management report, while in 2018 this decreased to only 2.9%. Similarly, when NFI was published as a corporate social responsibility (CSR) document, 14.3% of companies used this approach in 2017, dropping to 2.9% in 2018. In contrast, the proportion of companies using the “annual report” designation rose from 11.4% in 2017 to 20% in 2018. A comparable increase is seen for reports classified as “Other,” which went from 2.9% in 2017 to 11.4% in 2018. These results are summarized in **Table 8**.

Table 8. Non-Financial Information Disclosure by Year

	%	%
	2018	2017
Annual Accounts	62.9	62.9
Management report	2.9	8.6
Annual report	20.0	11.4
Corporate Social Responsibility	2.9	14.3
Other	11.4	2.9
Total	100.0	100.0

When NFI was presented outside the management report, the most common report titles in 2017 were CSR report (42.9%) and sustainability report (20%). By 2018, these titles largely shifted to “non-financial information” (42.9%), as shown in **Table 9**. The implementation of Law 11/2018 has promoted the use of the term “non-financial information,” reducing reliance on CSR labels. The use of “sustainability report” slightly declined, even though in European discussions it is often preferred over “non-financial information,” which can carry a negative connotation [3].

Table 9. Report Names for Non-Financial Information Outside the Management Report by Year

	%	%
	2018	2017
No name	22.9	34.3
Non-financial information	42.9	0.0
Sustainability report	17.1	20.0
CSR	14.3	42.9
Other	2.9	2.9
Total	100.0	100.0

Most companies already included NFI in their annual accounts, but all had additional sections on their websites to present this information. In 2017, 13 companies displayed NFI in a CSR section and 11 in a sustainability section. In 2018, the sustainability section was used by 14 companies, while only 5 used the CSR section (**Table 10**).

Table 10. Website Sections for Non-Financial Information by Year

	%	%
	2018	2017
Only AACC	45.7	31.4
Sustainability	40.0	31.4
CSR	14.3	37.1
Total	100.0	100.0

Regarding sector, the sample was not divided by year, as company sectors remained consistent across 2017 and 2018. Overall, Law 11/2018 did not produce major changes in the disclosure or assurance practices of NFI in Spain. IBEX 35 companies largely continued the practices they had previously implemented voluntarily. This addresses the first research question.

Relationship between auditor and assurance provider: Voluntary vs. mandatory NFI disclosure and assurance

This section examines the potential relationship between financial auditors and non-financial assurance providers, given that Law 11/2018 makes NFI disclosure and assurance mandatory.

First, the association between auditors and assurance providers was tested and found to be statistically significant at the 95% confidence level (**Tables 11 and 12**). These findings are consistent with prior studies [14-18] and with our earlier results: with few exceptions, the company providing assurance is often the same firm that audits the financial statements. PwC, in particular, is the largest assurance provider and serves companies beyond those it audits.

Among the companies that did not obtain assurance, 25% were audited by EY, 25% by Deloitte, 18% by KPMG, and 31.3% by PwC. For assurance provided by EY, 77.8% was for companies audited by EY, while 22.2% was for companies audited by KPMG. Deloitte provided 81.8% of assurance to its own audit clients and 18.2% to companies audited by PwC. PwC delivered 66.5% of assurance to its own audit clients, 18.2% to Deloitte's clients, and 9.1% to KPMG's clients.

Table 11. Association between Assurance Provider and Auditor by Year

Assurance Provider	Metric	No assurance	EY	Deloitte	KPMG	PWC	Other
EY	% among companies with this auditor	36.4%	63.6%	0.0%	0.0%	0.0%	0.0%
	% among companies with this assurance provider	25.0%	77.8%	0.0%	0.0%	0.0%	0.0%
Deloitte	% among companies with this auditor	18.2%	0.0%	40.9%	22.7%	18.2%	0.0%
	% among companies with this assurance provider	25.0%	0.0%	81.8%	45.5%	18.2%	0.0%
KPMG	% among companies with this auditor	23.1%	15.4%	0.0%	38.5%	15.4%	7.7%
	% among companies with this assurance provider	18.8%	22.2%	0.0%	45.5%	9.1%	100.0%
PWC	% among companies with this auditor	20.8%	0.0%	8.3%	4.2%	66.7%	0.0%
	% among companies with this assurance provider	31.3%	0.0%	18.2%	9.1%	72.7%	0.0%
Overall Total	% among companies with this auditor	21.9%	12.3%	15.1%	15.1%	30.1%	1.4%
	% among companies with this assurance provider	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Overall percentage distribution		21.9%	12.3%	15.1%	15.1%	30.1%	1.4%

Note: $X^2(24) = 147.056$, $P < 0.001$

The next relationship examined investigates whether companies retained the same auditor across both years, or whether the introduction of mandatory assurance led them to change auditors, considering that both auditing and assurance can be provided by the same firm. A statistically significant association exists between auditors in 2017 and 2018, as shown in **Table 12**.

Audits conducted by EY represented 45.5% in 2017 and 54.5% in 2018. Deloitte's share of audits decreased from 59.1% in 2017 to 40.9% in 2018. KPMG recorded 46.2% in 2017 and 53.8% in 2018. PwC audits accounted for 45.8% in 2017 and 54.2% in 2018 (**Table 12**). These results indicate that the distribution of auditing work among the Big Four remained relatively stable across both years.

Table 12. Relationship between Auditing Firm and Year

Auditor	Metric	2017	2018	Total
EY	Percentage within auditor	45.5%	54.5%	100.0%

	Percentage within year	14.3%	17.1%	15.1%
Deloitte	Percentage within auditor	59.1%	40.9%	100.0%
	Percentage within year	37.1%	25.7%	30.1%
KPMG	Percentage within auditor	46.2%	53.8%	100.0%
	Percentage within year	17.1%	20.0%	17.8%
PwC	Percentage within auditor	45.8%	54.2%	100.0%
	Percentage within year	31.4%	37.1%	32.9%

Note: $\chi^2(8) = 74.107$, $P < 0.001$

Similarly, the relationship between assurance providers and year (2017 vs. 2018) was analyzed, showing a statistically significant link at the 95% confidence level (**Table 13**). Across all assurance activities, only 6.2% were performed in 2017, while 93.7% occurred in 2018, reflecting the mandatory application of Law 11/2018. For EY, 22.2% of assurance was conducted in 2017, rising to 77.8% in 2018. Deloitte provided 36.4% in 2017 and 63.6% in 2018. KPMG's assurance increased from 27.3% to 72.7%. PwC maintained an equal split of 50% in both years. Only one company engaged a non-Big Four provider in 2018 (**Table 13**).

These findings highlight that the first enforcement of Law 11/2018 led to a substantial increase in external assurance for all providers, with the exception of PwC, which maintained consistent proportions.

Table 13. Relationship between Assurance Provider and Year

Assurance Provider	Metric Description	2017	2018
No assurance	Share within assurance category (%)	93.8%	6.3%
	Share within year (%)	42.9%	2.9%
EY	Proportion within assurance provider (%)	22.2%	77.8%
	Proportion within year (%)	5.7%	20.0%
Deloitte	Proportion within assurance provider (%)	36.4%	63.6%
	Proportion within year (%)	11.4%	20.0%
KPMG	Proportion within assurance provider (%)	27.3%	72.7%
	Proportion within year (%)	8.6%	22.9%
PwC	Proportion within assurance provider (%)	50.0%	50.0%
	Proportion within year (%)	31.4%	31.4%
Other providers	Proportion within assurance provider (%)	0.0%	100.0%
	Proportion within year (%)	0.0%	2.9%
Total	Proportion within assurance provider (%)	47.9%	47.9%
	Proportion within year (%)	100.0%	100.0%
	Share of overall total (%)	47.9%	47.9%

Note: $\chi^2(12) = 92.938$, $P < 0.001$

A significant relationship was also identified between auditor and sector (**Table 14**), again at the 95% confidence level. Within the banking sector, 58.3% of audits were performed by PwC, 16.7% each by EY and KPMG, and 8.3% by Deloitte. The energy sector showed a more even distribution: EY 38.9%, KPMG 33.3%, PwC 22.2%, and Deloitte 5.6%. In construction, Deloitte (58.3%) and PwC (41.7%) were the primary auditors. Deloitte led in the services sector (56.3%), followed by KPMG (18.8%) and PwC and EY (12.5% each). In the industry sector, EY performed no audits, while PwC conducted 50%, Deloitte 33.3%, and KPMG 16.7%. This demonstrates that auditing firms exhibit sector-specific specialization within the sample.

Table 14. Relationship between Auditor and Sector

Assurance Firm	Indicator	Banking	Energy	Construction	Services	Industry
EY	Share within sector (%)	16.7%	38.9%	0.0%	12.5%	0.0%
Deloitte	Share within sector (%)	8.3%	5.6%	58.3%	56.3%	33.3%
KPMG	Share within sector (%)	16.7%	33.3%	0.0%	18.8%	16.7%
PwC	Share within sector (%)	58.3%	22.2%	41.7%	12.5%	50.0%
Total	Share within sector (%)	100.0%	100.0%	100.0%	100.0%	100.0%
	Proportion of overall sample (%)	16.4%	24.7%	16.4%	21.9%	16.4%

Note: $\chi^2(20) = 106.649$, $P < 0.001$

Table 15. Relationship between Non-Financial Assurance Provider and Sector

Assurance Status / Firm	Measurement	Banking	Energy	Construction	Services	Industry
No external assurance	Sectoral share (%)	25.0%	22.2%	16.7%	18.8%	33.3%
EY	Sectoral share (%)	8.3%	38.9%	0.0%	6.3%	0.0%
Deloitte	Sectoral share (%)	0.0%	11.1%	16.7%	31.3%	16.7%
KPMG	Sectoral share (%)	8.3%	5.6%	16.7%	18.8%	33.3%
PwC	Sectoral share (%)	58.3%	22.2%	50.0%	18.8%	16.7%
Other providers	Sectoral share (%)	0.0%	0.0%	0.0%	6.3%	0.0%
Total	Sectoral share (%)	100.0%	100.0%	100.0%	100.0%	100.0%

Contribution to overall sample (%)	16.4%	24.7%	16.4%	21.9%	16.4%
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Note: $\chi^2(30) = 106.883$, $P < 0.001$

Finally, a statistically significant association exists between assurance providers and sector (**Table 15**). Some companies in each sector did not contract external assurance, particularly in 2017 when assurance was voluntary. For those that did, assurance providers typically mirrored the firms auditing financial information, with only one company selecting a different provider.

In the banking sector, 58.3% of assurance was provided by PwC, with EY and KPMG supplying 8.3% each and Deloitte none. In the energy sector, EY provided 38.9%, PwC 22.2%, Deloitte 11.1%, and KPMG 5.6%. Construction was dominated by PwC (50%), while KPMG and Deloitte provided 16.7% each and EY none. In services, Deloitte led with 31.3%, followed by KPMG and PwC at 18.8%, and EY and others at 6.3%. In industry, KPMG provided 33.3%, with Deloitte and PwC each at 16.7%, while EY did not provide assurance.

These results indicate that assurance providers, like auditors, demonstrate sector specialization. PwC is predominant in banking and construction, EY focuses on energy, Deloitte on services, and KPMG on industry.

All examined relationships were statistically significant, allowing affirmative responses to research questions 2, 5, and 6. Conversely, regarding potential changes in auditors or assurance providers due to the mandatory requirements of Law 11/2018, no significant shifts were observed, providing negative answers to research questions 3 and 4.

Conclusions

While large corporations have historically disclosed and voluntarily assured non-financial information, in Spain this practice became mandatory with Law 11/2018 starting in 2018. Before conducting this research, it might have been expected that this shift would alter corporate practices. However, moving from voluntary to mandatory reporting has not caused significant changes, largely due to the flexibility permitted by Law 11/2018.

No major changes occurred regarding auditing of financial information among large companies. They have continued to voluntarily prepare and assure non-financial information, as confirmed by data from 2017 and 2018 for firms listed on the Spanish Ibex 35. The Big Four remain the primary providers of assurance, consistent with earlier studies [14]. In 2017, 42% of these 35 firms did not engage external assurance for their non-financial information; by 2018, only one company did not secure it. Therefore, assurance uptake increased across all companies. For these large listed firms, the initial enforcement of Law 11/2018 was largely familiar territory, given their prior voluntary practices.

The GRI standards (Global Reporting Initiative) were applied by 94.5% of companies across both years, predominantly in the core scope (over 70%), while less than 30% applied the comprehensive scope. Regarding the placement of non-financial information, more than 70% of companies included it in their management report during both years, meaning the location mandated by Law 11/2018 matched previous voluntary practices. Concerning disclosure on websites, 62.9% included it in the annual accounts in 2017, and 20% in the annual report in 2018. When non-financial information appeared outside the management report, it was called a social responsibility report or sustainability report in 2017, whereas in 2018 most firms adopted the term non-financial information statement, in line with Law 11/2018.

Auditing and assurance services are specialized by sector among Ibex 35 companies. EY focuses on energy sector auditing and assurance, PwC primarily serves banking and some industrial firms, Deloitte works with construction and services, and KPMG audits energy companies while providing assurance for industrial sector firms.

Currently, there is an active debate regarding the future regulation of non-financial information in Europe. Thus, this study and its findings are highly relevant, offering insights to support the EU Directive proposals within the Green Deal framework. Similarly, EFRAG's Project Task Force on Non-Financial Reporting Standards [3] has emphasized the role of external assurance, the need for alignment with widely accepted frameworks such as the GRI standards, and sector-specific specializations, all of which our study confirms. These findings are valuable for regulators, standards issuers, assurance providers, preparers, and professionals, and serve as a benchmark for understanding Spain's current landscape while anticipating potential European harmonization.

A limitation of this paper is the sample size, though it remains representative of large listed Spanish firms. Additionally, the traditionally voluntary nature of non-financial reporting has limited the availability of comparable information, restricting the analysis to large and public-interest companies, which are legally required to comply. For future research, expanding the sample to include listed companies from other European countries—both similar and different from Spain—could provide further insights into this evolving field.

Acknowledgments: None

Conflict of interest: None

Financial support: None

Ethics statement: None

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