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Impression management in bilingual corporate reporting: An analysis of textual characteristics in Spanish and English

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ABSTRACT

Globalization has made it more important for companies to communicate in different languages. However, translation in financial reporting is neglected in practice, despite offering managers the potential to increase/decrease opportunistic attitudes in different languages. In particular, opposing pressure and monitoring effects would suggest higher/lower incentives for impression management. This paper investigates whether there are different levels of impression management in different versions of bilingual (Spanish/English) annual reports produced by Spanish listed companies. Patterns in textual characteristics that may be used for impression management purposes are analyzed. Despite different incentives, the results show little difference in the opportunistic use (or lack thereof) of every textual variable analyzed between the different language versions. This implies that stakeholders may feel free to read the bilingual reports in the language in which they feel most comfortable, because the translation process does not seem to result in different levels of impression management.

1. Introduction

Language barriers remain as one of the stickiest hindrance to globalization (Konara, 2020). Translation issues have traditionally been neglected in financial reporting (Evans, 2018; Evans and Kamla, 2018). However, with the dynamic growth of global corporations, effective communication strategies targeting stakeholders in different languages enable companies to hold strategic positions (Ngai and Singh, 2014). Publishing an annual report in more than one language may increase, apart from visibility, a firm's ability to raise funds by enlarging the base of potential shareholders (Grinblatt and Keloharju, 2001; Jeanjean et al., 2010, 2015). The globalization of capital markets has led many firms from non-English speaking countries to issue an annual report in English (de Groot et al., 2006, 2011; Jeanjean et al., 2010; Leventis and Weetman, 2004). The English version of the annual report is usually published together with the native language version in the case of non-English-based companies. This leads to a bilingual annual report. Courtis and Hassan (2002) argue that investors of all kinds read the language in which they feel most comfortable. But are they exposed to different levels of impression management in the different versions of a bilingual annual report? This study tries to answer this question.

The importance of English as an international business language and the growing importance of nonfinancial text for international marketing have turned the annual report into a crucial, internationally oriented, corporate communication tool (de Groot et al., 2006). Narrative corporate reporting matters, especially when expressed strategically by key corporate leaders intending to influence stakeholders (Conaway and Wardrope, 2010; Lahmar and Piras, 2023). The annual report is an important vehicle to communicate with

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multiple stakeholders (Mousa et al., 2022). In it, the chairperson's statement includes essential information about the company and may provide strong signals of corporate survival or failure (Mir et al., 2009). Its content is mainly discretional and is not directly subject to formal audit,[1] which makes it easier for managers to use it opportunistically (Brennan and Merkl-Davies, 2013).

Previous literature has found evidence of impression management in corporate narratives, i.e. self-serving presentation of corporate performance (Merkl-Davies and Brennan, 2007; Neu et al., 1998). Prior research also argues that impression management strategies may not be generalized across languages (Clatworthy and Jones, 2006). However, most impression management literature has ignored the presence of bilingualism in annual reports and has not addressed whether different language versions of the same messages differ in the degree of impression management. This is important because different "information presentation methods may impact on the quality of the decisions made by users" (So and Smith, 2003, p. 59). There are therefore potential investment resource allocation implications if users are unaware of the annual report version in their language may be disadvantaged and subject to a higher degree of impression management (Courtis and Hassan, 2002).

This paper tries to fill the gap raised by different calls around impression management in bilingual corporate reports. Jones (1996) argued for more research around bilingual annual reports, given the number of companies worldwide reporting in English as a second language. Likewise, Courtis and Hassan (2002) highlighted the issue of impression management in bilingual annual reports as a fruitful avenue for further research. Ngai and Singh (2014) also asked for more research that encompasses the differences in bilingual representation in corporate messages. More generally, Kettunen (2017) warns that there is little insight into the approach that preparers of financial statements adopt to address issues related to linguistic equivalence in translations. In this vein, Nobes and Stadler (2018) claim that there is little examination of the translated annual reports which many firms publish. They argue that most previous financial reporting translation research is focused on regulations rather than financial statements, and uses English as the source language.

The objective of this paper is to analyze differences in impression management between the different versions of bilingual annual reports. Particularly, it examines differences in three textual characteristics between 144 Spanish and 144 English versions of chairpersons' statements in Spanish companies listed on Spain's leading blue-chip index, the IBEX 35 index. Listed Spanish companies may publish a bilingual annual report to attract investors in countries with stronger stock markets (Grinblatt and Keloharju, 2001; Jeanjean et al., 2015). However, in these latter markets, there is more pressure to give shareholders a good impression, and companies may disclose more sophisticated information than they would for less developed markets (Beattie and Jones, 2000; Doupnik and Riccio, 2006). By contrast, higher financial development is also associated with more effective monitoring (Degeorge et al., 2013). Both effects, pressure and monitoring, enable bilingual reporting to offer different levels of impression management in the different language versions (Melis and Aresu, 2022). Spain is a meaningful research setting. It is a continental European and Latin country where the financial development is lower than in Anglo-Saxon countries (Doupnik and Riccio, 2006). In addition, English and Spanish are two of the most important languages in the world. English is the first language in international communication. Spanish is the second language in the world by native speakers and the third by total speakers (Instituto Cervantes, 2021).

Bilingual reports can show differences in length, themes and linguistic style (Ngai and Singh, 2014). As pointed out by Courtis and Hassan (2002, p. 395), "two or more language versions of the same Chairman's Address presented in an annual report raise intriguing questions". Are they identical in readability? Does one give investors an advantage over the other version/s? Are they prepared with the same tone, style and emphasis? However, their results only offered an answer to the first question, i.e. different language versions could produce different readability patterns, but the rest remained unsolved. This paper, from an impression management approach, tries to shed light on the two latter questions raised above. Thus, this research contributes to the interdisciplinary perspectives of impression management, particularly from a linguistic perspective. By studying multiple textual characteristics commonly used for impression management purposes in bilingual annual reports, this paper contributes to an understanding of whether users of one of the versions of bilingual annual reports would have a competitive dis/advantage (Courtis and Hassan, 2002). This is because different decisions might be made by investors as a consequence of different potential levels of impression management. The results imply that, at least with the textual characteristics analyzed, stakeholders should feel free to read the language version of bilingual reports they feel most comfortable with, because the translation process associated with bilingual reporting does not seem to provide a significant competitive dis/advantage in relation to impression management.

The importance of translation in financial reporting is underestimated (Evans et al., 2015). Translation is not a neutral activity (Evans, 2018). "Translation is a highly manipulative activity that involves all kinds of stages in that process of transfer across linguistic and cultural boundaries" (Bassnett and Trivedi, 2012, p. 2). Xian (2008) claims that it would be naïve to assume that the meaning of the original message can avoid being changed in translation, and that translated information is a construction or result of interpretation. The ambiguity inherent in translation has the potential to be exploited ideologically or pragmatically (Evans et al., 2015). In short, translations of annual reports offer the potential to enable different level of impression management.

It is also recognized that there is no exact equivalence in semantic correspondence of concepts between different language-cultures

[1] According to ISA 720 (Revised), the auditor has to read and consider the information of the chairperson's statement in order to detect potential inconsistencies with the financial statements (IAASB, 2015).

(Archer and McLeay, 1991; Catford, 1965; Venuti, 1995). This is especially true for financial reporting, which is culture-specific and socially constructed (Evans, 2004, 2018). The socio-linguistic context and the different cultural conventions around different languages may have an impact on the discursive norms.[2] In any case, the approach of the paper overcomes the previous concern to a great extent because it analyzes patterns in each language version separately. Only after that are the strategies found to be compatible with impression management in both language versions compared.

The remainder of the paper is structured as follows. The next section provides a literature review divided into four subsections: an introduction to natural language in annual reports, a review of corporate narratives in different languages, an overview of impression management in corporate disclosure, and the development of the research hypotheses. This is followed by the research design, with information about the sample, variables and research estimation model. The results are then detailed. Finally, the discussion and conclusion are offered.

2. Literature review

2.1. Natural language in annual reports

Corporate reporting, particularly annual reports, includes financial statements and natural language. Natural language includes texts (narratives) and visual images (such as pictures and graphs) (Melis and Aresu, 2022). Natural language may be used to explain or complement the information in the financial statements (Sandell and Svensson, 2016). It therefore can help to clarify the financial statements and can increase the information value for users. However, natural language can also be used for self-promotion. This managerial behavior is known as impression management (Beattie, 2014; Melis and Aresu, 2022; Merkl-Davies and Brennan, 2007). Given that translation issues play a more important role in narratives than in visual images, this paper focuses on impression management in narratives.

2.2. Corporate narratives in different languages

Previous literature about narratives in corporate reporting has mainly focused on reports produced in English in anglophone countries (Brennan et al., 2009). Recently, there have been a growing number of studies on monolingual annual reports in languages different from English (Cen and Cai, 2013: Chinese; Hadro et al., 2017: Polish; Moreno and Jones, 2022: Spanish; Oliveira et al., 2016: Portuguese).

However, only a minority of studies has addressed language issues in annual reports. They can be divided into three groups. Some have focused on the English version of the annual reports when English is not the native language (Abu Bakar and Ameer, 2011; Courtis, 1995, 1998). Another group has compared the English version of non-US/UK firms with those published by US/UK firms (Brochet et al., 2016; Conaway and Wardrope, 2010; de Groot et al., 2006, 2011; Henry et al., 2023; Hooghiemstra, 2010; Lundholm et al., 2014; Schroeder et al., 1991). A final group has truly addressed bilingual reports, by comparing the native language version and the English version of the annual reports (Campbell et al., 2005; Courtis and Hassan, 2002; Ngai and Singh, 2014). Although these studies, in general, do not show significant differences in content, the choice of a given language for financial reporting is not neutral (Jeanjean et al., 2010).

In the first group, Courtis (1995), (1998) analyzed readability and its variability in the English version of the annual reports of Hong Kong companies. Abu Bakar and Ameer (2011) studied readability in corporate social responsibility communication in the English version of the chairperson's statements of Malaysian companies. Their findings did not involve any bilingual implication. Abu Bakar and Ameer (2011) found that results are driven by companies' performance, while Courtis (1995), (1998) did not.

A different (second) group of research has compared the English version of corporate narratives in non-US/UK companies with those published by US/UK firms. Schroeder et al. (1991) compared the linguistic characteristics of the English version of annual reports in Japanese firms traded on the New York Stock Exchange (NYSE) with another group of English annual reports published by US firms. Their results showed differences, not in vocabulary, but in sentence and grammatical structure and readability (it was more complex in Japanese firms). They concluded that the narratives of Japanese companies may be more difficult to interpret and therefore users may face higher information costs. de Groot et al. (2006) analyzed differences in themes between the English version of Dutch CEOs' statements, UK CEOs' statements and UK chairpersons' statements and found differences both in textual and pictorial themes. de Groot et al. (2011) designed an experiment to analyze the cross-cultural effectiveness of management statements in English from firms based in the UK and the Netherlands. They found that UK-based analysts evaluated the native (UK-based) reports more positively than the non-native (Netherlands-based) reports. Conaway and Wardrope (2010) studied the English version of CEO letters of Latin American-based companies listed on the NYSE and compared these to US-based companies. They found that the Latin American letters were characterized by a richer mix of topics, a more complex writing style and a higher level of cultural complexity.

Hooghiemstra (2010) examined whether US and Japanese CEOs explain the causes of good and bad news in different ways. He

[2] For instance, in Latin countries, such as Spain, the culture is more collectivistic than in Anglo countries such as the US, the UK or Australia, which are more individualistic (Markus and Kitayama, 1991). This may lead to natural differences, for example in the occurrences of personal pronouns between languages (Gardner et al., 1999). In addition, in English, when referring to the first person in the singular, the pronoun I is always used. However, in Spanish, it is sometimes omitted (Ramírez-Esparza et al., 2007). Moreover, in some languages, the first person sounds more arrogant than in other languages.

found that US letters in particular emphasize good news and that Japanese letters in particular attribute bad news to causes beyond their control. In this same stream, Brochet et al. (2016) studied transcripts from non-US firms' English-language conference calls and found that the calls of companies located in countries with greater language barriers were more likely to show non-plain English and erroneous expressions. They also found that investors reacted less to conference calls when linguistic opacity in the calls' narrative was higher. With a similar approach, Lundholm et al. (2014) and Henry et al. (2023) compared earnings press releases (the former in addition to MD&A) issued by non-US firms listed on a US stock exchange (in English) versus US firms. They found clearer texts, relatively more numerical data (Lundholm et al., 2014) and a more conservative tone and more forward-looking information (Henry et al., 2023) in non-US firms than their US counterparts. It is also worth mentioning that Nguyen and Kimura (2020) examined the annual reports of foreign firms (20-F forms) listed on the US stock exchange. They found significant differences in behaviors of issuing annual reports among countries and that language plays an important role in deciding the writing styles of annual reports. Recent studies have also shown that language can also affect dividends (He and Zhang, 2022; Nishikawa et al., 2023). They both found that companies in weak future time reference (FTR) language markets (such as Germany and Japan) pay lower dividends than companies in strong-FTR language markets (such as the US and the UK).

In the third group, Courtis and Hassan (2002) published the first bilingual readability study reporting on different language versions of narrative disclosures. They examined differences in readability in the chairperson's address between the English and Chinese versions in Hong Kong and between the English and Malay versions in Malaysia. They found that different language versions produced different readability patterns.

Campbell et al. (2005) analyzed the quality of company translations of reporting narratives and whether or not different translations of the same documents were used to convey different emphases to different national audiences. They compared the accuracy from the German original to the English translated version in environmental narrative disclosures of German companies. They found that, in general, the translations were accurate and that companies did not discriminate between national audiences by reporting differences issues or placing emphasis differently.

Ngai and Singh (2014) studied bilingual (English and Chinese) CEO messages and addresses on the websites of Greater China (mainland China, Hong Kong and Taiwan) companies. They focused not only on the differences between English and Chinese versions, but also, and particularly, on regional differences in the three geographical areas of the study. They showed different textual characteristics and variations in their themes, but according to their approach, they explained the results in line with cultural differences and not based on impression management. Their sources were not based on CEO letters, but on CEO messages and addresses on the internet.

In addition, Cen and Cai's (2013) study, although not about bilingual annual reports, is worth mentioning here. They analyzed potential differences in impression management in Chinese chairpersons' statements between the 50 most and 50 least profitable companies. Secondarily, to study whether the methods used to analyze English reports are still applicable in a different language context, they "translated the Chinese version of chair's statements into English" (p. 497). Their results showed that there were no significant differences between the two versions. However, under their approach, the potential strategic role of the corporate translator in international business is overlooked (Blenkinsopp and Pajouh, 2010; Xian, 2008). The approach of the present paper is different, as it analyzes bilingual annual reports originally published by the companies.

To sum up, few studies have addressed language issues in annual reports. Only a very small number has focused on different versions of the same bilingual report. However, they have not addressed whether these language versions differ in the level of impression management, which is the aim of the present research.

2.3. Impression management in corporate disclosure

Impression management originates from social psychology and "refers to the process by which individuals attempt to control the impression others form of them" (Leary and Kowalski, 1990, p. 34). In a corporate disclosure context, it is related to managers' attempts to exhibit a self-serving image of corporate performance in order to try to influence stakeholders' perceptions (Brennan and Merkl-Davies, 2013). Corporate leaders may tend to manage the impression of external constituents by actively using explanations to justify their actions (Lee et al., 2020). Managers may therefore be particularly interested in associating themselves with good performance and distancing themselves from poor performance. This reporting bias is interpreted as impression management (Merkl-Davies and Brennan, 2007). Their attempts would be based on the idea that the form of presentation used in corporate disclosures can influence shareholders' evaluations of performance (Ajina et al., 2016; Hooghiemstra et al., 2017).

For this purpose, corporate narratives, which are not usually subject to regulation, provide managers with an opportunity to manage impressions by disclosing information in a positive view (Hooghiemstra, 2010). Narratives allow managers to decide which issues are stressed and which are concealed or blurred (Neu et al., 1998). Previous literature has found support for impression management practices in corporate reporting (Brennan et al., 2009; Clatworthy and Jones, 2006). There is a debate about whether this corporative behavior is unconscious or deliberate (Buchholz et al., 2018; Clatworthy and Jones, 2003), although most studies are based on a conscious and strategic assumption (Merkl-Davies and Brennan, 2007). In addition, it is recognized that language and culture are intertwined (Pan and Patel, 2018) and, from a psychological point of view, culture may have an impact on impression management (Zaidman and Drory, 2001). Hooghiemstra (2010) also suggests that the country in which a firm operates may influence impression management.

2.4. Impression management in different markets: development of hypotheses

Disclosure may vary between different capital markets (Doupnik and Riccio, 2006). Along these lines, Merkl-Davies et al. (2011) claim that the drivers of impression management, in addition to arising internally, may be also located externally in the social context (Moreno and Jones, 2022; Rutherford, 2013; Tregidga et al., 2012), as in the case of different contextual pressures.

A behavior compatible with impression management, driven by poor performance, might be expected in both versions of bilingual annual reports. However, there may arguably be a higher/lower level of impression management in different language versions of bilingual annual reports. It is widely assumed that the main reason for companies to publish a bilingual annual report is to attract investors in countries with stronger stock markets, mainly the US and the UK (Grinblatt and Keloharju, 2001; Jeanjean et al., 2015). For this reason, it is reasonable to assume that Spanish companies are publishing English versions of the annual reports mainly to attract investors in countries with stronger stock markets, mainly the US and the UK, and that the Spanish version would mainly cater to the information needs of national (or even other Latin countries') financial market users. The hypotheses will be therefore based on the different levels of development of the financial markets to which the different language versions are mainly addressed.[3]

Spain, and Latin countries in general, are associated with lower investor protection, narrower capital markets, stronger governmental influence and lower disclosure/higher secrecy than Anglo-Saxon countries, such as the US, the UK or Australia. These latter countries with more financially developed markets are regarded as having a more transparent, open and publicly accountable approach (Doupnik and Riccio, 2006; La Porta et al., 1997).[4] Two opposing views may be argued in relation to the influence of context on impression management. The contrasting arguments are driven by the pressure effect vs. the monitoring effect (Melis and Aresu, 2022).

On the one hand, Beattie and Jones (2000) argue that the pressures of the capital markets make the corporate report relatively more important in countries such as the US, the UK or Australia. Giving shareholders a good impression would be more important in more financially developed markets. This could increase the incentives for self-serving reporting in these markets. Desai et al. (2020) also find that propensity to engage in opportunistic financial reporting is greater under high-pressure environments. The fact that stronger capital markets tend to be associated with the disclosure of more sophisticated information (Doupnik and Riccio, 2006) could also be interpreted in the same line. Therefore, according to the pressure effect, impression management would be greater in more financially developed markets rather than in most continental European or Latin markets. On the other hand, higher financial development is associated with a greater effectiveness of monitoring by capital markets (Degeorge et al., 2013). Thus, a more reduced effectiveness of monitoring may provide more opportunities for impression management in less financially developed markets. Along the same lines, Guillamon-Saorin et al. (2012) argue that the regulatory system (and culture) in continental European markets may provide greater opportunities for self-serving behaviors. Therefore, according to the monitoring effect, impression management would be greater in less financially developed markets.

To test the level of impression management between the different language versions of bilingual annual reports, a wide variety of aspects might be potentially analyzed. In the present research, three textual characteristics (personal pronouns, tone and level of certainty) found by previous literature to be used in line with impression management in the case of poor performance (Cho et al., 2010; Clatworthy and Jones, 2006; Li, 2008) are analyzed. The choice of these characteristics is also driven by the fact that they can be objectively assessed in different languages with the pre-defined categories of the multilingual software used in the present research, as detailed in the next section.

Impression management suggests that poor performing reports (reports disclosed when corporate performance is poor) would use fewer personal pronouns than good performing reports (reports disclosed when corporate performance is good). As self-references may align the writer with the message (Hyland, 1998), a decrease in the use of personal pronouns may be a self-effort to distance managers from bad results. In contrast to poor performing reports, good performing reports would use more personal pronouns in order to try to associate success with managers. Previous literature has extensively found this pattern (Asay et al., 2018; Clatworthy and Jones, 2006; Hyland, 1998; Poole, 2016), also in corporate social responsibility contexts (Wei, 2020). However, others did not (Cen and Cai, 2013, 2014; Merkl-Davies et al., 2011; Oliveira et al., 2016).[5] In the case of the English version of the annual report, mainly addressed to higher financially developed markets, the pressure effect to disclose a favorable view of the company would be higher than in the Spanish version, mainly addressed to the national financial market. The incentives to portray a positive image of the company by using personal pronouns may be higher in the English version; thus, it would make the use of first-person pronouns to be more opportunistic in the English version than in the Spanish version. However, it might also be mentioned that the lower effectiveness of monitoring of the Spanish version (monitoring effect) would also make it easier for managers to self-manage the first-person pronouns in the Spanish version. Based on Melis and Aresu (2022), who found evidence of a pressure effect when studying the influence of the level of development of the financial market on corporate disclosure, all the hypotheses will be raised on the basis of the pressure effect. Then, it is expected that:

[3] The influence of firm-level coverage will be considered with the inclusion of the number of financial analysts per company as a control variable.

[4] It is acknowledged that the use of broad international classifications may be a sensitive issue, particularly in accounting, and that exceptions within the groups may exist (Nobes, 2018).

[5] It should be mentioned that Cen and Cai (2013) focused on narratives written in Chinese and Oliveira et al. (2016) focused on narratives written in Portuguese. This is in contrast to the rest of the references made in this paragraph, which are all related to English narratives. The references of the next paragraphs of this subsection are also focused on English, except for Moreno (2019), which focused on Spanish narratives.

H1. : The opportunistic use of first-person pronouns is more likely in the English version than in the Spanish version of the annual report.

Tone, or sentiment, tends to be operationalized as the difference between positive and negative words (Henry el at., 2023; Kamatham et al., 2021). Impression management suggests that poor performing reports will not show a fair tone. In other words, particularly in the case of bad performance, the tone of corporate reports will not be in line with performance. This may be interpreted as an attempt to mask or deny bad performance. Previous research has found that disclosure tends to be overwhelmingly positive, irrespective of performance (Davis et al., 2012; Henry, 2008; Rutherford, 2005). Some previous research has only marginally found a decrease in tone in poorly performing companies, but net positive tone persistently predominates (Clatworthy and Jones, 2003; Merkl-Davies et al., 2011; Moreno, 2019). Others have even found that positive language increases with bad performance (Cho et al., 2010). All this evidence can be interpreted as impression management. The pressure effect to disclose a more favorable view of the company would mean that managers may use tone more unfairly in the English version of the annual report than in the Spanish version, where the demand for information is probably lower and the need to manipulate the company's image is also probably lower. By contrast, it might also be mentioned that the lower effectiveness of monitoring would make it easier to use a self-serving tone in the Spanish version to create an artificially biased image of the company. Based on the pressure effect, it is expected that:

H2. *: The opportunistic use of net tone is more likely in the English version than in the Spanish version of the annual report.*

Linguistic hedging is a rhetorical strategy that may be used to express imprecision (Fraser, 2010; Li and Haque, 2019). Impression management argues that poor performing reports would use less certain and more tentative language than good performing reports. This may be interpreted as an attempt to distract attention from real causes of bad performance, by offering potential and/or vague reasons for it (Moreno et al., 2019). Larcker and Zakolyukina (2012) argue that deceivers tend to use more general terms and to be more indirect and evasive. On the other hand, good performing reports would use more certain (less tentative) language as an attempt by managers to present clearly and unambiguously the causes of good performance. Previous literature has found evidence of impression management (Cho et al., 2010; Moreno et al., 2019). In the case of the English version of the annual report, the incentives to manage a favorable image of the company (pressure effect) with the use of certain and tentative language at the convenience of managers may be higher than in the Spanish version. This would favor a higher opportunistic use of net certainty language in the English version than in the Spanish version. However, it might also be mentioned that the lower effectiveness of monitoring of the Spanish version (monitoring effect) would make it easier for managers to self-manage the level of certain and tentative language in the Spanish version. Based on the pressure effect, it is expected that:

H3. *: The opportunistic use of net certainty is more likely in the English version than in the Spanish version of the annual report.*

3. Research design

The objective of the paper is to analyze patterns in both language versions in relation to changes in profitability. Longitudinal data were collected to increase the number of observations, as the size of the Spanish stock market is limited, and publishing a bilingual annual report has not been a traditional practice for Spanish companies.[6]

This study is a form-orientated content analysis, and the method of analysis, namely word count strategies, is "based on the assumption that the words people use convey psychological information" (Pennebaker et al., 2003, p. 550). Preparers have a choice not only when producing the initial version of corporate reports, but also when producing translated versions of those reports.

3.1. Sample

The IBEX 35 index is the main Spanish stock market index and includes the 35 most liquid shares/companies. They are the most visible and most followed Spanish companies. They are multinational companies and their size also ensures that they have to address international stakeholders.

The companies listed on the IBEX 35 were identified on 31 December 2013. In relation to the objective and in order to increase the number of observations (before and after 2013), every bilingual annual report published (or available) on the internet (mainly from the webpages of the companies) by IBEX 35 companies from 2010 to 2018 was initially identified. 2018 is the final year, as the 2019 accounts (published in 2020) would be significantly impacted by the COVID-19 pandemic. 2010 is the initial year for availability reasons (in earlier years, the availability of information decreases in many companies). In order to have a homogeneous sample in relation to date, only those companies where the full temporal series was available for the period 2010–2018 were finally included in

[6] According to Jeanjean et al.'s (2010) sample, only 37% of Spanish companies published an English-version annual report in 2004. This is far from the average of 62% of companies of non-English speaking countries (excluding Spanish-speaking countries). Language distance (between Spanish and English) and language importance (of Spanish) may help to explain this difference (bilingual reporting increases with firm size, foreign sales, US/UK cross-listing, diffusion of ownership and need for financial resources, and decreases with language distance, language importance and capital-market size). However, this trend is increasing. In fact, an exploratory search on the webpages of the top 100 operating income listed Spanish companies revealed, in relation to the information in English in 2019, that 53% published (or have available) a full version of the annual report, 22% published only the financial statements, 3% published the financial statements and some extra information, but not the chairperson's statement, and 22% published neither the annual report nor the financial statement.

the sample. This amounted to 16 companies, accounting for a total of 144 bilingual annual reports (9 reports for each company). The chairpersons' statements were extracted, converted from pdf to txt and, finally, manually refined. Consequently, 288 chairperson's statements were analyzed, 144 in Spanish and 144 in English. Table 1 shows information about the companies in the sample.

The annual reports under research do not usually include a regular statement about the preparation of the translated version. One exception in this sense is the Inditex Annual Report. These reports (at the end) state that "The English translation of this report has been reviewed by the Centre for Business and Public Sector Ethics of Cambridge (United Kingdom)" (Inditex, 2017). By contrast, financial statements, which are compulsory and are usually included in the annual reports, contain (at the top) a regular statement about the translation of the English statements: "Translation of consolidated financial statements originally issued in Spanish and prepared in accordance with the regulatory financial reporting framework applicable to the Group in Spain […]. In the event of a discrepancy, the Spanish-language version prevails" (Banco Santander, 2017). In the case of the chairperson's statement, there is no explicit statement about the preparation of the translated version. However, in order to get information about the process of preparation/translation of the bilingual chairperson's statements, the investor relations departments of the 16 firms of the sample were emailed. The response rate was 25%. The answers show that the chairperson's statements are originally prepared in Spanish. The process of preparation seems to be led by the communication department, with many departments involved, including the chairperson. The statements are later translated into English, in some cases internally and in other cases by an external service provider. Finally, the English version is reviewed almost always by the same departments which were involved in the preparation of the original version. This process opens up opportunities to manage impressions in both language versions by the departments involved, initially in the preparation of the Spanish version and, later, in the subsequent review of the translation (English version).

3.2. Textual characteristics (dependent variables)

The textual characteristics under research were analyzed with LIWC (Linguistic Inquiry and Word Count) software. This is multilingual software designed to calculate different linguistic dimensions (or categories) in a text (see Pennebaker et al., 2001 for more details). It has been used in previous corporate reporting research (Asay et al., 2018; Larcker and Zakolyukina, 2012; Merkl-Davies et al., 2011; Moreno et al., 2019).[7] Language dictionaries include English and Spanish. The LIWC 2001 English dictionary consists of around 2300 words and word stems, and the LIWC 2001 Spanish dictionary consists of around 7500 words and word stems.[8] Each word or word stem is classified into one or more categories. The software calculates the percentage of words (that belong to a particular category) in a text. Each textual characteristic under analysis in this paper was compatible with one (or one group) of the pre-defined categories of LIWC 2001 dictionaries, and they were thus used for analysis. These categories are used as proxies for self-presentational dissimulation (Merkl-Davies et al., 2011).

The validity of LIWC categories has been verified (Pennebaker and Francis, 1996; Pennebaker and King, 1999). Particularly relevant for the present study was the validation conducted by Ramírez-Esparza et al. (2007) to demonstrate the equivalence between the Spanish and English versions of LIWC by comparing different language versions of a text.[9] "The results showed high correlations across English and Spanish LIWC categories" (p. 85). The high correlation shows that both dictionaries count the words similarly and both versions record the similar content within a text. Despite the high correlations between languages, in the present paper the corporate texts in both language versions are analyzed independently in order to find a potential compatible pattern with impression management in each version; later, the strategies found to be compatible with impression management in both language versions are compared.

For personal pronouns (1PP), the categories of first-person singular (*I*, *me*, etc.: 9 words; and equivalent in Spanish: 15 words) and plural (*we*, *us*, etc.: 11 words; and equivalent in Spanish: 10) were recorded. On tone (TONE), the difference between the category of positive emotions (best, pleasure, etc.: 263 words or word stems; and equivalent in Spanish: 642) and the category of negative emotions (miss, pain, etc.: 345 words or word stems; and equivalent in Spanish: 745) was registered. In relation to certain/tentative language (CETE), the difference between the categories indicating certainty (clear, truly, etc.: 30 words and word stems; and equivalent in Spanish: 44) and tentativeness (perhaps, uncertain, etc.: 80 words or word stems; and equivalent in Spanish: 162) was recorded. In every case, the categories were recorded in relation to the total number of words in the document. Examples of the different textual characteristics in the chairperson's statements are shown in the Appendix.

3.3. Interest and control variables

Poor profitability is considered to be the main driver for impression management (Merkl-Davies et al., 2011). Two profitability

[7] It has also been used in a number of fields, including politics (Slatcher et al., 2007), health (Martino et al., 2015), taxation (Bai et al., 2022), demographic characteristics (Mehl and Pennebaker, 2003) and academic performance (Robinson et al., 2013). They typically compare the presence, in percentage, of some categories between different groups.

[8] This difference is because in Spanish there are more verbal conjugations, words in feminine and masculine are both considered, and some words appear with and without accent marks. In addition, in general a higher number of words is required in Spanish to convey the same meaning than in English (Ramírez-Esparza et al., 2007).

[9] They carried out two studies. First, they tested the equivalence between categories in the English and Spanish LIWC dictionaries, by using texts extracted from the internet with their respective translations. Second, they compared the language used by women on the internet when talking about depression and when talking about breast cancer.

Table 1
Information about the IBEX 35 companies of the sample.

Company	Sector	Total assets	Equity	Net profit
Abertis	Consumer Services	31,186	6901	1011
ACS	Basic Materials, Industry and Construction	33,376	4986	1017
Banco Santander	Financial Services and Real Estate	1339,125	102,699	7486
Banco Sabadell	Financial Services and Real Estate	212,508	13,083	716
BBVA	Financial Services and Real Estate	731,856	55,428	4693
BME	Financial Services and Real Estate	23,081	424	160
Ebro Foods	Consumer Goods	3645	2106	176
FCC	Basic Materials, Industry and Construction	10,770	1162	-203
Ferrovial	Basic Materials, Industry and Construction	23,397	7426	383
Gas Natural	Petrol and Power	47,114	19,005	19,005
Inditex	Consumer Goods	19,621	12,752	3161
Mapfre	Financial Services and Real Estate	67,882	9127	1245
Repsol	Petrol and Power	64,849	31,111	1779
Sacyr	Basic Materials, Industry and Construction	10,689	2080	135
Telefónica	Technology and Telecommunications	123,641	28,385	2399
Viscofán	Consumer Goods	931	708	125

Financial information in millions of euros in 2016 extracted from the SABI database and from the annual reports of the companies

variables are therefore included. DNP is a dummy variable on the net profit related to the previous year. It takes the value of one if increasing and zero if decreasing. DROA is a dummy variable on the return on assets, calculated as net profit divided by total assets, related to the previous year. It takes the value of one if increasing and zero if decreasing. In addition, potential interactions with other variables are controlled. A relationship between size and disclosure has been documented (Aerts, 2005; Li, 2008). Size is proxied by total assets (ASSE). It is recorded as the natural logarithm of total assets (in millions of euros) in every year. Different chairpersons could also have different writing styles (Aerts and Yan, 2017). Changes in chairperson are therefore also included as a dummy variable (DCHA). A value of one is assigned if there was a change in the chairperson in relation to the previous year and zero if not. Firm-level monitoring could also affect disclosure (Chen et al., 2016; Melis and Aresu, 2022). Firm-level monitoring is proxied by the number of financial analysts (NFAN). It is recorded as the natural logarithm plus one of the number of analysts that issue analyst reports about the company in every year. Information about these variables has been extracted from SABI, Eikon Refinitiv and annual reports. Table 2 summarizes the variables and their definitions.

3.4. Research model

Regression analysis using panel data estimations is conducted to test the research hypotheses. Each textual characteristic (the dependent variable) is regressed on the interest variables (DNP and DROA) and control variables (ASSE, DCHA and NFAN). Hausman tests were run to analyze the most suitable method (fixed effects vs. random effects) for every dependent variable. Wald tests were run to analyze whether, in addition to company effects, year effects should be regarded. This led to random company effects and no inclusion of year effects for every dependent variable. Every textual characteristic was independently analyzed in the Spanish and English versions. Later, the strategies found to be compatible with impression management in both language versions were compared.

4. Results

4.1. Descriptives and correlations

Fig. 1 shows the evolution (2010–2018) of the textual characteristics analyzed in both the Spanish and English versions. Only for this figure, the information displayed for every year corresponds to the average number of observations per year. In the rest of the paper, the 144 reports in each language are managed as single observations. Table 3 summarizes the distribution statistics of the textual characteristics in both the Spanish and English versions.

On average, first-person pronouns in a chairperson's statement written in Spanish (English) reach 1.76% (3.55%). Net tone in Spanish (English) reaches 3.03% (3.08%). Certain/tentative language in Spanish reaches 0.14% (0.49%). In 61% of observations, there is an increase in net profit in relation to the previous year (a decrease in 39%). In 47% of observations, there is an increase in return on assets in relation to the previous year (a decrease in 53%). The average of the total assets is over €160 billion. There is a change in chairperson in 7% of observations. The average number of financial analysts per company and year is 24.

Table 4 reports the correlation matrix. DNP is not significantly correlated with any textual variable. DROA is positively correlated with TONE in both language versions. Therefore, DNP and DROA do not show differences between the language versions. In contrast to the hypotheses, this suggests that the opportunistic use (or lack thereof) of the textual variables is not influenced by the different language versions. ASSE is negatively correlated with CETE only in the case of the English version. DCHA is positively correlated with TONE in both language versions, and with 1PP only in the Spanish version. NFAN is negatively correlated with CETE in both language versions, and with TONE only in the Spanish version. The only significant correlations between the independent variables are between DNP and DROA and between ASSE and NFAN (both positively correlated). As the correlation coefficients are lower than 0.7 (0.544 and

Table 2
Definition of the variables.

Variable	Definition	Source
Dependent variables		
1PP	First person singular + plural pronouns (% over total words)	Extracted from chairperson's statements and analyzed with LIWC in Spanish and English
TONE	Positive – negative emotions (% over total words)	Extracted from chairperson's statements and analyzed with LIWC in Spanish and English
CETE	Certain – tentative language (% over total words)	Extracted from chairperson's statements and analyzed with LIWC in Spanish and English
Interest variables		
DNP	Net profit related to the previous year (dummy: 0 = decreasing; 1 = increasing)	Extracted from SABI and annual reports
DROA	Return on assets (net profit divided by total assets) related to the previous year (dummy: 0 = decreasing; 1 = increasing)	Extracted from SABI and annual reports
Control variables		
ASSE	Total assets in millions of euros (natural logarithm)	Extracted from SABI and annual reports
DCHA	Change in chairperson related to the previous year (dummy: 0 = no change; 1 = change)	Extracted from annual reports
NFAN	Number of financial analysts (natural logarithm + 1)	Extracted from Eikon Refinitiv

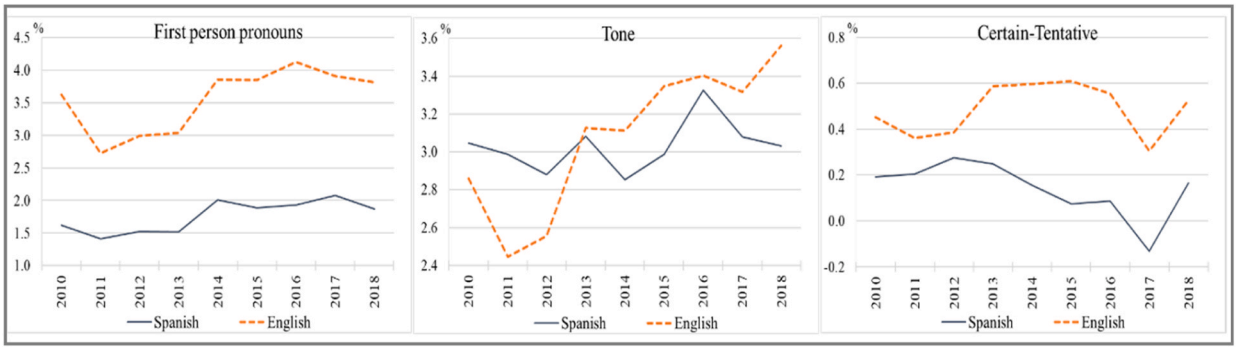

Fig. 1. Evolution of textual characteristics in Spanish and English versions.

Table 3
Summary of distribution statistics.

	Mean		Standard deviation		Minimum		Maximum	
	Spa	Eng	Spa	Eng	Spa	Eng	Spa	Eng
1PP	1.76	3.55	1.12	1.90	0.00	0.00	5.61	9.16
TONE	3.03	3.08	0.90	0.95	0.96	0.83	5.49	6.27
CETE	0.14	0.49	0.43	0.46	-2.71	-0.76	1.30	1.93
DNP	0.61		0.49		0.00		1.00	
DROA	0.47		0.50		0.00		1.00	
ASSE[a]	161,603.29		333,937.14		689.00		1459,271.00	
DCHA	0.07		0.26		0.00		1.00	
NFAN[a]	23.51		9.18		0.00		43.00	

N=144 (in each language). See Table 2 for the definition of variables. a Before transformation

0.485), multicollinearity does not seem be a problem (Cooper and Schindler, 2003).

4.2. Main analysis

The three hypotheses are formally tested with multivariate regression analyses. Table 5 reports the results of the regressions for each textual variable. In the case of first-person pronouns, Table 5 shows that DNP is found to be (positively) significant in both language versions. This suggests that good performing reports (represented by an increase in net profit in relation to the previous year) contain more first-person pronouns than poor performing reports (represented by a decrease in net profit in relation to the previous year), in both the Spanish and English versions. This finding is representative of impression management in both versions. It may be

Table 4
Pearson correlation matrix.

	1PP		TONE		CETE		DNP	DROA	ASSE	DCHA
	Spa	Eng	Spa	Eng	Spa	Eng				
DNP	0.114	0.128	0.107	0.092	-0.038	0.021				
DROA	-0.040	-0.014	**0.184	*0.151	-0.061	-0.036	***0.544			
ASSE	0.030	-0.004	0.045	-0.066	-0.076	**-0.178	-0.046	0.059		
DCHA	*0.140	0.091	***0.233	**0.173	0.003	0.067	-0.118	-0.036	0.085	
NFAN	0.055	0.091	***-0.233	-0.079	**-0.165	***-0.251	-0.068	0.035	***0.485	-0.071

N=144 (in each language). See Table 2 for the definition of variables. *, **, *** represent significant p-values at 0.1, 0.05 and 0.01

Table 5
Regression models for each textual characteristic (Spanish and English versions).

	1PP		TONE		CETE	
	Spa	Eng	Spa	Eng	Spa	Eng
DNP	0.434**	0.713**	0.128	0.097	-0.038	0.023
	(0.187)	(0.341)	(0.141)	(0.181)	(0.089)	(0.095)
DROA	-0.252	-0.364	0.340**	0.309*	-0.014	-0.024
	(0.177)	(0.324)	(0.134)	(0.172)	(0.086)	(0.091)
ASSE	-0.006	-0.025	0.016	-0.029	0.004	-0.021
	(0.119)	(0.183)	(0.087)	(0.083)	(0.032)	(0.029)
DCHA	0.435	0.437	0.696***	0.665**	-0.031	0.097
	(0.290)	(0.532)	(0.220)	(0.283)	(0.141)	(0.151)
NFAN	0.066	0.348	-0.138	-0.150	-0.148*	-0.190**
	(0.193)	(0.349)	(0.146)	(0.182)	(0.086)	(0.089)
Constant	1.445	2.432	3.004***	3.599***	0.587*	1.284***
	(1.280)	(1.975)	(0.937)	(0.901)	(0.348)	(0.322)
Firm random effects	Yes	Yes	Yes	Yes	Yes	Yes
Overall R^2	0.055	0.052	0.121	0.063	0.031	0.071
Wald chi^2	6.78	4.95	26.21***	13.72**	3.52	8.96
Observations	144	144	144	144	144	144
Number of groups	16	16	16	16	16	16

Each column represents a regression model (panel data estimations) where each textual characteristic (the dependent variable) is regressed on the interest variables (DNP and DROA) and control variables (ASSE, DCHA and NFAN). According to Hausman tests, every textual characteristic is estimated with firm random effects. See Table 2 for the definition of variables. Standard errors in parentheses. *, **, *** represent significant p-values at 0.1, 0.05 and 0.01

interpreted as an attempt to opportunistically internalize the success of the company in both versions. Therefore, H1 is not supported.

On tone, the results show that DROA is found to be (positively) significant in both language versions. This suggests that tone is more positive in good performing reports (represented by an increase in ROA in relation to the previous year) than in poor performing reports (represented by a decrease in ROA). This behavior would involve an attempt to manage tone fairly in both versions, as it changes directly according to the increase or decrease in ROA. This finding would be in contrast to impression management in both versions. Therefore, H2 is not supported. In addition, the results show that DCHA is significant in both language versions. When there is a change in chairperson, net tone increases.

In relation to certain/tentative language, the results show that neither of the two profitability proxies (DNP and DROA) is found to be significant. This suggests that certain/tentative language is not opportunistically used in any language version. There is no evidence of impression management with certain/tentative language in any version and, thus, H3 is not supported. In addition, the results show that NFAN is (negatively) significant in both language versions. This means that companies followed by a higher number of analysts use more tentative language.

To sum up, in contrast to the expectations of the hypotheses, the results do not show that the opportunistic use (or lack of opportunistic use) of the textual variables is influenced by the different language versions of bilingual annual reports. The evidence on tone and certain/tentative language is not compatible with impression management in any language version. The evidence about personal pronouns is compatible with impression management in both language versions.

4.3. Additional analyses

4.3.1. Top and bottom reports

In order to try to find additional evidence, the sample is ranked according to a profitability criterion in order to obtain the top/bottom performing groups (Cen and Cai, 2013; Clatworthy and Jones, 2006; Courtis, 1998; Kohut and Segars, 1992).

4.3.1.1. Top and bottom reports according to change in net profit. In this supplementary analysis the reports were ranked by annual

change in net profit. Only the top 30 and bottom 30 reports were selected, forming two extreme performing groups. All top (bottom) reports show positive (negative) annual changes in net profit. The results of this regression are provided in Table 6.

In relation to first-person pronouns, DNP is found to be (positively) significant in both language versions. It is compatible with impression management in both versions. Therefore, H1 is not supported. On certain/tentative language, none of the two profitability proxies (DNP and DROA) are found to be significant. This suggests that certain/tentative language is not opportunistically used in any language version. Thus, H3 is not supported.

On tone, DROA is found to be positively (weakly) significant only in the Spanish version. This suggests that tone is more positive in good performing reports (represented by an increase in ROA in relation to the previous year) than in poor performing reports (represented by a decrease in ROA) only in the Spanish version. Tone is (slightly) fairer in the Spanish version than in the English version, according to the increase or decrease in ROA. In the English version, tone does not change significantly according to profitability and is consistently positive in both extreme performing groups (3.42% in the top performing group and 2.98% in the bottom performing group). It may be representative of impression management in the English version. Therefore, H2 is supported.

To sum up, this supplementary analysis shows only a change in relation to the main analysis. On tone, the results were not representative of impression management in the main analysis in both language versions, but they may be compatible with impression management in this supplementary analysis only in the English version. This represents a difference in tone in the two language versions. H2 might be supported in this case. Similar to the main analysis, H1 and H3 are not supported.

4.3.1.2. Top and bottom reports according to the change in ROA. The reports were ranked by annual change in ROA. Only the top 30 and bottom 30 reports were selected, forming two extreme performing groups. All top (bottom) reports show positive (negative) annual changes in ROA. The results of this regression are provided in Table 7.

In relation to the two profitability proxies, the results are qualitatively similar to those of the top/bottom reports according to the change in net profit, in the case of first-person pronouns and certain/tentative language. On tone, neither of the two profitability proxies (DNP and DROA) is found to be significant. This would suggest that tone is unfairly managed in both language versions because it does not change significantly according to profitability but is consistently positive in both extreme performing groups (Spanish/English version: 3.05%/3.39% in the top performing group and 2.93%/3.07% in the bottom performing group). Overall, these results are not representative of impression management in the case of certain/tentative language in either version. They are representative of impression management in the case of first-person pronouns and tone in both language versions. The results do not show a difference between language versions in any textual variable. Thus, similar to the main analysis, H1, H2 and H3 are not supported.

4.3.2. Different version of LIWC dictionaries

The main analysis was performed with the LIWC 2001 dictionaries because the validation conducted by Ramírez-Esparza et al. (2007) to demonstrate the equivalence between the Spanish and English versions of LIWC dictionaries was made using LIWC 2001 dictionaries. However, in order to check the robustness of the results, in this supplementary analysis, LIWC 2007 (Spanish and English) dictionaries are used.[10] The LIWC 2007 English dictionary consists of around 4500 words and word stems, and the LIWC 2007 Spanish dictionary consists of around 12,600 words and word stems. The results of this regression are provided in Table 8.

The results are similar to those of the main analysis in all the textual variables. In the case of first-person pronouns, DNP is found to be (positively) significant in both language versions. This suggests that first-person pronouns are used opportunistically in both language versions; thus, H1 is not supported. On tone, DROA is found to be (positively) significant in both language versions. This may be an attempt to manage tone fairly in contrast to impression management in both language versions. Thus, H2 is not supported. In relation to certain/tentative language, neither of the two profitability proxies (DNP and DROA) is found to be significant. This suggests that certain/tentative language is not opportunistically used in any language version and, thus, H3 is not supported.

4.4. Summary of the results

Table 9 summarizes the impression management evidence in the three language dimensions examined in the different analyses conducted with both the Spanish and English versions and whether each hypothesis is supported or not.

In relation to first-person pronouns and certain/tentative language, all the analyses (main analysis and additional analyses) show that the opportunistic use (or lack thereof) of every textual variable is not influenced by the different language versions of bilingual annual reports. In other words, there are no differences between the different language versions in the textual variables in relation to profitability proxies. Evidence of impression management is found in first-person pronouns in all the analyses. No evidence of impression management is found in certain/tentative language in any analysis. Therefore, H1 and H3 are not supported.

The results of the analyses of tone are not totally in agreement with each other. However, most of them show similar behavior in both language versions, which in general would not support H2. In the main analysis and in the analysis with a different LIWC dictionary, both language versions are aligned and H2 would not be supported (the results are not representative of impression management in either version). In the analysis of top and bottom reports according to the change in ROA, both language versions are aligned and H2 would not be supported (the results may be compatible with impression management in both versions). In the analysis

[10] Four different (software/engine) LIWC versions have been released (2001, 2007, 2015 and 2022). However, this does not mean the same number of dictionaries, particularly in languages other than English. In fact, there are only two available versions of the Spanish dictionary (2001 and 2007).

Table 6
Regression models for each textual characteristic (Spanish and English versions) – top/bottom 30 ranked by to change in net profit.

	1PP		TONE		CETE	
	Spa	Eng	Spa	Eng	Spa	Eng
DNP	0.655**	1.286**	-0.153	0.022	-0.074	-0.084
	(0.315)	(0.587)	(0.251)	(0.364)	(0.183)	(0.161)
DROA	-0.168	-0.638	0.476*	0.437	0.056	0.058
	(0.324)	(0.599)	(0.257)	(0.361)	(0.179)	(0.157)
ASSE	-0.169	-0.314	-0.016	-0.079	0.067	0.050
	(0.142)	(0.216)	(0.099)	(0.102)	(0.048)	(0.042)
DCHA	0.902**	1.441*	0.486	0.420	-0.271	-0.341
	(0.438)	(0.817)	(0.349)	(0.509)	(0.258)	(0.226)
NFAN	0.246	0.755*	-0.258	-0.031	-0.243**	-0.328***
	(0.221)	(0.406)	(0.175)	(0.242)	(0.120)	(0.105)
Constant	2.427	4.035*	3.737***	3.862***	0.146	0.999**
	(1.485)	(2.222)	(1.025)	(0.993)	(0.452)	(0.397)
Firm random effects	Yes	Yes	Yes	Yes	Yes	Yes
Overall R^2	0.112	0.133	0.209	0.068	0.075	0.164
Wald chi^2	9.21	8.54	9.80*	4.43	4.35	10.56*
Observations	60	60	60	60	60	60
Number of groups	14	14	14	14	14	14

Each column represents a regression model (panel data estimations) where each textual characteristic (the dependent variable) is regressed on the interest variables (DNP and DROA) and control variables (ASSE, DCHA and NFAN). Only the top 30 and bottom 30 reports, ranked by annual change in net profit, are included. Every textual characteristic is estimated with firm random effects. See Table 2 for the definition of variables. Standard errors in parentheses. *, **, *** represent significant p-values at 0.1, 0.05 and 0.01

Table 7
Regression models for each textual characteristic (Spanish and English versions) – top/bottom 30 ranked by change in ROA.

	1PP		TONE		CETE	
	Spa	Eng	Spa	Eng	Spa	Eng
DNP	0.593**	1.143**	0.0167	0.225	-0.170	0.029
	(0.272)	(0.482)	(0.250)	(0.341)	(0.168)	(0.149)
DROA	-0.243	-0.695	0.197	0.213	0.173	-0.001
	(0.269)	(0.475)	(0.246)	(0.331)	(0.164)	(0.144)
ASSE	-0.237*	-0.413*	-0.004	-0.114	0.059	0.038
	(0.136)	(0.221)	(0.098)	(0.110)	(0.059)	(0.048)
DCHA	0.398	0.294	0.249	0.129	-0.314	-0.248
	(0.472)	(0.834)	(0.430)	(0.582)	(0.288)	(0.254)
NFAN	0.145	0.505	-0.304	0.013	-0.271**	-0.291***
	(0.221)	(0.388)	(0.198)	(0.255)	(0.130)	(0.111)
Constant	3.430**	5.782**	3.802***	4.155***	0.351	0.942**
	(1.421)	(2.288)	(0.990)	(1.039)	(0.575)	(0.454)
Firm random effects	Yes	Yes	Yes	Yes	Yes	Yes
Overall R^2	0.143	0.180	1.147	0.057	0.071	0.123
Wald chi^2	7.52	8.29	5.45	3.24	5.07	8.06
Observations	60	60	60	60	60	60
Number of groups	15	15	15	15	15	15

Each column represents a regression model (panel data estimations) where each textual characteristic (the dependent variable) is regressed on the interest variables (DNP and DROA) and control variables (ASSE, DCHA and NFAN). Only the top 30 and bottom 30 reports, ranked by annual change in ROA, are included. Every textual characteristic is estimated with firm random effects. See Table 2 for the definition of variables. Standard errors in parentheses. *, **, *** represent significant p-values at 0.1, 0.05 and 0.01

of top and bottom reports according to the change in net profit, the two language versions differ. In the Spanish version, tone is (slightly) fairer than in the English version and thus H2 might be supported.

5. Discussion and conclusion

Internationalization is challenging firms to meet the information needs of shareholders with different backgrounds (Jaggi and Low, 2000). English has become the lingua franca in international business communication (de Groot et al., 2006; Yao and Du-Babcock, 2023). It is therefore becoming increasingly important for firms from non-English-speaking countries to communicate in English (Brochet et al., 2016; Leventis and Weetman, 2004). However, previous literature has neglected to study whether the different versions of bilingual annual reports display similar levels of biased language. This paper fills this gap by analyzing differences in impression management in bilingual annual reports. Specifically, it has examined differences in three textual characteristics between Spanish and English versions of chairpersons' statements in Spanish companies listed on the IBEX 35 index. The results show little difference in the

Table 8
Regression models for each textual characteristic (Spanish and English versions) – LIWC 2007 dictionaries.

	1PP		TONE		CETE	
	Spa	Eng	Spa	Eng	Spa	Eng
DNP	0.341**	0.713**	0.128	0.068	0.010	-0.002
	(0.160)	(0.341)	(0.129)	(0.215)	(0.122)	(0.116)
DROA	-0.212	-0.365	0.328***	0.508**	-0.114	0.048
	(0.151)	(0.324)	(0.123)	(0.204)	(0.118)	(0.111)
ASSE	-0.017	-0.025	0.048	-0.115	0.0102	-0.009
	(0.098)	(0.183)	(0.086)	(0.118)	(0.034)	(0.047)
DCHA	0.343	0.437	0.615***	0.942***	0.198	0.030
	(0.248)	(0.532)	(0.201)	(0.335)	(0.196)	(0.183)
NFAN	0.099	0.348	0.125	-0.168	-0.349***	-0.380***
	(0.165)	(0.349)	(0.134)	(0.220)	(0.111)	(0.115)
Constant	1.198	2.432	1.528*	5.202***	1.189***	2.020***
	(1.056)	(1.975)	(0.925)	(1.278)	(0.378)	(0.508)
Firm random effects	Yes	Yes	Yes	Yes	Yes	Yes
Overall R^2	0.050	0.052	0.097	0.090	0.108	0.087
Wald chi^2	5.72	4.95	24.85***	21.04***	15.21***	14.01**
Observations	144	144	144	144	144	144
Number of groups	16	16	16	16	16	16

Each column represents a regression model (panel data estimations) where each textual characteristic (the dependent variable) is regressed on the interest variables (DNP and DROA) and control variables (ASSE, DCHA and NFAN). Instead of using LIWC 2001 dictionaries to record the dependent variables, LIWC 2007 (Spanish and English) dictionaries are used. Every textual characteristic is estimated with firm random effects. See Table 2 for the definition of variables. Standard errors in parentheses. *, **, *** represent significant p-values at 0.1, 0.05 and 0.01

Table 9
Summary of impression management evidence in textual characteristics in different analyses in both the Spanish and English versions and hypotheses.

		Impression management evidence						**Hypotheses**		
		1PP		**TONE**		**CETE**		**1PP**	**TONE**	**CETE**
		Spa	**Eng**	**Spa**	**Eng**	**Spa**	**Eng**	**H1**	**H2**	**H3**
Main analysis		✓	✓	×	×	×	×	×	×	×
Additional analysis	Top & bottom (NP)	✓	✓	×	✓	×	×	×	✓	×
	Top & bottom (ROA)	✓	✓	✓	✓	×	×	×	×	×
	LIWC 2007	✓	✓	×	×	×	×	×	×	×

opportunistic use (or lack of opportunistic use) of every textual variable analyzed between the different language versions of bilingual annual reports.

Evidence of impression management is found in first-person pronouns in both languages. Poor performing reports show fewer first-person pronouns than good performing reports. This could be an attempt to distance managers from bad performance in both versions (Clatworthy and Jones, 2006; Hyland, 1998). No evidence of impression management is found in certain/tentative language in either language version. In relation to tone, some analyses show a behavior which may be interpreted in line with impression management in both language versions. Other analysis does not show a pattern of tone compatible with impression management but, again, both language versions coincide. Only in one supplementary analysis are the language versions not aligned, with the Spanish version being slightly fairer. Overall, the analyses mainly show no differences between the different language versions in the textual variables in relation to impression management.

One of the main reasons why companies publish a second-language version – in English – of their annual reports is to cater to potential or current shareholders in Anglo-Saxon stock markets, particularly in the US (Jeanjean et al., 2010). Jaggi and Low (2000) argued that different capital markets may involve different information needs of financial report users. Zarzeski (1996) found that market pressures may have a significant influence on financial disclosures. Therefore, companies would have the opportunity to carefully adapt their intended messages, in an attempt to match the data presentation to the attributes of the different users (So and Smith, 2003). However, according to the findings, despite translations in annual reports offering the potential to enable different levels of impression management, companies do not seem to take advantage of bilingual reporting to overly bias one version of the chairperson's statement in relation to the other version. Therefore, users of bilingual annual reports do not seem to be exposed to different levels of impression management in the different language versions of the chairperson's statements.

There are potential reasons which might help to explain the findings. One of them would be that pressure and monitoring effects might be mutually compensated (Melis and Aresu, 2022). According to the pressure effect, impression management would be greater in more financially developed markets (Beattie and Jones, 2000). By contrast, according to the monitoring effect, impression management would be greater in less financially developed markets (Degeorge et al., 2013). Higher pressure to offer a more favorable view of the image of the company in the English version (mainly addressed to more financially developed markets) might be offset by a higher effectiveness of monitoring in this same version. In a similar manner, greater opportunities to use the Spanish version (mainly

addressed to a less financially developed market) in a self-serving manner due to lower effectiveness of monitoring in this market might be offset by lower incentives related to the relatively lower importance of corporate reporting in this market. Assuming conscious managerial behavior (Buchholz et al., 2018), companies could balance both arguments and decide it is not worth it to bias any language version in relation to the other. Second, pressure and monitoring effects may not necessarily depend only on the language but may also come from other variables, such as firm-level pressure (or monitoring). In this case, it has been found that companies followed by a higher number of analysts use more tentative language.

Third, and simpler, managers may not find it necessary to use bilingual annual reports to create additional impression management in the different language versions, or, alternatively, they may not be conscious that bilingual reports may be used as a tool to create additional impression management. In this latter case, this paper is also useful to show that a behavior compatible with impression management does not seem naturally/unconsciously occurring more easily in the textual characteristics of one language over the other language, as one might think for differences in intrinsic variability between different languages. The variability, expressed by the standard deviation (Table 3), is higher in every variable analyzed in the English version compared to the Spanish version. In addition, the Spanish (English) version shows an average of 1438 (1203) words per document, which may basically be determined by the number of words per sentence in each version, 33.42 in Spanish and 27.13 in English. This is probably because English is considered to need fewer words than Spanish in order to convey the same meaning (Álvarez de Mon y Rego, 2006; Pérez-Llantada, 2012). For these reasons, it could be thought that differences in some textual characteristics related to impression management might emerge more easily (or in other words, some profitability variables might more easily become significant) in English than in Spanish, even unconsciously. However, differences in impression management patterns were hardly found between both languages, because they seemed to vary consistently in relation to the profitability proxies.

Fourth, managers may use different strategies in bilingual annual reports rather than the textual characteristics under analysis in this paper. Different forms of impression management, e.g. concealment/omission (Cho et al., 2010; Jones et al., 2018, 2020), selectivity (Leung et al., 2015) and performance comparisons (Short and Palmer, 2003), could also be used in bilingual reports. This opens avenues for further research in bilingual corporate reporting.

This paper contributes to expanding knowledge on impression management and on natural language in financial reports (Brühl and Kury, 2019; Jones et al., 2018, 2020; Melis and Aresu, 2022; Merkl-Davies and Brennan, 2007; Moreno, 2019). In particular, it contributes to corporate bilingual reporting studies under a preparer perspective, by finding that the translation process associated with the different language versions of corporate messages does not result in different levels of impression management. This is despite the fact that a higher pressure to perform, and therefore to report, could be expected in more financially developed markets (Melis and Aresu, 2022). As a practical implication, at least with the textual characteristics analyzed, the results suggest that stakeholders should feel free to read the language version of bilingual reports that they feel most comfortable with, because neither provides a significant competitive dis/advantage in relation to impression management. It does not seem to be potential investment resource allocation implications depending on which version of the bilingual report shareholders read (Courtis and Hassan, 2002). Given the increasing importance of bilingual reporting in multinational companies, this is an important finding. This neutrality between different versions might be reinforced by policymakers by stressing companies be consistent in their bilingual annual reports, and also by suggesting auditors to detect potential inconsistencies in the different language versions.

Bilingual studies can raise some concerns (Jones, 1996). Although the issue of accuracy in translation is beyond this paper, an exploratory reading of both versions (Spanish and English) seems to show that they are quite similar. However, the formal question of whether the translation is accurate is unanswered. This could even vary from company to company. In any case, it should be recognized that a straight equivalence rarely exists (Evans, 2018; Evans and Kamla, 2018). In addition, previous literature has found that translations of annual reports contain many errors (Evans, 2004; Parker, 2001; Peter Prowse Associates, 1993), and that there could be untranslatable words (Archer and McLeay, 1991; Blenkinsopp and Pajouh, 2010). This could affect the intended meaning of the messages in different languages, and then affect the success of impression management. It is also acknowledged that people may make different judgements in a foreign language than in their native language, which is supported by three contributing factors (psychological distance, cognitive fluency and heuristic biases) (Pan and Patel, 2018). Culture may also affect the interpretation of corporate information (de Groot et al., 2011; Doupnik and Riccio, 2006; Doupnik and Richter, 2003; Guermazi and Halioui, 2020). Other individual and organizational factors may also have an impact on the efficacy of impression management techniques. However, this paper focuses on a preparer perspective, following a form-orientated content analysis. Further research may include an experiment, under a user perspective, to test how readers encounter the different versions and whether their decisions may be influenced by the different language versions of bilingual annual reports. It may also include a meaning-orientated analysis. Further research could particularly broaden the evidence to other bilingual report languages.

This study has some limitations which open additional opportunities for further research. First, the findings of this paper rely on the dictionaries of the LIWC software. However, LIWC has been extensively used in research in many fields, apart from financial reporting, and it has been externally validated (Donohue et al., 2014), including the equivalence between the Spanish and English dictionaries (Ramírez-Esparza et al., 2007). In addition, to increase the reliability of the results, two different versions of LIWC dictionaries have been used. In any case, future research could use different multilingual software/dictionaries. Second, this paper relies on the assumption that the English version is mainly addressed to users in stronger stock markets and the Spanish version is mainly addressed to users in the national (or in a Latin) market. It is difficult to control this assumption empirically, but it is based on previous literature (Grinblatt and Keloharju, 2001; Jeanjean et al., 2015). Third, while the influence of firm-level pressure (or monitoring) is considered by the number of financial analysts per company, the specific impact of national/international financial analysts, as well as that of institutional investors, remains unexplored. Fourth, although the analysis is related to the most visible companies (Moreno and Jones, 2022), it suffers from sample selection bias (Cho et al., 2024), as 16 out of 35 companies listed on the IBEX 35 index are analyzed. Lack

of data precluded us from analyzing all index components. Thus, bigger sample sizes would also be useful to increase the generalization of the results. And fifth, translation issues in the preparation of the annual report's narratives could be a concern. Although the companies were contacted about this issue, the response rate was limited. More evidence about the process of preparation/translation of the bilingual chairperson's statements would also be appreciated.

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CRediT authorship contribution statement

Alonso Moreno: Conceptualization, Data curation, Formal analysis, Funding acquisition, Investigation, Methodology, Project administration, Resources, Software, Supervision, Validation, Visualization, Writing – original draft, Writing – review & editing.

Declaration of Competing Interest

None.

Data availability

Data extracted from annual reports will be made available on request. The author does not have permission to share data from licensed databases

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Appendix

Examples of the different textual characteristics in the chairperson's statements (Spanish and English versions)

Textual characteristic	Spanish version	English version
First person pronouns		
First person singular (2013 Telefónica Chairman's Statement)	Me gustaría concluir recordándoles que nuestra Compañía está posicionada en la actualidad como un actor fundamental en el sector	I would like to close by underscoring our Company's position as a key industry player
First person plural (2010 ACS Chairman's Statement)	Realizando una importante desinversión que nos ha aportado una sustancial plusvalía y una fuerte entrada de caja	Making a significant divestment which gave us a substantial gain and a sizable inflow of cash
Tone		
Positive (2017 BBVA Chairman's Statement)	El ratio de eficiencia mejoró 276 puntos básicos en euros constantes, por lo que al cierre del 2017 se situó en el 49,5%	The efficiency ratio improved by 276 basis points in constant euros to reach 49.5% at the close of 2017
Negative (2015 Mapfre Chairman's Statement)	En el año 2015 nuestro Grupo ha desarrollado su actividad en un contexto adverso	In 2015, our Group operated against an adverse backdrop
Certain-Tentative		
Certain (2011 Repsol Chairman's Statement)	Tengan por seguro que Repsol llevará a cabo todas las medidas legales que procedan para preservar los intereses de todos sus accionistas y el valor de sus activos	Rest assured that Repsol will take all appropriate legal measures to preserve the interests of all its shareholders and the value of their assets
Tentative (2018 Banco Santander Chairman's Statement)	Mejorando nuestra rentabilidad hasta un RoTE del 13%-15% en los próximos años (dependiendo de cómo evolucionen los tipos de interés)	By improving our core profitability to generate a RoTE between 13% and 15% in the next few years (depending on where interest rates end up)

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