

## Do the European Entities Use Impression Management Strategies in their Messages on the Russia-Ukraine War?<sup>1</sup>

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*As Entidades Europeias Utilizam Estratégias de Gestão de Impressão nas suas Mensagens Sobre a Guerra Rússia-Ucrânia?*

*¿Utilizan las Entidades Europeas Estrategias de Gestión de Impresión en sus Mensajes Sobre la Guerra Entre Rusia y Ucrania?*

*There may be an attempt by entities affected by the consequences of the Russia-Ukraine war to obfuscate or emphasize positive news when disclosing it, using impression management strategies. This paper aims to assess the use of those strategies for 212 listed European entities, using 2021 annual consolidated reports. The findings indicate that, within two-thirds of entities that disclosed this event, mainly in voluntary sources, reduced levels of readability were found. Furthermore, although neutrality prevailed, the entities expressed some uncertainty linked to their claim of being immune to the war's effects. Finally, differences by country and industry were occasionally identified.*

*Pode haver uma tentativa por parte de entidades afetadas pelas consequências da guerra Rússia-Ucrânia de ofuscar ou enfatizar notícias positivas ao divulgá-las, utilizando estratégias de gestão de impressão. Este artigo visa avaliar a utilização dessas estratégias para 212 entidades europeias cotadas, utilizando relatórios anuais consolidados de 2021. As conclusões indicam que, em dois terços das entidades que divulgaram este evento, principalmente em fontes voluntárias, foram encontrados níveis reduzidos de legibilidade. Além disso, embora a neutralidade tenha prevalecido, as entidades expressaram alguma incerteza associada à sua pretensão de serem imunes aos efeitos da guerra. Finalmente, foram ocasionalmente identificadas diferenças por país e indústria.*

*Puede haber un intento por parte de entidades afectadas por las consecuencias de la guerra Rusia-Ucrania de ofuscar o enfatizar noticias positivas al divulgarlas, utilizando estrategias de gestión de impresión. Este documento tiene como objetivo evaluar el uso de esas estrategias para 212 entidades europeas cotizadas, utilizando informes anuales consolidados de 2021. Los hallazgos indican que, en dos tercios de las entidades que divulgaron este evento, principalmente en fuentes voluntarias, se encontraron niveles reducidos de legibilidad. Además, aunque prevaleció la neutralidad, las entidades expresaron cierta incertidumbre relacionada con su afirmación de ser inmunes a los efectos de la guerra. Finalmente, ocasionalmente se identificaron diferencias por país e industria.*

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## 1. Introduction

The Russia-Ukraine war has had, since 4 February 2022, global economic and social consequences that have led to changes such as an increase in energy prices and inflation rates worldwide (Prohorovs, 2022). Those negative effects should be disclosed in the entity's annual reports for the year ending in December 2021.

Rather than neutral, the entities' disclosures of this event may be biased (Abrams, 2022). The literature has been usually assessing their annual reports from the perspective of the possible use of impression management (IM) strategies, such as readability and thematic manipulation (Melloni et al., 2017; Khanna & Irvine, 2018; Cadorin & Theiss, 2020; Hossain et al., 2021) since concealment strategies are commonly associated with negative events (Hossain et al., 2022; Childs et al., 2022; Rahmanto et al., 2022), such as the Russia-Ukraine war.

This paper aims to identify if there is evidence of the possible use of readability and thematic manipulation as IM strategies in the entities' annual reports, using disclosures on the Russia-Ukraine war as the object. Entities listed on the Euronext index comprise the population, with the analysis providing a breakdown by their industry and the country they are listed, given their potential different dependency on the war actors.

The findings indicate that only two-thirds of those entities disclosed this event, mainly in voluntary sources, with reduced levels of readability. Furthermore, although neutrality prevailed, the entities expressed some uncertainty linked to their claim of being immune to the war's effects. Finally, differences by country and industry were occasionally identified.

Despite the relevant social and economic effects of the war in Ukraine, there is a literature gap on how entities disclose such an event (Mbah & Wasum, 2022), namely in what concerns their assessment through IM strategies. It was only possible to find a study on the use of those strategies in their annual accounts and reports in the context of this topic but restricted to the European entities from the energy-related industries (Albuquerque & Santos, 2023).

Then, this paper contributes to the literature on the use of IM strategies in the entities' annual reports by assessing a theme that is still little explored. Also, for identifying readability and thematic manipulation strategies in the context of the Russia-Ukraine war considering relevant analysis factors such as the entities' country and industry. Regulatory bodies, supervisors, standard-setters, and stakeholders may also benefit from this study, given that disclosure transparency and neutrality are essential to its usefulness for decision-making purposes by the different stakeholders.

This paper is divided into five sections, in addition to this introduction. The second presents the literature review that supports the research questions and sub-questions. The third provides the methods, followed by the results and discussion section. The last one presents the conclusions.

### KEYWORDS

**disclosure,  
impression  
management,  
readability  
manipulation,  
Russia-Ukraine  
war, thematic  
manipulation.**

### PALAVRAS-CHAVE

**divulgações,  
gestão de  
impressões, guerra  
Rússia-Ucrânia,  
manipulação  
da legibilidade,  
manipulação  
temática.**

### PALABRAS CLAVE

**divulgaciones,  
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manipulación  
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### JEL CODES

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## 2. Literature Review

Entities are globally compelled to disclose events arising from external factors that are relevant to stakeholders, such as the Russia-Ukraine war, which has had significant economic impacts worldwide, such as the increased inflation rates and the changes in commercial transactions, which should lead to the entities' disclosure of this event and its potential consequences.

This communication may be influenced by several factors, including the industries and the country where the entities are based, namely for being potentially more dependent on the war actors, such as the food and energy industries, and countries that are politically closer to the Russian Federation, such as China, unlike most Western countries. For instance, regarding the media discourse towards the Russia-Ukraine war, literature has found that China suppresses certain facts and has a biased attitude towards the USA and European countries (Asadchykh et al., 2024; Ran & Liu, 2024).

Although this disclosure can be carried out in different types of reports, the annual report is one of the most important vehicles for the entities' communication with their stakeholders (Falschlunger, et al., 2015). Events such as this one may be disclosed in different sources of the annual reports, including in a specific note on the events after the reporting period. The International Accounting Standard (IAS) 10 – Events after the reporting period, issued by the International Accounting Standards Board (IASB), was adopted in the European Union (EU) following the European Commission Regulation (EC) No. 2023/1803 and is applied by listed EU entities in their consolidated accounts (EC No. 2002/1606). Given its potential framing in the scope of IAS 10, it is expected that the Russia-Ukraine war will only be mandatorily disclosed.

Additionally, other sources of the annual report may be used to disclose this event. The IASB issued the International Financial Reporting Standards (IFRS) Practice Statement 1: Management Commentary, which states that management's comments should provide information about the financial position and performance of entities, also addressing business prospects and risks, focusing not only on the present but also on the future (IASB, 2023). Such disclosures may be considered voluntary given they do not integrate the complete set of mandatory financial statements.

This disclosure is important for entities' transparency, especially when resulting from adverse events (Rahmawati, 2012; Khanna & Irvine, 2018; Gagné et al., 2022). However, entities may be tempted to avoid its disclosure. For instance, when communicating the impact of the global financial crisis, Australian non-governmental organizations lacked transparency, through concealment or reduced levels of disclosures on the crisis impact (Khanna & Irvine, 2018). This lack of transparency was also found in the disclosure of the Covid-19 pandemic impacts (Childs et al. 2022; Rahmanto et al., 2022). On the Russia-Ukraine war, Albuquerque and Santos (2023) also found a reduced level of disclosure of that event in the annual reports of several European entities from the energy-related industries, as well as unclear and vague information on its likely future impacts.

The lack of transparency can influence the usefulness of financial statements to stakeholders, according to the IASB's conceptual framework (EC No. 2023/1803). This can occur through the manipulation of information, namely using IM strategies (Godfrey et al., 2003; Merkl-Davies & Brennan, 2007). IM is a conscious or subconscious process in which entities try to influence stakeholders' perceptions of the entity's current and future performance (Clatworthy & Jones, 2001; Godfrey et al., 2003).

Regarding the disclosure of adverse events, the literature has identified the use of readability manipulation and thematic manipulation strategies (Melloni et al., 2017; Cadorin & Theiss, 2020; Corazza et al., 2020; Hossain et al., 2022), both concealment strategies (Merkl-Davies & Brennan, 2007) used to obfuscate negative news or emphasize positive ones (Clatworthy & Jones, 2001).

Readability manipulation consists of the manipulation of texts by using complex language to reduce their clarity, or even by the omission of facts (Cadorin & Theiss, 2020; Caliskan et al., 2021), and is used as a way of distancing entities from negative events, such as financial crises, natural disasters, and pandemics (Merkl-Davies & Brennan, 2007). Thus, those who most suffer from these events tend to reduce the readability of the information, often through lengthy reports, as a way of manipulating the stakeholders' perception (Merkl-Davies & Brennan, 2007; Melloni et al., 2017; Cadorin & Theiss, 2020; Corazza et al., 2020; Caliskan et al., 2021).

For instance, when facing the Costa Concordia sinking in 2012, the entity's sustainability reports presented a low level of readability, through lengthy and confusing texts (Corazza et al., 2020). Entities such as BP and Shell also used this strategy in their reports on the crisis of the oil industry market in the 50s of the 20th century (Abdelrehim et al., 2015). The use of such a strategy may be an attempt to influence the public perception of the event or to erase memories of adverse events (Corazza et al., 2020; Caliskan et al., 2021). Regarding the Russia-Ukraine war disclosures, Albuquerque and Santos (2023) found that the entities' annual reports had a low level of readability.

Consequently, as the strategy of readability manipulation can be used by entities when disclosing adverse events, as stressed by the literature, and also considering the potential differences from the impacts of the Russia-Ukraine war by the entities' countries and industries, the first research question (Q1) and its sub-questions Q1.1 and Q1.2 were formulated as follows:

Q1: What is the level of readability of the disclosures made in the European entities' annual reports on the Russia-Ukraine war?

Q1.1. Are there any differences in Q1 by entities' countries?

Q1.2. Are there any differences in Q1 by entities' industries?

The thematic manipulation strategy can also be used to manipulate information about the Russia-Ukraine war, by using positive words to reinforce good news aiming to convince stakeholders of the entity's ability to face adverse events (Rahmawati, 2012; Melloni et al., 2017; Khanna & Irvine, 2018; Childs et al. 2022; Rahmanto et al., 2022).

The use of this strategy was verified by Khanna and Irvine (2018) through an overly positive discourse regarding the global financial crisis of the years 2008 and 2009, similar to the study by Childs et al. (2022) in the context of the Covid-19 pandemic. The analysis of this strategy has evolved with the development of new software and technological tools, which has allowed for a more in-depth analysis of the tone and sentiment behind those disclosures (Richard et al., 2015; Hossain et al., 2021). Richard et al. (2015) concluded that one of the ways for entities to gain the trust of stakeholders is by using words that convey a positive sentiment, such as 'favorable', 'good', and 'strong' instead of negative words such as 'confrontational', 'fail' and 'damaging'. Recent studies such as the one by Hossain et al. (2021), also verify this prevalence of using positive words such as 'win', 'freedom', and 'support' rather than negative ones, such as 'death', 'crisis', and 'attack'. Regarding the Russia-Ukraine war, it was identified a different pattern in the positivity, neutrality, and negativity of disclosures (Albuquerque & Santos, 2023). Nonetheless, there were more evident positive words within the CEO's messages, compared to those

found in the notes on subsequent events, evidencing strategies of thematic manipulation to hide the risks and uncertainties (Albuquerque & Santos, 2023).

Thus, and considering the potential differences from the impacts of the Russia-Ukraine war by the entities' countries and industries, the second research question (Q2) and its sub-questions Q2.1 and Q2.2 were formulated as follows:

Q2: What is the tone and sentiment of the disclosures made in the European entities' annual report on the Russia-Ukraine war?

Q2.1. Are there any differences in Q2 by entities' countries?

Q2.2. Are there any differences in Q2 by the entities' industries?

The next section presents the methods.

### 3. Methods

The study is based on an exploratory approach, due to the scarce literature on the use of IM strategies whenever entities disclose events of a similar nature to the Russia-Ukraine war. To firstly study whether this topic is disclosed by the entities listed on the Euronext index, the annual reports were searched for words such as 'Ukraine', 'Russian Federation', 'conflict', and 'war'. The following assessments were based on the sub-sample of entities that disclosed this event.

This event can be disclosed in several sources of the annual report, being classified as voluntary (i to v), whenever disclosed in the management report, and mandatory (vi), if included in the note, as follows:

- i) message from the CEO;
- ii) chairperson's message;
- iii) macroeconomic analysis;
- iv) risk analysis;
- v) subsequent events;
- vi) note on the events after the reporting period.

Following, the *readability manipulation* strategy (Q1) is assessed using the Flesch index, which measures the text readability. This index was calculated using Grammarly, and its use follows the literature on this topic (e.g., Abdelrehim et al., 2015; Cadarin & Theiss, 2020).

The classification used for the readability level can be seen in **Table 1**, following the literature on this topic.

Table 1 - Readability level rating

Readability Score	Categories
90 to 100	Very easy
80 to 89	Easy
70 to 79	Pretty easy
60 to 69	Common
50 to 59	Pretty hard
30 to 49	Difficult
0 to 29	Very difficult

Source: Adapted from Cadorn and Theiss (2020)

Finally, to address *Q2*, the *thematic manipulation* strategy is considered through tone and sentiment analysis, based on studies that also addressed this strategy (e.g., Albuquerque & Santos, 2023; Melloni et al., 2017).

For the tone of the messages, the tex2data platform is used which classifies the message on a scale from -1 to 1, and then as positive, neutral, or negative as follows:

- i) Positive, greater than 0.1;
- ii) Neutral, between -0.1 and 0.1; or
- iii) Negative, less than -0.1.

In turn, the sentiment is gauged through Grammarly. This software has been little explored in the context of IM (Albuquerque & Santos, 2023), but it enables the sentiment analysis of messages through the Application Programming Interface, which identifies it by using concepts such as 'confident', 'assertive', 'cheerful', 'optimistic', and 'skeptical'.

The analysis provides a breakdown of entities based on their countries and industries. Therefore, this study includes 212 entities listed on the Euronext index, representing seven countries and eleven different industries.

The classification by country was based on the index where each entity is listed. **Table 2** presents the entities' classification according to the seven European national regulated securities markets that are part of the Euronext index, which, for simplification purposes, is presented following the country code of the International Organization for Standardization (ISO).

Table 2 - Sample by country

Country Code (ISO)	Country	Euronext Index	Entities (number)	Entities (percentage)
BEL	Belgium	BEL 20	18	9
FR	France	CAC 40	34	16
IRL	Ireland	ISEQ 20	18	9

IT	Italy	MIB ESG	38	18
NLD	The Netherlands	AEX	24	11
NOR	Norway	OBX GR	67	31
PRT	Portugal	PSI 20	13	6
<b>Total</b>			<b>212</b>	<b>100</b>

**Table 3** presents the classification of the entities in terms of the eleven industries, based on the two-digit Industry Classification Benchmark (ICB) classification.

**Table 3 - Sample by industries**

<i>ICB code</i>	<i>Industries</i>	<i>Entities (number)</i>	<i>Entities (percentage)</i>
10	Technology	13	6
15	Telecommunications	6	3
20	Healthcare	16	8
30	Financial Services	37	17
35	Real estate	7	3
40	Consumer Services	21	10
45	Consumer Goods	22	10
50	Industrial Products	42	20
55	Basic Materials	15	7
60	Energy	15	7
65	Utilities	18	9
<b>Total</b>		<b>212</b>	<b>100</b>

The next section presents the results and discussion of this study.

## 4. Results and Discussion

This section is subdivided into two subsections. The first presents the results regarding the research questions, and the second discusses the main findings.

### 4.1. Results

**Table 4** shows the number of entities that disclose the Russia-Ukraine war event in their annual report. The information is detailed by country to identify possible differences among them.

**Table 4 - Entities that disclose the event by country**

<i>Country Code</i>	<i>In number</i>	<i>As a percentage by country</i>
BEL	11	61
FR	25	74
IRL	9	50
IT	36	95
NLD	11	46
NOR	48	72
PRT	11	85
Total	151	71

Based on **Table 4**, it is possible to verify that 151 of the 212 entities (71%) address this event in the annual report. The analysis by country highlights differences, since entities from southern European countries, such as Italy (95%) and Portugal (85%), mostly disclose this event.

**Table 5** identifies, in turn, the number of entities by industries that refer to the event of the Russia-Ukraine war in the annual report, to assess potential differences among them.

**Table 5 - Entities that disclose the event by industry**

<i>ICB Code</i>	<i>In number</i>	<i>As a percentage by industry</i>
10	7	54
15	3	50
20	7	44
30	30	81
35	3	43
40	16	76
45	14	64
50	30	71
55	13	87
60	14	93
65	14	78
Total	151	71

**Table 5** also identifies the existence of differences among the eleven industries. Entities in the energy (60) and basic materials (55) industries, with 93% and 87%, respectively, stand out for their high disclosure.

Following, **Table 6** presents the sources of the annual reports in which the disclosure about the Russia-Ukraine war (Q1) can be identified.



**Table 6 - Source used by the entities to disclose the event.**

Source	In number	As a percentage
Message from the CEO	53	35
Message from the chairperson	27	18
Macroeconomic analysis	73	48
Risk analysis	74	49
Subsequent events	38	25
Note on the events after the reporting period	58	38

**Table 6** shows that the risk analysis source is the most used (49%), followed by macroeconomic analysis (48%). The note on the events after the reporting period (mandatory disclosure), is only used by 38% of entities. Overall, the voluntary disclosure sources are most used by entities, since at least one voluntary source of disclosure is used by the 151 entities that mentioned this event.

**Table 7** shows the readability level (Q1) based on the score for the Flesch Index by country, to assess potential differences among them (Q1.1), providing the average, and standard deviation for this measure.

**Table 7 - Readability level score by country**

Country code	Flesch Index		Classification according to average
	Average	Standard Deviation	
BEL	34	8	Difficult
FR	35	8	Difficult
IRL	38	11	Difficult
IT	23	7	Very difficult
NLD	30	12	Difficult
NOR	38	8	Difficult
PRT	28	9	Very difficult
Total	32	7	Difficult

**Table 7** shows that the Russia-Ukraine war event presents, on average, less readability in the annual reports of Italian and Portuguese entities, which are countries that are part of southern Europe, being classified as very difficult to read. For the entities from the remaining five countries, disclosures are classified, in turn, as difficult or very difficult to read, with no meaningful differences among them. Even so, from the analysis of the standard deviation, the dispersion by country is still expressive, evidencing that, in a country's border, entities present different levels of readability. Italian and Portuguese entities, which are the ones that most disclose this event, are also, on the other hand, the ones that present the lowest levels of readability in providing this information.

Following, **Table 8** provides a similar analysis by industry (Q1.2).

**Table 8 - Reading readability level score by industry**

<i>Flesch Index</i>			
<i>ICB code</i>	<i>Average</i>	<i>Standard Deviation</i>	<i>Classification according to average</i>
10	34	7	Difficult
15	28	17	Very difficult
20	29	9	Very difficult
30	29	10	Very difficult
35	33	5	Difficult
40	39	6	Difficult
45	41	8	Difficult
50	31	6	Difficult
55	30	11	Difficult
60	33	8	Difficult
65	27	6	Very difficult
<b>Total</b>	<b>32</b>	<b>7</b>	<b>Difficult</b>

**Table 8** shows that the Russia-Ukraine war event presents, on average, less readability in the reports of entities in the telecommunications (15), health care (20), financial services (30), and public utilities (65) industries. The disclosure for the remaining industries is classified, in turn, as difficult to read. Thus, no industry stands out for the ease of reading the information disclosed. As per country, there are no expressive differences between the average values, but there is also a high standard deviation, which indicates potential meaningful differences among entities in the same industry. Telecommunications industry (15) can be highlighted with the highest value for this statistic. By industry, it is not possible to see the same pattern by country, since the entities in the industries that most disclose this event in their annual reports are not necessarily those that present lower levels of readability.

Regarding the thematic manipulation (Q2), **Table 9** shows the score on the tone of the disclosures by country (Q2.1).

**Table 9 - Tone of disclosures by country**

<i>Tone of disclosures</i>			
<i>Country Code</i>	<i>Average</i>	<i>Standard Deviation</i>	<i>Grading according to average</i>
BEL	0.05	0.36	Neutral
FR	0.25	0.27	Positive
IRL	0.14	0.7	Positive
IT	0.04	0.26	Neutral
NLD	-0.14	0.42	Negative
NOR	-0.06	0.07	Neutral
PRT	-0.16	0.32	Negative
<b>Total</b>	<b>0.07</b>	<b>0.19</b>	<b>Neutral</b>

Based on **Table 9**, the messages have, on average, a neutral tone. The country-by-country analysis enables to identification of differences that can be highlighted, since, on average, the French and Irish entities present a positive tone in their disclosures, conversely to the Dutch and Portuguese entities. Finally, the disclosures by entities in Belgium, Italy, and Norway are neutral. There are no meaningful differences between the average tone present in the entities' disclosures. From the standard deviation analysis, however, there is again a high dispersion in almost all countries, except for Norway. Irish entities, on the other hand, present the highest value for this statistic.

**Table 10** provides a similar analysis by industry (Q2.2).

**Table 10 - Tone of disclosures by industry**

<i>Tone of disclosures</i>			
<i>ICB Code</i>	<i>Average</i>	<i>Standard Deviation</i>	<i>Grading according to average</i>
10	0.45	0.41	Positive
15	-0.09	0.66	Neutral
20	0.33	0.43	Positive
30	0.08	0.28	Neutral
35	-0.06	0.4	Neutral
40	0.25	0.28	Positive
45	-0.21	0.45	Negative
50	-0.09	0.3	Neutral
55	0.21	0.25	Positive
60	-0.15	0.22	Negative
65	0.03	0.25	Neutral
<b>Total</b>	<b>0.07</b>	<b>0.19</b>	<b>Neutral</b>

By industry, it is possible to see a positive tone of the disclosure of entities in the industries of technology (10), health care (20), basic materials (55), and consumer services (40), conversely to the industries of consumer goods (45) and energy (60). The remaining industries show neutrality underlying the tone of their disclosures. There are meaningful differences between the average values in some industries, such as consumer goods (45), health care (20), technology (10), and telecommunications (15). The standard deviation, however, identifies high values for most of them, especially in the telecommunications industry (15), indicating a high dispersion in the tone of disclosures among entities in the same industry. It can also be seen that the standard deviation indicator is high, both by country and by industry, indicating a high dispersion in the tone of disclosures among entities.

The sentiment analysis identified six concepts in the context of the Russia-Ukraine war. They may have the meaning identified below and proposed by the authors since Grammarly does not present a specific definition of such terms:

- i) **Happy**: attempt to demonstrate that the entity was not affected by this event;
- ii) **Assertive**: attempt to communicate the difficulties inherent to this event and to demonstrate a high transparency in the information disclosed, through an attitude of trust and authority.

- iii) *Skeptical*: a sentiment that conveys doubt about the possible consequences of the event.
- iv) *Confident*: attempt to demonstrate that the entity can be resilient to this event.
- v) *Optimistic*: attempt to demonstrate hope that this event has not significantly affected the entities; and
- vi) *Concerned*: demonstration that this event has an impact on the entity and that it may be detrimental to the future, through an apprehensive speech.

**Table 11** presents, in percentage, the frequencies for those six sentiments found in the entities' messages by country (Q2.1).

**Table 11 - Percentage of the sentiments by country**

Country code	Sentiments					
	Happy	Assertive	Skeptic	Confident	Optimistic	Concerned
BEL	33	24	24	7	7	5
FR	22	13	25	30	10	0
IRL	20	0	50	30	0	0
IT	19	6	50	20	5	0
NLD	0	0	50	13	12	25
NOR	30	18	35	13	4	0
PRT	26	26	48	0	0	0
Total	24	14	40	18	3	1

**Table 11** shows that the most present sentiment in this event disclosures is skepticism, which occurs in 40% of the disclosures, expressing the uncertainties about the possible consequences of the Russia-Ukraine war. The Dutch entities do not present sentiments of happiness and assertiveness in their disclosures, while a quarter of them are concerned. Although less frequently, the Belgian entities are the only ones that also demonstrate concern with the event. Concern and optimism are the least frequent sentiments, contrasting with happiness and confidence, which are the second and third most frequent ones. Thus, there are differences, which are still relevant, in the sentiments found among the seven countries. Overall, there is a greater attempt to demonstrate some uncertainty combined, however, with the need to show that they are relatively immune to the impacts of the war (except for the Dutch entities).

**Table 12** presents a similar analysis by industry (Q2.2).

**Table 12 - Percentage of the sentiments by industry**

ICB code	Sentiments					
	Happy	Assertive	Skeptic	Confident	Optimistic	Concerned
10	31	8	20	14	27	0
15	23	19	14	32	12	0
20	14	5	5	65	11	0
30	26	11	33	0	30	0
35	34	0	50	12	4	0

40	20	14	54	12	0	0
45	8	20	42	18	0	12
50	28	11	16	23	17	5
55	22	21	20	17	12	8
60	32	17	27	22	0	2
65	25	17	46	12	0	0
<b>Total</b>	<b>24</b>	<b>14</b>	<b>40</b>	<b>18</b>	<b>3</b>	<b>1</b>

**Table 12** shows that there are differences across industries. The sentiment of skepticism underlies the entities' disclosures within the eleven industries, with entities in the healthcare industry (20) standing out for the low use of this sentiment. Entities in this industry are also among those that least present the sentiment of happiness in their disclosures, with 14%, together with entities in the consumer goods industry (45), with 8%. The sentiment of assertiveness is used by entities in ten industries, with the real estate industry (35) as the only exception. On the other hand, entities in these industries are the ones that most show confidence in their disclosures, with 65%, which is not identified in the financial services industry (30). The sentiments of optimism and concern are the least used by the entities in general, also presenting some relevant differences among the eleven industries. In the first case, entities in the technology (10) and financial services (30) industries stand out for their high use, with 27% and 30%, respectively. On the other hand, it is not observed in the consumer services (40), consumer goods (45), energy (60) and utilities (65) industries. The second one is only observed for entities in four industries, namely those in consumer goods (45), with 12%, basic materials (55), with 8%, industrial products (50), with 5%, and energy (60), with 2%. Consequently, the analysis by industry also reflects, globally, the sentiments identified in the analysis by country. Nevertheless, some differentiated profiles can be found, notably for some entities in the consumer goods industry (45), with higher levels of concern and lower levels of optimism.

The next subsection presents the discussion.

## 4.2. Discussion

Regarding the analysis of the level of this event disclosure, about two-thirds (71%) of the entities disclosed information about the event. Differences by country were found, where entities from southern European countries (Portugal and Italy) stand out for the higher frequency of disclosure, conversely to the low frequency identified for the Irish and Dutch entities. By industry, there is a high frequency of disclosure by entities in the energy and basic materials industries (potentially most affected by the event, e.g., Prohorovs, 2022), in contrast to the healthcare and real estate ones. Thus, these findings are partially aligned with the literature on the disclosure of adverse events, which argues that entities tend to omit information when facing events of this nature (Clatworthy & Jones, 2001; Merkl-Davies & Brennan, 2007; Rahmawati, 2012; Melloni et al., 2017; Cadorin & Theiss, 2020; Corazza et al., 2020; Albuquerque & Santos, 2023).

This event was disclosed in all the six sources assessed, mainly in the risk analysis and macroeconomic analysis sources. Given that the information about the Russia-Ukraine war is dispersed among the six sources assessed, having a low disclosure in mandatory sources, it can be argued that there is a low level

of compliance with the IAS 10 disclosure requirements. This noncompliance with IFRS has been seen by literature as an attitude of less transparency (Khanna & Irvine, 2018; Childs et al. 2022; Rahmanto et al., 2022; Albuquerque & Santos, 2023).

The findings on the readability manipulation (Q1) show that, when facing adverse events, entities make it difficult to read the information disclosed to the stakeholders (Merkel-Davies & Brennan, 2007; Melloni et al., 2017; Cadorin & Theiss, 2020; Corazza et al., 2020; Albuquerque & Santos, 2023). Although there are no differences across countries and industries in this matter, there is a high standard deviation for the levels of disclosure readability, which indicates some diversity among entities. It should be noted that, by country, the entities that most disclosed this event were also those that present less readability in communicating it.

Finally, regarding thematic manipulation (Q2), it was considered the tone and the sentiment analysis underlying the disclosures in the annual reports. Regarding the first, the assessment finds it globally neutral, oppositely to the literature that argues the use of a more positive language (Rahmawati, 2012; Melloni et al., 2017; Khanna & Irvine, 2018; Childs et al. 2022; Rahmanto et al., 2022). However, the high standard deviation in both the analysis by country and by industries leads to a high dispersion in the tone of disclosures among entities across countries and industries. This dispersion is aligned with the findings by Albuquerque and Santos (2023).

By country, there are meaningful differences, as the French and Irish entities present a positive tone in their disclosures, conversely to the Dutch and Portuguese entities. By industry, the tone of disclosure of the technology, health care, basic materials, and consumer services was positive, conversely to what is globally found for the consumer goods and energy industries presented. The findings for these industries, potentially most affected by this event, are not aligned, with the use of the thematic manipulation strategy, which contradicts the findings by Albuquerque and Santos (2023). However, it is worth mentioning that this latter study assessed the tone of the message with a breakdown by sources since it was only focused on a single industry in Europe.

Considering the sentiment, the findings are globally aligned with the literature on adverse events, since it has been found that the entities tended to express confidence (Richard et al., 2015; Hossain et al., 2021). Optimism and concern are the least frequent sentiments, contrasting, however, with happiness and confidence (the second and third most frequent). Additionally, it was possible to verify that the most frequently identified sentiment is skepticism, conveying some sentiment of doubt about the possible consequences of the Russia-Ukraine war for the entities.

Thus, there is a greater attempt on the part of the entities to demonstrate some uncertainty combined, however, with the need to demonstrate the ability to overcome or reduce future impacts resulting from the war. The exception in this context is the entities in the Netherlands and those in the consumer goods industry, which are mostly concerned. It should also be noted that for entities in the energy and consumer goods industries, which generally presented a negative tone in their disclosures, the sentiment of optimism was not identified. On the other hand, by country, for those countries that also stood out for the high frequency of disclosure (Italian and Portuguese entities) the sentiment of concern in their disclosures was not identified.

Despite the literature pointing out a generalised impact of the Russia-Ukraine conflict across entities in Europe, due to their exposure level to this conflict, data have revealed one year after that they did not suffer a similar effect, standing out countries such as Italy, France, Belgium, and Ireland in the set of

those with the highest level of losses (Biermann & Leromain, 2023). Furthermore, the latest data on the capital market performance from 2021 to 2022 also indicates different patterns by country and industry.

More specifically, Euronext (2024) data report that, by country, only Portugal (with 2.8%) and Norway (with 2%) stand out as the market indices that had a positive, although slight, performance in 2022. All the remaining European countries in this research sample have had a negative growth in their indices, with about or even higher than 10%.

In this context, it may be highlighted, however, the data from the Portuguese securities market supervisor, which provides a further indication of the reasons behind the positive PSI evolution over this period (CMVM, 2023). Specifically, those figures indicate that the Portuguese stock market outperformed other European countries mainly from the greatest weight of industries such as the energy and utilities within the Portuguese index, which have been among the least penalized industries by the economic environment in that context, conversely to what was initially expected. Therefore, since the economic environment mainly affected industries other than those across European countries, such as technology, industrial products, healthcare, and consumer goods (Euronext, 2023), their worse performance provides a deeper analysis of national indices of Euronext that had the highest decreases, namely the Ireland and The Netherlands, since they are within the top industries comprising those indices.

Therefore, the sentiment of happiness and confidence reported by the Belgian and French entities, respectively, as well as the tone of the messages of French and Irish entities (both positive) are not aligned with their indices' performance. The same can be mentioned as regards those feelings and tones found within the messages provided by entities from the technology, industrial, and healthcare industries.

These controversial findings stress the relevance of conducting investigations on topics of this nature, based on discourse analysis, by highlighting the need for stakeholders to be cautious when reading the entities' reporting, considering the potential they have, as not being neutral, to influence their perceptions about the impacts, or even the entities' capabilities to face their negative economic consequences, of significant events such as the Russia-Ukraine conflict.

The next section provides the conclusions.

## 5. Conclusions

The findings identified that only two-thirds of entities disclosed the event, especially in sources classified as voluntary disclosures. Low levels of readability were usually found. The use of the thematic manipulation strategy, on the other hand, was only partially verified, given that, although it prevailed the neutral tone of the messages, the feelings express some uncertainty combined with the attempt to demonstrate immunity to the impacts of the war. Differences by country and industry were also identified, namely for the southern European countries (Portugal and Italy) and the consumer goods and energy industries.

The main limitation of this study is related to the subjectivity associated with the process of collecting and assessing information, which includes the use of tools based on assumptions that cannot be controlled by the researchers. The differences in the composition of each country's indices and the reduced representation of entities from some industries in those indices must also be considered by readers when assessing the findings from this study.

Future studies may include countries on other continents given the war's global impact, and may also explore new explanatory factors, namely the political liaisons of the countries to Ukraine and the Russian Federation, characteristics of the entities' corporate governance, namely the board of directors structure, as well as economic and financial factors such as the entities size, liquidity, indebtedness, and profitability. It is also suggested that future studies qualitatively explore specific excerpts from the disclosures, in the light of different scientific theories from different areas, such as sociology, psychology, and communication, which can be solely assessed or combined with IM strategies.

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