The assessment and measurement of impression management in narrative reporting using the IMNR index

Ocena i pomiar zarządzania wrażeniem w sprawozdawczości narracyjnej

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Abstract

Purpose: The purpose of the article is to present the author's own comprehensive method of testing impression management in narrative reporting and the possibility of using it to evaluate and measure impression management and identify the strategy of impression management in letters to shareholders.

Methodology/approach: The development of the method of testing impression management in narrative reporting was preceded by a critical analysis of the literature. Content analysis and the IMNR (impression management in narrative reporting) index were used in the empirical study. The study covered ten letters to shareholders of Polish companies.

Findings: The article presents a tool for assessing and measuring impression management, showing how it is calculated. It also presents the results of a survey, showing the possibilities of using the IMNR index. In the audited board of directors' letters, the occurrence of all analysed impression management strategies was identified. The article discusses selected methods of impression management observed in those documents.

Research limitations/implications: The proposed IMNR index is limited to selected impression management strategies and the means by which they can be detected. As the study was limited to selected companies, future research may investigate other entities or reporting forms. Additionally, only documents written in Polish were analysed.

Originality/value: The article presents the original IMNR index, which makes it possible to comprehensively examine impression management and compare reports. The conducted empirical study covered a wide range of ways of managing impressions. Documents written in Polish were examined. As Polish researchers have been dealing with the issue of impression management by Polish companies since only relatively recently, the research gap, which this article partially fills, is extremely wide.

Keywords: narrative reporting, impression, IMNR index, impression management.

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Streszczenie

Cel: Celem artykułu jest zaprezentowanie autorskiej kompleksowej metody badania zarządzania wrażeniem w sprawozdawczości narracyjnej i możliwości jej wykorzystania do oceny i pomiaru zarządzania wrażeniem oraz identyfikacja strategii zarządzania wrażeniem w listach do akcjonariuszy.

Metodyka/podejście badawcze: Opracowanie własnej metody badania zarządzania wrażeniem w sprawozdawczości narracyjnej poprzedziła krytyczna analiza literatury. W badaniu empirycznym wykorzystano analizę treści oraz wskaźnik IMNR (*impression management in narrative reporting*, pol. zarządzanie wrażeniem w sprawozdawczości narracyjnej). Badaniem objęto dziesięć listów do akcjonariuszy polskich spółek.

Wyniki: W artykule przedstawiono narzędzie oceny i pomiaru zarządzania wrażeniem, sposób jego obliczania oraz wyniki badania ukazującego możliwości wykorzystania wskaźnika IMNR. W zbadanych listach zarządu zidentyfikowano występowanie wszystkich analizowanych strategii zarządzania wrażeniem. W artykule omówiono wybrane sposoby zarządzania wrażeniem zaobserwowane w zbadanych dokumentach.

Ograniczenia/implikacje badawcze: Zaproponowany wskaźnik IMNR ogranicza się do wybranych strategii zarządzania wrażeniem i metod jego wykrywania. Badanie zostało ograniczone do wybranych spółek. Przyszłe badania mogą dotyczyć innych jednostek lub kolejnych form sprawozdawczych.

Oryginalność/wartość: W artykule zaprezentowano oryginalny wskaźnik zarządzania wrażeniem w sprawozdawczości narracyjnej (wskaźnik IMNR). Narzędzie to umożliwia badanie tego zagadnienia w sposób kompleksowy i dokonywanie porównań. Przeprowadzone badanie empiryczne obejmowało szeroki zakres różnorodnych sposobów zarządzania wrażeniem. Badaniu zostały poddane dokumenty sporządzone w języku polskim. Polscy badacze zajmują się tym zagadnieniem przez polskie spółki stosunkowo od niedawna, zatem isniejąca luka badawcza, którą niniejszy artykuł ma za zadanie częściowo wypełnić, jest wyjątkowo rozległa.

Słowa kluczowe: sprawozdawczość narracyjna, wrażenie, wskaźnik IMNR, zarządzanie wrażeniem.

Introduction

Impression management in accounting is defined as attempts to control and manipulate the impression given to users of accounting information (Clatworthy, Jones, 2001, p. 311). According to another definition, impression management is management's actions that involve selecting information to be disclosed and presenting it in a way that distorts how readers perceive the company's achievements (Neu, 1991, p. 296). Individuals can use various strategies to create a favourable impression, in line with the adopted strategy and their own aspirations. Impression management is a relatively new research area, so the literature on this topic remains scarce. So far, the topic has been dealt with by, among others, Aerts (2005), Beattie and Jones (2000), Brennan and Merkl-Davies (2011, 2013), Melloni, Stacchezzini and Lai (2016), Patelli and Pedrini (2014), and Sandberg and Holmlund (2015).

When researching impression management, including for accounting purposes, there is a need to recognise it quantitatively. This makes it possible to compare the statements of one entity for different periods with reports from other entities. In addition, there is a noticeable lack of a comprehensive tool to enable the comprehensive study of impression management in narrative reporting in Polish. Holistic measures are considered the best because they consider many strategies simultaneously. An index that comprises numerical references to individual impression management methods may serve as a potential solution to meet the identified needs and bridge the existing gap.

The article presents the author's own comprehensive method for studying impression management in narrative reporting and the possibility of using it to assess and measure impression management.

The first part of the article discusses in detail the developed IMNR (impression management in narrative reporting) index, how it is calculated and how it can be used. The next section presents the impression management detection methods used in the index, broken down into the study of content management, the study of managing the way information is conveyed and the study of text presentation management. Next, an empirical study is presented, in which letters to shareholders of Polish listed companies were analysed. The chapter ends with the conclusion.

1. Impression management in narrative reporting index

The author's IMNR index is a tool that makes it possible to comprehensively study impression management in narrative reports. It is a method based on the most frequently reported impression management strategies highlighted in the literature, and it allows the user to examine the occurrence and measure the level of impression management in a text. The index can be used to determine the level of impression management in both the entire narrative report and in fragments of one entity for different periods or in the reports of other entities. It also makes it possible to indicate which impression management strategies are dominant.

The inspiration for constructing the index was the synthetic indicator of impression management developed by Brennan, Guillamon-Saorin and Pierce (2009). However, the IMNR index includes more impression management strategies and methods of detecting them, which makes it more comprehensive. Another inspiration was the aggregated measure of governance (TotGov) proposed by García Osma and Guillamón-Saorín (2011).

Eleven main impression management strategies are included in the IMNR index. Five are from the content management group (management of theme, tone, explanation, selective content, and comparability), and three are from the communication management group (readability management, rhetorical impression management, emphasis). Additionally, three strategies from the text presentation management group (text appearance management, text presentation form, and text location) were used as weights.

Table 1. Elements of the impression management in narrative reporting index

Element	Impression management strategy studied	Methods	Measures	
			Positive	**Negative**
Subject	Subject management	Division of topics into positive, negative and neutral	Number of positive topics	Number of negative topics
Tone	Tone management	Coding of positive and negative keywords and emotion words	Number of positive keywords; Number of words of positive emotions	Number of negative keywords; Number of words of negative emotions
Explanations	Explanation management	Coding of internal and external causes of successes and failures	Number of explanations of successes with internal causes; Number of explanations for failures due to external causes	Number of explanations of successes by external causes; Number of explanations of failures due to internal reasons
Selection	Selective content management	Coding of numbers higher or lower than in the previous corresponding reporting period (also positive and negative percentages); Coding of qualitative information more or less favourable than in the previous corresponding reporting period	Number of numbers in the text higher than in the previous corresponding reporting period; Amount of qualitative information more favourable than in the previous corresponding reporting period	Number of numbers in the text lower than in the previous corresponding reporting period; Amount of qualitative information less favourable than in the previous corresponding reporting period
Comparison	Comparability management	Coding of comparisons	Number of favourable comparisons for the reporting entity	Number of unfavourable comparisons for the reporting entity

Element	Impression management strategy studied	Methods	Measures		
			Positive	Negative
Readability	Readability management	Fog index (aims to determine the degree of readibility of the text; its value represents the number of years of education needed to understand the text)	Fog index value	
Rhetoric	Rhetorical impression management	Analysis of phrases that engage the reader Keyword reinforcement and reduction analysis Analysis of the occurrence of rhetorical figures, e.g. metaphors, hyperbole, anaphors	Number of phrases that engage the reader with positive information Number of words that reinforce positive keywords and number of words that reduce negative keywords Number of positive rhetorical figures	Number of phrases that engage the reader with negative information Number of words that reinforce negative keywords and the number of words that reduce positive keywords Number of negative rhetorical figures
Emphasis	Emphasis management	Identification of repetitions of words, text fragments and information	Number of repeated positive words, pieces of text and information	Number of repeated negative words, pieces of text and information

Source: author's own study.

Table 1 shows the individual elements of the IMNR index along with the methods used to study them and the measures. Each of the eight elements of the indicator corresponds to the tested impression management strategy. Each element is assigned one, two or three methods to determine the level of impression management within a given strategy. The measure is the number of occurrences of individual elements responsible for impression management. The measures were divided into positive and negative. Those that are positive correspond to standard impression management activities aimed at creating a positive impression about the reporting entity, while the negative ones do the opposite.

The IMNR index uses an ordinal scale where each item in the text is assigned one point. The number of points corresponds to the number of elements found in the text, e.g. the number of positive topics or the number of positive keywords. The exception is readability, for which the score corresponds to the values of the Fog index.

The author has developed a special spreadsheet for calculating the IMNR index (Table 2).

Table 2. Worksheet for calculating the IMNR index

Element	Itemisation	Positive measures	Negative measures	Together	Item value
Subject	**Number**				
	Highlight				
	Font				
	Presentation form				
	Location				
	Together				
Tone	**Number**				
	Highlight				
	Font				
	Presentation form				
	Location				
	Together				
Explana-tions	**Number**				
	Highlight				
	Font				
	Presentation form				
	Location				
	Together				

Element	Itemisation	Positive measures	Negative measures	Together	Item value
Selection	Number				
	Highlight				
	Font				
	Presentation form				
	Location				
	Together				
Comparison	Number				
	Highlight				
	Font				
	Presentation form				
	Location				
	Together				
Readability	Fog index value				
	Number of points				
Rhetoric	Number				
	Highlight				
	Font				
	Presentation form				
	Location				
	Together				
Emphasis	Number				
	Highlight				
	Font				
	Presentation form				
	Location				
	Together				
IMNR index value					

Source: author's own elaboration.

The following formula is used to calculate the value of a given element of the IMNR index (with the exception of the readability element described below):

$$\text{the value of the IMNR element} = \frac{(\textit{sum of positive measures} - \textit{sum of negative measures})}{\textit{sum of positive and negative measures}}$$

The maximum value of one element of the IMNR index is 1.

Calculating the IMNR index involves summing up all the elements, including the applied weights:

$$\text{IMNR} = \frac{\text{SUBJECT + TONE + EXPLANATIONS + SELECTION}}{\text{+ COMPARISON + READABILITY + RHETORIC + EMPHASIS}}$$

The highest possible value is 8. The index may have not only positive values from 1 to 8 (indicating standard impression management, i.e. trying to make a positive impression) but also values below 0 to –8. Negative values would suggest creating a negative impression of the reporting entity. The index values are divided into seven types and levels of impression management (Table 3).

Table 3. Impression management levels by the IMNR index value

Level	Values	Description
Neutral text in terms of impression management	0 < IMNR index ≤ 0.5	The practical absence of any intentional interference with the impression of the entity created by the published information
Scant	0.5 < IMNR index ≤ 2	Negligible level of impression management
Low	2 < IMNR index ≤ 3.5	Low level of impression management
Moderate	3.5 < IMNR index ≤ 5	Moderate level of impression management
High	5 < IMNR index ≤ 6.5	Significant interference in the image of the reporting entity presented in the report
Very high	IMNR index > 6.5	Very high level of influencing impressions created by reporting information
Negative	negative IMNR index values	Actions aimed at creating a negative image; rare, insignificant cases of actions aimed at deteriorating the image

Source: author's own study.

It is impossible to clearly define what level of impression management is acceptable and what should be considered unacceptable. The key question is whether the entity's image, situation and operations presented in the narrative report do not differ from and are not contradictory to the financial statements.

The IMNR index can be used to test and determine the level of impression management in all forms of narrative reporting. The index was developed mainly for reports in Polish. However, it can also be used to study texts in other languages, if significant linguistic differences and language-specific features are considered, e.g. word length.

The IMNR index can be used in audits of narrative reports carried out by statutory auditors, e.g. management commentaries. It can be particularly useful when auditing narrative reports carried out by independent external specialists. However, it can also be used by various types of control bodies that are interested in the information disclosed in narrative reports, e.g. those that deal with environmental protection or listed entities. Individual users, such as investors, can also use the index for their own research. Reporting entities that produce narrative reports themselves may use the indicator to control the level of their own interference with published information.

The purpose of the IMNR index is to make the measurement of impression management. Nevertheless, it is characterised by a degree of subjectivity as it relies on expert judgment and manual coding. The author's detailed guidelines for using the indicator and determining individual elements aim to enhance the objectivity of research on impression management in narrative reports when using it, and to improve the comparability of results.

2. Impression management detection methods for the IMNR index

2.1. Content management study

The first element of the IMNR index relates to subject management (the "subject" element). The method for examining this impression management strategy is to divide topics into positive, negative and neutral. A topic is defined as the subject of a section of the text of a narrative report. One topic can be presented in one or more sentences, in one or more paragraphs, or in an entire chapter. When designating topics, the user should aim to indicate narrow topics, such as increasing sales revenue compared to the previous year, instead of broad general topics, such as improving financial results. Positive is a defined topic that presents a favourable image of the reporting entity and creates a positive impression on the reader. An example of a positive topic can be the expansion of the sales network to a new country. A negative theme, on the other hand, presents the company in a less favourable way and creates a negative impression. An example of a negative topic may be a decrease in the result of sales compared to the same period of the previous year. A neutral topic causes neither positive nor negative feelings. When calculating the IMNR index, only positive and negative topics are distinguished; neutral ones are omitted. The number of topics is assigned the corresponding number of points for both positive and negative topics.

Tone management (the "tone" element) is detected by coding positive and negative keywords and emotion words. The chosen measure for the IMNR index is the number of keywords and the number of emotion words broken down into positive and negative. The tone management study for the IMNR index uses the optimism index identified by García-Sánchez, Suárez-Fernández and Martínez-Ferrero (2019, p. 364):

$$optimism = \frac{\text{positive words} - \text{negative words}}{\text{positive words} + \text{negative words}}$$

The values of the optimism index range from +1 to –1. The highest value, +1, indicates maximum optimism, and the lowest, –1, indicates maximum pessimism. The higher the index, the more optimistic the tone of the text is.

In identifying keywords, an auxiliary shortened list of the most frequently used keywords may be useful (Table 4). The list is not exhaustive. Keywords should be analysed in context, i.e. it is important to refer to the concepts they describe. An example would be the word "increase". In relation to profit, for example, it would be considered positive, but when describing costs, it would be negative.

Table 4. Auxiliary list of positive and negative keywords

Positive keywords	Negative keywords
Achievement, benefit, decline (in relation to negative quantities, e.g. Costs), development, growth (in relation to positive quantities, e.g. Profit), improvement, increase (in relation to positive quantities, e.g. Profit), merit, pride, profit, progress, reinforcement, success	Damage, decline (in relation to positive quantities, e.g. Profit), defeat, deterioration, difficulty, failure, guilt, increase (in relation to negative quantities, e.g. Costs), loss, reduction (in relation to positive quantities, e.g. Profit), shortage

Source: author's own study.

Like the keywords, an auxiliary short list of the most important words of positive and negative emotions was prepared (Table 5).

Table 5. Auxiliary list of words of positive and negative emotions

Words of positive emotions	Words of negative emotions
Excellent, exceptional, exciting, exemplary, extraordinary, great, optimal, outstanding, perfect, sensational, unrivalled, wonderful	Erroneous, fatal, hopeless, inadequate, inauspicious, incorrect, incorrigible, unfavourable, unlucky, unsuccessful, unsuitable, wrong

Source: author's own study.

One point is assigned to each keyword and each emotion word found. Each word, whether categorised as a positive keyword, negative keyword, positive

emotion word or negative emotion word, is scored regardless of the number of repetitions. The grammatical form does not matter.

The element of the indicator identified as "explanations", which corresponds to explanation management, was assigned a method of coding internal and external causes of successes and failures. It involves searching for the causes of specific effects, i.e. explanations, in the text. Counting the explanations in the text should include each cause-and-effect relationship separately. This means that when one result, situation or event is explained by several reasons, the total number of reasons should be given. Similarly, if one reason is indicated as causing several effects, the total number of effects should be given. Chains of cause and effect can also be found in the reports, where one cause produces an effect, which then becomes the cause of another outcome. For the IMNR index, each cause and effect pair should be counted separately, regardless of how many times they occur in a longer chain.

The explanations found in the text should be assessed as positive or negative. Positive explanations give a favourable impression of the reporting entity and vice versa. Positive explanations explain successes with internal reasons, e.g. an increase in turnover is a result of the actions of the management board. However, they also explain failures with external causes, e.g. a decrease in turnover was caused by a difficult general macroeconomic situation. Positive explanations correspond to an impression management strategy known as performance attribution. Each explanation identified in the text is worth one point.

Another element of the IMNR index, which is "selection", concerns the impression management strategy called selective content management. The method used is the coding of higher and lower numbers contained in the text than in the previous corresponding reporting period.[1] Higher numbers are assigned to positive measures, and lower numbers are assigned to negative measures. The analysis should include both absolute numbers and percentages. Comparison is not required in the text. If there is only a number from the reported period, the researcher should independently verify whether such information is positive or negative by obtaining more data, e.g. from financial statements. To calculate the IMNR index, only figures contained in the narrative content should be considered, not the quantitative information presented in tables.

In the context of "selection", a second method of detecting impression management was used, namely the coding of more or less favourable qualitative information than in the previous corresponding reporting period. If the qualitative information is more favourable than in the previous corresponding period, it constitutes a positive measure of selection. Conversely, if the qualitative information is less favourable, it indicates a negative measure.

The "comparison" element involves searching for comparisons in the analysed text. Identifying comparisons in the text can make it easier to focus on looking for words and phrases most often used in them, e.g., such as, for example, as if, similarly, and unlike. Comparisons can be positive or negative. A positive comparison is

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[1] A similar method was used by García Osma and Guillamón-Saorín (2011, p. 191).

when there is an increase in the desired value, e.g. sales revenues increased, or a decrease in an undesirable value, e.g. costs decreased. A negative comparison shows the opposite. Comparisons can be internal and refer to a given entity in different reporting periods. They can also be external, involving comparisons with other entities. Comparisons take the form of amounts or percentages. Each comparison should be assigned one point.

2.2. Communication management study

Readability management (the "readability" element) is measured in the IMNR index by the Fog index. This index, although it was originally developed for texts in English, has already successfully been used for texts in Polish. For the IMNR index, the Fog index should be calculated for the entire report. In order to score the "readability" element, we should divide the calculated value of the Fog index by its maximum value, i.e. 21. For example, if the Fog index is, for example, 16, then the value of the IMNR index element is equal to 0.76. The maximum value of an element is 1. The higher the score, the more difficult and less readable the text is.

The "rhetoric" component examines rhetorical impression management within the IMNR index. Due to the complexity of this impression management strategy, as many as three methods have been proposed: phrases that engage the reader, strengthening and reducing keywords, and analysing the occurrence of rhetorical figures. The research searches for words and phrases responsible for rhetorical impression management in the analysed text. Table 6 presents the most common examples.

Table 6. Auxiliary list of words and phrases used in rhetorical impression management

Reader engaging phrases	Words that reinforce keywords	Words that reduce keywords	Rhetorical figures
Can be noticed, can be seen, it is worth noting, it should be noted, must be noticed, must be seen	Above average, crucial, decisive, enormous, essential, excellent, exceptional, factual, important, intense, large, outstanding, profound, rapid, real, significant, special, strong, undoubted	A little, imperceptible, insignificant, irrelevant, little, minimal, slight, slightly, small, unimportant, weak	Anaphora, hyperbole, metaphor

Source: author's own study.

As a rule, the use of phrases that engage the reader is about conveying positive information. Reinforcement words for positive keywords and words that reduce negative keywords are considered positive. In contrast, words that reinforce negative keywords and words that reduce positive keywords are called negative keywords. Rhetorical figures used to present favourable information are considered positive, and those used to reveal unfavourable information are considered negative. Each engaging phrase, reinforcing word, reducing word, and figure of speech should be given one point.

The last element of the IMNR index is devoted to emphasis management (the "emphasis" element). The method used is the identification of repetitions of words, fragments of text and information. Repetition occurs if the information has been included in the studied text at least twice. In order to be counted as a repetition, it is necessary to use a given word in the same meaning and context, e.g. net profit and profit from sales are treated separately. The occurrence of a given word four times in the text is treated as three repetitions. Repetitions in the IMNR index are only for words that are informative from the point of view of the narrative report. One point is awarded for each repetition.

2.3. Text presentation management study

Text presentation management methods, specifically graphical impression management tools, have been used as weights in the IMNR index. The division and description of the weights used are presented in Table 7.

Table 7. The weights of the elements of the IMNR index

Weight	Impression management strategy studied	Impression management detection methods	Examples
Font	Text appearance management	Font analysis Bold analysis	The font differs from the dominant one in the text in terms of size, typeface, colour, weight (e.g., bold), and underlining
Presentation form	Text presentation form management	Analysis of distinctive forms of text presentation	Tables, diagrams, and frames with text
Location	Text location management	Information location analysis	Distinctive location: first paragraph of a chapter, beginning of a paragraph, heading

Source: author's own study.

The use of one of those forms of distinction adds 0.5 points. The weights are summative, not multiplicative. One element of impression management, e.g. a positive keyword, may receive a maximum value of 2.5, e.g., 1 point for the occurrence of a positive keyword, 0.5 points for a distinctive font, 0.5 points for being in a box, and 0.5 points for being located at the beginning of the paragraph.

3. Impression management in letters to shareholders of Polish listed companies – empirical research

3.1. Description

The IMNR index was used to conduct empirical research. It aimed to identify the methods of impression management in letters to shareholders and to verify whether the index can be used to assess and measure impression management.

The letters to shareholders included in annual reports were examined. These documents were examined because the annual report summarises the entire financial year and is of interest to a wider group of stakeholders than interim reports are. As a result, the information contained therein may have a greater impact on recipients. Letters to shareholders are a concise way to present selected, important information about the past reporting year. In essence, they are often treated as a kind of summary or introduction to the entire annual report. Therefore, companies may be interested in using this document to make a positive impression on the readers and encourage them to read the other information.

Letters to shareholders of companies whose shares are listed on the regulated market of the Warsaw Stock Exchange were selected because they are important to a wide range of recipients. The Warsaw Stock Exchange was chosen because there is a research gap in the literature on impression management in reports written in Polish. Letters included in the annual report for 2022, i.e. for the last financial year at the time of the study, were analysed.

The management board letters of companies included in the WIG-ESG index were examined. The WIG-ESG (Environmental, Social, Governance) index is based on the value of the portfolio of shares of companies that are considered socially responsible. It was selected as it comprises socially responsible companies, i.e., they should be interested in more disclosures and communicating with stakeholders. Therefore, impression management is likely to be greater in their case. However, as responsible companies, they should not use manipulations that are prohibited or that distort the company's image.

Ten companies were selected for the research sample. First, one company was chosen at random from each industry, excluding financial institutions, from the WIG-ESG index portfolio after the revision on June 16, 2022. Sectors that had only one company on the WIG-ESG were excluded. From the fourteen companies remaining, the first ten companies listed alphabetically were chosen. The sample

was not representative of the entire population of companies listed on the Warsaw Stock Exchange. Just over 400 companies are listed on the Main Market of the Warsaw Stock Exchange while 60 are included in the WIG-ESG index. However, representativeness was not necessary as the study was not intended to draw conclusions about this population.

3.2. Results and conclusions from the study

Each of the CEO's letters was analysed, and the IMNR index was calculated according to the principles presented in this article. The index values for individual letters are presented in Table 8. The list is ranked according to the IMNR index value, starting with the highest.

Table 8. IMNR index values for the analysed letters to shareholders

Letter number	Industry	IMNR index value
Letter No. 1	Games	7.46
Letter No. 2	Motoring	7.44
Letter No. 3	Media	6.91
Letter No. 4	Recreation and leisure	6.45
Letter No. 5	Mining	6.40
Letter No. 6	Chemical	6.17
Letter No. 7	Sales networks	5.62
Letter No. 8	Property	5.60
Letter No. 9	Electromechanical	5.37
Letter No. 10	Telecommunications	5.32

Source: author's own study.

In all the audited letters to shareholders, the IMNR index has positive values, which means impression management in the standard sense, i.e. it aimed to create a positive impression. This was expected because letters to shareholders are treated in business practice as a reporting form to concisely present information on the completed financial year in a possibly positive light. The IMNR index value for each letter is above 5, meaning that the level of impression management is high or very high. The information in the letters largely influences the readers' impressions, and techniques aimed at making a positive impression are readily apparent. It should be noted, however, that the positive image that emerges from the text may also be because the company achieved satisfactory financial results in the reporting year and can boast of significant successes.

The letter to shareholders with the highest index value (7.46) received the maximum of 1 for all elements except readability. This means that as part of the examined strategies, a positive impression of the company was built while

maintaining a high level of readability. As the letter contained positive information, the author probably wanted it to be understandable for the recipients. In this reporting form, no signs of obscuring information by reducing readability were detected.

The board letter with the lowest IMNR score (5.32) is highly informative, with a lot of information about initiatives, projects, and activities carried out. There was no avoidance of less favourable information compared to the previous year. However, the author did not include comparisons in the list. The reason for this could be lower results than the previous year. Reading this letter, the recipient may feel that high active impression management was not used. The letter to shareholders, for which the IMNR index was 5.37, also gives the impression that the author was not trying to embellish reality.

The analysis shows that the lists with subject element values lower than 1 are more informative. The first paragraph usually contains the most positive information. In the letters analysed, companies often included favourable financial information at the beginning of the letter. By contrast, financial results that were lower than in the previous year were often presented only later in the document. Negative topics were not avoided if they concerned the external environment and were independent of it. CEOs often stated that their company coped with negative situations or achieved favourable results despite an unfavourable environment.

In the letters, the companies built a positive tone, using positive keywords such as success, development, achievement, and growth, as well as positive emotional words (e.g. record-breaking, unique, unprecedented, wonderful). Negative keywords and emotions were usually used to describe the macroeconomic situation. On the other hand, the company was usually presented positively against the backdrop of an unfavourable general economic situation.

In the management board letters, explanations were mainly used to emphasise the successful actions or the right decisions of the management board. Very often, the letters mentioned the company's achievements "despite" the difficulties. Even explanations referring to unfavourable information were constructed in such a way as to show readers that the CEO was able to cope with such situations.

With regard to selection, companies with lower financial results than in the previous year often avoided disclosing them in the letter to shareholders. In these situations, they usually do not include detailed information, such as specific values. Therefore, for most of the letters, the value of the selection element is 1 because the companies presented better achievements than the previous year.

A similar situation occurred with the comparison element, with almost all lists having the maximum value. In other words, they manage the impression through comparisons. There were also frequent situations where, in the case of a result lower than the previous year, companies limited themselves to providing a value without comparing it to the result of the previous year. Some companies also adopted more radical methods, i.e. in the event of lower results, they did not publish comparisons altogether.

The average Fog index for the audited letters to shareholders is 13.40. This means that, on average, the letters were readable and should be easy to understand, especially for readers with basic financial knowledge. Letter No. 6 had the highest Fog index, and the text can indeed be assessed as difficult, containing a lot of industry information and written in a complicated way. On the other hand, letter No. 2, i.e. with a high IMNR index, had the lowest Fog index. This means that this letter contains mainly positive information and was written in a highly readable manner.

All letters directly addressed shareholders at the beginning of the text. In some, readers' attention was also attracted by phrases such as "for example", "it is worth highlighting", and "I emphasize". Many CEOs mentioned consistent actions and the continuation of previously undertaken projects.

Most often, the emphasis was put on words with positive connotations, such as "development", "record", and "leader". The word "success" appeared often. Companies mostly focused on repeating positive information. If there were repetitions of negative information, it was only about external factors and mainly in the context of the company coping with difficult situations.

The study showed that there are strategies for managing impressions in letters to shareholders. It demonstrated the possibility of using the IMNR index to assess and measure impression management in reporting forms that use a narrative. The use of the index allows for a systematic study of the occurrence of impression management in various texts.

Conclusion

In this article, the author presented her own comprehensive method of testing impression management, which is the IMNR index. The empirical study showed how it can be used and identified impression management methods in the analysed letters to shareholders.

The IMNR index has its limitations, however, one of which is the difficulty in achieving coding consistency. Part of calculating the index involves the researcher manually identifying, coding and counting individual impression management strategies. Therefore, it is likely that different researchers may report different results on the indicator itself, as well as on the individual components. The procedure for calculating the IMNR index is laborious and time-consuming, which significantly limits its use for examining a large number of reports and reports of a large volume.

Additionally, the IMNR index covers only selected impression management detection methods. This leaves room to extend it with further impression management strategies and methods of detecting them in the future. Future research should also consider the issue of not disclosing negative information when calculating the value of elements of the index other than "selection". The challenge is to develop specialized computer software to calculate the IMNR index, although such a tool could not fully replace a researcher's own analysis and assessment. Manual content analysis is necessary due to the need to consider the context.

Directions for further research may also be the use of the IMNR index on a larger scale, in research on a larger research sample, or in the analysis of other forms of reporting, e.g. management commentaries. Such research could also be carried out after modifying the IMNR index, e.g. in terms of the methods used. Further research could also investigate the reporting forms of companies from different countries, drawn up in different languages, although taking linguistic differences into account would then pose a challenge.

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