Can Photographs in The Sustainability Report Obfuscate Negative Environmental Issues? Evidence from Indonesia

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Abstract: This study aims to discover the motivation for and use of photography in sustainability reports. This study examined 267 photographs from PT Freeport Indonesia's (PTFI) sustainability report using a content analysis approach. Photographs were interpreted according to the impression management theory. The number of environmentally related photographs had decreased, and they were displayed the least. The predominance of photographs of social activities was allegedly used by PTFI to obscure or cover up its poor environmental performance. In comparison to places and objects, photographs of people were displayed the most. Repeated images of happy people's expressions were used as a visual rhetorical impression management technique that tapped into readers' emotions to enhance the company's image and legitimacy. This research has implications for companies to be more transparent in disclosing photos related to environmental issues. The social implication of this research is that people have to be more careful and critical, not just take the impression of the photos conveyed by the company. The findings of this study enlighten and raise awareness that photographs in sustainability reports are used as rhetorical and impression management tools to boost image and legitimacy.

Keywords: impression management, photograph, sustainability, visual rhetoric.

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INTRODUCTION

Numerous studies on sustainability disclosure in accounting literature have been widely carried out using a quantitative approach. Meanwhile, limited research on sustainability disclosure using photographic analysis has been conducted (Cho et al., 2010; Chong et al., 2019; Davison, 2010; Hrasky, 2012). Photographs are increasingly being used in sustainability reports as companies take advantage of individual readers' preferences for images over narratives (Hellmann et al., 2017). Companies also prefer to display photographs in sustainability reports due to their low cost (Boiral, 2016). The photographs are used rhetorically to persuade, convince, influence emotions, and create a positive image in the readers' minds (Chong et al., 2019; Hrasky, 2012; Rose, 2012).

Chong et al. (2019) analyzed sustainability photographs included in the 70 annual reports of companies listed on the New Zealand Stock Exchange. The findings of the study indicated that the company systematically employed symbolic presentations, such as photographs of children and families, for rhetorical impression management in product performance. Meanwhile, the environmental performance had deteriorated.



In the context of this study, environmental issues in Indonesia as a result of companies' activities continue to be raised. For example, the impact of environmental damage caused by PTFI (Laucereno, 2019). This appears contradictory, given that PTFI won three Corporate Social Responsibility (CSR) program awards at the same time a few months earlier, including Top Leader in CSR Commitment 2018, Top CSR 2018 for the Mining Sector, and Top CSR 2018 for Infrastructure Program (Winarto, 2018).

PTFI, as a multinational company (MNC), has operated in Indonesia for more than five decades (Winanti & Diprose, 2020). MNCs often clash with host countries over environmental issues (Imbun et al., 2015). To address environmental and sustainability issues, PTFI began disclosing sustainability reports on its official website in 2008. Sustainability disclosures by PTFI remain voluntary. Managers frequently use this voluntary disclosure to manage their impressions (Cho et al., 2012; Peeples, 2011), greenwashing (Hrasky, 2012), image enhancement, and legitimacy (Chong et al., 2019). Impression management occurs when management selects information to display and presents it in a way that distorts the readers' perceptions of the company's achievements (Godfrey et al., 2003). Temporarily, greenwashing is a corporate image strategy to "trick" stakeholders into believing that the company has conducted its activities in an environmentally friendly manner, which is far from the truth (Boiral, 2016). Greenwashing is usually used by companies that pollute and face intense external pressure (Boiral, 2013; Cho et al., 2015; Delmas & Burbano, 2011; Talbot & Boiral, 2015). For the PTFI context, an example is the audit findings that PTFI waste in Papua caused ecosystem damage totalling IDR 185 trillion (Pebrianto, 2018).

The novelty of the research is a case study on PTFI, where PTFI has a lot of controversy over environmental damage (Laucereno, 2019). This research wants to reveal how PTFI's strategy uses impression management to increase and maintain its legitimacy through sustainability reports facing environmental problems. This research is different from previous research, which used impression management theory in photo analysis (Chong et al., 2019). Another research by (Adler et al., 2018) is that medium-profile companies have fewer opportunities to adopt impression management strategies due to their typically more significant negative biodiversity impacts. Therefore, mid-profile companies may use selectivity strategies in impression management. Selectivity strategy is when companies choose favourable information (Kanbaty et al., 2020). Another novelty of this study is the photo analysis method at PTFI as a mining company, which is different from previous research conducted by (Ekasari et al., 2021). The research examined mining companies in Indonesia using the content analysis method in sustainability reports. The study concluded that only 7 companies had environmental commitments with different disclosure focuses. This research is also an answer to the theoretical gap in the literature review on sustainability accounting research in Indonesia, which was conducted by (Meutia et al., 2022). The literature review explains that researchers in Indonesia use theories including agency theory, legitimacy, stakeholders and other theories, except impression management theory. Thus, the analysis of visual photos and the use of impression management theory are unique in this study.

Some companies disclose sustainability reports in their annual reports, while others provide standalone sustainability disclosures on their websites (Cho et al., 2015). Cho et al. (2009) explained that photographs presented in sustainability reports on company websites have a major impact on user trust and perception. As the dominant capacity of the human brain is for visual information processing (Dilla & Janvrin, 2010; Ware, 2012), photographs in annual reports serve an important role as a medium of persuasion for report readers (Davison, 2009). The readers usually begin with photographs before moving on to text or other displays (Knobloch et al., 2003), because photographs are more visually appealing than narrative text (Knobloch et al., 2003). One of the research findings also explained that the perception of readers was more influenced by photographs when interpreting narrative texts (Zillmann et al., 2001). Colour variations in

photographs also have their strengths, as they can act as stimulants, have a psychological impact, and leave an interesting impression on the report (Courtis, 2004). The power of photographs is exploited by companies to enhance their image and legitimacy (Rämö, 2011).

Critically, the use of visuals in annual reports carries symbolic meaning that has the potential to create and manipulate meaning for rhetorical purposes (Breitbarth et al., 2010; Davison, 2007, 2009, 2010; Ihlen, 2011; Rämö, 2011). Davison (2007), for example, showed how pictorial repetition could function as a rhetorical framing device, emphasizing messages and influencing how imagery was perceived. Additionally, photographs reinforced the quality of performance that was not quantifiable in the annual reports (Davison, 2009, 2010). Hopwood (2009) argued that the visual disclosure strategy used in sustainability reports resembled "greenwashing". Greenwashing occurs when the disclosure of sustainability reports lacks substance in terms of demonstrating true environmental responsibility (Parguel et al., 2011; Ramus & Montiel, 2005). Another study explained that companies used photographs in sustainability reports to create the illusion and manipulate sustainability information (Breitbarth et al., 2010).

Photographs can also be used symbolically by companies to create an image of care and commitment, such as happy employees, community involvement, and unspoiled natural landscapes, all of which have nothing to do with substantial sustainability performance (Hrasky, 2012). This is because photographs are believed to be able to both represent "reality" (Smith & Ball, 2007) and distort "reality" (Caron & Turcotte, 2009). In other words, the sustainability report serves as a simulacrum of the imagination used to create a fictitious reality (Boiral, 2016) and the myth of social and environmental accountability (Solomon et al., 2013).

The use of photographs can reduce the company's transparency (Hopwood, 2009) because photography is allegedly used in sustainability reports by companies solely to promote/build a positive image of the company (Mahoney et al., 2013), which may obscure actual sustainability activities (Bansal & Kistruck, 2006). Photographs in sustainability reports can also be used to divert attention from negative issues (Arora & Lodhia, 2017). For instance, Boiral (2013) found that 90 per cent of negative events went unreported by companies that made sustainability disclosures accompanied by photography. Other studies have found that companies displayed more photographs of children and families than photographs of the environment (Chong et al., 2019; Zarzycka & Kleppe, 2013).

Goffman describes impression management as a drama in which actors act according to scenarios and attempt to make an impression on the audience (Chong et al., 2019). In an organizational context, impression management refers to any deliberate action designed and carried out to influence the audience's perception of the organization to create the desired image (Bolino et al., 2008). Company managers use impression management through photographs in sustainability to create the desired image. The inclusion of photographs in sustainability reports helps manage impressions because visual images are easy for readers to remember (Aerts & Yan, 2017). Furthermore, photographs are used as a rhetorical tool and a strategy for legitimizing sustainability (Hrasky, 2012; Mahoney et al., 2013; Samkin & Schneider, 2010), which may differ from reality (Milne & Patten, 2002). Companies use visual rhetoric (Beattie & Jones, 2008; Boiral, 2016; Davison, 2014; Merkl-Davies & Brennan, 2007; Preston et al., 1996) and visual manipulation (Davison, 2010; Diouf & Boiral, 2017; Hopwood, 2009; Merkl-Davies & Brennan, 2007; Michelon et al., 2015) to maintain their image and reputation (Rolland & Bazzoni, 2015; Sandberg & Holmlund, 2015). Sometimes, this visualization technique can result in communication distortions that may not meet stakeholder expectations (Lawrence et al., 2010). As a result, misleading information may be disclosed (Merkl-Davies & Brennan, 2007).

Managers employ a variety of techniques to manage their impressions, including neutralization, assertiveness, and defensiveness. The neutralization technique is the dissemination of information to rationalize

and legitimize, through a variety of acceptable arguments, the occurrence of unethical behaviour, impacts or problems that could harm the image of the organization, managers, or employees (Boiral, 2016; Hahn & Lülfs, 2014; Talbot & Boiral, 2015). Assertive tactics are used when the company is actively attempting to change its image, while defensive tactics are used in response to threats against the company's image (Talbot & Boiral, 2015; van Halderen et al., 2016).

Impression management can also be done by emphasizing positive performance and obscuring or concealing negative performance (Cho et al., 2010; Merkl-Davies et al., 2011). The objective of the positive information is to improve the company's image (Bowen & Aragon-Correa, 2014; Diouf & Boiral, 2017; Mahoney et al., 2013). For example, Ihlen (2011) found photographs of indigenous children interacting with teachers in a green field in the sustainability report of a multi-national oil company in Nigeria. These photographs created a positive image of the company's sustainability activities, diverting attention away from the negative environmental impact. A photo strategically creates a positive impression and evolves into a powerful tool for persuasive communication with stakeholders (Leung et al., 2015; Merkl-Davies & Brennan, 2007).

Selectivity strategies are also often used in sustainability reports by companies. The selectivity strategy happens when companies choose photographs that depict favourable information (Kanbaty et al., 2020). This photo selection takes advantage of the cognitive limitations of the human brain (Ding et al., 2017), which tends to focus on images rather than narrative (Hellmann et al., 2017; Hrasky, 2012). For example, many companies include photographs in their sustainability reports, especially those highlighting environmental and social issues (Kanbaty et al., 2020). This finding contrasts with Chong et al. (2019) that companies prefer photographs of products over photographs of the environment. Photographs of lush green fields and cows grazing in a beautiful natural environment are an example of environmental photographs (Chong et al., 2019). Meanwhile, photographs of people, such as children and happy families, are used in visual rhetorical strategies to influence and strengthen stakeholders' acceptance (Rämö, 2011). These impression management tactics are used to elicit an emotional response from the readers (Sandberg & Holmlund, 2015).

Using PTFI's voluntary sustainability reports and the phenomenon of environmental damage caused by its activities, this study aims to examine how PTFI manages its brand image through the use of photographs in sustainability reports. This study employs visual content analysis by Chong et al. (2019), as well as impression management theory, to interpret the data. Photographs or images from PTFI's sustainability reports from 2008 to 2020 serve as research data. The PTFI sustainability reports were chosen as the research subject because PTFI is one of the extractive industries that exploit natural resources (Winanti & Diprose, 2020), resulting in environmental damage (Gaveau et al., 2021). This case study at PTFI distinguishes this study from previous works. This study makes a theoretical contribution by examining photography in accounting communication through the lens of impression management theory. The practical contribution of this study is to provide insight into how companies leverage the rhetorical power of photographs to increase their positive impression on stakeholders.

METHODS

PTFI is a mineral mining company affiliated with Freeport-McMoRan (FCX) and Mining Industry Indonesia (MIN ID). PTFI mines and processes the ore to produce concentrates containing copper, gold, and silver. PTFI markets are concentrated globally, particularly at the domestic copper smelter, PT Smelting. PTFI operates in the highlands of the Sudirman Mountains, Mimika Regency, Papua Province, Indonesia. FCX is a leading international mining company headquartered in Phoenix, Arizona, United States of America. FCX, through

PTFI has held its main employment contract in Indonesia for more than five decades, with the contract being significantly renegotiated in 2018 (Winanti & Diprose, 2020). PTFI was chosen as the research site because it is one of the MNCs that contributes to environmental damage (Gaveau et al., 2021) and has a long history of political economy settlement (Winanti & Diprose, 2020), making it an appealing research site.

Data in this study were images or photographs contained in a standalone sustainability report. The standalone report was chosen because it offers substantial potential benefits (Unerman et al., 2007). The sustainability report for 2021 was obtained from the corporate website. Website data has become one of the main tools for disclosing sustainability information (Boateng & Abdul-Hamid, 2017; Cho et al., 2015). PTFI's sustainability report case study with visual analysis was chosen as the research strategy. The case study strategy was chosen because it introduces a new topic (Hayes et al., 2015) in visual analysis. Visual content analysis was used as the data analysis technique (Chong et al., 2019). The following are the steps involved in data collection and analysis:

- 1. Visiting the official PTFI website. Seven sustainability reports were obtained: 2008, 2011, 2012, 2016, 2017, 2018, and 2019. PTFI did not publish a sustainability report on the website in 2009, 2010, 2013, 2014, or 2015.
- 2. Downloading and documenting 267 photographs in a worksheet. Researchers created a codebook and write the code. The sustainability category code is based on GRI G 4 (GRI, 2016) which stands for economic, social, and environmental (Table 1). Following that, a 1 is written in the worksheet if the image fits the category, and a 0 is written if the image or photo that does not fit the category.

Table 1 Ph	notography	Category	by	GRI
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Category	Pictured photography
Economy	Photographic images illustrate the organization's impact on economic conditions for stakeholders at local, national, and global levels. For example, photographs demonstrating support for local community economic development.
Social	Photographic images illustrate labour practices, workplace comfort, human rights, and social and product responsibility. For instance, a photograph illustrating workplace safety.
Environment	Photographic images illustrate sustainability practices such as renewable energy, recycling, carbon emission reduction initiatives, water management, biodiversity, and waste management. For instance, images of naturalistic impressions include green fields, blue skies, flora, and fauna.
Other	Not included in the economic, environmental, and social categories

- 3. The research team assigned a subcode to the image:
 - a. people like pictures of children, youth, old people, and workers;
 - b. places such as beaches, houses, factories, and public facilities;
 - c. objects such as animals, products, machines, plants, and buildings;
 - d. other images that do not fall into these three groups.
- 4. Researchers conducted intercoder reliability by involving two independent coders with a sample of 20% of the total data. The intercoder reliability test resulted in a Kohen Kappa of 0.832 for the GRI category and 1,000 for the photo presentation sub coding. Kappa test results indicate that the coding is said to be reliable. Furthermore, the codebook can be used to encode all the data. This procedure is used to test the reliability of data. Furthermore triangulation was conducted using counter accounts (Perkiss et al., 2021) derived from media news and other relevant sources, which contradicted PTFI's claims.

5. Analyzing the data using impression management theory to interpret the research findings. The impression management theory is relevant for analytical tools because voluntary disclosure of sustainability reports increases the likelihood that companies will engage in impression management (Cho et al., 2015).

RESULTS AND DISCUSSION

Photographs of Social Programs and Photographs of People Blurring Environmental Problems

Table 2 shows the social program category containing 123 photographs (46% of the total). Of the seven sustainability reports analyzed, the majority of social programs concerned employee health, education, and safety. The economic category, with 66 images, and the environment, with 62 images, were ranked second and third, respectively. In 2008, 2011, and 2012, PTFI displayed a disproportionate number of photographs related to the environment, but this had decreased since 2016. The findings of this study supports prior research indicating that many companies choose to include photographs in their sustainability reports, particularly those relating to social programs (Kanbaty et al., 2020).

Environmental photographs were presented less frequently and have decreased in number. This finding supports Chong et al. (2019). For example, in 2018, PTFI only displayed one photo relating to the environment. This could be done in response to audit findings by the Supreme Audit Agency (BPK) regarding the estimated IDR 185 trillion in ecosystem damage caused by PTFI's waste in Papua (Pebrianto, 2018). BPK's audit findings contradict PTFI's claims about its sustainability performance achievements. PTFI was named a Top Leader in CSR Commitment 2018, Top CSR 2018 for the Mining Sector, and Top CSR 2018 for Infrastructure Program (Winarto, 2018). From these findings, it can be concluded that in 2018, as many as 11 photographs relating to health, education, and occupational safety were presented as impression management to cover environmental problems. The impression management strategies employed by PTFI's emphasized positive performance while concealing negative performance (Cho et al., 2010; Merkl-Davies et al., 2011). This strategy aims to maintain a positive image of the company (Chong et al., 2019; Hrasky, 2012).

Reporting Year GRI Category Total % Economy 25% Environment 23% Social 46% Other 6% 100% Total

Table 2 Photographs Category GRI

According to Table 3, 198 photographs, or 74% of the total images contained photographs of people (H). Photographs of the health program depicting a nurse holding a newborn baby were presented twice in the sustainability report, in 2008 and 2011. In addition, all PTFI sustainability reports, except the 2019 report, included children's images. The frequent and repeated photographs of children in PTFI's sustainability reports can be interpreted as visual rhetoric (Boiral, 2013, 2016; Chong et al., 2019; Davison, 2014; Rämö, 2011). From another perspective, these images can be categorized as rhetoric pathos, which relates to emotions

(Higgins & Walker, 2012). PTFI also uses children's pictures to appeal to the readers' emotions and promote a positive image (Chong et al., 2019; Sandberg & Holmlund, 2015).

Table 3 Image Category

Picture	Reporting Year								
	2008	2011	2012	2016	2017	2018	2019	Total	%
People	34	27	56	22	21	18	20	198	74%
The place	4	13	9	9	3	0	0	38	14%
Object	2	6	6	0	2	1	2	19	7%
Other	2	6	3	1	0	0	0	12	5%
								267	100%

Economics Program: Impressions of The Impact of The Economy on Local Communities

Figure 1 illustrates PTFI's economic program activities, including photographs of local farmers (a), sewing training activities (b), and infrastructure development (c). PTFI wanted to convey the impression that the company fosters positive relationships with the community (Cho et al., 2012), as a strategy for managing stakeholders (Michelon et al., 2015), particularly relationships with and support to local communities (Sandberg & Holmlund, 2015). Images of infrastructure development and the sports complex, which are located in the heart of the Mimika forest, symbolize the green natural environment (Chong et al., 2019), which PTFI uses to convey a message of concern and commitment to environmentally friendly local residents. This strategy gives the impression of the company's commitment to sustainable development (Hrasky, 2012).







Source: Sustainability Report (SR) of PTFI (2008, 2011, 2019)

Figure 1 Economy category

PTFI selected photographs of support for local communities with care. The company also used neutralization agate to justify and legitimize the fact that PT Freeport Indonesia has had an economic impact on local communities (Boiral, 2016; Hahn & Lülfs, 2014; Talbot & Boiral, 2015). This neutralization was used to address the numerous criticisms levelled against PTFI's operations in Papua. For instance, the Eldest Rights Owners Forum (FPHS), which represents the community in three traditional villages, Tsinga Waa, and Arwanop (Tsingwarop), rejected PTFI's operations due to the threat posed by the land expansion of PFTI (CNN-Indonesia, 2020). Furthermore, FPHS Secretary, Yohan Zonggonau also explained that PTFI had failed to fulfil the basic

rights of the residents of the three villages, such as the construction of schools and hospitals, which had been delayed for 53 years.

Social Programs: Beneficial Effects on Local Communities

Figure 2 shows pictures of PTFI's social program activities in the areas of education, health, and employment practices. The photographs symbolize the company's concern for and responsible for local residents (Chong et al., 2019). The education sector is represented by a photo of a teacher interacting with local students (d). This is supported by a news report that PTFI has provided at least 650 scholarships per year for indigenous Papuans through its partnership fund managed by the Amungme Kamoro Community Development Institute (LPMAK) (Winarto, 2018). This activity contributed to the perception that PTFI's existence benefits the local community (Sandberg & Holmlund, 2015). The findings of this study are consistent with Ihlen (2011), who found photographs of local children interacting with teachers in a Nigerian oil MNC sustainability report. This is to address numerous environmental concerns raised by MNCs in the host country (Imbun et al., 2015).

Health-related activities are illustrated with a photo of a nurse in a hospital room holding a newborn baby with a smile (e). The impression management strategy used in this context is pathos rhetoric, which appeals to the reader's emotions (Chong et al., 2019; Higgins & Walker, 2012). As emotional touch has a positive effect on stakeholder perceptions, pathos rhetoric is used (Rämö, 2011). Image (e) appeared twice in the 2008 and 2011 sustainability reports and can be interpreted as repetitive rhetoric (Davison, 2014). The results of this study confirm those of previous studies where images of parents of people enjoying health facilities were repeatedly used as visual rhetoric (Chong et al., 2019).

The image of labour practices showed a photo of PTFI employees from various countries with different skin colours who were congregating in the mining area (f). PTFI's overarching message was worker safety and human rights practices. The finding of this study is consistent with previous research indicating that occupational health and safety are the dominant themes described in sustainability reports for the social category (Chong et al., 2019). In this context, PTFI employs two impression management tactics; the first is a positive style (Sandberg & Holmlund, 2015). Employment practices photographs show a positive impression of the company's efforts and commitment to workplace safety, and as a strategy for corporate legitimacy (Samkin & Schneider, 2010). Through photographic imagery, labour practices will gain greater rhetorical power in persuasive communication (Chong et al., 2019).



Source: Sustainability Report (SR) of PTFI (2008, 2012)

Figure 2 Social program

The second strategy is a defensive tactic designed to divert attention away from PTFI's labour practices (Stanton & Stanton, 2002). For instance, on 14 May 2013, there was an incident occurred at the Big Gossan underground mine when the Class 11 Quality Management Services (QMS) Underground was buried beneath 500 tons of rock debris from the mine roof, killing 28 workers, and injuring 10 others (Kartono, 2013). In 2013, a sustainability report was also found on the PTFI website. This can be interpreted as a lack of transparency and accountability. The expression of labour cohesiveness (Figure C) conveyed a message of peace to neutralize the issue of an employee strike. PTFI laid off 840 employees who participated in the strike and furloughed thousands more (Amelia, 2018). PTFI strengthen its legitimacy through impression management in the form of employment photographs that incorporate both positive and defensive impression tactics (Rijsenbilt, 2011).

Environmental Program: Obfuscate Negative Environmental Issues

As illustrated in Figure 3, the environmental image included a large green area (g), a photo of a boat with people cleaning the river (h), and forest planting activities (i). PTFI uses the power of selective rhetoric (Bowen & Aragon-Correa, 2014) by strategically choosing images to obscure negative issues (Leung et al., 2015). The image of the green area conveyed the message that PTFI was committed to environmental protection and preservation. Green area photographs are often used to manage the impression of environmental activities in sustainability reports (Chong et al., 2019). A photo of river cleaning activity is used as a defensive tactic to respond to threats to its image (Talbot & Boiral, 2015; van Halderen et al., 2016). For example, the Ministry of Environment and Forestry (KLHK) discovered that PTFI committed 48 violations, 31 of which were related to AMDAL/RKL-RPL, environmental permits; 5 of which were related to water pollution; 5 of which were related to air pollution; and 7 of which were related to waste and B3 management (KLHK, 2018). Tree planting activities in the forest are a neutralization tactic, which rationalizes and legitimizes the impact of PTFI activities (Boiral, 2016; Hahn & Lülfs, 2014; Talbot & Boiral, 2015) such as deforestation done by PTFI (Gaveau et al., 2021). Figure 3 was chosen as the PTFI's symbol for impression management of environmental impacts, to maintain legitimacy from external pressure.







Source: Sustainability Report (SR) of PTFI (2008, 2011, 2012)

Figure 3 Environment

Only about 23% of the photographs in Table 2 were of an environmental category. Chong et al. (2019) discovered a similar trend: there was a decrease in the use of photographs that describe environmental performance. PTFI also employs a strategy to conceal negative information about the company's environmental impact that could jeopardize its image (Boiral et al., 2020). Cho et al. (2010) showed that firms with poor environmental performance were more likely to engage in visual manipulation (Davison, 2010), as a result of

their unsustainable business activities (Bebbington & Larrinaga, 2014; Hopwood, 2009). Activists cited the following example of negative environmental impacts associated with PTFI mining activities: "The problem of river pollution, which serves as a disposal site for toxic waste, such as in the Aghawagon River, Otomona Ajkwa, and tailings handling, has a serious impact on the waters (CNN-Indonesia, 2020). This could be interpreted as disclosing environmental impact through photographs, albeit with a degree of "greenwashing" strategy (Hrasky, 2012). It is described as small because the photographs displayed are the least compared to those of economic and social programs. Fewer photographs displayed reduce transparency and obscures bad news about the environment (Cho et al., 2010).

Photographs of Happy People: Touching The Reader's Emotions

Figure 4 shows photographs of happy, smiling people (labourers, teachers, and students) that were frequently included in PTFI sustainability reports. The photo is strategically used as a mirror of reality (Chong et al., 2019), conveying the message that PTFI promotes "comfort" as well as the happiness of employees, residents, and schoolchildren. These images may not be real, but they are highly effective for impression management (Smith & Ball, 2007; Stanton & Stanton, 2002). These "feel-good" photographs have the potential to manipulate stakeholders' emotions (Chong et al., 2019). Photographs wof schoolchildren target the reader's emotions (Zarzycka, 2014; Zarzycka & Kleppe, 2013) to convey PTFI's concern for the education of local residents (Chong et al., 2019). On the other hand, residents of three traditional villages impacted by PTFI's operations have not yet obtained the right to education (CNN-Indonesia, 2020). The happy employees may have little to do with the actual activities of the company. This kind of imagery is usually carried out by companies pursuing pragmatic legitimacy (Hrasky, 2012). This can be confirmed by employment problems in the form of strikes and layoffs, as discussed in the previous social program.



Source: Sustainability Report (SR) of PTFI (2011, 2012)

Figure 4 Pictures of people smiling happily

PTFI used a selective strategy, preferring to display photos of workers' health, education and social programs. On the other hand, PTFI chose to display fewer photos related to the environment. From a community perspective, PTFI's existence gives the impression that PTFI has provided many benefits through its educational and social programs through pictures, pictures touching the emotions of readers (Chong et al., 2019). Likewise the government, the government gets a positive impression that PTFI is a good corporate citizen (Atkins et al., 2015) which has carried out CSR well through educational and social programs, although the government still provides some notes about environmental problems due to PTFI activities through KLH (KLHK, 2018) and BPK audit findings (Pebrianto, 2018). Meanwhile, from an environmental perspective, PTFI is still not transparent in disclosing the negative impact of PTFI's operations on the environment, it is evident that there are still protests over environmental damage voiced by activists (CNN-Indonesia, 2020).

CONCLUSION

This study aims to examine the use of photographs in PTFI's sustainability reports for impression management purposes. PTFI used an impression management strategy by displaying more photographs of employees' health, education, and occupational safety social programs. Meanwhile, environmental photographs were presented in fewer and fewer sustainability reports. The findings can be interpreted that PTFI employed an impression management strategy that emphasized a positive impression of social program activities that benefit local communities. This was to neutralize, obscure, and cover up negative environmental impacts raised by external parties. According to the findings of this study, PTFI's greenwashing was not particularly effective. PTFI tended to highlight photographs of social programs as an impression strategy rather than a greenwashing strategy. Meanwhile, photographs that represented people were more frequently displayed than those of objects or places. Photographs of people with happy expressions and feeling comfortable became PTFI's symbolic media that touched the readers' emotions. PTFI employed an impression management strategy with defensive, assertive, and neutralization tactics to maintain and enhance its positive image and legitimacy. This study has added to the body of knowledge on visual accounting communication through sustainability reports, with a focus on mining companies that have the potential to harm the environment. The study's findings will benefit regulators, companies, and users of sustainability information. Companies are expected to be more transparent in disclosing sustainable information related to the environment. To avoid greenwashing and visual rhetoric, regulators should encourage management to use photographs in sustainability reports that depict reality. Thus, sustainability reporting practices should be more credible, with integrity and transparency. Readers of sustainability reports should be more careful in capturing the message of the photographs displayed. The implication for practitioners is to be more critical and skeptical in interpreting the images and photos presented in the sustainability report. The limitation of this research is the subjective interpretation of the photographs by ignoring the narratives that accompany the photographs. Future research should take into account the narrative that goes with the photographs. This result is only applicable in the context of PTFI. Future research can also use a wider sample and a different theoretical framework in interpreting photos and images in sustainability reports, such as using the rhetorical theory of Aristotle (Higgins & Walker, 2012), Roland Barthes' theory of images in terms of denotations and connotations (Davison, 2014), and Baudrillard's theory of simulacra (Boiral, 2016).

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REFERENCES

- Adler, R., Mansi, M., & Pandey, R. (2018). Biodiversity and threatened species reporting by the top Fortune Global companies. Accounting, Auditing & Accountability Journal, 31(3), 787–825. https://doi.org/https://doi.org/10.1108/AAAJ-03-2016-2490
- Aerts, W., & Yan, B. (2017). Rhetorical Impression Management in the Letter to Shareholders and Institutional Setting: A Metadiscourse Perspective. Accounting, Auditing and Accountability Journal, 30(2), 404–432. http://dx.doi.org/10.1108/AAAJ-01-2015-1916
- Amelia, Z. (2018). Karyawan Freeport: Kasus Mogok Kerja Pekerja Belum Selesai. Tempo. Available at: https://bisnis.tempo.co/read/1068714/karyawan-freeport-kasus-mogok-kerja-pekerja-belum-selesai
- Arora, M. P., & Lodhia, S. (2017). The BP Gulf of Mexico Oil Spill: Exploring the Link between Social and Environmental Disclosures and Reputation Risk Management. *Journal of Cleaner Production*, 140, 1287–1292. https://doi.org/10.1016/j.jclepro.2016.10.027
- Atkins, J, Solomon, A., Norton, S., & Joseph, N. (2015). The Emergence of Integrated Private Reporting. *Meditari Accountancy Research*, 23(1), 28–61. https://doi.org/10.1108/MEDAR-01-2014-0002
- Bansal, P., & Kistruck, G. (2006). Seeing is (Not) Believing: Managing the Impressions of the Firm's Commitment to the Natural Environment. *Journal of Business Ethics*, 67(2), 165–180. https://doi.org/10.1007/s10551-006-9021-9
- Beattie, V., & Jones, M. J. (2008). Corporate Reporting Using Graphs: A Review and Synthesis. *Journal of Accounting Literature*, 27, 71–110. Available at: https://eprints.gla.ac.uk/5954/1/5954.pdf
- Bebbington, J., & Larrinaga, C. (2014). Accounting and Sustainable Development: An Exploration. Accounting, Organizations and Society, 39(6), 395–413. https://doi.org/10.1016/j.aos.2014.01.003
- Boateng, H., & Abdul-Hamid, I. K. (2017). An Evaluation of Corporate Social Responsibility Communication on the Websites of Telecommunication Companies Operating in Ghana: Impression Management Perspectives. *Journal of Information, Communication and Ethics in Society*, 15(1), 1–23. http://dx.doi.org/10.1108/JICES-01-2016-0003
- Boiral, O. (2013). Sustainability Reporting and Transparency: A Counter-Account of GRI Reports. *Academy of Management Proceedings*, 16(7), 1036–1071. https://doi.org/10.5465/ambpp.2012.12066abstract
- Boiral, O. (2016). Accounting for the Unaccountable: Biodiversity Reporting and Impression Management. *Journal of Business Ethics*, 135(4), 751–768. https://doi.org/10.1007/s10551-014-2497-9
- Boiral, O., Brotherton, M. C., & Talbot, D. (2020). Building Trust in the Fabric of Sustainability Ratings: An Impression Management Perspective. *Journal of Cleaner Production*, 260, 1–33. https://doi.org/10.1016/j.jclepro.2020.120942
- Bolino, M. C., Kacmar, M. K., Turnley, W. H., & Gilstrap, B. J. (2008). A Multi-Level Review of Impression Management Motives and Behaviors. *Journal of Management*, 34(6), 1080–1109. https://doi.org/10.1177/0149206308324325
- Bowen, F., & Aragon-Correa, J. A. (2014). Greenwashing in Corporate Environmentalism Research and Practice: The Importance of What We Say and Do. Organization and Environment, 27(2), 107–112. https://doi.org/10.1177/1086026614537078

- Breitbarth, T., Harris, P., & Insch, A. (2010). Pictures at an Exhibition Revisited: Reflections on a Typology of Images Used in the Construction of Corporate Social Responsibility and Sustainability in Non-Financial Corporate Reporting. *Journal of Public Affairs*, 13(1), 238–257. https://doi.org/https://doi.org/10.1002/pa.344
- Caron, M. A., & Turcotte, M. F. B. (2009). Path Dependence and Path Creation: Framing the Extra-Financial Information Market for a Sustainable Trajectory. Accounting, Auditing and Accountability Journal, 22(2), 272–297. https://doi.org/10.1108/09513570910933979
- Cho, C. H., Freedman, M., & Patten, D. M. (2012). Corporate Disclosure of Environmental Capital Expenditures: A test of Alternative Theories. In Accounting, Auditing and Accountability Journal, 25(3), 486–507. https://doi.org/10.1108/09513571211209617
- Cho, C. H., Laine, M., Roberts, R. W., & Rodrigue, M. (2015). Organized Hypocrisy, Organizational Façades, and Sustainability Reporting. *Accounting, Organizations and Society*, 40, 78–94. https://doi.org/10.1016/j. aos.2014.12.003
- Cho, C. H., Phillips, J. R., Hageman, A. M., & Patten, D. M. (2009). Media Richness, User Trust, and Perceptions of Corporate Social Disclosures. Accounting, Auditing and Accountability Journal, 22(6), 933–952. https://doi.org/10.1108/09513570910980481
- Cho, C. H., Roberts, R. W., & Patten, D. M. (2010). The Language of US Corporate Environmental Disclosure. *Accounting, Organizations and Society*, 35(4), 431–443. https://doi.org/10.1016/j.aos.2009.10.002
- Chong, S., Narayan, A. K., & Ali, I. (2019). Photographs Depicting CSR: Captured Reality or Creative Illusion? *Pacific Accounting Review*, 31(3), 313–335. https://doi.org/10.1108/PAR-10-2017-0086
- CNN-Indonesia. (2020). Warga Adat di Papua Tolak Perluasan Lahan Freeport. CNN Indonesia. Available at: https://www.cnnindonesia.com/nasional/20200815205528-20-536182/warga-adat-di-papua-tolak-perluasan-lahan-freeport
- Courtis, J. K. (2004). Colour as Visual Rhetoric in Financial Reporting. Accounting Forum, 28(3), 265–281. https://doi.org/10.1016/j.accfor.2004.07.003
- Davison, J. (2007). Photographs and Accountability: Cracking the Codes of an NGO. Accounting, Auditing & Accountability Journal, 20(1), 133–158. https://doi.org/10.1108/09513570710731236
- Davison, J. (2009). Icon, Iconography, Iconology: Visual Branding, Banking and the Case of the Bowler-Hat. Accounting, Auditing and Accountability Journal, 22(6), 883–906. https://doi.org/10.1108/09513570910980454
- Davison, J. (2010). [In]visible [In]tangibles: Visual Portraits of the Business Elite. Accounting, Organizations and Society, 35(2), 165–183. https://doi.org/10.1016/j.aos.2009.03.003
- Davison, J. (2014). Visual Rhetoric and the Case of Intellectual Capital. Accounting, Organizations and Society, 39(1), 20–37. https://doi.org/10.1016/j.aos.2014.01.001
- Delmas, M. A., & Burbano, V. C. (2011). The Drivers of Greenwashing. *California Management Review*, 54(1), 64–87. http://dx.doi.org/10.1525/cmr.2011.54.1.64
- Dilla, W. N., & Janvrin, D. J. (2010). Voluntary Disclosure in Annual Reports: The Association between Magnitude and Direction of Change in Corporate Financial Performance and Graph Use. Accounting Horizons, 24(2), 257–278. https://doi.org/10.2308/acch.2010.24.2.257
- Ding, Y., Hellmann, A., & De Mello, L. (2017). Factors Driving Memory Fallibility: A Conceptual Framework for Accounting and Finance Studies. *Journal of Behavioral and Experimental Finance*, 14, 14–22. https://doi.org/10.1016/j.jbef.2017.03.003
- Diouf, D., & Boiral, O. (2017). The Quality of Sustainability Reports and Impression Management: A Stakeholder Perspective. Accounting, Auditing and Accountability Journal, 30(3), 643–667. https://doi.org/10.1108/AAAJ-04-2015-2044

- Ekasari, K., Eltivia, N., Indrawan, A. K., & Miharso, A. (2021). Corporate Commitment of Environment: Evidence from Sustainability Reports of Mining Companies in Indonesia. *Indonesian Journal of Sustainability Accounting and Management*, 5(1), 1–10. https://doi.org/10.28992/ijsam.v5i1.164
- Gaveau, D. L. A., Santos, L., Locatelli, B., Salim, M. A., Husnayaen, H., Meijaard, E., Heatubun, C., & Sheil, D. (2021). Forest Loss in Indonesian New Guinea (2001–2019): Trends, Drivers and Outlook. *Biological Conservation*, 261, 1–13. https://doi.org/10.1016/j.biocon.2021.109225
- Godfrey, J., Mather, P., & Ramsay, A. (2003). Earnings and Impression Management in Financial Reports: The Case of CEO Changes. *Abacus*, 39(1), 95–123. https://doi.org/10.1111/1467-6281.00122
- GRI. (2016). GRI sustainability Disclosure Database 2016.
- Hahn, R., & Lülfs, R. (2014). Legitimizing Negative Aspects in GRI-Oriented Sustainability Reporting: A Qualitative Analysis of Corporate Disclosure Strategies. *Journal of Business Ethics*, 123(3), 401–420. https://doi.org/10.1007/s10551-013-1801-4
- Hayes, R., Kyer, B., & Weber, E. (2015). *The Case Study Cookbook*. Worcester Polytechnic Institute. Available at: https://digital.wpi.edu/downloads/3484zh540
- Hellmann, A., Yeow, C., & De Mello, L. (2017). The Influence of Textual Presentation Order and Graphical Presentation on the Judgements of Non-Professional Investors. Accounting and Business Research, 47(4), 455–470. https://doi.org/10.1080/00014788.2016.1271737
- Higgins, C., & Walker, R. (2012). Ethos, logos, pathos: Strategies of persuasion in social/environmental reports. Accounting Forum, 36(3), 194–208. https://doi.org/10.1016/j.accfor.2012.02.003
- Hopwood, A. G. (2009). Accounting and the Environment. Accounting, Organizations and Society, 34(3–4), 433–439. https://doi.org/10.1016/j.aos.2009.03.002
- Hrasky, S. (2012). Visual Disclosure Strategies Adopted by More and Less Sustainability-Driven Companies. Accounting Forum, 36(3), 154–165. https://doi.org/10.1016/j.accfor.2012.02.001
- Ihlen, \emptyset . (2011). Rhetoric and corporate social responsibility. In Handbook of communication and corporate social responsibility (pp. 147-166). Oxford: Wiley Blackwell.
- Imbun, B. Y., Duarte, F., & Smith, P. (2015). "You are not Our Only Child": Neoliberalism, Food Security Issues and CSR Discourse in the Kutubu Oilfields of Papua New Guinea. Resources Policy, 43, 40–49. https://doi.org/10.1016/j.resourpol.2014.11.005
- Kanbaty, M., Hellmann, A., & He, L. (2020). Infographics in corporate sustainability reports: Providing useful information or used for impression management? *Journal of Behavioral and Experimental Finance*, 26, 100309. https://doi.org/10.1016/j.jbef.2020.100309
- Kartono, A. (2013). Pekerja yang Tertimbun Lumpur di PT Freeport Itu Kritis. Kompas.
- KLHK. (2018). Langkah KLHK Terkait Permasalahan Lingkungan PT Freeport Indonesia. Press Release Kementerian Lingkungan Hidup Dan Kehutanan.
- Knobloch, S., Hastall, M., Zillmann, D., & Callison, C. (2003). Imagery Effects on the Selective Reading of Internet Newsmagazines. *Communication Research*, 30(1), 3–29. https://doi.org/10.1177/0093650202239023
- Laucereno, S. F. (2019). Limbah Freeport Rusak Lingkungan? Ini Penjelasan KLHK. Detik Finance. Available at: https://finance.detik.com/energi/d-4377547/limbah-freeport-rusak-lingkungan-ini-penjelasan-klhk
- Lawrence, S., Sharma, U., & Low, M. (2010). Prem Sikka and the Media: Using the Media to Hold Accountants to Account. Qualitative Research in Accounting & Management, 7(3), 249–269. https://doi.org/10.1108/11766091011072747
- Leung, S., Parker, L., & Courtis, J. (2015). Impression Management through Minimal Narrative Disclosure in Annual Reports. *The British Accounting Review*, 47(3), 275–289. https://doi.org/10.1016/j.bar.2015.04.002

- Mahoney, L. S., Thorne, L., Cecil, L., & LaGore, W. (2013). A Research Note on Standalone Corporate Social Responsibility Reports: Signaling or Greenwashing? *Critical Perspectives on Accounting*, 24(4–5), 350–359. https://doi.org/10.1016/j.cpa.2012.09.008
- Merkl-Davies, D. M., & Brennan, N. M. (2007). Discretionary Disclosure Strategies in Corporate Narratives: Incremental Information or Impression Management? *Journal of Accounting Literature*, 26, 116–196.
- Merkl-Davies, D. M., Brennan, N. M., & McLeay, S. J. (2011). Impression Management and Retrospective Sense-Making in Corporate Narratives: A Social Psychology Perspective. Accounting, Auditing and Accountability Journal, 24(3), 315–344. https://doi.org/10.1108/09513571111124036
- Meutia, I., Kartasari, S. F., Yusrianti, H., & Yaacob, Z. (2022). Evolution of Sustainability Reporting Research: Evidence from Indonesia (A Systematic Literature Review). *Indonesian Journal of Sustainability Accounting and Management*, 6(1), 50–70. https://doi.org/10.28992/ijsam.v6i1.501
- Michelon, G., Pilonato, S., & Ricceri, F. (2015). CSR Reporting Practices and the Quality of Disclosure: An Empirical Analysis. *Critical Perspectives on Accounting*, 33, 59–78. https://doi.org/10.1016/j.cpa.2014.10.003
- Milne, M. J., & Patten, D. M. (2002). Securing Organizational Legitimacy: An Experimental Decision Case Examining the Impact of Environmental Disclosures. Accounting, Auditing & Accountability Journal, 15(3), 372–405. http://dx.doi.org/10.1108/09513570210435889
- Parguel, B., Benoît-Moreau, F., & Larceneux, F. (2011). Greenwashing": A Closer Look at Ethical Corporate Communication. *Journal of Business Ethics*, 102(1), 15–28. http://dx.doi.org/10.1007/s10551-011-0901-2
- Pebrianto, F. (2018). Temuan Lengkap BPK Soal Kerusakan Lingkungan Freeport Indonesia. Tempo. Available at: https://bisnis.tempo.co/read/1157108/temuan-lengkap-bpk-soal-kerusakan-lingkungan-freeport-indonesia
- Peeples, J. (2011). Toxic Sublime: Imaging Contaminated Landscapes. *Environmental Communication*, 5(4), 373–392. https://doi.org/10.1080/17524032.2011.616516
- Perkiss, S., Bernardi, C., Dumay, J., & Haslam, J. (2021). A sticky chocolate problem: Impression management and counter accounts in the shaping of corporate image. *Critical Perspectives on Accounting*, 81. https://doi.org/10.1016/j.cpa.2020.102229
- Preston, A. M., Wright, C., & Young, J. J. (1996). Imag[in]ing Annual Reports. Accounting, Organizations and Society, 21(1), 113–137. https://doi.org/10.1016/0361-3682(95)00032-5
- Rämö, H. (2011). Visualizing the Phronetic Organization: The Case of Photographs in CSR Reports. *Journal of Business Ethics*, 104(3), 371–387. https://doi.org/10.1007/s10551-011-0916-8
- Ramus, C. A., & Montiel, I. (2005). When are Corporate Environmental Policies a Form of Greenwashing? *Business and Society*, 44(4), 377–414. https://doi.org/10.1177/0007650305278120
- Rijsenbilt, A. (2011). CEO Narcissism: Measurement and Impact. ERIM Ph.D. Series Research in Management. Erasmus University Rotterdam. Availabe at: http://hdl.handle.net/1765/23554
- Rolland, D., & Bazzoni, J. O. (2015). Greening Corporate Identity: CSR Online Corporate Identity Reporting. *Corporate Communications: An International Journal*, 14(3), 249–263. http://dx.doi.org/10.1108/13563280910980041
- Rose, G. (2012). Visual Methodologies: An Introduction to Researching with Visual Materials. Thousand Oaks: Sage Publications.
- Samkin, G., & Schneider, A. (2010). Accountability, Narrative Reporting and Legitimation: The Case of a New Zealand Public Benefit Entity. Accounting, Auditing and Accountability Journal, 23(2), 256–289. https://doi.org/10.1108/09513571011023219
- Sandberg, M., & Holmlund, M. (2015). Impression Management Tactics in Sustainability Reporting. *Social Responsibility Journal*, 11(4), 677–689. https://doi.org/10.1108/SRJ-12-2013-0152

- Smith, G. W. H., & Ball, M. (2007). Technologies of Realism? Ethnographic Uses of Photography and Film. In *Handbook of Ethnography* (pp. 302–319). Sage Publications. https://doi.org/10.4135/9781848608337.n21
- Solomon, J. F., Solomon, A., Joseph, N. L., & Norton, S. D. (2013). Impression Management, Myth Creation and Fabrication in Private Social and Environmental Reporting: Insights from Erving Goffman. Accounting, Organizations and Society, 38(3), 195–213. https://doi.org/10.1016/j.aos.2013.01.001
- Stanton, P., & Stanton, J. (2002). Corporate Annual Reports: Research Perspectives Used. Accounting, Auditing & Accountability Journal, 15(4), 478–500. https://doi.org/10.1108/09513570210440568
- Talbot, D., & Boiral, O. (2015). Strategies for Climate Change and Impression Management: A Case Study Among Canada's Large Industrial Emitters. *Journal of Business Ethics*, 132(2), 329–346. https://doi.org/10.1007/s10551-014-2322-5
- Unerman, J., Bebbington, J., & O'Dwyer, B. (2007). Introduction to Sustainability Accounting and Accountability (1st ed.). London: Routledge.
- van Halderen, M. D., Bhatt, M., Berens, G. A. J. M., Brown, T. J., & van Riel, C. B. M. (2016). Managing Impressions in the Face of Rising Stakeholder Pressures: Examining Oil Companies' Shifting Stances in the Climate Change Debate. *Journal of Business Ethics*, 133(3), 567–582. https://doi.org/10.1007/s10551-014-2400-8
- Ware, C. (2012). Information Visualization: Perception for Design. Morgan Kaufmann Publishers. https://doi.org/10.1016/b978-0-12-381464-7.00001-6
- Winanti, P. S., & Diprose, R. (2020). Reordering the Extractive Political Settlement: Resource Nationalism, Domestic Ownership and Transnational Bargains in Indonesia. *Extractive Industries and Society*, 7(4), 1534–1546. https://doi.org/10.1016/j.exis.2020.08.015
- Winarto, Y. (2018). Program CSR Freeport Raih Tiga Penghargaan Sekaligus. Kontan. Available at: https://industri.kontan.co.id/news/program-csr-freeport-raih-tiga-penghargaan-sekaligus
- Zarzycka, M. (2014). Outside the Frame: Reexamining Photographic Representations of Mourning. *Photography and Culture*, 7(1), 63–78. https://doi.org/10.2752/175145214X13936100122363
- Zarzycka, M., & Kleppe, M. (2013). Awards, Archives, and Affects: Tropes in the World Press Photo Contest 2009-11. *Media, Culture and Society*, 35(8), 977–995. https://doi.org/10.1177/0163443713501933
- Zillmann, D., Knobloch, S., & Yu, H. S. (2001). Effects of Photographs on the Selective Reading of News Reports. *Media Psychology*, 3(4), 301–324. https://doi.org/10.1207/S1532785XMEP0304_01