



Environmental Disclosure in Cameroon's Industrial Sector: Insights from Case Studies

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Abstract— Environmental disclosure is a corporate practice in Cameroon. But very little empirical understanding about the environmental aspects of information disseminated in sustainability reports exist. Hence, the principal goal of this study is to provide an insight on the overall features of environmental information disclosed by industrial enterprises in their sustainability reports. In order to achieve this objective, descriptive qualitative research was carried out based on the content analysis involving a multiple case study of 12 sustainability reports of 4 industrial enterprises from 2018 to 2021. The content analysis reveals that 7 environmental themes are consistently disclosed by industrial enterprises, with emission (greenhouse gas) and energy (energy consumption and reduction) being the most and least disclosed environmental themes respectively. Also, the disseminated environmental information is mostly positive and narrative in nature. The non-integration of monetary information in sustainability reports highlight the necessity for the competent accounting body in the OHADA zone to design a distinct accounting reporting framework for non-financial information.

Keywords— Environmental disclosure, qualitative analysis, non-financial information, sustainability reporting, content analysis.

I. INTRODUCTION

Industrialisation turns out to be a major driver for economic development and increased standard of living in all economies. This partly explains why a good number of countries in Africa are termed developing countries due to the fact that the industrial sector is still growing. Industrial growth has devastating consequences on the environment given that industries in the course of their activities produce pollutants which are harmful to the environment and consequently acts as a threat to the existence of mankind. Greenhouse gas emissions from industrial activities also account for the emergence of global warning with its related impact on economic activities such as agriculture.

This environmental threat gives rise to the need for accountability concerning corporate impact on the environment, and call for increased transparency

concerning environmental reporting (Gustafsson, 2017). Environmental reporting has been seen as a way of increasing accountability of firms related to environmental issues (Porchelvi, 2019). Environmental disclosure is a practice through which business entities demonstrate their accountability towards stakeholders by providing information related to the impact of their activities on the environment and actions undertaken to mitigate or compensate the production of negative externalities.

Historically, Porchelvi (2019) posits that environmental reporting began in the 1980s and represents the second phase of sustainability reporting. This reporting practice was adopted by organisations because of the growth of environmental challenges such as pollution, land degradation and oil spills (Deegan, 2014). Sustainability reporting incorporates three

dimensions; economic, social and environmental. Given that on global scale sustainability reporting is a voluntary activity, the Global Reporting Initiative (GRI) has proposed reporting guidelines for each of the dimensions in order to guarantee the quality and credibility of environmental reporting.

In Cameroon, industrialisation started during the colonial period as factories were created for semi processing of raw materials. These raw materials were processed in order to preserve them during the long period of exportation to the industrialised countries in Europe. After the independence of Cameroon, the trend of industrialisation started to change from export oriented to import substitution industrialisation. By this policy of import substitution; the government of Cameroon aims at reducing importation of goods that can be manufactured by home industries. Globally, industrial activities are on a rise in Cameroon and to check on the impact of industrial activities on the environment, the government created an administrative department call the Ministry of Environment, Nature Protection and Sustainable Development in the year 1992 (Tegofack and Kamdem, 2022). The practice of environmental reporting is a recent phenomenon in Cameroon and began during the second decade of 21st century. Research works on environmental reporting in Cameroon so far have tried to find out the factors explaining the presence of sustainability reporting in general (see Dongmo and Ndjetchu, 2018) and environmental reporting in particular (see Tegofack and Kamdem, 2022). For instance, the study of Tegofack and Kamdem (2022) reveals that profitability, industry type, pressure from primary and secondary stakeholders tend out to be strong determinants of the disclosure of environmental information by industrial enterprises in the Cameroonian context.

The environmental disclosure themes, types of environmental information disclosed and methods used by industrial enterprises to disclosed environmental information have received little or no attention from researchers. This research gap takes us to find an answer to the following question; what are the inherent characteristics of environmental information disclosed by industrial enterprises in Cameroon?

The main aim of this paper is to provide an insight into the practice of environmental reporting by providing an insight into environmental reporting, practiced by industrial enterprises in Cameroon (the environmental themes, types of environmental information contained in CSR reports and method used to disclose environmental information). This paper is structure into three parts; literature review, research method, and results and discussion of findings.

II. LITERATURE REVIEW

In this section, we intend to present in brief the concept of environmental disclosure, the theoretical perspective and existing environmental disclosure studies.

2.1 The concept of environmental disclosure

Morelli (2011) associates the word “environmental” with human impact on natural systems and defines the term “environmental sustainability” by building on the most popular definition of sustainable development (meeting the needs of the present generation without compromising the ability of future generations to meet their needs). On the basis of that he considers environmental sustainability as meeting the resource and services needs of current and future generations without compromising the health of the ecosystems that provide them. Hart (1995) on his part sees corporate environmental sustainability as the firm’s activities associated with protection of natural resources and efforts to preserve the environment. These efforts include reducing environmental effects and minimizing resource consumption (Gibson, 2001) through involving in environmental practices, solving pollution problem and reducing resource depletion (Henion and Kinnear, 1976).

It is worth noting that environmental disclosure is one of the dimensions of sustainability because apart from this, other dimensions of sustainability are the social, economic and governance dimensions. Environmental disclosure (ED) has been defined as the disclosure of “the impact company activities have on the physical or natural environment in which it operates” (Berthelt et al., 2003, p.2). Berthelt et al. (2003) defined it as the incorporation into annual reports of a set of clauses and information items

describing a company's past, current and future environmental management activities and performance.

With a rise in stakeholder awareness about firms' impact on the environment, some firms began to disclose environmental issues in their reports leading to voluntary reporting of environmental information. Voluntary or optional disclosure is undertaken without pressure from external parties, with the purpose of providing investors and other groups with additional information on environmental performance (Porchelvi, 2019). Beside voluntary disclosure, there is mandatory disclosure, which is undertaken according to the accounting standards issued by the relevant organisations, and the legislation and laws of the state. It commits companies to disclose the stipulated information to the users of financial statements and other annual reports (Islam et al., 2005). Therefore, firms disclosed environmental activities as a legitimate tactic to affect the decisions of their stakeholders (Deegan and Gordon, 1996).

2.2 Theoretical literature

Several theoretical perspectives have been mobilised in the social accounting literature to explain the voluntary dissemination of environmental information. According to Deegan (2002), legitimacy theory, stakeholder theory and political economy theory are the main theoretical foundation used in environmental reporting studies. Gray et al. (1996) point out that each of these theories provides explanation to the practices of environmental disclosure in a specific manner. For instance, stakeholder theory concentrates in managing the expectations of different stakeholder group by establishing a balance between primary stakeholders and secondary stakeholders. Legitimacy theory is described by Richardson (1987, p. 352) as a "means by which social values are linked to economic actions", in order to achieve harmony between corporate practices and the legitimacy of their existence. Following Guthrie and Parker (1990) political economy theory is used to explain the relationship between the political and economic and social contexts. As Ibrahim (2014, p. 47) put it, "the political, economic and social systems cannot operate in isolation from each other, given that, the economic issues cannot be investigated without considering the

political, social and institutional framework in an integrated manner".

This study relies heavily on the political economy as a theoretical perspective susceptible of explaining environmental reporting practices in Cameroon. This is because in the absence of mandatory sustainability reporting standard, the interest of the vulnerable that are exposed to the negative's effects generated by the activities of industrial enterprises can only be protected by the political setting; the government. This represent the bottom line of the classical political economy theory; which is the first variant of political economy theory, the second being the bourgeois political economy. As described by Ibrahim (2014, p. 48), "in the framework of classical political economy, the possible interpretations of the social and environmental disclosure are based on the idea of maintaining the legitimacy of the system as a whole, through imposing some restrictions on organisations by the state, where the state is acting in the interests of disadvantaged groups, for example, the disabled, minority races, in order to maintain the legitimacy of the capitalist system as a whole".

2.3 Empirical Literature

Cowan and Gadenne (2005) investigated the mandatory environmental reporting as well as voluntary reporting in the Australian context. They examined the annual reports of Australian companies for three consecutive years, that is from 1998 to 2000, using content analysis. The results revealed that Australian companies have a tendency to disseminate higher levels of positive environmental information in the voluntary sections of the annual report, than in the mandatory sections. Ahmad and Sulaiman (2004) studied the extent and nature of the environmental disclosure within Malaysian industrial and construction companies. Content analysis was used to determine the amount of environmental disclosure, where the number of sentences was adopted as a unit of measurement. The environmental information was measured based on monetary and non-monetary methods, good, bad and neutral news, and environmental audit and environmental policy. The findings indicated that the level of environmental disclosure in Malaysia seems low, where most of the companies (72.46%) do not disclose any environmental information, while some of them (27.54%) have disclosed some information.

The disclosed information was mostly neutral and declarative which was located in different parts of the annual report. Sen et al. (2011) evaluated the existing status of environmental disclosure practices in Indian companies from annual reports. The findings indicate that all the environmental disclosure themes were reported in a descriptive manner, in the directors' report, while some of them were disclosed in the chairman's speech section. However, the environmental disclosure is incomplete in terms of lack of coverage of most of the environmental themes included in the study. In addition, Indian companies disclosed positive or neutral information.

In Cameroon, studies on the practice of environmental disclosure are quite limited given that existing literature focus mostly on aspects related to the explanatory factors of environmental reporting and the usage of widespread reporting materials. Tegofack and Kamdem (2022) examined the determinants of the level of voluntary disclosure of environmental information by industrial enterprises. The ordinal logistic regression revealed that profitability, industry type, pressure from primary and secondary stakeholders tend out to be strong determinants of the disclosure of environmental information by industrial enterprises in the Cameroonian context. Dongmo (2023) on the other hand investigated on the explanatory factors of the structural disparity of sustainability reporting media beyond the referential structure that is Annex Note 35 designed for the occasion. The author found out that, the presence within the company of a comity in charge of sustainable development, the quality of the informative content of CSR communication media, the sector of activity and the search for reputation among stakeholders appeared to be decisive for the

decision of the managers of companies in the OHADA zone to go beyond the recommended medium of disclosure; that is note 35 in order to disclose their non-financial information through non-harmonized reporting outlets.

The studies of Tegofack and Kamdem (2022), and Dongmo (2023) show that sustainability reporting in general and environmental reporting in particular is a reality, but there exist little or no empirical understanding on the overall characteristics of the environmental information disseminated by enterprises in their CSR reports. Very little is known about the nature, types of environmental information as well as environmental disclosure themes contained in sustainability reports published by industrial enterprises operating in Cameroon. The characteristics of environmental information have already been established in other contexts (such as Asia and Europe), as discussed in this sub section but such features are lacking in the Cameroonian context even in the presence of environmental disclosure activities practiced by industrial enterprises.

2.4 Global Reporting Initiative Sustainability Reporting Guidelines

The Global Reporting Initiative has passed through several stages since the standards were first introduced. The GRI was established as a project in 1997 by the Coalition for Environmentally Responsible Economies; a non-profit organisation in Boston. The main goal of this organisation was to develop unified guidelines for voluntary sustainability reporting (Dongmo, 2017). The GRI Standards comprise four main sections; universal, economic, environmental, and social standards and each standard has sub-standards and guidelines (Buallay, 2019). The three dimensions of GRI Standards are presented in table 1.

Table 1: Global Reporting Initiative standards, 2016

GRI 100: Universal standards	GRI 400: SOCIAL
GRI 102 Foundation 2016	GRI 401 Employment
GRI 102 General disclosure 2016	GRI 402 Labour and management relation
GRI 103 Management approach	GRI 403 Occupational, health and safety
GRI 200: ECONOMIC	GRI 404 Training and education
GRI 201 Economic performance	GRI 405 Diversity and equal opportunity
GRI 202 Market presence	GRI 406 Non-discrimination

GRI 203 Indirect economic impacts	GRI 407 Freedom of association
GRI 203 Procurement practices	GRI 408 Child labour
GRI 205 Anti-corruption	GRI 409 Forced or compulsory labour
GRI 206 Anti-competitive behaviour	GRI 410 Security practices
GRI 300: ENVIRONMENTAL	GRI 411 Right of indigenous people
GRI 301 Material	GRI 412 Human rights assessment
GRI 302 Water	GRI 413 Local community
GRI 303 Energy	GRI 414 Supplier social assessment
GRI 304 Biodiversity	GRI 415 Public policy
GRI 305 Emissions	GRI 416 Customer health safety
GRI 306 Effluent and waste	GRI 417 Marketing and labelling
GRI 307 Environmental compliance	GRI 418 Customer privacy
GRI 308 Supplier environmental assessment	GRI 419 Socio-economic compliance

Source: Buallay (2019)

2.5 Features of environmental disclosure

The characteristics of environmental disclosure is perceived in terms of environmental disclosure themes, types of environmental information and methods of disclosing environmental information. The various features to be identified in sustainability reports are presented in this sub-section.

2.5.1 Themes of environmental disclosure

The environmental section of GRI principally consists of eight parameters or categories; material, water, energy, bio-diversity, emission, effluent and waste, environmental compliance and supplier environmental assessment as summarized in table 2.

Table 2: Environmental Disclosure Guidelines-G4

	GRI category	Checklist or Indicators
1	GRI-301-Materials	Materials used by weight or volume
		Recycled input materials used
		Reclaimed products and their packaging materials
2	GRI-302-Energy	Energy consumption within the organisation
		Energy consumption outside of the organisation
		Energy intensity
		Reduction of energy consumption
		Reduction in energy requirements of products and services
3	GRI-303-Water	Water withdrawal by source
		Water sources significantly affected by withdrawal of water
		Water recycled and reused
4	GRI-304- Biodiversity	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas
		Significant impacts of activities, products, and services on biodiversity

		Habitats protected or restored
		The International Union for Conservation of Nature (IUCN) Red List species and national conservation list species with habitats in areas affected by operations
5	GRI-305- Emission	Direct (Scope 1) GHG (Greenhouse Gas) emissions
		Energy indirect (Scope 2) GHG emissions
		Other indirect (Scope 3) GHG emissions
		GHG emissions intensity
		Reduction of GHG emissions
		Emissions of ozone-depleting substances (ODS)
		Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions
6	GRI-306- Effluents and Waste	Water discharge by quality and destination
		Waste by type and disposal method
		Significant spills
		Transport of hazardous waste
		Water bodies affected by water discharges and/or runoff
7	GRI-307- Environmental Compliance	Non-compliance with environmental laws and regulations
8	GRI-308- Supplier Environmental Assessment	New suppliers that were screened using environmental criteria
		Negative environmental impacts in the supply chain and actions taken

Source: Adapted from Gustafsson (2017)

2.5.2 Types of environmental information

The positive information; which includes any kind of environmental information that builds up the image of the company, such as: winning prizes in the field of environmental protection as well as environmental compliance or information which gives an indication on how the enterprise is working for the wellbeing of all its stakeholders. The negative information; which includes any kind of environmental information that may reflect negatively on the company, such as, accident statistics during work or even fines related to non-compliance to environmental regulations. That is information which gives an indication of the harmful effects of the enterprise's activities on the stakeholders. The neutral information; includes any kind of environmental information which is difficult to determine its incidence on the company. Due to the complexity involve in the identification of neutral

news, we have opted to base our analysis only on good and bad information.

2.5.3 Methods of Environmental Disclosure

The disclosure of environmental information by enterprises are usually done in the form of narration (qualitative), the information is sometimes quantified (non-monetary quantitative) or monetary information. Qualitative information relates to the narration of environmental activities without quantifying the information in monetary or non-monetary terms. Non-monetary quantitative concerns the use of actual numbers of a non-financial nature used to disclose the statistics and quantities regarding the environmental issues. Monetary information consists of making use of actual numbers to disclose the amounts incurred by the company regarding the environmental issues, such as, replacement of dust filters, establishing sewage

treatment stations and judicial compensations just to name that few. From our observation of the CSR reports of the industrial enterprises that constituted our sample size, we noticed that little or no attention was paid to monetary information. Information concerning monetary value of expenditures related to environmental activities was scarcely mentioned in sustainability reports. Hence the content analysis of methods used to disseminate environmental information was limited to qualitative information and non-monetary quantitative information.

III. RESEARCH METHOD

This study adopted qualitative descriptive research strategy, in which the instrument of data collection is documentary observation or textual analysis. A multiple case study is adopted involving twelve (12) sustainability reports of four industrial enterprises that published CSR reports on a relatively consistent base in accordance to the Global Reporting Initiative guidelines. The annual sustainability reports of the industrial enterprises were retrieved from the internet. The sampling technique used to choose the enterprises whose sustainability report will be exploited is the non-probability, judgmental (purposive) sampling. Zikmund (2003) describes this as a technique in which an experienced individual

selects the sample based on his or her judgement about some appropriate characteristics required of the sample members. Conceptual content analysis was used to analyse the data in order to achieve our main objective relating to the characteristics of environmental disclosure (environmental disclosure themes, types of environmental disclosure and methods of environmental disclosure respectively). The conceptual content analysis was carried out manually through eye scanning of CSR reports. This method of analysis was chosen for two reasons. Firstly, the CSR reports used for this work were written in English and French, which rendered the coding exercise difficult to be realised. Secondly, this choice was motivated by the limited number of CSR reports. In the present study, content analysis was employed to investigate the environmental themes regularly disclosed by the industrial enterprises, the type of environmental information, and the method of disclosing the environmental information.

3.1 Enterprises considered in the case study

The CSR reports of the selected enterprises were downloaded from the year 2020 to 2022 and comprised a total of 12 reports for the year 2018, 2019, 2020 and 2021; with four reports from each industry, as shown in table 3.

Table 3: Sample for the content analysis

Industrial enterprises	Types of industry	Number of reports				Total
		2018	2019	2020	2021	
<i>Boisson du Cameroun</i> (SABC)	Brewery (BRY)	1	1	1	1	4
SOCAPALM	Agro-food (AF)	1	1	1	1	4
CIMENCAM	Building material (BM)	0	0	1	1	2
DANGOTE CEMENT		1	1	0	0	2
	Total	3	3	3	3	12

Source: by the author

The choice of *Boisson du Cameroun*, SOCAPALM, CIMENCAM and DANGOTE CEMENT as our case studies relies on some common characteristics shared by these enterprises. Firstly, the choice for these companies is largely explained by the fact that their

sustainability reports is in accordance to some international guidelines such as the Global Reporting Initiative and United Nation Global Compact. Secondly, many companies in Cameroon practice CSR but very few of them publish their

environmental policies and activities in sustainability reports. The companies selected are among the limited numbers of companies that produce sustainability reports on a relatively consistent base. Thirdly, the enterprises that have been explored in this study operate in Cameroon; hence operate under similar laws and business environment. Lastly two of the enterprises (*les Boissons du Cameroun* and CIMENCAM) are amongst the top ten of results of ASCOMT / MALARIA survey on the perception of

CSR practice in Cameroon for the years 2018 and 2019.

3.2 Measurement of environmental disclosure characteristics

The measurement of environmental disclosure is done in terms of themes, types, volume and level of disclosure. This done is by means of content analysis where the unit of analysis is the number of words. The measurement techniques of environmental disclosure in previous studies are depicted in table 4.

Table 4: Measurement techniques of environmental disclosure in prior studies

Study	Country	Disclosure item examine	Techniques
(Kuasirikun, 2005)	Thailand	Corporate reports	Content analysis - the number of words
(Davey, Low, and Ratanajongkol, 2006)	Thailand	CSR disclosure	Content analysis-the number of words
(Haron, Said, and Zainuddin, 2009)	Malaysia	CSR disclosure items	Content analysis number Of sentences
(Álvarez and Custodio, 2016)	France, Portugal, Spain, the UK and the US	CSR information	Disclosure Index

Source: by our own means

The most widely used technique to measure environmental disclosure is the number of words and the disclosure index. For the sake convenience, the number of words was used to determine the volume of environmental disclosure themes. Secondly, types of environmental information contained in CSR report was determined through the count of words from paragraphs containing information favouring or being against the interest of stakeholders. Thirdly, the method of environmental disclosure was determined via the counts of words and numbers for qualitative, and non-monetary quantitative information respectively.

IV. RESULTS AND DISCUSSIONS

This section comprises presenting and discussing of environmental themes, types of environmental information and methods of disclosing environmental information.

4.1 Environmental themes disclosed by industrial enterprises

In principle, an enterprise that disseminates environmental information ought to integrate eight environmental themes in their disclosure practices. The content analysis of the CSR reports permitted the identification of the following environmental disclosure themes as shown in table 5.

Table 5: Environmental disclosure themes

Industry	Material	Water	Energy	Bio-diversity	Emission	Effluent and Wastes	Environmental compliance	Supplier environmental assessment
Brewery	1	1	1	1	0	1	0	0
Building material	1	1	1	1	1	1	1	1
Agro-food	1	1	1	1	1	1	1	0

Source: From content analysis of CSR reports

The analysis shows that the environmental disclosure themes (categories) which are consistently disseminated by industrial enterprises in Cameroon are material, water, energy, bio-diversity, emission, effluent and waste, and environmental compliance.

The information content of sustainability reports of the building and agro-food industries show that clearly as seen in the extracts of tables 6 and 7, respectively.

Table 6: Extract 1 depicting environmental disclosure theme from building material industry

*Environmental Management System (EMS) drives our products towards ISO 14001 Certification. (**environmental compliance**) These commitments are indicative of our focus on fostering a cleaner and more sustainable operational environment. Energy Management initiatives on optimal or efficient use of the two boilers for production (**energy**). Water savings Environmental Performance: initiatives which include recovery of regeneration water (**water**). We proactively manage the various types of pollutions from our operations. At the refinery, we are replacing existing silencers in the boiler plant t(**material**). to mitigate noise pollution. Emissions – less emissions due to efficient use of gas to fire our boiler(**emission**). We also minimise our soot emission, wastewater discharge and deforestation in all our oil operations. (**bio-diversity**). Fine tuning of the boilers to fire with less emission on oil. We have a brine recovery system in place to recover minerals and water in the process house. Waste Management (**effluent and waste**) through waste segregation, less waste generation owing to process optimization..... (Page 32)*

Source: CSR reports, building material industry, 2020

Table 7: Extract 2 depicting environmental disclosure theme from agro-food industry

Material	<i>Graft tape; Plastic basin; Sampling bottle Germination bag.... the materials consumed leaving the central store in Douala are transferred to the operational stores of the sites. (page 42)</i>
Energy	<i>Energy produced by the local electricity company ENEO: approximately 2,166,881 KWh consumed in 2019 across all sites; Generators in the event of power cuts, inability to supply by ENEO or by the turbine: 15,012.67 liters of diesel on average per month on all sites..... (page 42)</i>
Water	<i>Total volume of water withdrawn by source in m3 (2019): Surface water and rivers 507,612 Groundwater 418,214..... (page 39)</i>
Bio-diversity	<i>Areas of lowlands and rocky outcrops, where higher biodiversity can be expected, are preserved to create pockets of biodiversity conservation. The commissioning of lagoon basins allows the preservation of surface water and the regeneration of aquatic and riparian vegetation. (page 41)</i>
Emission	<i>Employees were once again made aware of what to do with a boiler in order to avoid abnormal release of smoke into the environment... (page 41)</i>
Effluent and waste	<i>A list of companies approved and authorized to recover waste according to the categories is set up by the company..... (page 40)</i>
Environmental	<i>Two annual regulatory inspections take place within each site and are carried out by inspectors sworn</i>

compliance	<i>by the State (Ministry of the Environment, Water, Industry, Agriculture and sometimes Labour). The company did not receive any sanctions for non-compliance with environmental laws and regulations in 2019. The recommendations given are taken directly into account and, if this requires a high cost, action sheets are opened to this effect. The action is then inserted into the table of corrective actions to initiate. (page 44)</i>
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Source: CSR reports, agro-food industry, 2019

Hence, for subsequent evaluation of environmental disclosure practice in terms of types of disclosure and methods used to disseminate environmental information, we shall make use of seven categories of environmental information (material, water, energy, bio-diversity, emission, and effluent and waste).

4.1.1 Volume of environmental disclosure themes

Following the identification of environmental disclosure categories which are consistently

disseminated by industrial enterprises in Cameroon, the next task of our content analysis was to find out the volume (amount) of disclosure of each category. The method of evaluating the volume of disclosure was the number words used in reporting each of the categories as per industry. The content analysis realised revealed the following information as indicated in table 8.

Table 8: Volume of environmental disclosure themes of industrial enterprises

Element	Number of words							
	Material	Water	Energy	Bio-diversity	Emission	Effluent and waste	Environmental compliance	Total
Industry								
BRY	104	57	100	104	0	195	154	714
BM	849	586	160	491	885	102	341	3414
AF	216	132	176	128	792	532	160	2136
Total	1169	775	436	723	1677	829	655	6264
%	19%	12%	7%	12%	27%	13%	10%	

Source: From content analysis of CSR reports

From the table 8, it can be seen that the most disclosed environmental disclosure themes by industrial enterprises operating in Cameroon is emission specifically information concerning greenhouse gas emissions. This is followed suit by material used to curb the environmental impact of their activities on the local communities. Another environmental category that was prioritized by industrial enterprises is effluent and waste, given that the majority of industries described how the managed and recycled their waste in order to

mitigate the effects of land and water pollution. The least disclosed environmental theme is energy due to the fact that industrial enterprises failed to provide exhaustive information concerning their energy consumption rate and how they intend to reduce the energy consumption or even how they are planning to switch to more environmentally friendly source of energy. The extent of environmental disclosure in terms of words related to each of the themes is clearly depicted by figure 1.

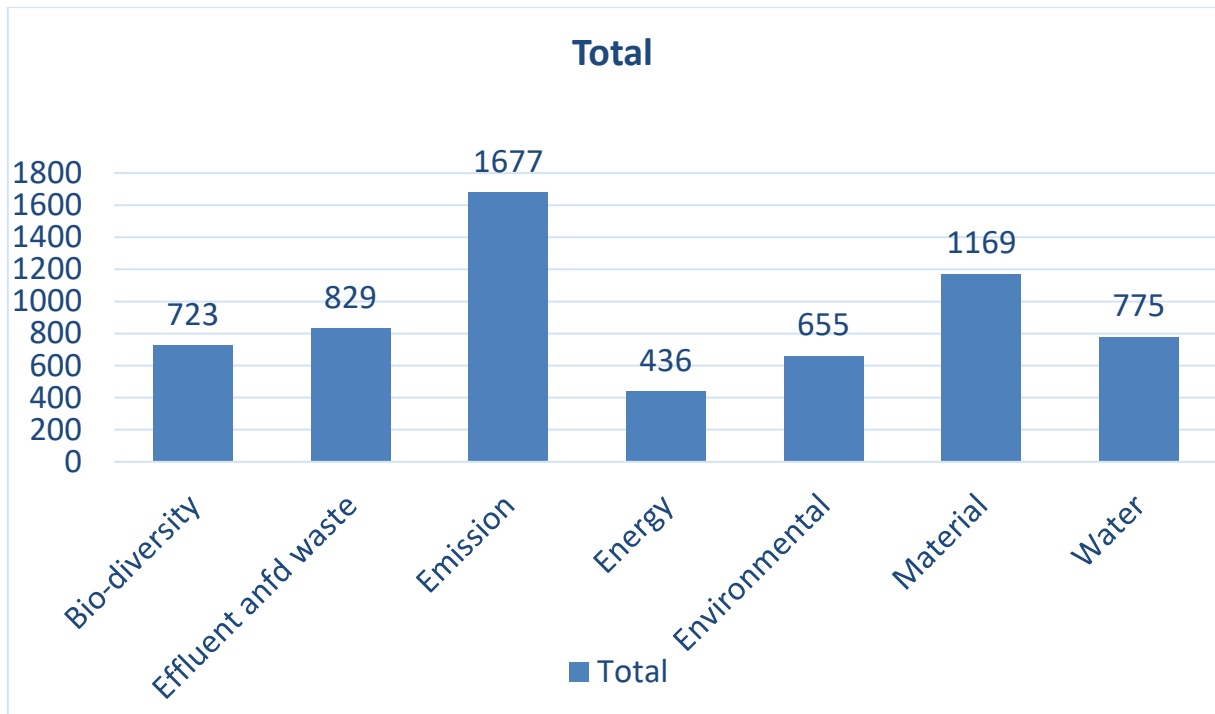


Fig.1: Environmental disclosure themes regularly disseminated

Source: by our own means

4.2 Types of environmental information disseminated by industrial enterprises

information disseminated by industrial enterprises operating in Cameroon is shown in table 9.

The content analysis realised on the twelve CSR reports regarding the types of environmental

Table 9: Types of environmental disclosure themes of industrial enterprises

Element	Number of words							
	Positive				Negative			
Types of information								
Year	2018	2019	2020	2021	2018	2019	2020	2021
Industry								
BRY	176	157	173	208				
BM	764	764	794	812	52	80	60	66
AF	438	438	438	438	88	88	88	88
Total	1378	1389	1405	1458	140	168	148	154
Average	5630				610			
%	90.23%				9.77%			

Source: From content analysis of CSR reports

Table 9 shows clearly that, over the years the industrial enterprises in Cameroon have been disseminated more of positive information than

negative information and the environmental disclosure themes which have some elements of bad

This article can be downloaded from here: www.ijaems.com

news are emission, effluent and waste as seen in the following extract:

Due to the high temperatures needed to turn limestone into clinker, the production of cement consumes a significant amount of energy and this in turn causes combustion-related CO₂ emissions. (CSR report, Building material industry, 2018)

The information content of all the analysed reports is littered with good news aimed at showing their consideration for environmental issues are seen the extracts below:

We are committed to maintaining excellent standards of environmental performance. We recognise the part that we can play in improving the environment, particularly in and around our sites of operation. We apply economically sound sustainable development principles to our business and seek to maximise energy efficiency and minimise the

environmental impact of our operations. (CSR report, Building material industry, 2019).

We comply with stringent environmental regulations to ensure that our raw material quarrying will not endanger local water sources, which may be used by local communities. We are committed to the implementation and maintenance of the National Industrial Standards ISO 14001:2004 Environmental Management System (EMS), which ensures a systematic approach to environmental management within the defined scope of our operations. We aim to comply with relevant legal requirements with a view to providing a sustainable environment for manufacturing, packaging, distribution and sales of cement and continuous improvement of our operations. (CSR report, Building material industry, 2019).

The proportion of the types of environmental information communicated by industrial enterprises is positively inclined as depicted by figure 2.

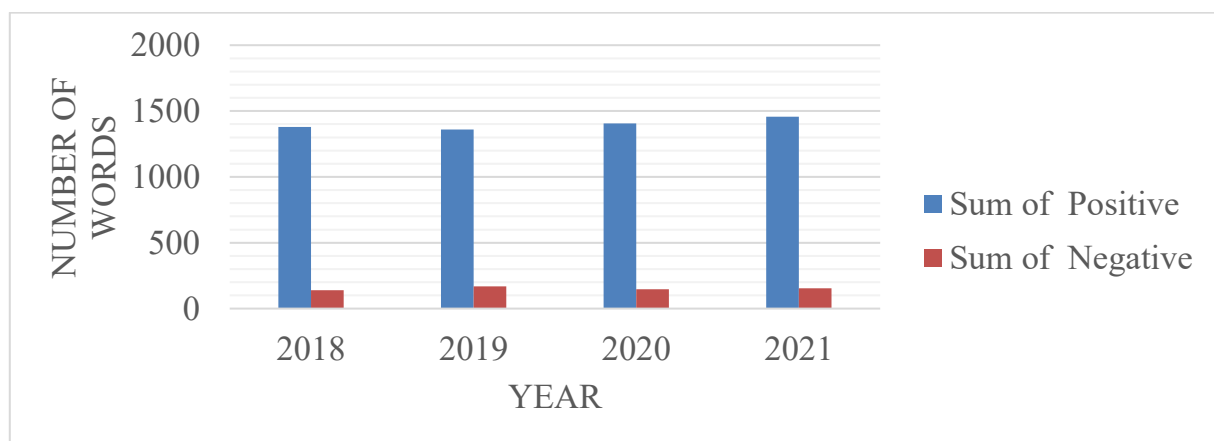


Fig.2: Types of environmental disclosure over the years

Source: by our own means

Table 9 shows that positive information is more disseminate than negative information to the proportion of 90.23% and 9.77% respectively. This is consistent with the results of previous literature investigating environmental disclosure practices for example, Deegan and Rankin (1996), Cowan and Gadenne (2005). In line with this finding, Deegan and Rankin (1996, p. 59) stated that the companies prefer to provide positive information because, "they believe there is a need to legitimize the existence of their operations". Furthermore, Yusoff and Lehman (2006) have found that Malaysian companies have disclosed just positive environmental information, in order to consolidate a good image in the community.

Other researchers explain this situation by highlighting that, the major reason for companies to disclose their environmental information is to maintain their reputation and appease investors and other businesses. This is especially so now that we are seeing the emergence of the "ethical investor"; investors who prefer to invest in companies whose activities do not cause damage to the environment (Deegan and Rankin, 1997).

4.3 Methods used to disseminate environmental information

The result of the content analysis relating to the manner in which industrial enterprises communicate

to their stakeholders concerning their environmental actions is presented in table 10.

Table 10: Methods used to disclose environmental information by industrial enterprises

Element	Number of words							
	Qualitative				Non-monetary quantitative			
Types of information								
Year	2018	2019	2020	2021	2018	2019	2020	2021
Industry								
BRY	176	157	173	208	13	13	6	14
BM	796	824	834	858	9	30	28	37
AF	526	526	526	526	63	63	63	63
Total	1498	1507	1533	1592	85	106	97	114
Average	1532.5				100.5			
%	93.85%				6.15%			

Source: From content analysis of CSR reports

The mean number of words related to qualitative information disseminated in sustainability reports is 15 times greater than the mean number of words reserve to non-monetary quantitative information

that is 1532.5 words and 100.5 words respectively. The statistics in terms of total number of words over the years is shown in the figure 3.

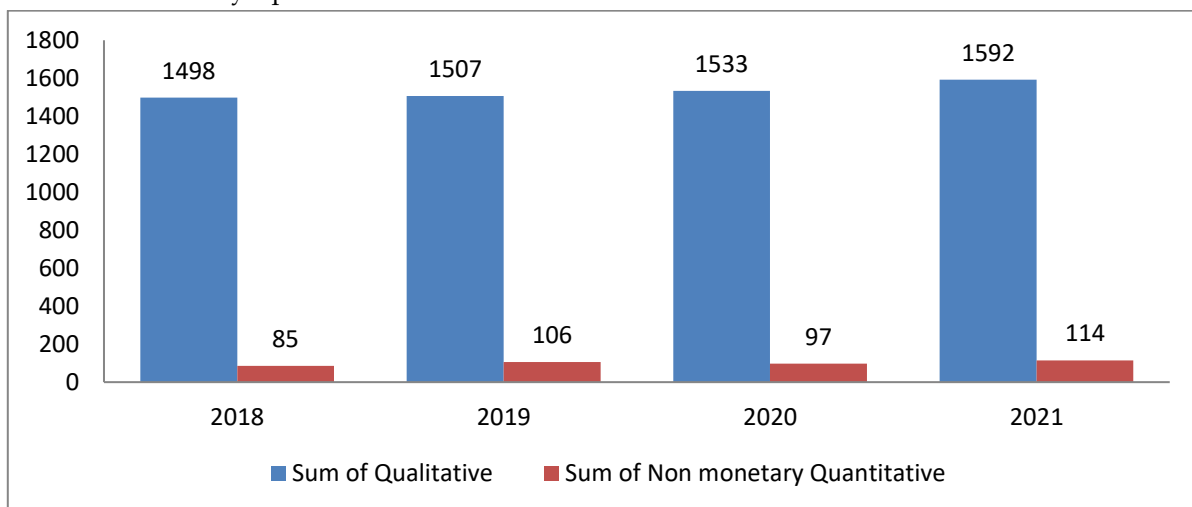


Fig.3: Methods used to disclose environmental information

Source: by our own means

It is noticed that environmental information disclosed by industrial enterprises in Cameroon is qualitative in nature and mostly descriptive. This finding is consistent with that of Sen et al. (2011), who evaluated the existing status of environmental disclosure practices in Indian companies. The findings indicate that all the environmental disclosure themes were reported in a descriptive

manner, in the directors’ report, while some of them were disclosed in the chairman’s speech section.

V. CONCLUSION

This study also seeks to describe the practice of ED by establishing the overall characteristics of environmental information disclosed by industrial

enterprises in Cameroon. We found out that emission of greenhouse gas is the most disclosed environmental theme followed by material (material used by weight and recycled inputs material used), effluent and waste (waste by types and disposal method), water (sources of water, water recycled and reused), biodiversity (habitats protected or restored), environmental compliance, with energy (energy consumption, intensity, sources of energy used and energy reduction) as the least disclosed theme. The supplier environmental assessment is yet to be integrated by enterprises in their reporting practice. The content analysis also revealed environmental information disclosed by industrial enterprises is mostly positive because they want to maintain a good image and legitimise their existence in the society in which they operate. Industrial enterprises are reluctant to disseminate negative information in order to avoid creating a negative impression before the stakeholders regarding their environmental policy. Furthermore, the content analysis established that qualitative (descriptive), and non-monetary quantitative methods are used to diffuse environmental information in Cameroon. The monetary method is yet to be implemented due to the inherent difficulty to attach monetary value to environmental activities.

RECOMMENDATIONS

The disclosure of environmental information with respect to GRI guide lines by some industrial enterprises on one hand, and the fact that these enterprises disseminate environmental information with the help of other reporting materials such as websites and sustainability reports, rather than on note 35 of the financial statements of commercial entities as recommended by OHADA, on the other hand calls for the attention of the OHADA legislator. We therefore suggest that OHADA as an organisation should work fast towards conceiving an accounting reporting framework for social and environmental information (non-financial information), just as the existing OHADA accounting law for financial information. Alternatively, some of the dispositions of IFRS S1 & S2 could be integrated in the current accounting law of financial reporting.

The development of an accounting framework for social and environmental reporting by the OHADA legislator can contribute in facilitating the audit of environmental information contained in sustainability reports. This is because the qualitative characteristics of financial information such as comparability, relevance, timeliness, verifiability, comparability, understandability cannot be directly transpose as criteria to be used to assessed the quality of environmental information because of the disparity that may exist between financial information and environmental information, as the latter can be monetary and non-monetary and also because of the inherent difficulty of quantifying environmental information.

REFERENCES

- [1] Ahmad, N. N. & Sulaiman, M. (2004). Environmental Disclosures in Malaysian Annual Reports: a Legitimacy Theory Perspective, *International Journal of Commerce & Management*, 14(1), pp. 44-58.
- [2] Álvarez, I. G., & Custodio, I. A. (2016). Disclosure of corporate social responsibility information and explanatory factors. *Online Information Review*, 40(2), 1-29. doi: 10.1108/OIR-04-2015-0116
- [3] Berthelt, S., Cormier, D. & Moncton, M. (2003). Environmental Disclosure Research: Review and Synthesis, *Journal of Accountancy Literature* 22, 1-44.
- [4] Buallay, A. (2019). Is sustainability reporting (ESG) associated with performance? Evidence from the European banking sector. *Management of Environmental Quality: An International Journal*, 30(1), 98-115.
- [5] Cowan, S. & Gadenne, D. (2005). "Australian corporate environmental reporting: a comparative analysis of disclosure practices across voluntary and mandatory disclosure systems", *Journal of Accounting & Organisational Change*, 1 (2), 165-179.
- [6] Davey, H., Low, M. & Ratanajongkol, S. (2006). Corporate social reporting in Thailand: The news is all good and increasing. *Qualitative Research in Accounting & Management*, 3(1), 67-83. doi: 10.1108/11766090610659751
- [7] Deegan, C. (2014). An overview of legitimacy theory as applied within the social and environmental accounting literature. *Sustainability accounting and accountability*, 2, 248-272.
- [8] Deegan, C. (2002). The legitimising effect of social and environmental disclosures – a theoretical foundation. *Accounting, Auditing & Accountability Journal* 15(3), 282-311.

- [9] Deegan, C. & Rankin, M. (1997). "The materiality of environmental information to users of annual reports accounting", *Auditing and Accountability Journal*, 10 (4), 562-583.
- [10] Deegan, C. & Rankin, M. (1996). "Do Australian companies report environmental news objectively an analysis of environmental disclosure by firms prosecuted successfully by the environmental protection authority", *Accounting, Auditing & Accountability Journal*, 9 (2), 50-67.
- [11] Deegan, C. & Gordon, B. (1996) "A study of the environmental disclosure practices of Australian corporations", *Accounting and Business Research*, 26 (3), 187-199.
- [12] Dongmo, R. M. (2023). Analyse des déterminants des disparités structurelle des supports de reporting durabilité dans un contexte réglementaire coécitif. *Revue Africaine de Management*, vol 9 (1), pp. 25-57.
- [13] Dongmo R. & Ndjetchou L. (2018). « Les déterminants de la communication sociétale des entreprises de l'espace OHADA: une étude en contexte camerounais », *proposition de communication, Deuxième Journée d'Etude Africaine de Comptabilité*, Dakar, Sénégal.
- [14] Dongmo R. (2017). « Le reporting sociétal des entreprises de l'espace OHADA : une étude en contexte camerounais », Thèse de doctorat en Sciences de Gestion, FSEGA, Université de Douala.
- [15] Gibson, R. B. (2001). Specification of sustainability-based environmental assessment decision criteria and implications for determining "significance" in environmental assessment. Ottawa: Canadian Environmental Assessment Agency.
- [16] GRI (2016). Consolidated set of GRI sustainability reporting standards 2016. Amsterdam, The Netherlands.
- [17] Gray, R., Owen D. & Adams, C. (1996). *Accounting and Accountability: Changes and challenges in corporate social and environmental reporting*, London: Prentice Hall.8(2), 78-101.
- [18] Gustafsson, J. (2017). Single case studies vs. multiple case studies: A comparative study, Academy of Business, Engineering and Science, Halmstad University, Halmstad
- [19] Guthrie, J., & Parker, L. (1990). Corporate Social Disclosure Practice: a Comparative International Analysis. *Advances in Public Interest Accounting*, 3, 159-175.
- [20] Haron, H., Said, R. & Zainuddin, Y. (2009). The relationship between corporate social responsibility disclosure and corporate governance characteristics in Malaysian public listed companies. *Social Responsibility Journal*, 5(2), 212-226. doi: 10.1108/17471110910964496
- [21] Hart, S. L. (1995). A natural-resource-based view of the firm. *Academy of management review*, 20(4), 986-1014.
- [22] Henion, K. E., & Kinnear, T. C. (1976). Measuring the effect of ecological information and social class on selected product choice criteria importance ratings. *Ecological Marketing*, Chicago: American Marketing Association, pp145-156.
- [23] Ibrahim, M. H. I. (2014). Corporate environmental disclosure: A case from Libyan Construction Industry. Ph. D thesis, Liverpool John Moores University.
- [24] Islam, S., Hosen, A. & slam, M. (2005). An Examination of Corporate Environmental Disclosure by the Bangladeshi Public Limited Companies, *Journal of Social Sciences* 3 (9), 1095-1102.
- [25] Kuasirikun, N. (2005). "Attitudes to the development and implementation of social and environmental accounting in Thailand", *Critical Perspectives on Accounting*, 16, 1035-1057.
- [26] Morelli, J. (2011). Environmental sustainability: A definition for environmental professionals. *Journal of environmental sustainability*, 1(1), 2.
- [27] Porchelvi, A. (2019). Environmental reporting practices: a study of selected companies PhD Thesis, department of commerce delhi school of economics, University of Delhi.
- [28] Richardson, A. J. (1987). Accounting as a legitimating institution, *Accounting, Organisations & Society*, 12, 341-355
- [29] Sen, M., Mukherjee, K. & Pattanayak, J. K. (2011). "Corporate environmental disclosure practices in India", *Journal of Applied Accounting Research*, 12 (2), 139-156.
- [30] Tegofack, B. C. & Kamdem D. (2022). The determinants of corporate environmental disclosure in sub-Saharan Africa: an empirical study of industrial enterprises from Cameroon. *International Journal of Management Studies and Social Science Research*, 4 (5), 211-225. DOI: <https://doi.org/10.56293/IJMSSSR.2022.4519>
- [31] Yusoff, H. & Lehman, G. (2006). "International differences on corporate environmental disclosure practices: a comparison between Malaysia and Australia", 4th International conference on Accounting and Finance in Transition. University of South Australia.
- [32] Zikmund, W. G. (2003). *Business research methods* (7th ed.). OHIO: South- W