



CORPORATE RESPONSIBILITY REPORTING IN AFRICA: THE EFFECT OF MACROECONOMIC INDICATORS AND POLITICAL REGIME



 Obiamaka A. Nwobu^{1*}

 Collins C. Ngwakwe²

¹Department of Accounting Covenant University, Nigeria.

Email: obiamaka.nwobu@covenantuniversity.edu.ng

²Graduate School of Leadership University of Limpopo, South Africa.



(+ Corresponding author)

ABSTRACT

Article History

Received: 5 August 2020
Revised: 16 September 2020
Accepted: 8 October 2020
Published: 19 October 2020

Keywords

Corporate responsibility reporting
Corporate sustainability reporting
Foreign direct investment
Gross Domestic Product
Inflation
Political regime.

JEL Classification:

M14, Q56, L16, P44, P45, P48, P50, P51, Q01.

The main aim of this paper is to empirically assess the relationship between macroeconomic indicators, political regime, and corporate responsibility reporting in African countries. Using ex post facto research design, the paper stands out from previous analyses by including other independent variables, such as regulatory quality, rule of law and government effectiveness in assessing the relationship between corporate responsibility reporting, macroeconomic indicators, and political regime. The population comprises 58 African countries, and the sample is based on 48 African countries. Secondary data was employed to gather information on the variables. The study used a multiple regression model to examine the relationship between foreign direct investment, gross domestic product, inflation, political regime, and corporate responsibility reporting in African countries. The study found an insignificant positive relationship between the number of corporate responsibility reports, political regime, foreign direct investment, gross domestic product, and inflation after applying controls for government effectiveness, regulatory quality, and rule of law. The paper assists in understanding the relationship between political regime, macroeconomic indicators, and corporate responsibility reporting in Africa. Also, an understanding of how institutional factors influence corporate responsibility reporting in African countries could help enforcement institutions, such as the stock exchange, industry regulators and key players that monitor corporate, social, and environmental responsibility issues, to take the necessary steps to improve responsibility reporting provided by organizations in Africa. To conclude, the paper makes a unique contribution to the assessment of the relationship between macroeconomic indicators, political regime, and corporate responsibility reporting.

Contribution/Originality: This study contributes to the existing literature on corporate responsibility reporting by using a standard regression estimation methodology. It developed a new formula on the relationship between corporate responsibility reporting, macroeconomic indicators, and political regime, while applying controls for country governance indicators, and is one of very few studies which has investigated this relationship in African countries.

1. INTRODUCTION

This study on the relationship between political regime, macroeconomic indicators and corporate responsibility reporting is motivated by three main factors stemming from policy and scholarly debates, namely increasing focus

on corporate, social and environmental responsibility; advocacy for organizations to actualize sustainable development goals; and scholarly interest in the way the business environment influences corporate responsibility reporting.

First, there is a policy interest to increase focus on corporate social and environmental responsibility towards people and the planet. This interest is also preoccupied with how organizations can be more socially and environmentally responsible to both people and planet, and a number of advocacies have been made in relation to this interest. Stock exchanges, securities and exchange commissions, central banks, professional accounting organizations, the United Nations (UN), the United Nations Environment Programme (UNEP), and the Organization for Economic Co-operation and Development (OECD), have advocated through guidelines and standards more socially and environmentally responsible initiatives towards people and the planet by corporate organizations. Organizations should be interested in being accountable for their responsibility in social and environmental aspects because some institutions mentioned above have guidelines or educational materials/programmes in place to ensure that they work towards being more responsible to corporate stakeholders in social and environmental terms. By utilizing corporate, social and environmental responsibility guidelines, corporations can be held accountable for the information content of their disclosures and corporate responsibility reports.

Another motivation for this study is the policy interest on advocacy for organizations to actualize the sustainable development goals (SDGs). The SDGs were adopted by all United Nations member states in 2015 and all 17 SDGs are interrelated, and actualization of one SDG will lead to a positive result in another SDG. UN member states that adopt SDGs recognize that development must balance social, economic, and environmental sustainability. Specifically, nations should aspire to the actualization of the SDGs including innovation and infrastructure, reduced inequalities, clean water and sanitation, climate action, affordable and clean energy, positive work and economic growth, industry, responsible consumption and production, underwater life, and life on land (United Nations Development Programme, 2020). These SDGs are driven at a country-level with different business organizations within countries setting goals towards the actualization of one or more SDGs. On this policy interest, it is recommended that business organizations in Africa should be interested in actualizing one or more SDGs as they carry out operations. This is crucial because the SDGs contain a mix of social and environmental issues. Thus, as organizations become more responsible and accountable to stakeholders in social and environmental terms, SDGs are actualized. Studies (Jenkins & Yakovleva, 2006; Momin, 2006) advocate that through engagement in social and environmental responsibility, firms could contribute to sustainable development.

The third motivation for this study is the scholarly interest in the way the business environment influences corporate responsibility reporting. The business environment consists of legislation emanating from national governments, institutions such as the stock markets, regulatory bodies, banks, polity, and several macroeconomic indices such as inflation, foreign direct investment, and gross domestic product per capita. The relationship between business environments and corporate responsibility reporting has been discussed in seven main themes, namely internal and external organizational environment (Adams, 2002; Bebbington, Higgins, & Frame, 2009; Faisal, Tower, & Rusmin, 2012), stakeholder pressure influencing corporate responsibility reporting (ElHawary & Arafa, 2018), culture and governance structure (Adnan, Hay, & Van Staden, 2018), legislation (Dilling, 2010), country of origin (Adnan et al., 2018; Wanderley, Lucian, Farache, & de Sousa Filho, 2008), Chief Executive Officers' perceptions of the importance of social responsibility reporting (Baele, 2012), and studies that have assessed corporate social disclosure practices of organizations (Abu-Baker & Naser, 2000; Klynveld Peat Marwick Goerdeler, 2015). Based on these themes, there is an absence of studies on the empirical relationship between macroeconomic issues and corporate responsibility reporting; there is also an absence of empirical evidence on how political regime is related to corporate responsibility reporting. This absence is also noted in studies on corporate responsibility reporting in an African context (Adnan et al., 2018; Dube & Maroun, 2017).

The study contributes to the overall corporate responsibility reporting research by exploring the unexplored macroeconomic issues and articulating the influence of political regime on corporate responsibility reporting. The positioning of this study contributes to the broad literature on the business environment and corporate responsibility reporting and to the literature in an African context.

According to Songi and Dias (2019), a combination of mandatory and voluntary corporate sustainability reporting is needed in African countries due to the self-regulatory model used by companies across the continent. Yet, there is a dearth of empirical evidence on the corporate responsibility reporting practices in African countries and studies assessing the relationships between institutional factors and corporate responsibility reporting. Corporate decisions to engage in sustainability reporting and responsible business operations could be limited by the institutional environment (Adnan et al., 2018; Coluccia, Fontana, & Solimene, 2018; Dagiliene & Nedzinskiene, 2018; Negash & Lemma, 2020). This study explores the relationship between the cumulative sustainability reporting practices of organizations in African countries over the past five years ending in 2017 and institutional factors (macroeconomic, political, and governance variables). Macroeconomic variables are the ease of doing business, foreign direct investment, GDP per capita, and inflation. Other variables are political regime, government effectiveness, regulatory quality, and rule of law.

Refer to Table 1 below which shows that the GDP of African countries without corporate sustainability reports accounts for 14.1% of the total GDP of African countries as of 2017. This figure rose from 12.5% in 2016. Also, data from the Corporate Register (2019) reveals that 41.3% of countries in Africa do not have any organizations that engage in corporate responsibility reporting. An assessment of this proportion for past periods starting from 2012 shows that there was a 2.34% decrease from 2012 to 2013, a 4.8% decrease from 2013 to 2014, a 1.55% increase from 2014 to 2015 and a 3.2% increase from 2015 to 2016.

Table 1. Percentage of GDP of African countries that do not have companies with corporate responsibility reports to total GDP from African countries.

Year	GDP (current US\$) of African countries	GDP (current US\$) of countries without responsibility reports	Percentage of GDP of African countries that do not have companies with corporate responsibility reports to total GDP of African countries
2012	2,332,846,520,523.61	299,453,851,093.60	12.8
2013	2,445,119,080,367.86	304,868,013,085.38	12.5
2014	2,533,523,965,144.89	301,500,978,319.75	11.9
2015	2,328,531,187,001.17	282,850,404,335.45	12.1
2016	2,208,219,877,189.85	275,167,978,971.87	12.5
2017	2,261,054,360,003.71	318,371,697,017.11	14.1

Source: World Bank (2017).

By considering the above increases in GDP of African countries without corporate sustainability reports to total GDP from African countries from 2015 to 2017, there is a need to investigate why 41.3% of countries in Africa do not have corporate sustainability reports despite this economic progress. The increase in GDP of the 'absent report' countries relative to total GDP means that there is economic progress at the expense of corporate responsibility for the economic, environmental, and social performance of organizations. Economic progress could result into lower demand for responsibility reporting from corporate stakeholders because their focus is on the profits from business operations. The institutional environment that consists of macroeconomic and political issues needs to be examined in light of the responsibility reporting practices. Previous studies on sustainability reporting have been limited because they did not assess sustainability reporting within the context of these factors that can constrain the ability of organizations to provide these reports to corporate stakeholders.

No consensus has been reached in the literature on the relationship between institutional environment and corporate responsibility reporting in African countries. While empirical evidence has assessed the relationship between corporate responsibility reporting and institutional factors (see for example (Dagiliene & Nedzinskiene,

2018; Khan, Lockhart, & Bathurst, 2018; Nikolaeva & Bicho, 2011; Ortiz & Grado, 2016; Yin, 2017), no study has accounted for the empirical relationship between the former macroeconomic and political indicators of African countries. The current study proposes that some institutional factors could be related to corporate responsibility reporting in an African context. These factors are political regime, foreign direct investment, GDP per capita and inflation. These institutional features cut across the economic and political context of countries in Africa.

1.1. Justification

First, based on the *Corporate Register (2019)*, corporate responsibility reporting (CRR) has assumed importance in Africa as in the past five years 58.7% of countries in Africa have at least one corporate responsibility report from at least one organization. Therefore, companies operating in 58.7% of African countries have engaged in CRR. However, the remaining 41.3% of African countries will need to engage in CRR. This engagement could be due to regulation, making it mandatory for an organization to carry out CRR, or it could be due to awareness that engagement in CRR can improve corporate image. The institutional environment also features political regime. According to *Bushman, Piotroski, and Smith (2004)*, there is a relationship between political regime and financial transparency. *Marquis and Qian (2014)* also showed that companies issue corporate responsibility reports by compliance with government signals. This study assesses the relationship between macroeconomic, political, and social factors, and responsibility reporting in African countries. The second justification for this study is that research on corporate responsibility reporting is yet to focus on African countries and this research takes the relationship between what is reported and the macroeconomic, political, and social context of these countries into consideration to fill this gap. The paper has crucial implications for scholarly debate and corporate responsibility reporting policy makers in Africa. The findings also emphasize the need to improve the business environment of organizations with the aim of strengthening corporate responsibility reporting.

1.2. Research Objectives

The study undertakes an assessment of the relationship between macroeconomic variables, political regime, and corporate responsibility reporting in African countries.

The rest of the paper is organized as follows: section 2 presents the literature review, the methodology is explained in section 3, and the results are presented in section 4. Section 5 concludes the paper with suggestions for further studies.

2. REVIEW OF THE LITERATURE

2.1. Accounting and Corporate Responsibility Reporting

Accounting has evolved through the ages (*Pepe, 2011*). Accounting responds to the need for financial accountability by keeping records of business transactions that are quantifiable in monetary terms. Consequently, accounting information in terms of profit or loss, and financial position in terms of assets, liabilities and equity aids informed decision-making in various forms of businesses, such as sole proprietors, partnerships, limited liability companies, and not-for-profit organizations. It has been recommended that accounting information should report on corporate, social, and environmental accountability, hence contemporary issues in accounting go beyond the financial performance of organizations in terms of profit or loss, to measure an individual firm's externalities (costs or benefits) arising from consequences of industrial or business operations that affect other parties without being captured in its market price.

A collective term used to describe how economic, environmental and social issues arising from business operations are measured by organizations and included in corporate reporting is known as 'corporate responsibility reporting' (*Klynveld Peat Marwick Goerdeler, 2015*). The information concerning these aspects could be presented within standalone corporate responsibility reports or sustainability reports. The extent of sustainability reporting

provided in standalone reports of organizations is a pointer to the level of acceptance of corporate responsibility to be sustainable and convey this accountability to organizational stakeholders. According to the [Corporate Register \(2019\)](#), in the past five years companies in several countries around the world have shown a commitment to responsibility reporting, and some companies in African countries are in this category (see [Appendix 1](#)). The common feature of all these countries is that over the past five years ending in 2017 each of them has at least one organization and one corporate responsibility report.

Sustainability accounting entails incorporating sustainability into the daily business operations of a company. This is actualized by linking environmental, social and governance initiatives to corporate strategy, evaluation of risks and opportunities, provision of measurement, accounting, and performance management skills ([American Institute of Certified Public Accountants, 2019](#)). [Peršić, Janković, and Krivačić \(2017\)](#) define sustainability accounting as a framework that reflects the economic, social, and environmental impacts and shows their inter-connection. Consequently, a performance measurement system of sustainability performance should be established before sustainability reports are prepared. The information contained in sustainability reports should be traceable to the sustainability accounting information. However, some standalone corporate responsibility and sustainability reports have been criticized for not containing information about measurable sustainability performance. These standalone reports contain qualitative information about sustainability indicators that cannot be measured.

[Appendix 1](#) shows the number of corporate responsibility reports from 48 countries in Africa and the number of organizations responsible for these reports (see [Appendix 1](#)).

The political regimes of African countries are diverse. There are countries whose polity is characterized by autocracy or full democracy. The autocratic countries exhibit governance that is characterized by rule by one individual who has all the power and makes all of the decisions in the national polity. Autocracy implies that the followers have no right to contribute to the issues that arise in the national polity. [Faust \(2007\)](#) notes that even though on average higher levels of democracy positively affect economic performance, many autocratic regimes experience significant economic growth, and there are autocratic regimes that are characterized by small but strong distribution coalition and broad elite settlement. According to [Faust \(2007\)](#), autocratic regimes with small but strong distribution coalition feature a political leader who is backed up by the military and few economic elites, while in regimes with a broader elite settlement, political leaders have to regard the interests of broader segments of society. [Coluccia et al. \(2018\)](#) did not find a significant relationship between corporate social responsibility reporting and political stability in European countries. However, there is a general absence of empirical evidence on the political regime and corporate responsibility reporting in African countries.

By considering macroeconomic variables and the level of responsibility reporting in African countries, research can decipher how macroeconomic variables relate to corporate responsibility reporting. Gross domestic product (GDP) per capita measures the proportion of economic growth to the population, which indicates the economic performance of a country.

2.2. The Nature of Corporate Sustainability Reporting and Corporate Responsibility Reporting

The concepts of sustainability accounting and reporting have led to an expanded definition of corporate accountability in financial terms to include social and environmental indicators, and businesses report on how they capture sustainability accounting indicators. An accounting system that best fits the requirements of sustainable development is known as 'sustainability accounting' ([Sadeghzadeh, 1995](#)). The reporting of information gathered from this information system is known as 'sustainability reporting'. According to the [Global Reporting Initiative \(2019\)](#), sustainability reporting is synonymous with other terms for non-financial reporting, such as corporate responsibility reporting.

There are diverse observations from the review of empirical literature on the extent of corporate responsibility in African countries. The first is that most studies are based on corporate responsibility reporting within a

particular country, the dominant country being South Africa (see for example (De Klerk & De Villiers, 2012; Dube & Maroun, 2017; Marcia, Maroun, & Callaghan, 2015)). According to De Klerk and De Villiers (2012), higher levels of corporate responsibility reporting were associated with higher share prices of the top 100 South African companies, thus indicating that, on average, investors value corporate responsibility reports. Marcia et al. (2015) found no significant relationship between corporate social responsibility and company share price, which infers that corporate social responsibility disclosures are not valued by investors. Dube and Maroun (2017) found that in the South African platinum mining industry companies generally provided more corporate social responsibility reporting.

Support from stock exchange regulators, legislators, and providers of capital are important to increase the level of attention paid by companies concerning improving corporate sustainability reporting. However, the macroeconomic, political and social factors such as political regime, regulatory quality, GDP per capita, inflation, gross capital formation, human capital index, and ease of doing business need to be evaluated with the amount of sustainability reporting information available at a country level.

2.3. Macroeconomic Indicators and Corporate Responsibility Reporting

Macroeconomic indicators are economic indicators of the well-being of a particular country. These indicators are GDP per capita, inflation, gross capital formation, and ease of doing business. Every company operates in an economic environment that is integrated with financial and non-financial operations. Oxelheim (2003) noted that the vulnerability of a company to macroeconomic environment changes can be measured using interest rates, inflation rates and exchange rates. Inflation is often measured by the consumer index (CPI), which is indicated by an increased cost of living.

Prior studies on macroeconomic indicators and corporate performance have found mixed results. According to Issah and Antwi (2017), firm performance is a function of the prior year's Return on Assets, and macroeconomic variables; these can affect future firm performance. Mensah, Ofori-Abebrese, and Pickson (2016) found that lending rates, inflation, employment, and government expenditure affect industrial performance. According to Murungi (2014), foreign exchange, interest, and inflation rates significantly affect the performance of insurance companies in Kenya.

This study hypothesizes that:

Hypothesis 1: There is a positive relationship between foreign direct investment and corporate responsibility reporting in African countries.

Hypothesis 2: There is a positive relationship between gross domestic product per capita and corporate responsibility reporting in African countries.

Hypothesis 3: There is a negative relationship between inflation and corporate responsibility reporting in African countries.

2.4. Political Regime and Corporate Sustainability Reporting

Political regimes are either autocratic or democratic. According to Uddin, Siddiqui, and Islam (2018), there is a scarcity of studies on the political motivations of corporate disclosure. At a company level, studies have been carried out to decipher the political perspective of corporate responsibility reporting. According to Uddin et al. (2018), projects of powerful leaders and the agenda of the ruling party is related to responsibility reporting. This is a pointer to the influence of politics on corporate responsibility reporting.

Democratic regimes depend on the votes of the electorates to assume political office. One of the sources of these votes is from members of sustainability pressure groups. Grauel and Gotthardt (2017) noted that the presence of a democratic government can explain firms' disclosure decisions. Democratic political regimes bring liberty, promote the rights of individuals, and encourage ideas. These features enable the creation and growth of regulation capable

of promoting independent environmental and social pressure groups and organizations, unlike autocratic regimes where the efforts of activists are not usually encouraged.

This study hypothesizes that:

Hypothesis 4: There is a positive relationship between political regime and corporate responsibility reporting in African countries.

2.5. Governance Indicators and Corporate Responsibility Reporting

Another social factor that is included in explaining country-level sustainability reporting is the human capital index. According to Laverde, Corrao, and Jaffe (2018), human capital is a concept that comprises the cognitive abilities and skills of an individual. Human capital can be measured using inputs and outputs; the inputs are education and health, and the outputs are productivity and capacity for innovation. This results from an inability to measure how human capital can have the capacity for innovation in responsibility reporting.

This study uses rule of law, regulatory quality, and government effectiveness as control variables to measure the governance of countries.

2.6. Theoretical Perspectives on Corporate Responsibility Reporting

2.6.1. Neo-Institutional Theory

Another theory that is used to explain the relationship between macroeconomic variables, political regime and corporate sustainability reporting is the neo-institutional theory. The neo-institutional theory posits that institutional environment shapes corporate reporting practices. Concerning corporate responsibility reporting, Larrinaga (2007) states that neo-institutional theory seeks to answer the question on why so many reports evolve in the same manner across countries in different contexts. These institutions operate through different means, such as regulations and associations that seek to structure corporate responsibility reporting. The institutional structures constrain the choices and actions of individuals that decide what to disclose. This study proposes that the economic and political situation of a country influences country-level corporate responsibility reporting. The study of corporate responsibility reporting without examining institutional limitations on that behavior does not provide a robust assessment of responsibility reporting.

The neo-institutional theory argues that the choices of corporate managers to engage in sustainability reporting are constrained by factors in the institutional environment. These factors could limit corporations to be pre-occupied with only financial performance without considering the economic, environmental, social, and governance performance. For instance, high levels of inflation could make businesses more concerned with how they can break even or make a profit for their shareholders without considering sustainability reporting. Other factors in the institutional environment that could constrain the choices of corporate managers are political regime, foreign direct investment, and GDP per capita.

3. METHODOLOGY

3.1. Sample and Data

In actualizing the objectives of this study, secondary data was used. The population of this study was made up of 58 African countries, and the study sample was based on 48 African countries. The sample represents about 82.8% of countries in the African region, which is sufficient to infer and make generalizations regarding African countries.

The variables employed in this study, their measurement and sources are shown in [Table 2](#).

Table 2. Data and sources.

Variable	Explanation and Measurement	Source
Dependent variables		
Number of organizations (NOO)	This is the number of organizations in each country that produce corporate responsibility reports.	Corporate Register (2019)
Number of reports (NOR)	This is the number of corporate responsibility reports for each country.	Corporate Register (2019)
Independent variables		
Political regime (PLR)	This is measured on an interval scale of -10 to +10 (full autocratic to full democratic).	Our World in Data (2016)
Foreign direct investment (FDI)	This is measured using net inflows in United States dollars.	World Bank (2017)
GDP per capita (GDP)	This is measured in United States dollars at current prices and purchasing power parity (PPP).	International Monetary Fund (2017)
Inflation-average consumer prices (INL)	Inflation is measured using average consumer prices.	International Monetary Fund. (2017)
Government effectiveness (GVT), Regulatory quality (RGL), Rule of law (RUL)	These are control variables in this study. Each variable is measured on a scale of -2.5 to 2.5 (weak governance to strong governance).	World Governance Indicators (2017)

3.2. Dependent Variables

The study used the number of corporate responsibility reports per country and the number of organizations with published corporate responsibility reports to measure corporate responsibility reporting. The data for the number of reports per country was collected from the [Corporate Register \(2019\)](#), which is the global online directory that contains corporate responsibility reports for organizations across the world, from 2013 to 2017. Data for the dependent variable consists of cumulative published reports from 2013 to 2017.

3.3. Explanatory Variables

The study focused on four institutional factors based on the literature review: political regime, foreign direct investment, GDP per capita, and inflation.

The type of political regime in a country can be measured on an interval scale from -10 (fully autocratic) to +10 (fully democratic).

Foreign direct investment is measured using net inflows in United States dollars, gross domestic product per capita is measured in United States dollars at current prices and purchasing power parity (PPP), and inflation is measured using average consumer prices.

Governance effectiveness measures perceptions of the quality of the civil service and the extent to which it is independent from interference by the political or ruling class. This variable measures the quality of policy formulation, implementation, and a government's commitment to them [World Governance Indicators \(2017\)](#).

Regulatory quality is measured on a scale of -2.5 to +2.5 based on [World Governance Indicators \(2017\)](#). This variable measures the ability of a government to formulate and implement sound policies and regulations culminating in private sector development ([World Governance Indicators, 2017](#)).

According to [World Governance Indicators \(2017\)](#), the perceptions of agents about the rules of society, contract enforcement quality, property rights, police, courts, and the likelihood of crime are reflected in the rule of law.

3.4. Model Specification

Model 1:

$$NOR_i = \iota_0 + \mu_1 FDI_i + \mu_2 GVT_i + \mu_3 RGL_i + \mu_4 RUL_i + \epsilon_i \dots (1)$$

Model 1 studies the relationship between corporate responsibility reporting and foreign direct investment while controlling for government effectiveness, regulatory quality, and rule of law.

Model 2:

$$NOR_i = \iota_0 + \mu_1GDP_i + \mu_2GVT_i + \mu_3RGL_i + \mu_4RUL_i + \epsilon_i \dots (2)$$

Model 2 studies the relationship between corporate responsibility reporting and gross domestic product while controlling for government effectiveness, regulatory quality, and rule of law.

Model 3:

$$NOR_i = \iota_0 + \mu_1INL_i + \mu_2GVT_i + \mu_3RGL_i + \mu_4RUL_i + \epsilon_i \dots (3)$$

Model 3 studies the relationship between corporate responsibility reporting and inflation while controlling for government effectiveness, regulatory quality, and rule of law.

Model 4:

$$NOR_i = \iota_0 + \mu_1PLR_i + \mu_2GVT_i + \mu_3RGL_i + \mu_4RUL_i + \epsilon_i \dots (4)$$

Model 4 studies the relationship between corporate responsibility reporting and political regime while controlling for government effectiveness, regulatory quality, and rule of law.

NOR is the number of corporate responsibility reports.

PLR is a political regime.

FDI is foreign direct investment.

GDP is gross domestic product per capita.

INL is inflation.

GVT is government effectiveness.

RGL is regulatory quality.

RUL is rule of law.

i is the country.

ι is the constant.

μ is the coefficient.

ϵ is an error term.

4. RESULTS

4.1. Descriptive Statistics

The descriptive statistics for all variables, diagnostic tests, and regression model for the institutional determinants of corporate responsibility reporting are shown in Table 3.

Table 3 explains the mean, maximum, minimum, standard deviation, skewness, and kurtosis of the variables. The mean is the average number of a group of relatable values, calculated by totaling the individual values and dividing them by the number of observations. The mean value of the number of corporate responsibility reports (NOR) is 67.13, or 67 if rounded to the nearest whole number. This shows that African countries have representations from an average of ten organizations and 67 corporate responsibility reports. There is a minimum of 0 and a maximum of 2,652 corporate responsibility reports from African countries. This shows a large variation in the number of organizations publishing corporate responsibility reports and the number of corporate responsibility reports for African countries.

Table 3. Descriptive statistics.

Descriptive statistics	NOR	FDI	PLR	GDP	INL
Minimum	0	5.50	-9	618.37	59.24
Maximum	2652	9.87	10	33996.56	4577.30
Mean	67.13	8.56	2.98	5389.91	340.38
Standard Deviation	381.73	0.81	4.95	6300.18	670.09
Skewness:					
Statistic	6.89	-1.66	-0.55	2.59	5.73
Standard error	0.343	0.35	0.34	0.34	0.34
Kurtosis:					
Statistic	47.63	4.02	-0.85	8.46	35.71
Standard error	0.67	0.69	0.67	0.67	0.67

Another aspect of descriptive statistics is skewness, which describes data symmetry. The number of reports (NOR) were skewed to the right with positive values of 6.89. GDP per capita and inflation (INL) were also skewed to the right with positive values of 2.59 and 5.73, respectively. Political regime (PLR) and foreign direct investment (FDI) were skewed to the left with negative values of -0.55 and -1.66, respectively.

4.2. Multiple Regressions

Before multiple regression analysis was carried out on the data, multicollinearity tests were checked.

Table 4. Correlations.

Variables		NOR	PLR	GDP	INL	FDI	GVT	RGL	RUL
NOR	Pearson Correlation	1							
	Sig. (2-tailed)								
	N	48							
PLR	Pearson Correlation	.176	1						
	Sig. (2-tailed)	.232							
	N	48	48						
GDP	Pearson Correlation	.173	-.125	1					
	Sig. (2-tailed)	.241	.397						
	N	48	48	48					
INL	Pearson Correlation	-.053	.012	-.130	1				
	Sig. (2-tailed)	.722	.937	.380					
	N	48	48	48	48				
FDI	Pearson Correlation	.131	.011	.225	.139	1			
	Sig. (2-tailed)	.384	.945	.133	.357				
	N	46	46	46	46	46			
GVT	Pearson Correlation	.261	.241	.320*	-.271	.321*	1*		
	Sig. (2-tailed)	.074	.100	.027	.062	.029			
	N	48	48	48	48	46	48		
RGL	Pearson Correlation	.242	.362*	.270	-.279	.119	.874**	1	
	Sig. (2-tailed)	.098	.011	.063	.054	.431	.000		
	N	48	48	48	48	46	48	48	
RUL	Pearson Correlation	.171	.319*	.224	-.309*	.245	.899**	.827**	1*
	Sig. (2-tailed)	.246	.027	.126	.033	.101	.000	.000	
	N	48	48	48	48	46	48	48	48

Note:

*Correlation is significant at the 0.05 level (2-tailed).

**Correlation is significant at the 0.01 level (2-tailed).

Political regime, inflation, foreign direct investment, and gross domestic product are substantially related to the number of corporate responsibility reports.

5. REGRESSION ANALYSIS

5.1. Dependent Variable – Number of Reports

To examine the relationship between the independent variables (political regime, foreign direct investment, gross domestic product, and inflation) and the dependent variable (number of reports), multiple regression was performed on the data.

Collinearity diagnostics were carried out on the data. In model 1, tolerance values do not go below 0.10, and VIF values do not exceed 10. This is also the case in model 2 as tolerance values do not go below 0.10 and VIF values do not exceed 10. Models 3 and 4 do not have multicollinearity problems based on the tolerance values that are more than 0.10 and VIF values that are not more than 10. According to Pallant (2011), tolerance values of less than 0.10 and VIF values of more than 10 are indicative of multicollinearity problems.

Table 5. Regression analysis – dependent variable is the number of corporate responsibility reports.

Independent variables	Model 1	Model 2	Model 3	Model 4
Constant	-85.17 (704.81)	154.30 (114.31)	190.99 (88.47)	131.39 (104.95)
Government effectiveness	262.86 (277.53)	274.71 (257.36)	304.60 (251.33)	369.65 (256.26)
Regulatory quality	119.53 (236.47)	86.70 (217.01)	87.85 (218.06)	22.30 (224.57)
Rule of law	-232.64 (228.94)	-219.15 (225.73)	-236.16 (226.00)	-280.21 (225.39)
Foreign direct investment	31.32 (79.28) P-value 0.70			
Gross domestic product		0.005 (0.009) P-value 0.62		
Inflation			0.00 (0.09) P-value 1.00	
Political regime				12.45 (12.27) P-value 0.32
F	1.085	1.161	1.092	1.376
N	48	48	48	48
R ²	9.6%	9.8%	9.2%	11.3%
Adjusted R ²	0.7%	1.4%	0.8%	3.1%

Note: The standard error values are in parentheses.

Table 5 shows the relationship between the independent variables and the number of reports (NOR) using multiple regression. In model 1, it is observed that the R-squared showed that 9.6% of variations in the dependent variable (number of reports) is explained by foreign direct investment after controlling for regulatory quality, rule of law, and government effectiveness, leaving 90.4% unaccounted for. In model 2, it is observed that the R-squared showed that 9.8% of variations in the number of CR reports is explained by GDP after controlling for governance indicators, leaving 90.2% unaccounted for. In model 3, it is observed that the R-squared showed that 9.2% of variations in the number of CRR is explained by inflation after controlling for governance indicators.

In model 4, it is observed that the R-squared showed that 11.3% of variations in the number of CRR is explained by political regime after controlling for governance indicators.

Based on the regression results in Table 5, on average there is a positive and insignificant relationship between the number of reports (NOR) and independent variables (foreign direct investment, gross domestic product,

inflation, and political regime), with μ coefficients of 31.32, 0.005, 0.000, and 12.45 respectively. After controlling for regulatory quality, government effectiveness, rule of law, foreign direct investment, and gross domestic product, inflation and political regime have positive but insignificant relationships with the number of corporate responsibility reports.

6. DISCUSSION OF RESULTS

Contrary to the hypotheses formulated in the current study, government effectiveness, regulatory quality, and rule of law do not significantly influence the number of organizations with published corporate responsibility reports or the number of reports. Also, political regime, foreign direct investment, gross domestic product, inflation, and ease of doing business do not significantly influence the number of organizations with published corporate responsibility reports or the number of published reports. The results obtained from the analysis of the data are not consistent with prior studies that examined the relationship between institutional environment and corporate responsibility reporting. According to [Ortiz and Grado \(2016\)](#), governance indicators of the World Bank, foreign direct investment significantly influences the corporate sustainability information of countries. [Coluccia et al. \(2018\)](#) found that regulatory quality and rule of law were positively related to corporate social responsibility disclosures. Therefore, the findings of the current study are not consistent with these prior studies.

However, the insignificant influence of foreign direct investment obtained from the current study is consistent with prior studies ([Coluccia et al., 2018](#); [Ortiz & Grado, 2016](#)). The results of this study are similar to that of [Coluccia et al. \(2018\)](#) where government effectiveness showed no statistically significant relationship with corporate social responsibility disclosure.

The results of this study show that 41.3% of African countries do not have organizations that engage in corporate responsibility reporting. The results of the present study do not concur with [Baskin \(2006\)](#) where African and Latin American regions led in reporting corporate social investment in a range of community activities. The current study shows that countries in Africa are yet to engage in corporate responsibility reporting, which has implications for corporate environments. The institutional support received by corporate entities in African countries to encourage engagement in corporate responsibility reporting needs to be strengthened.

According to [Baskin \(2006\)](#), adverse macroeconomic conditions, such as high levels of income inequality and weak state provision of social services, compel companies in poorer regions actively participate in social investment in a range of community activities. Based on the results of this study, it is not clear if adverse macroeconomic conditions compel organizations in poorer economies to participate in corporate responsibility reporting.

7. CONCLUSION, IMPLICATIONS, AND RECOMMENDATIONS

The study focused on African countries because Africa is a continent that requires change regarding corporate response to responsibility reporting. The independent variables included in this study are characteristics of the macroeconomic, political and governance environments of countries.

Based on the neo-institutional theory approach, organizations operate within environments where coercive, normative, and mimetic pressures originate. In the corporate environment, there are macroeconomic, political and governance factors that influence organizations' engagement in responsibility reporting, and these factors may affect organizations positively or negatively. Countries operating with full democracy are prone to greater transparency through corporate disclosures compared to those operating with full autocracy. The reason for this assertion is that fully democratic countries will have more pressure groups whose activities can influence corporate financial reporting and non-reporting.

The analysis of the dependent variables focused on the data provided by the [Corporate Register \(2019\)](#), which comprises cumulative responsibility reports from 2013 to 2017. The macroeconomic variables were measured using indices of foreign direct investment, gross domestic product, inflation, and ease of doing business. The implications

of these variables are that they can influence a country's level of corporate responsibility reporting positively. A country with a better score for ease of doing business may have more organizations engaging in responsibility reporting because the business environment is more productive than a country that is worse off in this area.

The findings of this study have several implications for business stakeholders and policymakers. Business stakeholders in the countries without any form of corporate responsibility reporting need to be more proactive in demanding transparency on environmental, social and governance aspects of their business operations and how these could influence the financial value of the organization. Policymakers need to address the non-reporting behavior of organizations by establishing mandatory corporate responsibility disclosure and reporting practices.

The results of the multiple regression test show that on average, government effectiveness, political regime, foreign direct investment, gross domestic product and ease of doing business each have a positive and insignificant influence on the number of organizations that published corporate responsibility reports for countries included in the study sample. Regulatory quality, rule of law and inflation have a negative and insignificant relationship with the number of organizations. The results of the multiple regression also show that on average, government effectiveness, political regime, foreign direct investment, gross domestic product and ease of doing business each have a positive and insignificant influence on the number of corporate responsibility reports for countries included in the study sample. Regulatory quality, rule of law and inflation have a negative and insignificant relationship with the number of corporate responsibility reports.

This study concludes that adverse economic conditions of countries may not compel organizations to engage in corporate responsibility reporting. Uwuigbe, Omoiyola, Uwuigbe, Lanre, and Ajetunmobi (2019) noted that foreign direct investment could be influenced by other macroeconomic indicators, such as inflation or exchange rate. Adverse economic conditions of countries are defined by a reduction in foreign direct investment, gross domestic product, the ease of doing business score, and an increase in inflation. These adverse conditions may not have statistical significance, but they influence the number of organizations that publish corporate responsibility reports, and the number of reports that are published. Further studies could examine the relationship between gender diversity as an internal organizational factor and corporate responsibility reporting; although it was not found to be influential in sustainability responsiveness in Nigerian banks (Ozordi, Eluyela, Uwuigbe, Uwuigbe, & Nwaze, 2020), it may be a useful factor in cross-country studies.

Funding: The authors acknowledge the financial support received from Covenant University Centre for Research, Innovation and Discovery (CUCRID), Covenant University, Nigeria.

Competing Interests: The authors declare that they have no competing interests.

Acknowledgement: All authors contributed equally to the conception and design of the study.

REFERENCES

- Abu-Baker, N., & Naser, K. (2000). Empirical evidence on corporate social disclosure (CSD) practices in Jordan. *International Journal of Commerce and Management*, 10(3/4), 18-34. Available at: <https://doi:10.1108/eb047406>.
- Adams, C. A. (2002). Internal organizational factors influencing corporate social and ethical reporting: Beyond current theorizing. *Accounting, Auditing & Accountability Journal*, 15(2), 223-250. Available at: <https://doi:10.1108/09513570210418905>.
- Adnan, S. M., Hay, D., & Van Staden, C. J. (2018). The influence of culture and corporate governance on corporate social responsibility disclosure: A cross country analysis. *Journal of Cleaner Production*, 198, 820-832. Available at: <https://doi:10.1016/j.jclepro.2018.07.057>.
- American Institute of Certified Public Accountants. (2019). Sustainability accounting. Retrieved from <https://www.aicpa.org/interestareas/businessindustryandgovernment/resources/sustainability/sustainability-accounting.html>.
- Baele, A. (2012). *The CEO's perception on CSR: A determinant of CSR reporting*. Master's Thesis. Ghent Universit Belgium.

- Baskin, J. (2006). Corporate responsibility in emerging markets. *Journal of Corporate Citizenship*, 24, 29-47.
- Bebbington, J., Higgins, C., & Frame, B. (2009). Initiating sustainable development reporting: Evidence from New Zealand. *Accounting, Auditing & Accountability Journal*, 22(4), 588-625. Available at: <https://doi.org/10.1108/09513570910955452>.
- Bushman, R. M., Piotroski, J. D., & Smith, A. J. (2004). What determines corporate transparency? *Journal of Accounting Research*, 42(2), 207-252.
- Coluccia, D., Fontana, S., & Solimene, S. (2018). Does institutional context affect CSR disclosure? A study on Eurostoxx 50. *Sustainability*, 10(2823), 1-20.
- Corporate Register. (2019). Corporate register world map. Retrieved from <https://www.corporateregister.com/map/>. [Accessed 6 April 2020].
- Dagilieni, L., & Nedzinskiene, R. (2018). An institutional theory perspective on non-financial reporting: The developing Baltic context. *Journal of Financial Reporting and Accounting*, 16(4), 490-521.
- De Klerk, M., & De Villiers, C. (2012). The value relevance of corporate responsibility reporting: South African evidence. *Meditari Accountancy Research*, 20(1), 21-38.
- Dilling, P. F. A. (2010). Sustainability reporting in a global context: What are characteristics of corporations that provide high quality sustainability reports-An empirical analysis. *International Business & Economics Research Journal*, 9(1), 19-30. Available at: <https://doi.org/10.19030/iber.v9i1.505>.
- Dube, S., & Maroun, W. (2017). Corporate social responsibility reporting by South African mining companies: Evidence of legitimacy theory. *South African Journal of Business Management*, 48(1), 23-34. Available at: <https://doi.org/10.4102/sajbm.v48i1.17>.
- ElHawary, E., & Arafa, I. M. (2018). Studying the effect of stakeholders on the disclosure of corporate responsibility of banks: Evidence from Egypt. *Accounting and Finance Research*, 7(4), 200-226. Available at: <https://doi.org/10.5430/afr.v7n4p200>.
- Faisal, F., Tower, G., & Rusmin, R. (2012). Legitimizing corporate sustainability reporting throughout the world. *Australasian Accounting, Business and Finance Journal*, 6(2), 19-34.
- Faust, J. (2007). Autocracies and economic development: Theory and evidence from 20th century Mexico. *Historical Social Research*, 32(4), 305-329.
- Global Reporting Initiative. (2019). About sustainability reporting. Retrieved from <https://www.globalreporting.org/information/sustainability-reporting/Pages/default.aspx>. [Accessed 12 June 2020].
- Grael, J., & Gotthardt, D. (2017). Carbon disclosure, freedom and democracy. *Social Responsibility Journal*, 13(3), 428-456. Available at: <https://doi.org/10.1108/srj-08-2016-0151>.
- International Monetary Fund. (2017). Inflation- average consumer prices. Retrieved from <https://www.imf.org/external/pubs/ft/weo/2018/02/weodata>. [Accessed 4 April 2019].
- International Monetary Fund. (2017). GDP per capita. Retrieved from <https://www.imf.org/external/pubs/ft/weo/2018/02/weodata>. [Accessed 4 April 2019].
- Issah, M., & Antwi, S. (2017). Role of macroeconomic variables on firms' performance: Evidence from the UK. *Cogent Economics & Finance*, 5(1), 1405581. Available at: <https://doi.org/10.1080/23322039.2017.1405581>.
- Jenkins, H., & Yakovleva, N. (2006). Corporate social responsibility in the mining industry: Exploring trends in social and environmental disclosure. *Journal of Cleaner Production*, 14(3-4), 271-284.
- Khan, M., Lockhart, J. C., & Bathurst, R. J. (2018). Institutional impacts on corporate social responsibility: A comparative analysis of New Zealand and Pakistan. *International Journal of Corporate Social Responsibility*, 3(1), 1-13.
- Klynveld Peat Marwick Goerdeler. (2015). Currents of change: The KPMG survey of corporate responsibility reporting. Retrieved from <https://www.kpmg.com/FR/fr/IssuesAndInsights/ArticlesPublications/Documents/Survey-of-CR-Reporting-112015.PDF>. [Accessed 7 June 2017]
- Larrinaga, C. (2007). Sustainability reporting: Insights from neo-institutional theory. In Sustainability accounting and accountability, J. Unerman, J. Bebbington & B. O'Dwyer (Eds.) (pp. 150-167). London: Routledge.

- Laverde, H., Correan, J. C., & Jaffe, K. (2018). A new index of human capital to predict economic growth. Retrieved from https://www.researchgate.net/publication/326476595_A_New_Index_of_Human_Capital_to_Predict_Economic_Growth. [Accessed 8 June 2019].
- Marcia, A., Maroun, W., & Callaghan, C. (2015). Value relevance and corporate responsibility reporting in the South African context: An alternate view post King-III. *South African Journal of Economic and Management Sciences*, 18(4), 500-518.
- Marquis, C., & Qian, C. (2014). Corporate social responsibility reporting in China: Symbol or substance? *Organization Science*, 25(1), 127-148.
- Mensah, F., Ofori-Abebrese, G., & Pickson, R. B. (2016). Empirical analysis of the relationship between industrial performance and macroeconomic factors in Ghana. *British Journal of Economics, Management & Trade*, 13(4), 1-11.
- Momin, M. A. (2006). *Corporate social responsibility and reporting by multinational corporations in Bangladesh - an exploration*. Doctoral Dissertation, University of Glasgow, United Kingdom.
- Murungi, D. U. (2014). *Relationship between macroeconomic variables and financial performance of insurance companies in Kenya*. Unpublished Master of Science Thesis, University of Nairobi, Kenya.
- Negash, M., & Lemma, T. T. (2020). Institutional pressures and the accounting and reporting of environmental liabilities. *Business Strategy and the Environment*, 29, 1941-1960. Available at: <https://doi.org/10.1002/bse.2480>.
- Nikolaeva, R., & Bicho, M. (2011). The role of institutional and reputational factors in the voluntary adoption of corporate social responsibility reporting standards. *Journal of the Academy of Marketing Science*, 39(1), 136-157. Available at: <https://doi.org/10.1007/s11747-010-0214-5>.
- Ortiz, M. G., & Grado, C. P. (2016). Information on corporate social responsibility and institutional theory. *Intangible Capital*, 12(4), 942-977. Available at: <https://dx.doi.org/10.3926/ic.732>.
- Our World in Data. (2016). Political regime of African countries. Retrieved from <https://ourworldindata.org/democracy#world-maps-of-political-regimes-over-200-years>. [Accessed 10 January 2020].
- Oxelheim, L. (2003). Macroeconomic variables and corporate performance. *Financial Analysts Journal*, 59(4), 36-50. Available at: <https://doi.org/10.2469/faj.v59.n4.2544>.
- Ozordi, E., Eluyela, D. F., Uwuigbe, U., Uwuigbe, O. R., & Nwaze, C. E. (2020). Gender diversity and sustainability responsiveness: Evidence from Nigerian fixed money deposit banks. *Problems and Perspectives in Management*, 18(1), 119-129. Available at: [https://doi.org/10.21511/ppm.18\(1\).2020.11](https://doi.org/10.21511/ppm.18(1).2020.11).
- Pallant, J. (2011). *SPSS survival manual* (4th ed.). Australia: Allen & Unwin.
- Pepe, A. A. (2011). The evolution of technology for the accounting profession. Retrieved from <https://www.cpapracticeadvisor.com/home/article/10263076/the-evolution-of-technology-for-the-accounting-profession>. [Accessed 29 July 2020].
- Peršić, M., Janković, S., & Krivačić, D. (2017). Sustainability accounting: Upgrading corporate social responsibility. In: *The Dynamics of Corporate Social Responsibility* (pp. 285-303). Cham: Springer.
- Sadeghzadeh, A. (1995). *Social responsibility accounting, sustainability accounting and Islam*. Doctor of Philosophy Thesis, Department of Accountancy, University of Wollongong, Australia. Retrieved from: <https://ro.uow.edu.au/theses/1005>.
- Songü, O., & Dias, A. (2019). Sustainability reporting in Africa: A comparative study of Egypt, Equatorial Guinea, Kenya, Nigeria, Botswana and South Africa. In B. Sjaafjell and C. Bruner (Eds.), *The Cambridge Handbook of Corporate Law, Corporate Governance and Sustainability* (pp. 536-550). Cambridge: Cambridge University Press.
- Uddin, S., Siddiqui, J., & Islam, M. A. (2018). Corporate social responsibility disclosures, traditionalism and politics: A story from a traditional setting. *Journal of Business Ethics*, 151(2), 409-428. Available at: <https://doi.org/10.1007/s10551-016-3214-7>.

- United Nations Development Programme. (2020). Sustainable development goals. Retrieved from <https://www.africa.undp.org/content/rba/en/home/sustainable-development-goals.html>. [Accessed 15 February 2020].
- Uwuigbe, O. R., Omyiola, A., Uwuigbe, U., Lanre, N., & Ajetunmobi, O. (2019). Taxation, exchange rate and foreign direct investment in Nigeria. *Banks and Bank Systems*, 14(3), 76-85. Available at: [https://doi.org/10.21511/bbs.14\(3\).2019.07](https://doi.org/10.21511/bbs.14(3).2019.07).
- Wanderley, L. S. O., Lucian, R., Farache, F., & de Sousa Filho, J. M. (2008). CSR information disclosure on the web: A context-based approach analysing the influence of country of origin and industry sector. *Journal of Business Ethics*, 82(2), 369-378. Available at: <https://doi.org/10.1007/s10551-008-9892-z>.
- World Bank. (2017). World development indicators. Retrieved from <https://datacatalog.worldbank.org/dataset/world-development-indicators>. [Accessed 10 January 2020].
- World Governance Indicators. (2017). World governance indicators. Retrieved from <https://datacatalog.worldbank.org/dataset/worldwide-governance-indicators>. [Accessed 10 January 2020].
- Yin, J. (2017). Institutional drivers for corporate social responsibility in an emerging economy: A mixed-method study of Chinese business executives. *Business & Society*, 56(5), 672-704. Available at: <https://doi.org/10.1177/0007650315592856>.

APPENDIX-1

Table-1. Number of corporate responsibility reports from countries in Africa and number of organizations responsible for the reports

Country id	Country	Number of organizations	Number of reports
1	Algeria	2	14
2	Angola	3	18
3	Benin	0	0
4	Botswana	4	28
5	Burkina Faso	1	1
6	Burundi	0	0
7	Cameroon	0	0
8	Cabo Verde	0	0
9	Central African Republic	0	0
10	Chad	0	0
11	Comoros	0	0
12	Congo	0	0
13	Cote d'Ivoire	0	0
14	Democratic Republic of the Congo	3	9
15	Djibouti	0	0
16	Egypt	22	96
17	Equatorial Guinea	0	0
18	Eritrea	0	0
19	Ethiopia	1	4
20	Gabon	1	5
21	Gambia	0	0
22	Ghana	3	11
23	Guinea	2	7
24	Guinea-Bissau	0	0
25	Kenya	12	50
26	Lesotho	1	2
27	Liberia	1	1
28	Libya	0	0
29	Madagascar	0	0
30	Malawi	0	0
31	Mali	0	0
32	Mauritania	1	1
33	Mauritius	0	0
34	Morocco	16	67
35	Mozambique	2	13

36	Namibia	11	59
37	Niger	0	0
38	Nigeria	22	93
39	Reunion	0	0
40	Rwanda	1	4
41	Sao Tome and Principe	0	0
42	Senegal	3	13
43	Seychelles	0	0
44	Sierra Leone	0	0
45	Somalia	0	0
46	South Africa	354	2,652
47	Sudan	0	0
48	Swaziland	4	17
49	Tanzania	3	9
50	Togo	1	4
51	Tunisia	1	1
52	Uganda	4	10
53	Zambia	1	1
54	Zimbabwe	7	32
55	Western Sahara	0	0

Source: Compiled from Corporate Register (2019).

Views and opinions expressed in this article are the views and opinions of the author(s), Asian Economic and Financial Review shall not be responsible or answerable for any loss, damage or liability etc. caused in relation to/arising out of the use of the content.