Determinants of sustainability reporting: Empirical evidence from East African Countries

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ARTICLE INFO

DOI
http://dx.doi.org/10.21511/ppm.20(2).2022.46

RELEASED ON
Monday, 04 July 2022

RECEIVED ON
Tuesday, 08 February 2022

ACCEPTED ON
Friday, 29 April 2022

LICENSE
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JOURNAL
"Problems and Perspectives in Management"

ISSN PRINT
1727-7051

ISSN ONLINE
1810-5467

PUBLISHER
LLC “Consulting Publishing Company “Business Perspectives”

FOUNDER
LLC “Consulting Publishing Company “Business Perspectives”

NUMBER OF REFERENCES
43

NUMBER OF FIGURES
0

NUMBER OF TABLES
3

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Determinants of Sustainability Reporting: Empirical Evidence From East African Countries

Abstract

Sustainability reporting is gaining attention among industry professionals and academics. However, it has been criticized since it fails to represent the proper reporting practices of firms, with this being described as symbolic in form. Regardless of this criticism, management of firms in East Africa is increasingly adopting sustainability reporting, despite being voluntary. Therefore, the paper analyzed the determinants of sustainability reporting of East African firms. Eight years of annual reports of 74 listed firms in Kenya, Tanzania, and Uganda were used. Random and fixed effect regression techniques were employed for the estimates. The study found that firms’ specific characteristics such as size, Tobin’s Q, industry affiliation, and ownership structure have a positive and significant influence on firms’ management to adopt sustainability reporting practices. In addition, it was suggested that firms with a more considerable asset and Tobin’s Q provide more sustainability reporting than those with smaller assets and Tobin’s Q. The results further showed that firms’ age and return on assets do not influence sustainability reporting. The evidence further demonstrated that firms with foreign parent companies significantly disclosed more sustainability information than local firms. The paper concludes that the firm-specific characteristics influence their sustainability reporting practice. The study provides policy implications because it can assist the governments and regulators in these countries in guiding the firms’ reporting practices.

Keywords

sustainability reporting, social sustainability, environmental sustainability, disclosure practice, corporate reporting, non-financial information disclosure

JEL Classification

M14, M40, M41

INTRODUCTION

Sustainability reporting (SR) is the new buzzword in the corporate world. It has dominated discussions in the accounting profession and academics due to its potential impact by providing comprehensive information about a firm’s sustainability activities (Tarus, 2020; Ahsan & Qureshi, 2021). Therefore, understanding the integration of social and environmental sustainability in the corporate reporting of firms in different countries is of great importance (Michelon & Parbonetti, 2012; Maama & Mkhize, 2020). Khan et al. (2021) reported that sustainability reporting among the 250 biggest global companies in 31 countries was 92% in 2015, representing a significant increase from 64% in 2005. This is a testament to its wide acceptance among firms.

Sustainability reporting became prominent because it considers both environmental and social sustainability information. Despite its prominence and perceived usefulness, it has received criticism and has been branded as greenwashing, opportunistic, cosmetic, implausible, lacking genuine efforts, and failing to meet users’ expectations (Thorne et al., 2014). In addition, SR has been criticized because it fails...
to represent the proper reporting practices of firms, with this being described as symbolic in form (Khan et al., 2021). Despite this, stakeholders and investors continue challenging businesses to report how their operations affect the environment and society. Consequently, annual reports of such organizations include environmental and social sustainability information; however, the disclosure of such information is not obligatory in many countries.

Evidence shows that many firms have adopted SR in recent years (Hummel & Schlick, 2016; Aureli et al., 2020; Ahsan & Qureshi, 2021). In Africa, Suluo et al. (2020), Maama and Mkhize (2020), Ojera and Odoyo (2020), and Injeni et al. (2021) also report that firms in Ghana, Tanzania, Nigeria, and Kenya provide society with social and sustainability reporting, despite it being voluntary. This raises a question about the real intent of disclosing environmental and social sustainability data. Therefore, there is an upsurge in interest to determine why and how businesses adopt SR. The interest is particularly rife in Africa because it is perceived as a continent with a catch-up disposition, which is usually the last continent to embrace emerging trends. In addition, East Africa has recently formed an economic bloc, which intends to have a single stock exchange. In addition, an economic bloc that has recently attracted much attention is the East African Economic Community. Thus, there are efforts to strengthen firms’ operational and corporate governance practices in this region.

East African countries have unique economic, social, and political systems compared with developing countries. Such uniqueness suggests that the firms in East Africa would develop different understandings of sustainability reporting. This calls for documentation on how the firms in East Africa embrace the phenomenon of SR. Since the provision of financial information is mandatory, the analysis mainly focused on the factors that influenced the management of firms to disclose social and environmental sustainability information. This paper offers both practical and regulatory implications. It determines factors that affect SR practices of listed firms in East African countries, comprising Kenya, Tanzania, and Uganda. Additionally, the study provides business records that could be a guideline for firms that intend to adopt sustainability reporting. Also, the study would be valuable to guide the management of other companies that decide to include additional data in their annual reports.

1. LITERATURE REVIEW

Literature documents that firms adopt sustainability reporting for many reasons. Sustainability reporting is both external and external disclosure of information relating to firms’ sustainability activities. This involves sharing information about the environmental, social, and economic sustainability activities (Green & Cheng, 2019; Khan et al., 2021; Suluo et al., 2020). Firms’ sustainability reports help to develop a dialogue with diverse stakeholders to disseminate their social responsibility activities (Campra et al., 2020; Stocker et al., 2020).

The Global Reporting Initiative (GRI) was credited with the popularity and practice of SR. The GRI is an international organization with a network-based structure established in 1997. It is a network-based organization whose activities involve thousands of organizations and professionals from different industries, sectors, regions, and constituencies (Sethi et al., 2017). The GRI helps governments, organizations, and firms understand and communicate their sustainability strategies by providing information on environmental, social and governance (ESG) activities. The vision of GRI is to make sustainability reporting a standard practice that would enable firms and organizations to report their economic and ESG performance (GRI, 2013; Traxler et al., 2020).

This study argues that managers of firms are knowledgeable about users’ need for sustainability information. Therefore, it is expected that the disclosure of these sets of data is affected by many factors. Thus, managers would adopt disclosure mechanisms to enhance legitimacy if they are driven by certain factors (Baldini et al., 2018). Given the costs involved in adopting SR, the company size, and the publicity associated with SR, firms are likely to increase the quantity and quality of ESG disclosures to appear more transparent and
influence public perceptions if certain factors prevail. Empirical evidence shows that bigger firms make more sustainability disclosures than smaller firms in India (Laska & Maji, 2016; Bhatia & Tuli, 2017). This finding is not surprising since larger firms prefer to attract attention from the government, the public, and the media. Therefore, they would be under pressure to report their sustainability performances. Moreover, it is expected that larger companies would have many stakeholders interested in firms social and environmental programs (Sikka, 2011; Lyon & Maxwell, 2011).

Other strands of literature present mixed results about possible correlation between a company’s profitability and its SR. Shauki (2011) could not establish any link between firms’ profitability and SR. On the other hand, García-Sánchez et al. (2013) and Kansal et al. (2014) found a positive association between SR and profitability. Moreover, Kansal et al. (2014), Bhatia and Tuli (2017), and Kühn et al. (2018) demonstrate that the industry sector has a significant relationship with SR quality and quantity. According to Lodhia et al. (2012), the relationship between industry type and SR can result from the stakeholders’ (customers or citizens) perception, government pressure, or the environmental or social effect of a specific business sector. Other researchers, however, have attempted to establish a relationship between non-financial information disclosures with industry type but could not obtain enough evidence to support or invalidate the relationship (Rupley et al., 2012; Sharma et al., 2019).

Wegener et al. (2013) and Maama (2021) demonstrated that the number of years of a firm’s existence influences its sustainability reporting practices. They maintain that old organizations are expected to provide more social and environmental reporting. However, Almihoub et al. (2013), Sief (2014), and Kühn et al. (2018) contradicted any relationship between the age of firms and SR. Theoretically, Kühn et al. (2018) also expect companies affiliated with other firms operating in countries where SR and other NFI disclosures are compulsory (like South Africa, Singapore, or Sweden) to adopt SR. Thus, their operations would be influenced by those of the parent or affiliated companies. Unless restricted by regulations, the subsidiary companies would be required to adopt the reporting practices of the parent company to ensure harmonization.

The extent to which the ownership of a firm is concentrated in the hands of a few investors has been suggested to influence the SR practices of firms (Kühn et al., 2018). Frias-Aceituno et al. (2014) suggested that the ownership distribution (or dispersion) across many investors significantly affects the quantity and quality of NFI disclosure. This indicates that a firm with dispersed owners would have many investors, many of whom will have concerns involving environmental and social exposures. This contributes to the pressure to provide various types of information to satisfy the multiple needs of these investors. Firms do not only rely on the funds provided by the shareholders but also count on the finances provided by individuals or institutions who are not owners. These creditors or providers of finances may considerably influence firms’ corporate practices (Esch et al., 2019). However, the power of this stakeholder group depends on the extent to which a firm relies on debt financing (Ortas et al., 2015; Ahmadi & Bouri, 2017).

In a related study, Geerts et al. (2021) looked at the determinants of sustainability reporting among port managing bodies worldwide. They found that factors such as the number of employees, turnover, level of autonomy, and perceived level of stakeholders inclusion positively influenced the sustainability reporting of the firms. However, Jensen and Berg (2012) analyzed traditional sustainability reporting against integrated reporting. It was found that the intensity of market coordination, economic conditions, social and environmental development, investment and employment regulations, and national corporate responsibility are conditional to the sustainability reporting practices. Finally, Orazalin and Mahmood (2020) analyzed the SR data of firms listed on the Kazakhstani Stock Exchange. They established that firm size, profitability, language of reporting, and type of auditor significantly affect firms’ sustainability reporting.

2. AIMS AND HYPOTHESES

This paper researches the determinants of sustainability reporting among East African firms. The aim of the study is to provide information about how East African listed firms are dealing with the
extra information necessary to manage the increasingly topical issue of SEA. This will assist other firms in their sustainability reporting practices.

The findings of prior studies regarding the factors that influence sustainability reporting help to formulate the following hypotheses:

H1: The market value of a firm has a positive relationship with its SR practice.

H2: The total assets of a firm have a positive relationship with its SR practice.

H3: Firms’ profitability has a positive relationship with their SR.

H4: The level of SR by firms is affected by their industry affiliation.

H5: There is a positive relationship between the age of a firm and its SR practice.

H6: The nationalities or origins of firms are related to their SR practices.

H7: Concentrated ownership structure has a negative relationship with SR.

H8: Leverage has a positive relationship with the SR practice of firms.

3. METHODS

3.1. Data

The study covered firms listed in Kenya, Tanzania, and Uganda. The paper collected firms’ sustainability reporting scores and other data to achieve the study’s aim. The firms’ SR data were obtained from three different sources: sustainability, integrated, and annual reports. However, for the majority of the companies, no separate sustainability or integrated reports were provided. Hence, annual reports were extensively analyzed. They were obtained from the companies’ websites. Adams et al. (2016) maintain that such a report is a standard record that reflects and communicates a firm’s current financial and other performance. Besides, stakeholders rely on these documents, considering annual reports as their primary information sources. Bloomberg Database and the firms’ financial statements are the primary sources of financial information.

The data used in the study covered eight years (2013–2020). 2013 is when both sustainability reporting and integrated reporting frameworks were introduced. The year 2020 represents the most recent available data. During this period, 111 firms were listed on the three stock exchanges. However, the study excluded firms with less than five years of available data and those listed for less than five years. These exclusion criteria were necessary to allow a longitudinal analysis of the data. Therefore, 37 firms were excluded. Consequently, 74 firms were included in the study for the analysis. The study targeted 592 annual reports for the analysis. However, 68 reports were not found. As a result, 524 annual reports were found suitable for the analysis.

3.2. Data collection procedure

A content analysis method was employed to study the firms’ SR disclosures. A checklist of instruments was elaborated to extract the firms’ SR scores following the Sustainability Reporting Framework of Global Reporting Initiative IV (GRI IV). The checklist instruments were developed to collect the firms’ environmental and social sustainability information. The instruments comprised 15 information items relating to social sustainability and 13 information items on environmental sustainability.

3.3. Scoring of SR reporting

The study employed an interpretative constructed checklist to collect data on the SR of the firms. The checklist was developed using content elements of Global Reporting Initiative IV. Sustainability data collected from the firms’ records comprised environmental and social sustainability disclosures. The paper used a 5-point Likert scale to find SR scores, where 5 represents full disclosure while 1 represents no disclosure. The total scores of social and environmental SR data were converted to percentages. The average of the social and environmental SR scores rep-
represented the total sustainability reporting score of the firms. The data were checked for validity and reliability through intercoder reliability checks. The intercoder reliability score was 0.85, using Kappa intercoder reliability measure. This figure is significantly more than 0.70 threshold embraced by researchers.

### 3.4. Econometric approach

The study employed a multiple regression model to find the determinant that affected the firms’ SR practices. A panel data analysis was used to estimate the equations. A statistical analysis conducted in this study involved using both random and fixed effect multiple linear regression models. Following Plumlee et al. (2015) and Kühn et al. (2018), models 1, 2, and 3 were developed to achieve the study’s objectives. Model 1 examines the determinants of sustainability reporting (the individual components of SR), respectively:

\[
SR_u = \alpha_0 + \alpha_1 TQ_u + \alpha_2 Size_u + \\
+ \alpha_3 Age_u + \alpha_4 Leverage_u + \alpha_5 Nationality_u + \alpha_6 ROA_u + \alpha_7 Ownership_u + \alpha_8 Ind_u + \varepsilon_u. \\
\]

### 4. RESULTS AND DISCUSSION

#### 4.1. Summary statistics

Table 1 shows the descriptive statistics of all variables. The results demonstrate that the sustainability reporting practice mean score is 32.18%, ranging from 1.00% to a maximum of 78.29%. Table 1 demonstrates a low level of sustainability reporting adoption among the firms. The standard deviation of 25.27 suggests a wide variation among the firms’ SR practices. The results further show that firms’ average leverage was 63.2%, suggesting that they were highly geared.

<table>
<thead>
<tr>
<th>Variables</th>
<th>SRS (%)</th>
<th>Lev (%)</th>
<th>Size (Sm)</th>
<th>ROA (%)</th>
<th>TQ</th>
<th>Age (Years)</th>
<th>Own (%)</th>
<th>Nat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>32.18</td>
<td>63.2</td>
<td>56.74</td>
<td>4.4</td>
<td>2.08</td>
<td>28</td>
<td>41.18</td>
<td>0.662</td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>25.27</td>
<td>53.74</td>
<td>43.52</td>
<td>3.8</td>
<td>1.16</td>
<td>26.52</td>
<td>26.27</td>
<td>0.427</td>
</tr>
<tr>
<td>Median</td>
<td>29.72</td>
<td>58.1</td>
<td>55.36</td>
<td>3.2</td>
<td>3.02</td>
<td>27</td>
<td>37.32</td>
<td>0.583</td>
</tr>
<tr>
<td>Maximum</td>
<td>78.29</td>
<td>84.9</td>
<td>436.5</td>
<td>69.2</td>
<td>6.89</td>
<td>69</td>
<td>79.58</td>
<td>1.00</td>
</tr>
<tr>
<td>Minimum</td>
<td>1.00</td>
<td>0.4</td>
<td>8.13</td>
<td>-25.7</td>
<td>0.945</td>
<td>16</td>
<td>9.33</td>
<td>0.00</td>
</tr>
<tr>
<td>Observations</td>
<td>524</td>
<td>524</td>
<td>524</td>
<td>524</td>
<td>524</td>
<td>524</td>
<td>524</td>
<td>524</td>
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</tbody>
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http://dx.doi.org/10.21511/ppm.20(2).2022.46
Table 1 also shows company size ranging from $8.13 mln to $436.5 mln, with a mean of $56.74 mln. Similarly, the average return on assets (ROA) of the firms was 4.4%. This result implies that most businesses are profitable. The results of firms’ average Tobin’s Q (TQ) demonstrate a 2.08, which ranges from 0.945 to 6.89. This finding suggests a wide dispersion in the value of firms. Moreover, the average firm age was 28, from 16 to 69 years. Furthermore, Table 1 shows that the average percentage of a single ownership concentration was 42.18%.

In addition, the paper checked the collinearity level among the independent variables. Thus, correlation analysis and variance inflation factor (VIF) were employed (Table 2).

The findings presented in Table 2 demonstrate a weak correlation among the independent variables. The majority of the correlation coefficients are less than 0.5, suggesting the absence of multicollinearity issues. It was found that the highest correlation coefficient was 0.51, which is between the company age and return on assets. Multicollinearity is present when the correlation between the variables is more than 0.75. Therefore, the study found no multicollinearity issues. This finding is confirmed by the variance inflation factor, which ranges from 1.18 and 4.08. They are less than the VIF threshold of 10, according to Thompson et al. (2017).

4.2. Regression results

Table 3 shows the determinants of sustainability reporting. Model 1 examines sustainability reporting, while models 2 and 3 examine social (SSR) and environmental (ESR) sustainability reporting of firms, respectively. Table 3 contains the coefficients of the variables, the t values (in parenthesis), and the level of significance of the coefficients, presented with asterisks (*).
It was found that firms’ size has a positive and significant ($p < 0.05$) impact on SR practices. In addition, the result in model 2 indicates a positive and significant correlation between SSR and firms’ size, suggesting that size influences firms’ SR. These results indicate that with more assets, firms become highly interested in providing more sustainability data. On the contrary, the results in model 3 suggest that firms with larger assets do not provide more environmental sustainability information compared to those with small asset size. The study further finds that Tobin’s Q positively and significantly ($p < 0.05$) influences SR practices of listed firms in East Africa. The findings (size and TQ) suggest that firms with larger assets and higher market price per share publish more sustainability data. It is reasonable because firms with a high market value face more scrutiny from the government, analysts, and the media, which pressurizes them to disclose more sustainability information. Given the costs involved in adopting SR, the company size, and the publicity associated with SR, bigger firms are likely to increase the quality and quantity of sustainability disclosures since they want to appear more transparent, as well as affect public perceptions if certain factors prevail. These findings agree with Sikka (2011) and Lyon and Maxwell (2011), who demonstrated a positive relationship between the company size and its SR.

The study found similar results concerning the influence of firms’ age on their SR practices. It was found that firms’ age positively and significantly ($p < 0.05$) affects SR practice in models 1 and 2. This suggests an inclination of older firms to provide more sustainability reporting than younger companies. The reason may be that older businesses may have resources, experience, and expertise to adopt sustainability reporting compared to younger ones. These results align with Wegener et al. (2013) and Frias-Aceituno et al. (2014). They reported that long-established organizations or firms are likely to make more sustainability disclosures. The results further demonstrate an inverse and insignificant ($p > 0.05$) correlation between leverage and SR practice of the East African listed firms. The inverse relationship suggests that levered firms provide less sustainability reporting. In addition, it is established that businesses with more debts feel less motivated to engage in sustainability reporting. This result contradicts Ahmadi and Bouri (2017), Kühn et al. (2018), and Esch et al. (2019). They maintained that creditors or providers of finances have considerable power to affect a firm’s operations and reporting practices.

Furthermore, the results found an inverse and significant ($p < 0.05$) effect of nationality on sustainability reporting. It is shown that companies with no foreign affiliation disclose less sustainability data than firms with foreign or international affiliations. This result demonstrates that their nationality drives the firms’ sustainability reporting practice. It is plausible because firms with foreign affiliations will tap into the SR experience of their parent companies. This view is critical because SR requires skills and expertise, which may not be at the disposal of local firms. Hence, they may struggle to prepare sustainability reports. In addition, because of harmonization and standardization, parent companies may require their affiliates or subsidiaries to adopt SR. This finding confirms the views of Kühn et al. (2018), who contend that companies with parent company in a country where SR and other NFI disclosures are compulsory (like South Africa, Singapore, or Sweden) are bound to adopt SR since their operations would be influenced by that of the affiliated foreign company. Besides, local firms may not have external stakeholders who are environmentally sensitive to pressure them to adopt SR.

Surprisingly, the results exhibit a negative and insignificant association between SR and ROA in models 1 and 3 and an insignificant positive relationship between the variables in model 2. The study finding implies that more profitable firms tend to provide less sustainability information than those that make less profit. This result contradicts the expectations and the general view that profitable firms would have extra results from undertaking social and environmental sustainability activities and report them. An explanation for this result is that firms require resources to practice sustainability reporting. Therefore, it is reasonable to expect firms to save resources and avoid extra expenses if they do not adopt SR, eventually increasing their profits. Another possible reason is that firms with less profit would employ sustainability reporting as a marketing tool to influence customers. This would require less profitable firms to provide more sustainability information to be
put in a positive light. This would increase their operational expenses, which will eventually decrease their profits. Therefore, it is reasonable that firms in East Africa do not use sustainability reporting positively because those with the resources to implement it do not see the need to do so. This may be attributed to a lack of interest from the stakeholders because the management of firms usually discloses the information required by their stakeholders. This finding supports García-Sánchez et al. (2013) and Kansal et al. (2014), who recorded a positive relationship between SR and profitability.

Next, the study shows a significant positive association between the firms’ ownership and sustainability reporting. Thus, a firm owned or controlled by a single individual or institution would be inclined to adopt SR practices and would disclose more NFI compared with firms with many shareholders. This result runs contrary to expectations because the literature suggests that firms with dispersed ownership tend to adopt SR to satisfy different information needs of the various owners (Frias-Aceituno et al., 2014). Thus, the negative hypothesized impact of ownership concentration on sustainability reporting does not hold in the listed firms in East Africa. These firms may want to avoid the scrutiny of the public and government by adopting sustainability reporting.

Moreover, the model is robust, justified by the high coefficients of $R^2$ and adjusted $R^2$ of more than 0.90 in all the models. The model also has a highly significant predictive power ($p$-value of $F$-Stats = 0.0000 and $F$-statistic of more than 158.00), which suggests that the variations in the explanatory variables significantly explain the firms’ sustainability reporting practices.

**CONCLUSION**

Despite the upsurge in sustainability reporting being voluntary, the study assessed the factors that influence sustainability reporting of firms in East Africa. This study covered listed firms in East Africa. A random effect regression was employed for the estimates. The paper evidenced that firms with specific characteristics such as size, Tobin’s Q, industry, and ownership structure positively and significantly affected the SR practice of East African companies. These results suggest that firms with a bigger asset size and TQ provide more SR than those with a smaller asset size and TQ. However, factors such as firms’ age and ROA significantly influenced SR. The evidence further demonstrated that firms with foreign parent companies significantly disclosed more sustainability information than local firms. Therefore, it is concluded that firm-specific features are conditional to their SR practice.

The findings offer policy implications that they can guide the management of other companies to include additional information in their annual reports. Moreover, the governments in East Africa will be guided by the findings to formulate policies on corporate reporting for firms.

Despite the interesting findings of this study, it has a limitation because it could not factor in the macroeconomic variables and other factors that may be peculiar to the countries studied. Therefore, the study recommends further research on this topic that would incorporate macroeconomic and institutional variables such as legal protection, auditing and accounting quality, gross domestic products, etc.

**AUTHOR CONTRIBUTIONS**

Conceptualization: Haruna Maama.
Data curation: Haruna Maama, Shenaaz Gani.
Formal analysis: Haruna Maama, Shenaaz Gani.
Funding acquisition: Shenaaz Gani.
Investigation: Haruna Maama, Shenaaz Gani.
Methodology: Haruna Maama, Shenaaz Gani.
Project administration: Haruna Maama.


