

Sustainable Supply Chain Performance Strategies in Achieving the Global Reporting Initiative (GRI) Sustainability Approach: A Case Study of AngloGold Ashanti -Ghana

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Abstract: *Organizational performance strategies now include sustainable supply chain performance initiatives. Organizations increasingly need to satisfy stakeholder expectations and agendas in addition to the consumer demand for goods and services that are socially, economically, and environmentally friendly. The report uses empirical sources of data from the AngloGold Ashanti Group's Sustainability Reports for the years 2016 to 2020 to assess the organization's performance strategies. The research used economic disclosure benchmark and procurement practices from the Global Reporting Initiatives (GRI) to undertake a quantitative desktop case study analysis of AngloGold Ashanti- Ghana (AGA) sustainability Ghana's supply chain strategy. The study concluded that businesses improved financial performance indicators by adding value to their economic activity. Regular community investments by businesses contribute to sustainable supply chain management. The amount of money spent with local vendors is a key indicator of sustainable economic empowerment in the supply chain. Learning more about Anglo-Gold Ashanti- Ghana's economic and procurement reporting processes was made easier thanks to the study's practical applications.*

Keywords: AngloGold Ashanti, Economic Indicators, Global Reporting Initiatives, Sustainability Approach

Introduction

Increasing public knowledge of sustainability measures in supply chain activities is one of managers' and stakeholders' primary objectives. As part of sustainable supply chain management (SSCM), many businesses are now incorporating social, economic, and environmental issues into their daily operations (Kurapatsk & Damalli, 2013; Tsen & Chiu, 2013; Eccles, Ioannou, & Serafeim, 2014). When the supply chain process' economic, social, and environmental components are operationalized, particularly from the stage of procurement through the degree of recycling, studies have also shown imbalances. However, a company can maintain a strong balance among the three indicators during its business sustainability procedures provided the supply chain operations are managed properly (Mann, & Kaur, 2019). The process of balancing economic, social, and environmental considerations is referred to in supply chain activity literature as the Triple Bottom Line (TBL or 3BL) technique (Colbert & Kaez, 2007; Colman, 2004; Elkington, 1994). TBL benefits from sustainable supply chain operations, claims Sybertz (2017). Upstream or inflow logistics are one of three categories for supply chain activity (Vachon & Klassen, 2006; Ageron, Gunasekaran, & Spalanzani, 2012; Morali & Searcy, 2013; Golicic & Smith, 2013; Ageron et al., 2012; Vachon & Klassen, 2006; Wolf, 2014); operations; and outbound logistics (Carter & Rogers, 2008; Wang & Sarkis, 2013).

To ascertain how SSCM affects an organization's financial performance, research has been conducted (Surrooca et al., 2010; Wang & Sarkis, 2013). There is very little research on SSCM and financial performance in developing economies. Studies carried out in Ghana reveal that there is minimal connection between an organization's profitability and its environmental disclosures (Welbeck, Owusu, Bekoe, and Kusi, 2017). By extending the discussion and examining how economic indicators and procurement practices as defined by the Global Reporting Initiative (GRI) affect sustainability performance within the Ghanaian context, this study contributes to the empirical literature by using AngloGold Ashanti- Ghana (AGA) as a case study.

Literature Review

Theoretical Review- Stakeholder Theory and Sustainable Development

Both internal and external stakeholders are present in organizations. Among them are notable groups including shareholders, employees, clients, communities, pressure groups, and countless organizations that report on sustainability. Businesses can create and put into practice commercial strategies that benefit stakeholders (Dyllick & Hockerts, 2002). This demonstrates how SSCM and stakeholder theory are associated with better business performance, and as a result, companies are adopting this notion to give

stakeholder interests equal weight for the benefit of all parties involved (Morali & Searcy, 2013). Stakeholder theory and the theoretical basis of SSCM are compatible since stakeholders urge firms to use SSCM strategies that have not yet produced financial benefits (Sarkis, Zhu & Lai, 2011). The ideal view of stakeholder involvement is as a moral partnership with mutual benefits (Adongo, Kim & Elliot, 2019).

Stakeholder theory's primary objective is to assist companies in creating corporate engagement plans that will allow them to incorporate stakeholder opinions, worries, and suggestions into their corporate strategy for key issues (Hermeline & Beddewela, 2019; Panda & Barik, 2014). Mohammed, Xiao, and Hilton (2019) contend that the actors' values and how they intend to implement the perspectives of the stakeholders are what determine the outcomes of stakeholder engagement with firms. In such cases, stakeholder involvement does not instantly lead to SSCM and responsible business practices. They conclude that it is simplistic to assume that stakeholder engagement with organizations corresponds with better or more efficient SSCM procedures. According to Mann and Kaur (2019), businesses would need to adopt strategies proportionate to the interests of stakeholders to maximize wealth for the benefit of shareholders. This is because companies cannot afford to disregard the interests of other shareholders in the name of profit maximization if doing so will negatively affect other stakeholders.

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Sustainable Supply Chain Management and Financial Performance

The architecture of the supply chain today incorporates sustainable or enhanced social and environmental principles. The triple bottom line method, which maintains that social, environmental, and economic concerns are interrelated and affect total organizational performance, is used in this study to quantify the impact of SSCM based on GRI. The profitability of a corporation and environmental disclosure is positively and significantly correlated, claim Clarkson et al. (2011). According to Green et al. (2012), Wong et al. (2013), and Zhu et al. (2014), the financial performance of firms may be impacted by environmental, economic, and social activities in one of three ways: positively, negatively, or insignificantly (2013). According to Wang & Sarkis (2013), a structured SSCM including social and environmental factors produces superior equity returns and assets.

In 2014, Ortas et al. looked into the connections between sustainable supply chains and company financial success. The study concludes that for the supply chain process to be sustainable, environmental issues must be included. Frohlich and Westbrook (2001), Green, Zelbst, Meacham, and Bhaduria (2012), Golicic & Smith (2013), D'avanzovon Lewinski, and van Wassenhove (2004), Tan, Kannan, Handfield, and Ghosh (1999), Feng, Zhu, and Lai (2017), and Baah, Jin, and Tang(2017) are a few other studies whose findings concur with these. However, several empirical studies discovered that SSCM practices might undermine financial performance (Jiang, Belohlav,& Young,2007; Kotabe & Murray, 2004; Wieder, Booth, Matolesy,& Ossimitz, 2006).

Welbeck et al. conducted a study in 2017 on the environmental disclosures made by companies listed on the Ghana Stock Exchange. The study examined how environmental disclosures were affected by firm age, profitability, auditor type, and worldwide associations. The results of the regression analysis do not clearly distinguish between profitable and unsuccessful firms in terms of environmental disclosures.

Global Reporting Initiative(GRI), Economic Reporting and Procurement Practices

To create a sustainable global economy, the Global Reporting Initiative (GRI), a nonprofit organization, encourages economic, environmental, and social accountability. The most popular methodology for reporting on sustainability was created by GRI, a pioneer in the field. With the use of this framework, firms can assess their non-financial performance and the effects it has on the economy, environment, and society (www.globalreporting.org). The GRI's Economic Performance Standards include reporting disclosures on how an organization is expected to collect data for economic disclosures using figures from its audited financial statements. The categories for the economic performance standards are:

1. Economic Value Generated and Distributed with sub-themes on:

- Revenues
- Operating Costs
- Employee Wages and Benefits

- Payments to Providers of Capital
 - Payments to the Government
 - Community Investments
2. Financial Implications and Other Risks
 3. Defined Benefit Plan Obligations
 4. Financial Assistance Received from the Government.

In addition to the economic measures, the Standard also specifies transparency requirements for businesses' procurement processes. The disclosures should detail the methods and guidelines employed to promote supplier diversity as well as how much of the procurement budget is spent with regional vendors at key operating sites, including how much of the goods and services are purchased there (GRI, 2023).

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Profile of AngloGold Ashanti(AGA) Limited

Anglogold Ashanti(AGA) Limited is a mining company with operations, exploration, and project activities on all seven continents. AGA is active in 10 different countries. In addition to producing gold in Brazil, AGA also produces silver and sulfuric acid as byproducts. The third-largest producer of gold in the world, AGA is the biggest gold mining company in Africa. AGA produced 3.047 million ounces of gold in 2000 and employed 36,952 people overall, including contractors.

AGA aspires to lead the mining industry. The company's goal is to create value for its customers, employees, commercial partners, and social partners through ethically and securely exploring, mining, and marketing its products. AGA reports on its sustainability initiatives using the GRI Standards and the Sustainable Development Framework of the International Council on Mining and Metals (ICMM), of which AGA is a member.

Conceptual Framework

The following goals are the main focus of the study:

1. To assess how the SSCM of AngloGold Ashanti- Ghana sustainability reports have emphasized the economic and procurement metrics.
2. To make suitable suggestions for improved financial and economic sustainability.

Varsei et al.(2014) offer a sustainability performance framework with multidimensional result performance indicators. This framework is based on the economic, environmental, and social performance requirements of the Global Reporting Initiatives (GRI), as indicated in figure 1 below. This approach also complies with the standards of the Triple Bottom Line (TBL). The study adopts the Varsei et al. (2014) paradigm with revisions to represent the flow of how the GRI's sustainability disclosure standards are supported by the environmental, social, and economic performance indicators. Because the study is limited to the use of only the selection of economic and procurement indicators to evaluate the sustainability performance of AngloGold Ashanti-Ghana, the theoretical framework is modified by including the economic and procurement indicators as the sole variable in determining their alignment or lack thereof with the GRI sustainability disclosure and reporting framework.

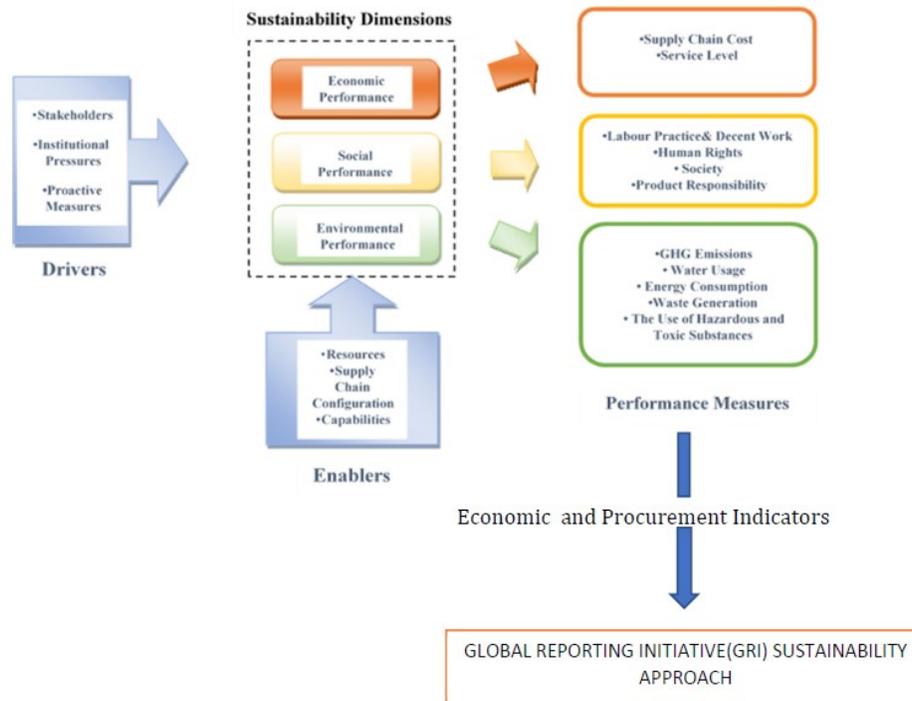


Figure 1: Sustainable SCM Performance Measurement Framework.
Source: Verse et al. (2014: 248) and Modified to Researcher's Constr

Data and Methodology

An approach of quantitative external desk research was used in the study. The financial statements from 2016 to 2020 fiscal years as disclosed on the Ghana Stock Exchange (GSE) were used as secondary data for this study, together with sustainability reports from the website of AngloGold Ashanti. Recent years have seen a rise in the significance of empirical research based on secondary data as a reliable research source (Mohardt, 2010; Saunders et al., 2009). The study did not compare or take into account data from other mining firms; it only used data from AngloGold Ashanti.

Analysis of Data and Results

GRI Economic and Procurement Indicators

The Economic Value Generated and Distribution criteria's two sub-themes, Payments to the Government and Community Investment, were evaluated by using the variables. The study additionally utilized the procurement transparency criteria by estimating the proportion of the procurement budget that was allocated to local suppliers by the geographic definition of "local" used by the organization.

Payments to the Government

AGA contributions to Ghana's government's fiscal income basket climbed consistently from 2016 to 2020, according to statistics from the sustainability report. The component contributions were made up, in that order, of corporate taxes, royalties, indirect taxes, employee income taxes, and property taxes. The findings show that AGA contributions to the government notably increased from 26 percent in 2017 to 32 percent in 2018. From 2018 to 2019, the company increased its contribution by 81.4 percent, and from 2019 to 2020, it increased by 87.82 percent. The figures demonstrated Ghana's efforts, under the direction of AGA, over the preceding three years to carry out and enhance its economic sustainability supply chain management plan. The trend analysis is displayed in Figure 2 below.

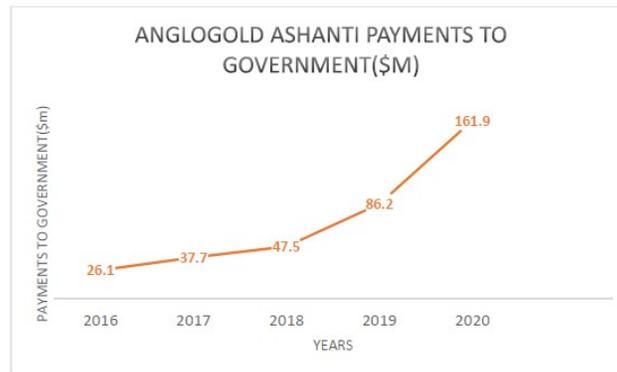


Figure 2: Graph of Anglo-Gold Ashanti-Ghana's payments to the Government of Ghana

Table 1: Components of Payments of Anglogold Ashanti-Ghana to Government from 2016 to 2020

ANGLOGOLD ASHANTI -GHANA PAYMENTS TO GOVERNMENT(\$M)					
DESCRIPTION	YEAR 2016	YEAR 2017	YEAR 2018	YEAR 2019	YEAR 2020
Taxation Paid	3.7	13.7	21.1	45.0	97.0
Royalties etc	11.0	12.6	12.1	22.1	43.5
Other Indirect Taxes	1.6	2.0	3.2	4.4	3.8
Employee Taxes and Contributions	9.7	9.3	11.0	14.7	17.3
Property Tax	0.1	0.1	0.1	0.1	0.3
	26.1	37.7	47.5	86.2	161.9

Source: AngloGold Sustainability Workbook 2020

Community Investment

The GRI also makes suggestions for attaining economic sustainability based on the history of investments made by companies in the regions in which they conduct business. The socioeconomic and cultural context in which AGA-Ghana conducts business is diverse and varied. AGA investment in the local communities aims to alleviate the problems with their high unemployment rates, slow economic growth, inadequate infrastructure, lack of access to key services, and poverty (AngloGold Ashanti, 2021).

The sustainability report's data shows that while AngloGold Ashanti Group's investment in communities in Regional Africa declined dramatically between 2019 and 2020, AGA's investment climbed gradually from 2018 to 2020. Based on their investments and attempts to engage the community, the local communities' impressions of the AGA's validity, Ghana's acceptability, and their faith in it are supported by the information. The graph and data are displayed in Figure 3 below:

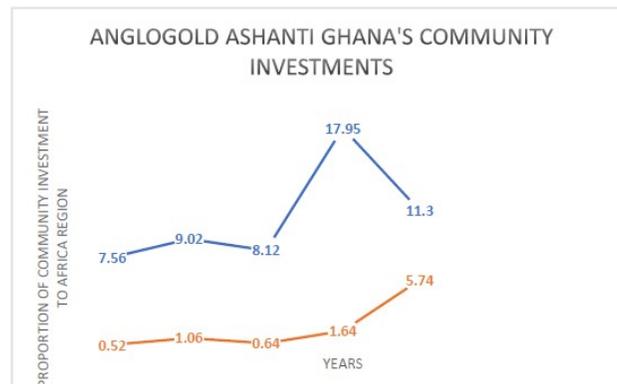


Figure 3: Proportion of AGA-Ghana's Community Investment to Africa Region's Community Investment (\$)

Blue Graph: Africa Region's Community Investment. **Brown Graph:** AngloGold Ashanti's contribution to Africa Region's Community Investment.

Table 2: The proportion of AngloGold Ashanti's Community Investment to AngloGold Ashanti Group Africa Region's Community Investment

**ANGLOGOLD ASHANTI -GHANA
PROPORTION OF AGA-GHANA'S COMMUNITY INVESTMENT
TO AFRICA REGION'S COMMUNITY INVESTMENT(\$M)**

YEAR	AFRICA REGION	GHANA
2016	7.56	0.52
2017	9.02	1.06
2018	8.12	0.64
2019	17.95	1.64
2020	11.3	5.74

Source: AngloGold Sustainability Workbook 2020

Procurement practices in terms of the proportion of spending on local suppliers

AGA-Ghana was responsible for between 87 and 91 percent of the spending in the nearby areas, according to the data study. The amount of money spent in local communities has altered, going from 87 percent in 2016 to 90 percent in 2017, then down to 89 percent in 2018, rising to 91 percent in 2019, and then increasing once more in 2020(The 2020 AngloGold Sustainability Workbook). The trend demonstrates that the management's actions and issues are fully constant, even though there are relatively few variations.

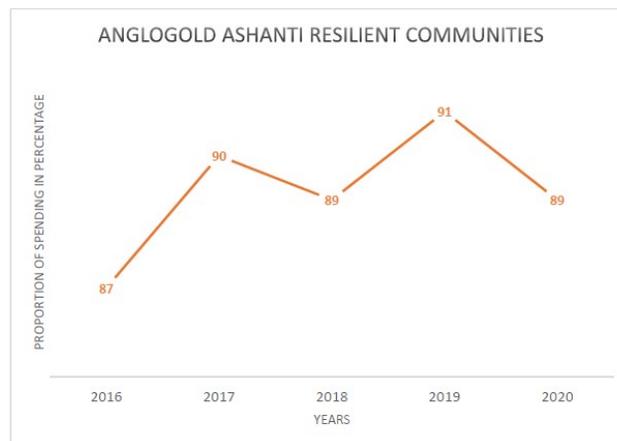


Figure 4: The proportion of spending of AngloGold Ashanti-Ghana in Local Communities (%)

Table 3: The proportion of AngloGold Ashanti-Ghana's spending in Communities with Local Suppliers

**ECONOMIC RESILIENCE IN COMMUNITIES
PROPORTION OF SPENDING ON LOCAL SUPPLIERS (%)**

YEAR	PERCENTAGE
2016	87
2017	90
2018	89
2019	91
2020	89

Source: AngloGold Sustainability Workbook 2020

Conclusions

The overall evaluation of environmentally friendly AngloGold Ashanti-Ghana's supply chain goals is consistent with their business strategy. Second, sustainable supply chain management for business and social endeavors is supported by the use of stakeholder theory. The ability of AngloGold Ashanti-Ghana to overcome supply chain difficulties has been demonstrated. The study's conclusions are as follows:

Economic Value Generation and Distribution Leads to Financial Performance

The economic worth of contributions to the fiscal policy basket of the Ghanaian government has increased, according to data from the sustainability report. Based on the money made and the operational expenditures incurred, the firm pays its taxes and other bills. Between 2016 and 2020, there was a significant increase in the amount of business taxes paid. AGA-Ghana raised the amount of corporate tax it paid to the government of Ghana in 2017 compared to 2016 and in 2018, and 2019 by 54 percent, 113 percent, 115 percent, and 117.5 percent, respectively even if the year 2018 exhibited a fall, indicating a decreased profit before tax in that year, the overall trend demonstrates that other things being equal, the development and distribution of economic value leads to financial performance.

Consistent Community Investment Leads to Sustainable Supply Chain Management

The results demonstrate how sustained supply chain management results from corporate investments in local communities. The percentage of AGA-Ghana investments made in communities increased by 156 percent in 2019 compared to 2018 and by 250 percent in 2019 compared to 2018. Again, the results show that supply chain disruptions give businesses a chance to improve their resilience. As a result, several organizations, including AGA-Ghana, promised further financing after the COVID-19 pandemic for the social and economic costs of living in the area and elsewhere by supporting the COVID-19 response team of the Ghanaian Ministry of Health.

Proportion of Spending on Local Suppliers is a Key Economic Indicator of Sustainable Supply

Giving suppliers a just assurance of their ongoing and continuous supply of materials and components is the first step in ensuring dependable material supply in the supply chain architecture. Even when spending amounts exhibit an upward and downward tendency, the percentage of money spent on local suppliers at locations where AGA-Ghana performs significant activities is indicative of the organization's compliance with the standards.

Recommendations and Opportunities for Further Research

Only the cost drivers of the Economic Value Generated and Distribution sub-theme of the four thematic areas of the GRI standards for economic performance were included in the analysis. Further research might be done on the financial risk, advantages, and overall monetary value of the financial support that organizations received from any government, as well as the income reporting side of the organization's activities.

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