

THE IMPACT OF ACCOUNTING ON THE SUSTAINABILITY PRACTICES OF SMALL AND MEDIUM SIZE ENTERPRISES (SMES) IN GHANA

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ABSTRACT

The relative silence of current sustainability research within SMEs compared to large industries is quite worrying as SMEs contribute immensely to sustainability challenges globally. This study examines the level of SMEs' sustainability and the impact of accounting practices (budgeting, financial statement preparations and financial reporting) on the sustainability practices of SMEs within the Techiman Municipality of Ghana. Using a stratified random sampling technique, the researcher gathered data from owners, managers and employees of sampled SMEs, using self-administered questionnaires. The regression results indicated that whilst accounting practices have a high and moderate impacts on economic and social sustainability of SMEs respectively, there was no correlation on environmental sustainability. These findings point to the intentions of SMEs in Ghana, prioritising economic sustainability at the expense of social and environmental sustainability. There is the need for SMEs in Ghana to actively advocate a balance in the triple bottom line as an integral part of their accounting practices.

Keywords: Accounting, Sustainability Practices, SMEs, Ghana, Techiman.

INTRODUCTION

As the global economy continues to grow, SMEs continue to play a significant role and contribute to income, employment and production. Globally, SMEs generate a great deal of jobs and contribute significantly to the development of the economy (Chege & Wang, 2020; Mandl, 2017). About 90% of global businesses and 50% of the global workforce are based in these countries. In developing economies, the contribution of SMEs to gross domestic product (GDP) could be 40% (Dalton, 2020). The World Bank (2020) indicates that Governments throughout the world are promoting the development of SMEs as a priority due to the fact that SMEs will need to contribute towards 600 million jobs creation by 2030, or 7 out of 10 new jobs created in developing economies. While SMEs can contribute significantly to environmental and social problems, they also leave major ethical, social and environmental dilemmas for stakeholders including regulators, customers, governments and activists (Azudin & Mansor, 2018).

Traditional accounting roles involved routine, quantitative operational reports, annual statutory reports, budgets and forecasts, cash flow statements, capital budgeting reports, reports on standard costs and variance analysis (Burritt et al., 2019; Kaplan, 2006; Lucas et al. 2013). Lucas et al. (2013) argue that Accounting could be an effective strategy to mitigate these

pressures from stakeholder groups, such as the government, to help reduce tarnish on their social image. A newly expanded role for management accountants is to participate in strategic decision-making (Lord, 1996; Pavlatos & Kostakis, 2018; Qian et al., 2018), is in response to the dynamic environment. Accountants are increasingly focusing on creating sustainable value to ensure profitability and competitiveness instead of just computing costs and controlling finances (Burritt et al., 2019).

Several research have been conducted on accounting practices have been under different subthemes including challenges to its adoption (Burritt, 2005; Isai & Geru, 2020; Mitchell & Reid, 2000), effects on organizational performance (Adler, Everett, & Waldron, 2000; Johnstone, 2018; Latan et al., 2018), determinants of its adoption and usage (Nartey, 2018; Thorsten et al., 2020). Others studies have examined how organizational factors have impacted on accounting techniques accounting (Alsharari & Youssef, 2017; Cobb et al., 1995; Erokhin et al., 2019; Oyewo, 2020a). On the other hand, studies on accounting practices that emphasize sustainability of large companies have developed (Hörisch et al., 2020; Joshi & Li, 2016; Maas et al., 2016; Milne, 1996; Oyewo, 2020a). While it has been established that SME's contribute immensely to global sustainability challenges problems (Gamage et al., 2020), studies examining how accounting practices relate to sustainability of SMEs are relatively scanty. Meanwhile, based on the fore discussions, investigations into how accounting contributes to sustainability are too important to ignore during these challenging times; stakeholders are becoming more interested in how organizations are being managed as well as the amount of resources spent in an effort to meet sustainability challenges (Hörisch et al., 2020; Latif et al., 2020).

Although SMEs contribute significantly to environmental and societal sustainability, extent studies on sustainability have mainly been on large and listed companies located in advanced economies (Anazonwu et al., 2018; Dumay & Hossain, 2019; Nadeem et al., 2017), with few studies have focused on combining SMEs' economic, environment and social practices (De Steur et al., 2020; Journeault et al., 2021; Singh et al., 2021). Meanwhile, it has been found that SMEs generate about 70% of global pollution and make up 90% of all businesses around the world (Hillary, 2000; Tutterow, 2014). This has resulted to immense pressure on SMEs as stakeholders increasingly demand for greater transparency about what firms are doing to expand their sustainability (Waheed & Zhang, 2020), particularly in emerging economies which has been identified as the flashpoint for sustainability challenges (Amoako et al., 2017). Furthermore, it is important to focus on SMEs and their sustainability efforts because larger organisations such as multinationals have more resources, including capital, human resources, and technology, which they can use to adjust and drive their business (Li et al., 2018; Wood et al., 2021). Thus, even though large company's environmental emissions are only 30% of what it contributes to worldwide pollution, it is far better positioned than a small business to operate sustainably (Hillary, 2000; Tutterow, 2014). Again, there are significant differences between large and small companies in terms of their accounting processes. Particularly, in emerging economies environment where most SMEs are quite informal (Amoako & Lyon, 2014), theories, tools, and policies geared toward large corporations aren't necessarily effective (Gangi et al., 2020; Müller et al., 2021).

This leads to the conclusion that accounting and sustainable processes of SMEs in emerging economies present a caveat. In filling this gap, the purpose of this study is to gain understanding of the sustainability levels of SMEs in Ghana and the impact of accounting on SMEs' sustainability practices. To answer the question of how accounting practices affect the sustainability of SMEs, the review of academic literature is combined with empirical data. In

developing economies, where the contribution of SMEs is much higher, information on how accounting functions is essential. According to Ahmad & Zabri (2015b), understanding the effectiveness of western accounting and non-accounting techniques in foreign settings is important for investors. By assessing these issues, this study makes several contributions by providing additional rich insights into the impact of accounting in SME sustainability to close the gap which has been highlighted in other studies (Azudin & Mansor, 2018; Lavia López & Hiebl, 2015). This is relevant since most of the limited studies on sustainability of SMEs have been conducted in advanced countries, and a few have been on developing economies (Iredele et al., 2020), other than those in Sub-Saharan Africa such as Ghana. Through this study, developed nations can understand how their practices work in a different socioeconomic environment (Ahmad & Zabri, 2015a). Furthermore, understanding this is beneficial for management of SMEs and the consultants involved in establishing accounting procedures and systems that would promote SMEs sustainability practices, particularly in developing countries.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Sustainability Defined

Sustainability refers to a means of creating long-term value for stakeholders through corporate practices that are oriented toward social, environmental, and economic factors (Amoako et al., 2017; Roger L Burritt, 2005; Diouf & Boiral, 2017). Sustainable corporate practices are a transformation of more traditional approaches that define ethical and equitable business practices. Although traditional terms like corporate social responsibility (CSR) and corporate citizenship are still used today, sustainability is a more comprehensive and broader concept (Montiel, 2008). It is necessary to incorporate extended time horizons in the concept of sustainability (Milne, 1996), among other reasons because of the need to consider equity between the present and the future generations.

Practices of sustainability are traditionally divided into three categories - social, economic, and environmental (Hörisch et al., 2020; Joshi & Li, 2016; Maas et al., 2016; Milne, 1996; Oyewo, 2020a). These three dimensions of sustainability is also known as the triple Bottom line (Elkington, 1998). Within the context of social sustainability, a company considers what effects its activities have on social systems (GRI 2013a, 2013b). In line with the Global Reporting Initiative (GRI) framework, which is now the most commonly accepted standard for sustainability reporting (Amoako et al., 2018; Brown et al., 2009), four subdivisions of social sustainability exists: labor practices & decent work, human rights, society, and product responsibility. A sustainable ecosystem encompasses land, water, air, and other living and non-living systems that support human life, as well as ecosystems (GRI, 2013). In the context of economic sustainability, an organization's impact on the economic conditions it encounters, the economic system it operates in, and the flow of capital from its stakeholders is measured (GRI 2013). According to the literature, organizations are incorporating these dimensions into business practice (Landrum & Ohsowski, 2018; Svensson et al., 2018) and by adding value to an organization, accounting can be deployed to drive sustainability. The concept of sustainability therefore entails the consideration of the environment and development simultaneously, meaning We must sustain development within the limits of the natural world (Bebbington, 2001). To be sustainable, ecosystem resource values need to be based on social norms and public preferences, which requires that stakeholders be included in discussions about new and improved accounting tools (Maas et al., 2016; Oyewo, 2020b).

Accounting Practices

The purpose of accounting is to identify, collect, measure, evaluate, analyze, prepare, and interpret data with the aim of helping management make decisions to meet their enterprise's goals (Adler et al., 2000; Johnstone, 2018; Latan et al., 2018). According to the Chartered Institute of Management Accountants (CIMA, 2014), accounting is a tool to help make decisions and guarantee sustainable results by assisting with decision-making. By analyzing and providing information, enterprises are able to implement, control, and plan their strategies (Quinn et al., 2018). The accounting system provides managers with relevant information for making informed decisions (Nakajima, 2020; Tilt, 2018). This has escalated the number of enterprises disclosing their environmental and social impacts using accounting as a practice in their annual reports during the past few years (Roger Leonard Burritt et al., 2019). According to Drury (2018) accounting practice aims to provide information that will enhance an organisations decision-making process, performance, and effectiveness in regards to its strategy.

Accounting Practices Among SMEs

Extant studies have established that the application of accounting techniques and empirical accounting research have focused on large firms rather than smaller enterprises, where the accounting expertise and capacity is less likely to exist (Azudin & Mansor, 2018; Drury et al., 1993; Mitchell & Reid, 2000). For instance, Drury et al. (1993) found that the prevalence of using activity-based costing, market research, sensitivity analysis and advanced quantitative techniques tended to be more prevalent in the larger businesses, and more simplistic techniques were reported by small businesses. This could imply that in smaller businesses there may be a greater gap between theory and practice of accounting. Meanwhile, just as large organizations, some of the challenges encountered by SMEs are technological advancement, globalization, increased market competition, size, changes in management, and limited access to funds (Eggers, 2020; Fasesin et al., 2015; Messner, 2016). Considering these challenges, (Senftlechner & Hiebl, 2015) argue that businesses should not only consider both economic and non-financial information into account to become sustainable. Hence, SME's can benefit from accounting as it integrates and emphasizes monetary and non-monetary information, which can facilitate managerial decision making (Azudin & Mansor, 2018; Crossley et al., 2021; Drury, 2018). This calls for more empirical studies that focus on accounting among SMEs. On specific accounting practices, Nartey & van der Poll, (2021a, 2021b) in s systematic literature review identified how accounting practices can be incorporated into manufacturing SMEs' strategies to counteract the perception by stakeholders that they contribute significantly to social and environmental problems. The authors identified seven innovative methods (budgetary control practices, product life cycle costs, activity base costing environmental costs, target costs, kaizen costs, and value analysis) to be applied by SMEs.

Compared to developing economies, developed countries can boast of a few of such studies. This situation therefore leaves an important gap in research on accounting practices in SMEs (Nartey & van der Poll, 2021a) within the context of emerging economies. Few studies (Amara & Benelifa, 2017; Azudin & Mansor, 2018; Masocha, 2019a; Nartey & van der Poll, 2021) have been conducted within developing countries. Azudin & Mansor (2018) explored the current state of the accounting practices as well as the impact of three factors, namely, DNA, business potential, and operational technology on accounting practices in Malaysian SMEs. It

was reported that accounting practices are positively impacted only by operational technology, but no significant influences of the organizational DNA and business potential on accounting practices. According to Amara & Benelifa (2017), in Tunisia, external forces are not a predictor of the level of accounting practices incorporated into SMEs rather, other factors such as size, resources, and management technical skills determine the level of accounting practices integration. The authors further argues that accounting assist in managing contingencies factors as enterprise strategy, environmental risk, and new technology, it assists management in establishing strategic plans. Internal and external factors are key consideration for the type of accounting practices to be implemented by management. Similarly, Nartey & van der Poll (2021) reports that in South Africa, SMEs' supply chain can become more economical by incorporating a sustainability strategy. The author further argues that SMEs with state-of-the-art accounting practices are better able to understand the effect of systemic risk and resource limitations on their activities, and this enables them to keep their operations running smoothly. Again, Masocha (2019b) report that South Africa SMEs extent to participate in sustainability practices are influenced by normative factors. Taking inspiration from these studies, the current research adds more insights into the impact of accounting practices on SMEs sustainability within emerging economies.

Accounting and Sustainability Practices among SMES

Accounting practices can enhance sustainability insofar as they are used to create value for stakeholders. Sustainability has been firmly entrenched in accounting, giving rise to sustainability accounting as a concept. According to Schaltegger & Burritt (2010), the aim of sustainability accounting is avail high quality and relevant information to facilitate sustainable development of corporations through new methods of information management and accounting. Accounting researchers (Agu et al., 2016; Bebbington & Unerman, 2018b; Egbunike et al., 2014; Schaltegger & Burritt, 2010) argue that accounting methods for sustainability may include accounting as part of a variety of accounting practices. Similarly, (Bebbington & Unerman, 2018a) claims that accounting can be used to estimate, evaluate, and report within the UNSDG framework. According to literature, accounting plays an important role in linking SDGs and enterprise management. In order for enterprises to promote the UN Sustainable Development Goals, innovative accounting practices are needed. According to the authors, enterprises can evaluate and theorize SDGs by incorporating innovative accounting practices.

Agu et al. (2016) found that accounting technique provides information about corporate governance sustainability to managers. Also, Egbunike et al. (2014) explored how accounting practices can assist in capturing information from different aspects of sustainability across manufacturing organisation. The authors concluded that accounting methods could be adopted in capturing information from a variety of sustainability initiatives. Accounting practices may be of great purpose if factored into strategies of SMEs to enable effective sustainability decision-making. As a result of accounting practices being incorporated, it contributes to sustainable business value by creating sound decision-making and supporting SMEs in evaluating, planning, coordinating, and controlling their strategies (CIMA, 2014). Furthermore, accounting practices Provide effective decision-making for enterprises by providing the correct and appropriate information. Hence, SME stakeholders will benefit from the sustainability through long-term value creation (Neziraj & Berisha Shaqiri, 2018). Rufino (2014) argues that businesses face global crises, they adopted accounting practices to meet environmental and social challenges. Accounting practices can assist enterprises in creating value with sustainable development (Nuhu

et al., 2016) as their specialized knowledge of accountants allows them to play a unique role in a business' sustainability (Prowle & Lucas, 2016). Alsoboa et al. (2015) and (Gomez-Conde et al., 2019) report that accounting practices such as Activity Based Costing (ABC) and strategic decisions make a substantial positive and significant contribution to the sustainability of organizations.

Although accounting practice has been used for centuries, some recent studies have cast doubt on its benefits. While some There is evidence that accounting practices have marginal benefits to the organizations (Angelakis et al., 2010), to no benefit of accounting to business performance (Ittner et al., 2003; Weißenberger & Angelkort, 2011), and so far as others establishing adverse relationship between the application of accounting practices and organizational output (Agbejule, 2005). Since accounting techniques are commonly adopted and adapted by small firms, there is still much to be learned about their adoption and use (Lavia López & Hiebl, 2015; Pelz, 2019). Particularly, few empirical studies have been conducted on how SMEs initiates sustainability (De Steur et al., 2020). Even though SME's accounting and control systems in general are assumed to be less formal and reactive, (Amoako et al., 2013; Johnstone, 2020), some SMEs have adopted formal accounting as a means of improving sustainability performance by mimicking larger customers (Nawrocka, 2008). Hence, there is a great deal to learn about the impact of accounting practices in SMEs sustainability (Schaltegger, 2018).

Methods

The study is based on the quantitative approach. The quantitative method is a methodology that aims at understanding behavior using mathematical and statistical modeling, calculation, and research (Richardson, 2015). The purpose is to evaluate the relationship of the variable(s) known as the independent variable(s) with the variable known as the dependent variable in a population (Shareia, 2016). This study aimed to investigate the impact of accounting practices in Ghana's Techiman Municipality on SMEs' sustainability. In this case, accounting activities become the independent variable and contingent variable on the sustainability of SMEs.

The study used the case study approach which is useful in closely examining the data in the context of their particular study (Power & Gendron, 2015). In most cases, a case study approach selects a single geographic region or a very small number of individuals as research units. Case studies investigate and evaluate existing real-life phenomena in their true nature through a detail analysis of one or a few events or circumstances and their relationships (Yin, 2003). According to Edwards (1998) indicates that the types of case studies include interpretive and evaluative case studies. The goal of the researcher's interpretive case studies is to interpret the data by establishing conceptual categories, promoting or questioning the assumptions made concerning them. In the assessment case studies the researcher applies his judgment to the phenomena contained in the results. The researcher creates a conceptual model for the analysis in this study. In this study, the researcher seeks to create and clarify the impact of accounting practices on the sustainability of SMEs in Ghana, an emerging economy.

The target population was the staff of SMEs who operate within the Techiman Municipality in the Bono East of Ghana. The Techiman Municipality does not have a systematic record of all SMEs units in its records. This is because the enforcement of SME registration is weak, and many of them are operating without registration. Therefore, it was difficult getting information about the total number of such groups and their locations in the Municipality. This

study is therefore confined only to the few registered SMEs in the Techiman Municipal Assembly and those who have received technical and entrepreneurial training from National Board for Small Scale Businesses (NBSSI) and are operating in the Municipality. The researcher categorized the SMEs into services, trading, manufacturing, and agro-processing. The categories of the population by SME industry is given in Table 1.

Table 1 POPULATION FOR THE STUDY	
Category	Number
Services	296
Trading	478
Manufacturing	127
Agro-processing	81
Total	982

Source: Author's Construction, 2021.

Essentially, sampling is a random selection of cases with the same characteristics that reflect the population overall. In research, due to the large population and lack of available data or cases, it might be difficult to collect data from all cases, time resources, and many more. The research participants were chosen by using stratified random sampling. I chose stratified random sampling because it involves a population division into smaller, so-called strata (Parsons, 2014) so that the selected participants came from all the categories of SMES as indicated in Table 1. Neyman (1992) specified the researcher may gather a complete list of the wider population and then randomly select a subset from that list to form their simple random sample. Simple random sampling offers the same chances of selecting someone from the larger population. Using a representative sample of a specific group, subset, or category of the population is thus fair, necessary, and permissible. Using the categories of SMEs, the researcher calculated the sample size from each stratum using the Yamane (1967) confidence interval formula of 95 percent as shown below:

$$n = \frac{N}{1 + N(e)^2} \dots \dots \dots (1)$$

Where n = sample, N = pupolation size, e = error limit or the critical value of the observation

For the SMEs population of 982, $n = \frac{982}{1+982(0.05)^2} \cong 285$

Therefore the sample size for each category was also determined by the formula:

$$n_h = \frac{n \times N_h}{N} \dots \dots \dots (2)$$

Where n_h is the sample size of category h
 N_h is the total population of the category h
 N is the total population of all SMEs
 n is the overall sample size of the study as determined above.
 For instance, to find the sample size services category of SMEs, the calculation is;

$$n_{services} = \frac{296 \times 285}{982} \approx 86$$

For trading, the sample is;

$$n_{trading} = \frac{478 \times 285}{982} \approx 139$$

For manufacturing, the sample is;

$$n_{manufacturing} = \frac{127 \times 285}{982} \approx 37$$

For agro processing, the sample is $285 - (86+139+37) = 23$.

Therefore, even though the total number of registered SMEs in the Techiman Municipality were 982, the total number of SMEs sampled for the study is 285 (i.e., 86 in the service industry, 139 in trading, 37 in manufacturing, and 23 in agro-processing). The names of the SMEs listed in this study were placed in a container on a folded piece of paper. I then chose the sample needed at randomly from the container. SMEs selected were used for the analysis of the study.

The study adopted multiple regression. The model is expressed in the form:

$$\begin{aligned} & \text{SMEs Economic Sustainability} = \\ & B_0 + B_1(\text{Budgeting Practices}) + B_2(\text{Financial Statement Practices}) + \\ & B_3(\text{Reporting Practices}) + \varepsilon \dots\dots\dots (1) \end{aligned}$$

$$\begin{aligned} & \text{SMEs Social Sustainability} = \\ & B_0 + B_1(\text{Budgeting Practices}) + B_2(\text{Financial Statement Practices}) + \\ & B_3(\text{Reporting Practices}) + \varepsilon \dots\dots\dots (2) \end{aligned}$$

$$\begin{aligned} & \text{SMEs Environmental Sustainability} = \\ & B_0 + B_1(\text{Budgeting Practices}) + B_2(\text{Financial Statement Practices}) + \\ & B_3(\text{Reporting Practices}) + \varepsilon \dots\dots\dots (3) \end{aligned}$$

Data were collected using a structured questionnaire. The questionnaire is a popular and widely used instrument in research (Matthews, 2002). The questions were for participants to respond to them with the overall goal of collecting data for the use of the researcher. Meyer & Rigsby (2001) explains that with questionnaires, information on expertise, attitudes, beliefs, behavior, facts, and other information can be collected. The questionnaire's reliability has been determined. Reliability is a degree to which the same outcomes can be obtained with repeated tests, questionnaires, studies, findings, or calculated techniques (Bolarinwa, 2015).

Sustainability was measured in three dimensions; economic, social, and environmental. Questions were evaluated on five Likert scales ranging from 1 = strongly disagree to 5 = strongly agree. Each category was measured using six items adapted other studies (i.e., Sarango-Lalangui et al., 2017). Accounting practices were also measured using budgeting practices, financial records keeping practices and financial reporting practices. These studies served the main

source questionnaires for accounting practices were sourced from various studies (Egbunike et al., 2018).

The validity of the material is determined by the ability to test or calculate the principle of interest completely. It is usually possible to make a content-valid instrument by recommending it to raters (experts) who are familiar with the construct of interest or with the topic of the research. All the questions were adopted from the literature to satisfy this criterion. Construct validity is developed when a person (and or researcher) who is an expert on the questionnaire (instrument) evaluating the study subject concludes that it measures the function or characteristic of interest (Bolarinwa, 2015). Twenty (20) questionnaires was pre-tested in the Techiman Municipality for this process. I collected the questionnaire answered and present similar questionnaires to the same participants after two weeks to respond. Using the two sets of questionnaire, the Pearson Correlation was used to evaluate the validity of the questionnaire.

The researcher observed all COVID 19 protocols of social distancing, making sure that both the research participants, frequent hand sanitising and the researcher were in nose mask. The researcher also guaranteed full confidentiality and participants consent was sought as introductory information was given to them to assist in making informed choices about whether or not to participate. Participants were granted the right to withhold information that they should consider private. Also, before and after the study the researchers ensured that the participants were not physically or mentally affected. The confidentiality of participants was ensured by using the information obtained only for the analysis. Also, researcher made sure that those whose works were useful in the analysis were properly and sufficiently remembered by assigning special codes to participants.

Empirical Results

This section presents the results of the study. It begins with demographic data of participants, the level of SMEs sustainability and the impact of accounting on economic, social and environmental sustainability practices of the selected SMEs.

Demographic Data of Participants

This section discusses the demographics of participants in terms of their age, education level, position, years of experience, and industry. Table 2 indicates that male participants were 59.5% and 40.5 female participants. The majority of the participants Accountants and accounts staff forming 26% and 31% respectively. Owners and general managers and general managers were the next participants with the highest participant rates of 17% and 13% respectively. The categories of the participants with least response rate were production managers (7%) and administrative clerks (5%). The management of these SMEs is usually handled by educated individuals (i.e., 54%) who have their tertiary education ranging, master's degree (2%), postgraduate diploma (1%), bachelor's degree (13%) and diploma (19%). Participants with high school certificates have the highest rate of 55% whilst those with other qualifications below high school certificate sum up to 10% of the research participants. Majority of the participants had a minimum of high school certificate; hence might be able to read, understand and correctly answer the questionnaire. Furthermore, most of the research participants had several years of work experience; only 4% had less than one year experience. Majority of the participants belonged to trading and the service sectors, with 30% and 38% respectively. The rest belonged to the manufacturing (22%) and agro-processing (10%)

sectors. A total of 687 questionnaire were sent to the sampled 285 SMEs, but 338 properly answered, out of the 352 that were returned.

S/N	Theme	Sub-theme	Frequency	Percentage
1	Gender	Male	201	59
		Female	137	41
		Total	338	100
2	Educational qualification	PhD	0	0
		Masters	6	2
		Postgraduate diploma	4	1
		Bachelor's degree	44	13
		Diploma	65	19
		High School Cert.	186	55
		Others	33	10
		Total	338	100
3	Position in SME	Owner	58	17
		General manager	45	13
		Production manager	24	7
		Accountant	89	26
		Accounts staff	105	31
		Administrative staff	17	5
		Total	338	100
4	Work experience	Less than 1 year	15	4
		1-3 years	85	25
		3-6 years	146	43
		6-10 years	53	16
		More than 10 years	39	12
		Total	338	100
5	Industry of participants	Services	102	30
		Trading	128	38
		Manufacturing	76	22
		Agro-processing	32	10
		Total	338	100

Source: (Field Survey, 2021)

Level of SMEs' Sustainability

The first objective of the study examined the level of sustainability of SMEs in the Techiman Municipality of Ghana. Sustainability was evaluated in three dimensions; economic sustainability, social sustainability and environmental sustainability. In response, the results are indicated in Table 3. The means and standard deviations were used. The questions were evaluated based on five Likert-scale. A mean of 4 - 5 means the level is high, mean of 3 - 4 means level is moderate and mean below 3 is low.

On financial sustainability, an overall mean of 4.1621 was achieved indicating that the level of financial sustainability of SMEs is high. The minimum value obtained was 1 and the maximum value was 5. The implication is that the study had some participants whose level of financial sustainability was very low and others whose level of financial sustainability was very high. Specifically, a mean of 4.5053 and standard deviation of 0.72491 was achieved for increased in number of clients. This is the indication that the customer base of the SMEs have

witnessed an increased in number over the years. The study registered a moderate level of SMEs increased in average customer purchase with a mean value of 3.8421 and standard deviation of 1.07122. There was a high level of SMEs reduction in operation cost with a mean of 4.0842 and standard deviation of 0.80487. A mean of 3.9158 and standard deviation of 1.29731 was achieved indicating that the level of SMEs increased in profitability was moderate. In all, the level of financial sustainability of SMEs was high as indicated by a mean of 4.1621.

With the financial records keeping practices, the study had engagement incorporate social activities (mean = 4.0316, standard deviation = 0.77984), promotion of work and family life reconciliation (mean = 4.3088, standard deviation = 0.66297) and safe working environment for employees (mean = 4.3088, standard deviation = 0.66297) had mean values greater than 4. The implication is that the SMEs engage in corporate social activities, promote work and family life reconciliation and safe working environment for employees. The assertion that SMEs regularly conduct training in employee health and safety (mean = 3.5439, standard deviation = 1.27088) was moderate. There was however, a low level that SMEs pay all taxes to assist community developments (mean = 2.7298, standard deviation = 1.51076). In all, the level of SMEs economic sustainability was moderate.

Table 3					
LEVEL OF SMES' SUSTAINABILITY					
	N	Min	Max	Mean	Std. Deviation
Financial Sustainability					
Increased in number of clients	338	2.00	5.00	4.5053	0.72491
Increased in average customer purchase	338	1.00	5.00	3.8421	1.07122
Reduction in operation cost	338	3.00	5.00	4.0842	0.80487
Increased in profit of the firm	338	1.00	5.00	3.9158	1.29731
Employees are well-paid compared to its competitors	338	2.00	5.00	4.4632	0.70925
Overall	338	3.20	5.00	4.1621	0.42555
Economic Sustainability					
Engagement in corporate social activities	338	3.00	5.00	4.0316	0.77984
Promotion of work and family life reconciliation	338	3.00	5.00	4.3088	0.66297
Safe working environment for employees	338	2.00	5.00	4.0070	0.93445
Regularly conducts training in employee health and safety	338	1.00	5.00	3.5439	1.27088
Pays all taxes to assist community developments	338	1.00	5.00	2.7298	1.51076
Overall	338	2.60	5.00	3.7242	0.62811
Environmental Sustainability					
Cares for and protect the environment	338	1.00	5.00	2.4772	1.35976
Seeks to know the possible impacts on climate change for its business	338	1.00	5.00	2.9614	1.52049
Carries out specific initiatives to reduce waste.	338	1.00	5.00	3.5719	1.21866
Carries out specific initiatives to reduce energy consumption	338	1.00	5.00	2.7579	1.37674
Promote and participate in environmental friendliness programs	338	1.00	5.00	2.8281	1.54575
Overall	338	1.00	4.60	2.9193	0.71568

Source: (Field Survey, 2021)

With environmental sustainability, all the variables except carrying out of specific initiatives to reduce waste (mean = 3.5719, standard deviation = 1.21866) had mean values less than 3. The implication is that SMEs are not doing well in terms of caring for and protect the environment (mean = 2.4772, standard deviation = 1.35976), aims to understand the possible impacts of climate change on its business (mean = 2.9614, standard deviation = 1.52049),

carrying out specific initiatives to reduce energy consumption (mean = 2.7579, standard deviation = 1.37674) and promoting and participating in environmental friendliness programs (mean = 2.8281, standard deviation = 1.54575). In all, environmental sustainability of SMEs was low.

Collinearity Test

The study checked the absence of multicollinearity using Variance Inflation Factors (VIF) values. For the absence of multicollinearity, the VIF values are expected to be below 10.00, and best case would be if these values were below 5.00. Results indicate the absence of multicollinearity Table 4.1 since all the VIF are below 10.

Model	Collinearity Statistics	
	Tolerance	VIF
(Constant)		
Budgeting practices	0.763	1.310
Financial records keeping practices	0.998	1.002
Financial reporting practices	0.762	1.312
Economic Sustainability	0.552	1.813
Social Sustainability	0.415	4.735
Environmental Sustainability	0.522	5.001

Source: (Field Survey, 2021)

Effect of Accounting Practices on the Economic Sustainability of SMEs

The regression model summary indicated the correlation coefficient (R) and the coefficient of determination (R-square) is indicated in Table 4.2.

Model	R	R Square	Adjusted R Square	Std. Error
1	0.788	0.623	0.613	1.563

Source: (Field Survey, 2021)

As indicated in Table 4, there is correlation coefficient of 0.788. This indicates a positive relationship between predictive factors (budgeting practices, financial records keeping practices and financial reporting practices) and economic sustainability. According to the coefficient of determination (R square), the independent variables (budgeting practices, financial records keeping practices and financial reporting practices) have a correlation of 0.623. Implies that 62.3% of the cause of variation in the dependent variable (economic sustainability) could result from accounting practices. The ANOVA table for the regression analysis is indicated in Table 6.

Model		Sum of Squares	Df	Mean squares	F	Sig.
1	Regression	2.576	3	5.186	16.430	0.000 ^b
	Residual	28.600	143	0.316		

	Total	31.176	146			
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a. Dependent Variable: Economic sustainability; b. Predictors: (Constant), Financial reporting practices, budgeting practices, financial records keeping practices

Source: (Field Survey, 2021)

According to Table 5, the p-value or level of significance is 0.000, indicating a good fit between the available data and the model. This proves that the regression model provides precise predictions on the correlation between predictive factors (budgeting practices, financial records keeping practices and financial reporting practices) and economic sustainability. Based on the regression coefficients, I determined if the independent variables predicted the dependent variable (economic sustainability), as indicated in Table 5.

	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	t	
(constant)	3.567	0.439		8.849	0.001
Financial reporting practices	7.090	0.122	0.589	15.053	0.000
Financial records keeping practices	3.873	1.283	0.589	5.349	0.018
Budgeting practices	6.019	0.981	0.589	11.941	0.000

a. Dependent variable: Economic sustainability

Source: (Field Survey, 2021)

Table 5 illustrates that the regression coefficients showed a constant of 3.567, which is a significant number. Additionally, all of the variables were significant since their significance levels were below the 0.05 significance level in the study. The coefficients for all variables were positive, which implies that each variable contributes to economic sustainability. Financial reporting practices is the variable with the highest ratio, followed by financial services and social processes. The equation for the model is

$$\text{Economic sustainability} = 3.567 + 7.090 * \text{Financial reporting practices} + 6.019 * \text{Budgeting practices} + 3.873 * \text{Financial records keeping practices}$$

From the regression model, a unit upsurge in financial reporting practices will lead to a 7.090 increase in economic sustainability, all other variables remains constant. Similarly, an increase in budgeting practices increases economic sustainability by 6.019, with all other factors being held constant, an increase in financial record keeping practices will result in an improvement in economic sustainability by 3.873. Effect of accounting practices on the social sustainability of SMEs.

The study adopted accounting practices (budgetary, financial records keeping practices and financial reporting practices) as independent variables and social sustainability as dependent variable. The regression model summary is indicated in Table 6.

Model	R	R Square	Adjusted R Square	Std. Error	Sig
1	0.817	.667	.663	.36463	0.000

Source: (Field Survey, 2021)

From the results in Table 6, the accounting practices is indicated to positively relate (R -value = 0.361) to social sustainability. There is therefore a positive correlation between accounting practices (budgeting practices, financial records keeping practices and financial reporting practices) and social sustainability such that the independent variables (budgeting practices, financial records keeping practices and financial reporting practices) accounted for 13.03% of the basis of variant in the dependent variable (social sustainability).

The results is significant ($\text{sig} = 0.000 < 0.05$) proving that the regression model gives accurate predictions on the relationship between accounting practices (budgeting practices, financial records keeping practices and financial reporting practices) and social sustainability. The regression coefficients are indicated in Table 7.

	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	t	
(constant)	1.410	0.334		4.225	0.000
Budgeting practices	0.074	0.071	0.041	3.040	0.029
Financial records keeping practices	0.721	0.030	0.817	23.671	0.000
Financial reporting practices	0.057	0.083	0.027	3.690	0.011

b. Dependent variable: Social Sustainability

Source: (Field Survey, 2021)

From the results budgeting practices ($B = 0.074$, $\text{sig} = 0.029 < 0.05$), financial records keeping practices ($B = 0.724$, $\text{sig} = 0.000 < 0.05$) and financial reporting practices ($B = 0.057$, $\text{sig} = 0.011 < 0.05$) positively and significantly predict social sustainability of SMEs. The variable with the highest ratio is financial records keeping practices, followed by budgeting practices and financial reporting practices. The equation for the model is $\text{Social sustainability} = 1.410 + 0.074 * \text{Budgetary practices} + 0.721 * \text{Financial records keeping practices} + 0.057 * \text{Financial Reporting Practices}$

According to the regression model, when all other variables are kept constant, a unit increase in budgetary practices will lead to a 0.074 increase in social sustainability. Similarly, an increase in financial reporting practices increases social sustainability by a factor of 0.057, and a unit increase in financial records keeping practices will result in a 0.721 increase in social sustainability with all other factors held constant.

Effect of accounting practices on the environmental sustainability

In the regression analysis, accounting practices were used as the independent variables (See Table 8 for the regression model summary).

Model	R	R Square	Adjusted R Square	Std. Error	Sig
1	0.394	0.155	0.146	0.66141	0.000

a. Predictors: (Constant), Budgeting practices, Financial records keeping practices, Financial reporting practices
Source: (Field Survey, 2021)

The study indicates a positive but weak correlation coefficient value (R -value) and an R -square value of 0.0961. Thus, there is a positive but weak relationship between accounting

practices and environmental sustainability ($r = 0.394$, r -square value = 0.155) as indicated in Table 9. This means that accounting practices explain 15.5% of the variation of environmental sustainability. The study is significant (p -value = 0.000 < 0.5). This implies that the model is precise, and accounting practices predict environmental sustainability of SMEs.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.096	0.605		1.811	0.071
Budgeting practices	-0.065	0.128	-0.032	-0.506	0.613
Financial records keeping practices	0.393	0.055	0.391	7.115	0.000
Financial Reporting practices	0.185	0.150	0.077	7.231	0.000

a. Dependent Variable: Environmental Sustainability

Source: (Field Survey, 2021)

The results indicate that budgeting practices (b -value = -0.065, p -value = 0.613 > 0.05) positively but no significant predicted environmental sustainability. However, financial reporting practices (b -value = 0.185, p -value = 0.000 < 0.05), and financial records keeping practices (b -value = 0.393, p -value = 0.000 < 0.05) positively and significantly predict environmental sustainability. The implication is that SMEs financial records keeping practices and financial reporting practices positively predict environmental sustainability. The model equation is given as:

Environmental Sustainability = 1.096 + 0.393 (Financial records keeping practices) + 0.185* (Financial Reporting Practices).

Correlation of the Variables

The study calculated the correlation of the variables. The variables were economic sustainability (economic sust), social sustainability (social sust) and environmental sustainability (environmental sust) which constitute the dependent variable for the study. The independent variables were budgetary practices, financial records keeping practices and financial reporting practices. These variables constitute the accounting practices.

		Economic Sust	Social Sust	Env Sust	Budgetary Prac	Fin Sta Prac	Fin Rep Prac
Economic Sust	R	1	0.014*	-0.073	0.794**	0.582**	0.863**
	Sig		0.014	0.219	0.000	0.000	0.000
	N	338	338	338	338	338	338
Social Sust	R	0.014	1	0.158**	0.139*	0.817**	0.127*
	Sig	0.814		0.008	0.011	0.000	0.046
	N	338	338	338	338	338	338
Env Sus	R	-0.073	0.158**	1	0.000	0.388**	0.045*
	Sig	0.219	0.008		0.994	0.000	0.046
	N	338	338	338	338	338	338
Budgetary Prac	R	0.794**	0.139*	0.000	1	-0.014	0.487**
	Sig	0.000	0.011	0.994		0.815	0.000
	N	338	338	338	338	338	338

Fin Sta Prac	R	0.582**	0.817**	0.388**	-0.014	1	-0.042
	Sig.	0.000	0.000	0.000	0.815		0.476
	N	338	338	338	338	338	338
Fin Rep Prac	R	0.863**	0.127*	0.045	0.487**	-0.042	1
	Sig.	0.000	0.046	0.446	0.000	0.476	
	N	338	338	338	338	338	338

** . Correlation is significant at the 0.01 level (2-tailed).
 * . Correlation is significant at the 0.05 level (2-tailed).

Source: (Field Survey, 2021)

Table 10 indicates that the variables investigated have a positive correlation with one another. Budgeting practices were positively correlated with economic sustainability, with a value of 0.794 and significant at a margin of error of 0.05. The implication is that SMEs budgeting practices and economic sustainability are directly related. This means that an increase in budgeting practices tends to increase the economic sustainability of SMEs. Similarly, financial records keeping practices and financial reporting practices of the institution directly related economic sustainability of SMEs with financial records keeping practices recorded a lower correlated value (r-value of 0.582 and p-value < 0.05) than financial reporting practices (r-value of 0.863 and p-value < 0.05). This implies that, though financial records keeping practices and financial reporting practices related positively with economic sustainability, improvement in financial reporting practices of the institution will lead to a greater increase in financial sustainability of the firm.

Similarly, social sustainability of SMEs has been indicated to correlate positively with budgetary practices (r-value = 0.139, p-value < 0.05), financial records keeping practices (r-value = 0.817, p-value < 0.05) and financial reporting practices (r-value = 0.127, p-value < 0.05). The implication is that increase in SMEs accounting practices (budgetary practices, financial records keeping practices and financial reporting practices) result in an increase in SMEs social sustainability. The greater contributor to social sustainability of SMEs was financial records keeping practices.

DISCUSSION

This study examines the level of SMEs sustainability and the impact of accounting on SMEs sustainability practices. Data was gathered with questionnaire which was administered to employees, owners and managers of SMEs in Techiman municipality. The results show a very high level of SMEs economic sustainability, with moderate level of social sustainability and low level of environmental sustainability. It was therefore not surprising that accounting practices of SMEs impacted proportionately to the level of sustainability, indicating business as usual.

On the level of financial sustainability, an overall mean of 4.1621 was achieved indicating that the level of economic sustainability of SMEs is high. Specifically, the customer base of the SMEs witnessed an increased in number over the years; and with reduction in operation cost. Moderately, SMEs witness an increase in average customer purchase and increased in profitability was moderate. With the financial statement practices, SMEs engage in corporate social activities, promote work and family life reconciliation and safe working environment for employees. The assertion that SMEs regularly conduct training in employee health and safety was moderate. In all, the level of SMEs economic sustainability was moderate. Environmental sustainability was found to be low. SMEs were found not to be caring and

protecting the environment, not carrying out specific initiatives to reduce energy and promoting and participating in environmental friendliness programs.

Results from the study indicated that budgeting practices correlated positively with economic sustainability. This implies that an increase in budgeting practices tends to increase the economic sustainability of SMEs. Similarly, financial records keeping practices and financial reporting practices of the institution directly related economic sustainability of SMEs. Thus, there is a positive relationship between predictive factors (budgeting practices, financial records keeping practices and financial reporting practices) and economic sustainability. Based on the coefficient of determination (R squared) of 0.623, means that 62.3% of the variance in the dependent variable (economic sustainability) was attributable to the independent variables (budgeting practices, financial records keeping practices and financial reporting practices).

The results conforms with earlier studies such as Oliver (2013) who evaluated budgeting and budgetary control as a tool for enhancing SMEs sustainability and found that budget sets out a target for the organization and provides resources to reach this target in order to improve working conditions for the organization. Additionally, it is the means by which organization objectives are transformed into concrete tasks and responsibilities. In a similar vein, Adongo & Jagongo (2013) examined the relationship between budgetary controls and economic sustainability of SMEs and discovered a positive significant relationship between budgetary control practices and SMEs financial sustainability. Imo & Des-wosu (2018) also found that compared to government-owned companies on the basis of net profit and returns on assets, budgetary control is positively correlated with financial performance.

Similarly, social sustainability of SMEs has been indicated to correlate positively with budgetary practices (r-value = 0.139, p-value < 0.05), financial records keeping practices (r-value = 0.817, p-value < 0.05) and financial reporting practices (r-value = 0.127, p-value < 0.05). From the results budgeting practices (B = 0.074, sig = 0.029 < 0.05), financial records keeping practices (B = 0.724, sig = 0.000 < 0.05) and financial reporting practices (B = 0.057, sig = 0.011 < 0.05) positively and significantly predict social sustainability of SMEs by 13.03%. The implication is that increase in SMEs accounting practices (budgetary practices, financial records keeping practices and financial reporting practices) result in an increase in SMEs social sustainability. An empirical study by Masocha (2019) determined that social activities such as donations in financial or kind, volunteering, education for the public good, aid for societal development (sports and culture) and partnerships with local schools, authorities, and other community groups were helpful for SMEs sustainability.

The results indicate that budgeting practices positively but no significant predicted environmental sustainability. However, financial reporting practices (b-value = 0.185, p-value = 0.000 < 0.05), and financial records keeping practices (b-value = 0.393, p-value = 0.000 < 0.05) positively and significantly predict environmental sustainability such that accounting practices explain just 15.5% of the variation of environmental sustainability. The implication is that SMEs financial records keeping practices and financial reporting practices positively predict environmental sustainability. This analysis provides insights into believing that most businesses in the SMEs sector concentrate on their financial and social aspect neglecting the environmental responsibilities. This view was shared by earlier study by Yadav et al. (2018) and Marco-Fondevila et al. (2018) who expressed that most SMEs associate environmental responsibilities to increase in cost. According to Williams & O'Donovan (2015), because There is no perceived benefit in reducing costs associated with environmental practices, making it difficult for SMEs to adopt environmental practices. Ilomäki & Melanen (2001) shared the same sentiments but

indicated that most environmental business practices adopted by SMEs are those that help reduce costs or have a positive effect on the environment.

CONCLUSION

In the context of the implementation accounting practices that facilitates sustainability, the results of this study provide managers with insights and suggestions that could be taken in consideration. By focusing on how sustainable SMEs in Ghana are, findings from this study would inform managers and policy makers of SMEs on how to use accounting practices to improve upon sustainability practices of SMEs in emerging. This is relevant as good practices in advanced economies may not necessarily work in these economies, particularly those in sub-Saharan Africa. I, therefore, believe that studies that examine sustainability dimensions and accounting practices will add comprehensive and insightful knowledge to SMEs' sustainability research and enable a balanced view of the impact of accounting on the triple bottom aspects of sustainability.

Finally, I acknowledge that findings from this study should be generalized with caution as this is a case study. Notwithstanding these limitations, the study contributes to the fragmented studies in accounting and sustainability, particularly in emerging economies. In what we believe is an important field of inquiry, this empirical study will stimulate further thought-provoking research.

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