



Greening MSMEs in Solo Area for Sustainability: in terms of Green Accounting, Corporate Social Responsibility, Financial Performance, and Green Entrepreneurial Orientation

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ABSTRACT

The aim of this research to analyze the effect of green accounting and Corporate Social Responsibility on the sustainability of MSMEs through financial performance and to examine the role of green entrepreneurial orientation as a moderator of the effect of financial performance on the sustainability of MSMEs. Population of 11,157 MSMEs in Solo Raya area was taken purposively, samples that met the criteria and could be analyzed 183 MSMEs engaged in batik, handicrafts, crafts, food and beverages, services, fashion and furniture. Methods of analysis Path analysis, Sobel-test and Absolute Difference Regression test. The results through the direct-effect test (1) green accounting and CSR have a significant positive effect on financial performance, (2) CSR and financial performance have a significant positive effect on the sustainability of MSMEs, but green accounting is not significant. The indirect-effect test results (1) financial performance does not mediate the effect of green accounting on sustainability (2) financial performance mediates the effect of CSR on sustainability (3) green entrepreneurial orientation moderates the effect of financial performance on sustainability.

INTRODUCTION

In line with the Strategic Plan of the Ministry of Cooperatives and SMEs of the Republic of Indonesia 2020-2024, it is stated that MSMEs have the potential to absorb 97% of workers (116.97 million), this contributes to the economy 61.07% comes from GDP, the role is 14.37% in exports and 60.42% encourages investment. The sustainability of MSMEs is very important as a generation preparation or as resource support for businesses. Mentioned by Angreny et al. (2022) social, economic, environmental factors can affect business sustainability. MSMEs in Indonesia are facing many problems during the pandemic, this case needs intensive attention. The impact of the pandemic can be felt especially since the competition is very sharp, this makes MSMEs have to be able to maintain their business so that they can compete and achieve sustainability (Hanifa & Aprirachman, 2022).

MSME development, important thing in Indonesia's economic growth. Environmental impact as a result of human work is becoming a trend in business. The polluted natural environment without serious treatment is an important problem, these natural resources must be managed as best as possible. This factor requires the awareness of SMEs to the concept of Green Accounting, if the awareness is low it can be detrimental to them. Even though its application provides benefits to profits, companies must pay for environmental activities (Febriyana et al., 2023). In several cases, social accounting and environmental concern refer to legitimacy theory. This theory emphasizes the importance of balancing companies in achieving profits with their social concerns in the form of social interaction, so that they are not focused on maximum profits. Social norms must be used as a reference so that companies do not violate the provisions imposed (Deegan et al., 2002). This theory provides an understanding for business actors, to achieve balance is also controlled by government policies and political support. Thus there is interaction between the company and the community, the community will incur costs and the company earns income for the sake of its business continuity (Lako, 2018).

One tool for reducing environmental damage is implementing green accounting, because its application will help the company's financial performance get better and contribute to sustainability (Witjes et al., 2017). Environmental-based accounting can be used by businesses as an instrument for achieving sustainability, because it helps managers improve the economy, ultimately contributing to growth in the future (Gray, 2010). Green accounting will also increasingly be considered as a solution to overcome environmental pollution, so that this factor is seen as a business concept focused on environmental friendliness (Aniela, 2012). In the view of Putri et al. (2022) Green Accounting is defined as environmental accounting in that it contains an effort to integrate costs with environmental benefits that contribute to company economic decisions. In making economic decisions, this factor is also known as an effort to achieve a balance between environmental benefits and costs to the environment. In accordance with legitimacy theory or stakeholder theory, with the implementation of green accounting, the company obtains information on

the extent of its contribution to the surrounding community. In addition, green accounting that is applied will provide benefits for increasing company value and environmental performance, companies will also be increasingly able to control risk. Finally, green accounting will significantly affect financial performance and have an impact on business continuity (Ashari & Anggoro, 2021). In Jumingan's view (2017) financial performance is data related to a company's business that can be used as a benchmark for assessing success and financial development during a certain period of year. Financial performance can also determine the company's ability in terms of liquidity, capital and profitability for the future.

Amalya et al (2023) found that green accounting has a positive and significant link to financial performance. In Romadloni & Pravitasari's research (2022) views profitability as an important indicator of financial performance, companies that apply green accounting tend to produce higher financial performance. From the research of Indriastuti & Mutamimah (2023), green accounting significantly influences financial performance and has an impact on the sustainability of MSMEs in Central Java. The implication is that the application of green accounting to MSMEs can improve the financial performance of MSMEs because they are able to manage it effectively so as to obtain environmental benefits. The application of green accounting can also reduce environmental costs as a result of which the financial performance of MSMEs has increased, which has an impact on business sustainability. The findings of Febriyana et al. (2023) green accounting has a positive link with profitability. Green accounting is useful for maintaining interaction.

Amalya et al (2023) found that green accounting has a positive and significant link to financial performance. In Romadloni & Pravitasari's research (2022) views profitability as an important indicator of financial performance, companies that apply green accounting tend to produce higher financial performance. From the research of Indriastuti & Mutamimah (2023), green accounting significantly influences financial performance and has an impact on the sustainability of MSMEs in Central Java. The implication is that the application of green accounting to MSMEs can improve the financial performance of MSMEs because they are able to manage it effectively so as to obtain environmental benefits. The application of green accounting can also reduce environmental costs as a result of which the financial performance of MSMEs has increased, which has an impact on business sustainability. The findings of Febriyana et al. (2023) green accounting has a positive link with profitability. Green accounting is useful for maintaining company interaction with the surrounding community, preserving the environment, and preventing protests by local residents. The findings of Hana & Astuti (2020) are different because this factor does not affect financial performance proxied from profitability, the reason for this is the company's low publication of environmental costs and low involvement in social activities.

Several research results prove that Corporate Social Responsibility (CSR) has a positive influence on company performance (Nurhidayah & Ni'am, 2022) which ultimately has an impact on business sustainability (Kurnia et al., 2019).

CSR is the key to corporate sustainability (Anis & Richardson 2012). CSR is a business concern for the environment around the company that aims to help MSME actors to innovate so that the selling value of their products increases (Ali & Bawono, 2022). The findings of Selvarajah et al. (2018), CSR implemented by companies in Malaysia has a positive link to financial performance. Research by Coelho et al (2022) obtained evidence that CSR positively influences a company's financial performance. Companies that actively carry out CSR gain high profitability so that their financial performance also increases. The impact can convince investors because in the long term the company is considered to have paid attention to the sustainability of its business.

Financial performance will also affect company sustainability and have an impact on economic growth (Menne et al., 2022). The results of his research on financial performance have a positive effect on corporate sustainability. In the perspective of Prena & Diarsa (2019), business continuity is important information for investors because business sustainability can be assessed from financial performance which is reported annually. This will affect the entity's ability to maintain its business in the long term. The findings of Indriastuti & Mutamimah (2023) the financial performance and sustainability of MSMEs have a positive link. Financial performance can be understood as a company's efforts to achieve income and growth, so that the sustainability of its business can be seen from the level of its financial performance.

Siahaan (2004) also linked economic growth to contributing to environmental damage caused by the exploitation of energy and natural resources used in production activities. Increasing environmental damage, entrepreneurs are required to start thinking about the importance of concern for developing a green business for the sustainability of their business. Samson & Daft (2015) added that sustainability in implementing green business is not focused on profit, but achieving a balance on environmental and social performance. In the concept of business sustainability, entrepreneurs must have concern for the environment. This concept is also related to several factors such as government policies, shifts in social values, and information technology and climate change, so this will affect information about how well the company's image is able to manage the business. This study aims to explore previous findings to analyze the effect of green accounting and CSR on MSME sustainability through financial performance and the role of green entrepreneurial orientation in moderating the effect of financial performance on MSME sustainability.

LITERATURE REVIEW

Green Accounting

Febriyana et al., (2023) argues, green accounting is often referred to as environmental accounting which implies initiatives to take into account environmental costs and benefits when making financial decisions or measuring a company's financial performance. Green Accounting refers to initiatives to factor in environmental costs and benefits into financial valuations. Green Accounting is defined as the process of identifying, ranking, measuring, or qualifying environmental costs and incorporating them into business

decisions. Business choices are supported by environmental cost and performance data provided by environmental management accounting. To help businesses make decisions, green accounting collects manufacturing, inventory, waste, and activity costs. Cost, production, inventory, waste and performance data are collected by green accounting for the purposes of planning, valuing and managing the accounting system. Consequently, environmental accounting is a multifaceted strategy that enables the transfer of data from cost accounting to increase material efficiency, minimize environmental risks and consequences, and lower environmental protection costs. Budget planning is often carried out in collaboration with location, research & development, and production management (Hana & Astuti, 2020).

Corporate Social Responsibility

The concept of Corporate Social Responsibility (CSR) includes the company's commitment to contribute to sustainable economic development marked by a sense of corporate social responsibility in achieving economic, social and environmental balance (Hana & Astuti, 2020). Anggraini (2007) also argues that the reason CSR is implemented is because companies are part of society, so they need to pay attention to society, between companies and communities will benefit from each other, and CSR as a medium to avoid social problems. This factor by Anggraini (2006) is related to the company's mechanism for integrating social care that is implemented in stakeholder activities. Furthermore, Romadloni & Pravitasari, (2022) relate this factor to the company's commitment to achieving sustainability, marked by the company's ethical behavior towards economic development and improving the quality of life of the local community. Rahayu & Paramita (2023) states that this factor contains three basic principles of 3P (Profit, People, Planet). The concept of CSR is based on the triple bottom line, meaning that companies need to strike a balance between acquiring value for business continuity, the tendency for personal failure, and how to maintain profitable operations.

Financial Performance

This factor is seen by Rudianto (2016) as the company's achievements in effective asset management over a certain period of time. This factor by Rahayu & Paramita (2023) is important for companies because it can be used to evaluate the company's level of success in the financial aspect. Indicators for measuring business performance, namely the growth achieved in terms of sales, capital, markets, profits and the level of satisfaction felt by customers. By Jumingan (2017) the indicators can be seen from profitability, capital adequacy, or liquidity.

Business Sustainability

This factor is seen as the consistency of a business, in relation to MSMEs a business can achieve growth and development, as well as strategies for maintaining business continuity which ultimately affect the existence of MSMEs (Mas-Verdú et al., 2015). This factor by Angreny et al (2022) concerns efforts

directed at long-term goals so that a business can survive while still paying attention to the balance of achieving profit with the Triple Bottom Line (economic, social and environmental). According to Deyganto (2022) sustainability, related to how companies develop and maintain and protect their business in order to gain long-term profits. This factor by Mas-Verdu et al. (2015) can be assessed by indicators of increasing both the number of employees and capital, the ability to access technology, innovation in products, and incubator programs in business.

Green Entrepreneurial Orientation

This factor by Lekmat et al. (2018) was able to attract the attention of researchers in line with the widespread benefits of green business applied by entrepreneurs to improve company performance. Zhai et al., (2018) added, ideas are important for entrepreneurs to develop, they must also develop strategies for caring for the environment in order to survive and have competitiveness so as to contribute to the sustainability of their business. In the view of Cohen & Winn (2007) this factor emphasizes the economic activities of companies that are oriented towards environmental concern that can increase value for society where this factor refers to environmental and social orientations as well as innovative orientations. Demirel et al. (2019) added that this factor is related to the proactive attitude of entrepreneurs to take advantage of business opportunities around their companies. As a process, the success of a green entrepreneurial orientation can be assessed from the environmentally friendly products that are created.

Hypothesis Development

Green Accounting and Financial Performance

Qian et al. (2012) argues, Green Accounting activities can provide benefits for MSMEs in improving environmental performance and ability to control costs, there is an intention to develop green technology, and actively promote their green products. This factor, if applied, also provides an efficient profit on environmental costs, encourages the creation of green business strategies, the analysis of production costs is also accurate, and the profitability will be better. In line with stakeholder theory, green accounting that is applied by MSMEs is not solely focused on achieving profit, but they pay attention to the importance of the surrounding environment and social care. So to improve financial performance, a balance must be created between the company and the community where both will benefit (Degan, 2016). Several studies have shown that Green Accounting activities can improve a company's financial performance (Ezeagba et al., 2017; Andries & Stephan, 2019; Chasbiandani et al., 2019; Lestari et al., 2020).

H1: Green accounting has a significant positive effect on financial performance

Corporate Social Responsibility and Financial Performance

Corporate Social Responsibility (CSR) is the company's activities as a sense of corporate social responsibility towards the environment around the company's location. The more often companies carry out social responsibility,

the greater the company's concern for the community and the surrounding environment. Companies that often implement CSR can improve the company's reputation and attract consumers to buy company products so that it will increase profitability which contributes to improving financial performance (Hana & Astuti, 2020). This understanding is in line with research by Gangi et al. (2019); Ling (2019) Ho et al.. (2019); Indriastuti & Najihah (2020); Najihah et al. (2021) that CSR activities carried out by companies can improve financial performance. Princess et al. (2018) shows that CSR disclosure has a significant effect on financial performance.

H2: Corporate social responsibility has a significant positive effect on financial performance

Green Accounting and Sustainability of MSMEs

Permatasari & Setyasrini (2019) revealed that stakeholder theory is used as a reference in the application of green accounting, where companies are committed to providing stakeholders regarding environmental information and from this theory companies and stakeholders will build high commitment. The level of commitment of the two of them will determine the success of implementing green accounting. Previously researched by Marota (2017) and Nakajima et al. (2015) and Ratulangi et al. (2018) MSMEs that apply green accounting to their business will achieve sustainability. MSMEs such as the handicraft, food and beverage, or services and fashion sectors that apply this if they are able to achieve resource efficiency will be an indicator of success. Apart from that, it can also be seen from the effectiveness of the utilization and management of waste from the results of their production activities (Indriastuti & Mutamimah, 2023).

H3: Green Accounting has a significant positive effect on the sustainability of MSMEs

Corporate Social Responsibility and Sustainability of MSMEs

In some views, CSR is stated as a company investment whose goal is to achieve sustainability, but not only to achieve profits but only as a medium for achieving profits. CSR activities carried out by the company are also seen as a commitment to achieving sustainable development. In accordance with the concept of sustainable development, companies that carry out CSR will find it easier to achieve successful programs that will be implemented so that they will support their business strategies. So that these CSR activities, the company will benefit in achieving sustainable development (Kurnia et al. (2019). Research by Fathia and Sulfitri (2023) proves that there is a positive influence of Corporate Social Responsibility on company sustainability. Companies that implement CSR programs tend to be able to maintain the sustainability of their business because CSR shows the company's efforts to maintain sustainability. Various CSR approaches can be seen from social activities through providing information to the surrounding community, explaining the benefits of company products by providing samples of company products. This effort provides benefits for the company because the company gets feedback from the

community which ultimately encourages people's buying interest in the company's products. This explanation shows that there is a positive influence of CSR on company sustainability (Fathia & Sulfitri 2023).

H4: Corporate social responsibility has a significant positive effect on the sustainability of MSMEs

Financial Performance and Sustainability of MSMEs

The level of achievement of strong financial performance can be used as an indicator that the company is experiencing growth. As stated by Selvarajah et al. (2018) financial performance is related to a company's efforts aimed at obtaining income and growth. From this explanation, if the company's financial condition is getting better, it means that the company is considered capable of dealing with internal risks so that investors will also get good information from the financial performance. From the response of investors to the financial performance, it shows that the company is considered capable of achieving good growth. According to stakeholder theory, MSMEs that are able to create high financial performance for the welfare of stakeholders will make a positive contribution to business sustainability. This has also been implemented by MSME sectors such as crafts, services, fashion, and food and beverages with an operating period of at least a year, so that the MSME business can achieve business sustainability in the long term. Pedron (2020) proves that companies that seek to improve their financial performance are driven by environmental information disclosure so that they can make a positive contribution to the company in achieving sustainable performance.

H5: Financial performance has a significant positive effect on the sustainability of MSMEs

Green Accounting, Financial Performance and Sustainability of MSMEs

Profitability by Romadloni & Pravitasari (2022) can be used as an important indicator for achieving a company's financial performance, and the green accounting that is applied tends to produce higher financial performance. From the findings of Amalya et al (2023) the application of green accounting will positively affect a company's financial performance. Financial performance will also affect company sustainability and have an impact on economic growth (Menne et al., 2022). The results of the research by Menne et al. (2022) shows that financial performance has a positive effect on company sustainability. From the findings of Indriastuti & Mutamimah (2023) green accounting significantly influences financial performance and has an impact on the sustainability of MSMEs in Central Java. MSMEs that apply green accounting tend to produce higher financial performance, because green accounting applied by companies is able to reduce environmental costs thereby affecting financial performance improvement, which has an impact on sustainability.

H6: Financial performance can mediate the effect of green accounting on the sustainability of MSMEs

Corporate Social Responsibility, Financial Performance and Sustainability of MSMEs

Several researchers previously agreed that the more often a company implements SCR, the higher the company's concern for the community and the surrounding environment, this will improve the company's image and can encourage public buying interest in the company's products. Implementation of CSR will increase profitability which contributes to improving financial performance (Hana & Astuti, 2020). From Ling's findings (2019); Gangi et al. (2019); Ho et al. (2019); Indriastuti & Najihah (2020); Najihah et al. (2021) CSR activities can encourage increased financial performance. Consistent with the findings of Puteri et al. (2018) CSR disclosure significantly affects financial performance. According to stakeholder theory, MSMEs that are able to create high financial performance for the welfare of stakeholders tend to be able to maintain their business in the future. Pedron (2020) proves that companies are trying to improve their financial performance because disclosure of environmental information will encourage companies to achieve sustainable performance.

H7: Financial performance can mediate the effect of corporate social responsibility on the sustainability of MSMEs

Financial Performance, Green Entrepreneurial Orientation and Sustainability

Findings from the study of Jiang et al. (2018) and Zhang et al. (2023) support a significant positive relationship between Green Entrepreneurial Orientation (GEO) and financial performance. Environmentally Friendly Entrepreneur Orientation can improve a company's financial performance through innovations that reduce material, energy and water consumption as well as process efficiency. GEO also allows companies to comply with regulations and avoid paying fines. The advantage is reduced costs. Customer attitudes and preferences are shifting towards green purchasing and consumption. GEO enables companies to be proactive and gain a competitive advantage as a first mover. The findings of Demirel et al. (2019), stated that Green Entrepreneurial Orientation can encourage entrepreneurs to increase transparency, achieve cost efficiency, better risk management so as to contribute to improving financial performance. Hernandez-Perlines & Cisneros (2018) found that a green entrepreneurial orientation has a significant positive relationship to the company's financial performance.

From these findings, environmentally conscious entrepreneurs will be involved in carrying out green innovations to comply with regulations and manage risks related to the impact of environmental pollution so as to encourage companies to achieve cost efficiency. This will help the company to improve financial performance thereby contributing to business sustainability. Interaction of financial performance with Green Entrepreneur Orientation will increase business sustainability. Navarathinam & Amutha (2022) stated that Green Entrepreneurial Orientation is an important element to achieve business sustainability, entrepreneurs need to focus on the environment and social, which cannot be controlled by other factors such as economic factors.

Entrepreneurs who implement GEO tend to be able to control operational costs to achieve efficiency and effectiveness. To achieve business sustainability, GEO plays a role in strengthening the company's financial performance.

H8: Green entrepreneurial orientation can moderate the effect of financial performance on the sustainability of MSMEs.

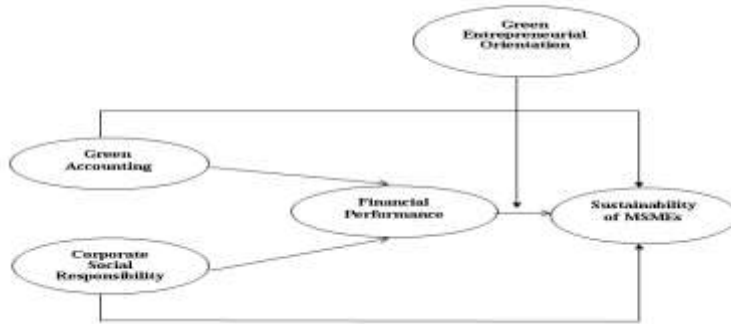


Figure 1: Conceptual Framework Model

METHODOLOGY

1. Research Method

This study employs the Partial Least Squares (PLS) method to examine the relationships between variables. PLS is a variance-based structural equation modeling technique suitable for predictive and exploratory research, particularly when the research model is complex or the sample size is relatively small (Hair et al., 2019). This method allows for the estimation of complex cause-effect relationship models with latent variables, making it ideal for the current research.

2. Population and Samples

The population is UMKM in the Greater Solo area. Based on data from the MSME Sector Staff at the Office of Cooperatives, Small and Medium Enterprises and Industry (Dinkop UKMPerin), the total number of UMKM in 2023 in Solo is 11,157. Isaac & Michael (Sugiyono, 2019). The results of the consultation table, with a population of 11,157 at a significance level of 5%, obtained a sample of 265 SMEs. Samples were taken using a purposive technique, with the criteria that UMKM had implemented green accounting and had been operating for at least a year. Based on the results of the researchers' observations, the number of samples that met the criteria and could be analyzed were 183 SMEs engaged in batik, food and beverages, handicrafts, crafts, fashion, services, and furniture. All items were measured using a Likert-five-point indicators for green accounting variables using Hansen & Mowen, (2015), corporate social responsibility using Bahta et al. (2020), financial performance using Jumingan, (2017), Green entrepreneurial orientation using Gazali & Zainurrafiqi (2023), Sustainability of MSME.

RESEARCH RESULTS

Testing the validity of statement items for green accounting, CSR, financial performance, green entrepreneurial orientation and sustainability variables was carried out by Factor Analysis through the matrix rotation stage. Requirements that must be met for the selection of statement items by looking at the results of the KMO MSA > 0.5 and the Chi-Square significance value on Barlett's Test < 0.05 . The results of the factor analysis showed that the value of KMO (0.885) > 0.5 and the significance of Chi-Square (0.000) < 0.05 meant that the factor analysis could be continued. Table 2 shows the results of the validity test.

Table 2
Validity Test Results

	Factor				
	1	2	3	4	5
GA1			0.853		
GA2			0.934		
GA3			0.882		
GA4			0.915		
CSR1	0.828				
CSR2	0.921				
CSR3	0.856				
CSR4	0.911				
FP1		0.692			
FP2		0.881			
FP3		0.795			
FP4		0.755			
FP5		0.826			
FP6		0.822			
GEO1				0.723	
GEO2				0.805	
GEO3				0.849	
GEO4				0.824	
GEO5				0.817	
SUS1					0.736
SUS2					0.784
SUS3					0.741
SUS4					0.726
SUS5					0.769
SUS6					0.815

Table 1 shows that all question items for the green accounting, CSR, financial performance, green entrepreneurial orientation and sustainability variables are valid, because all question items produce a factor loading > 0.50 . The reliability test uses the Cronbach's Alpha measure at a 5% degree of confidence. The instrument is said to be reliable if the Cronbach's Alpha value is > 0.60 (Ghozali, 2010).

Table 2
Reliability Test Results

Variables	Cronbach's Alpha
Green accounting	0.918
CSR	0.902
Financial performance	0.885
Green entrepreneurial orientation	0.863
Sustainability	0.859

Table 2 the variables green accounting (GA), Corporate Social Responsibility (CSR), financial performance (FP), green entrepreneurial orientation (GEO) and sustainability (SUS) have a Cronbach's Alpha value > 0.60 , it can be concluded that all variables are reliable.

Table 3
Hypothesis Test Results

Influence between Variables	t-test	p-value	Results
GA → FP	2.403	0.017	Accepted
CSR → FP	4.752	0.000	Accepted
GA → SUS	0.185	0.854	Rejected
CSR → SUS	2.362	0.019	Accepted
FP → SUS	4.426	0.000	Accepted
GA → FP → SUS	0.187	0.852	Rejected
CSR → FP → SUS	2.981	0.003	Accepted
FP*GEO → SUS	2.213	0.027	Accepted

Table 3 shows the results of testing the direct effect of green accounting and CSR variables on financial performance, the direct effect of green accounting, CSR, financial performance on the sustainability of MSMEs, and the moderating effect (financial performance*green entrepreneurial orientation) on the sustainability of MSMEs. Based on the results of hypothesis testing as shown in Table 3 are as follows:

1. The direct effect of green accounting on financial performance produces a t-test of 2.403 and a p-value of 0.017 meaning that green accounting has a significant positive effect on financial performance. Thus Hypothesis 1 is accepted.
2. The direct effect of CSR on financial performance produces a t-test of 4,752 and a p-value of 0,000 meaning that CSR has a significant positive effect on financial performance. Thus Hypothesis 2 is accepted.
3. The direct effect of green accounting on the sustainability of MSMEs produces a t-test of 0.185 and a p-value of 0.854 meaning that green

accounting has a not significant positive effect on the sustainability of MSMEs. Thus Hypothesis 3 is rejected.

4. The direct effect of CSR on the sustainability of MSMEs resulted in a t-test of 2.362 and a p-value of 0.019 meaning that CSR has a significant positive effect on the sustainability of MSMEs. Thus Hypothesis 4 is accepted.
5. The direct effect of financial performance on the sustainability of MSMEs produces a t-test of 4,426 and a p-value of 0,000 meaning that financial performance has a significant positive effect on the sustainability of MSMEs. Thus Hypothesis 5 is accepted.
6. The indirect effect of green accounting on the sustainability of MSMEs through financial performance, resulted in a t-test of 0.187 and a p-value of 0.852 meaning that financial performance cannot mediate the effect of green accounting on the sustainability of MSMEs. Thus Hypothesis 6 is rejected.
7. The indirect effect of CSR on the sustainability of MSMEs through financial performance, resulted in a t-test of 2.981 and a p-value of 0.003 meaning that financial performance can mediate the effect of CSR on the sustainability of MSMEs. Thus Hypothesis 7 is accepted.
8. The effect of financial performance on the sustainability of MSMEs is moderated by green entrepreneurial orientation, resulting in a t-test of 2.213 and a p-value of 0.027 meaning that green entrepreneurial orientation can moderate the effect of financial performance on the sustainability of MSMEs. Thus Hypothesis 8 is accepted.

DISCUSSION

These findings prove that green accounting has a significant positive effect on financial performance. MSME actors who implement green accounting will allow companies to add costs related to environmental preservation efforts including environmental prevention costs, environmental detection costs, environmental internal failure costs, and environmental external failure costs. This finding is in line with previous research (Ezeagba et al., 2017; Chasbiandani et al., 2019; Lestari et al., 2020; Andries & Stephan, 2019) that green accounting activities have a positive effect on company financial performance. Companies that implement green accounting tend to earn increased revenue, thus contributing to an increase in the company's financial performance.

These findings prove that Corporate Social Responsibility (CSR) has a significant positive effect on financial performance. MSME actors who implement CSR feel that companies are part of the community, so there is a tendency for companies to pay attention to the interests of the community and CSR activities carried out are a way for companies to avoid social problems. Thus, companies that often carry out CSR will also have greater concern for the community and the surrounding environment. As a result, the company's reputation will get better and the tendency of consumers to buy the company's products will be higher, this will contribute positively to profitability so that the resulting financial performance will also be better. This finding can confirm the results of previous findings by Ling (2019); Puteri et al. (2018); Ho et al.. (2019);

Indriastuti & Najihah (2020); Gangi et al. (2019); Najihah et al. (2021) that CSR activities carried out by companies can encourage increased financial performance.

This finding proves that green accounting has no significant effect on the sustainability of MSMEs even though it has a positive effect. The implication of this finding is that MSMEs that apply green accounting tend to allocate costs related to environmental preservation efforts while still trying to create resource efficiency. By implementing green accounting, companies will benefit from their industrial operations which will contribute to long-term business continuity. This finding is not in line with previous research by Ratulangi et al. (2018) and consistent with the findings Marota (2017) and Nakajima et al. (2015) that there is a significant effect of green accounting on business sustainability.

This finding proves that CSR has a significant positive effect on the sustainability of MSMEs. The implication of this finding is that MSMEs that carry out CSR activities tend to have a commitment to support the creation of sustainable companies. MSMEs that often carry out CSR activities, the company will benefit, namely increasing the company's reputation and encouraging consumers to buy company products, so that this will help companies maintain and achieve business sustainability. This finding is in line with the research of Fathia and Sulfitri (2023) stating that there is a positive influence of Corporate Social Responsibility on company sustainability where CSR activities can be a company effort to maintain sustainability.

This finding proves that financial performance has a significant positive effect on the sustainability of MSMEs. The implication of this finding is that the sustainability of MSMEs can be seen from the achievement of their strong financial performance. MSMEs with a high level of financial performance tend to be more able to maintain business continuity, so that the sustainability of MSMEs will be easier to achieve. This finding is in line with the research of Selvarajah et al. (2018) and Pedron (2020) which reveal that there is a significant positive effect of financial performance on sustainability, where financial performance is a company's effort to earn income and growth.

CONCLUSIONS AND RECOMMENDATIONS

The results of the direct effect test show that (1) green accounting and CSR have a significant positive effect on financial performance, (2) CSR and financial performance have a significant positive effect on the sustainability of MSMEs, while green accounting has a not significant positive effect on the sustainability of MSMEs. The results of the indirect effect test show that (1) the effect of green accounting on the sustainability of MSMEs through financial performance is not significant, (2) the effect of CSR on the sustainability of MSMEs through financial performance is significant. (3) green entrepreneurial orientation can moderate the effect of financial performance on the sustainability of MSMEs.

In this study there are still many shortcomings, future research can use other indicators, for example for entrepreneurship using indicators used by Covin & Slevin, 1991; Miller, 1983; Miller & Friesen, 1978; Venkatraman, 1989a) and for indicators for sustainability performance can use Fandeli et al., (2020).

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REFERENCES

- Ali, A., and I. R. Bawono. (2022). Pengaruh Corporate Social Responsibility (CSR) Terhadap Kinerja Inovasi UMKM Pada Binaan PT . Indocement.Tbk Cirebon Dimasa Pandemi Covid-19. *International Students Conference On Accounting & Business*, 440-445.
- Amalya, W. R., Eko G. Sukoharsono, and A. L. Sidarta. (2023). The Relationship of Green Accounting on Financial Performance with Environmental Performance as a Mediation Variable. *AEBMR*, 235, 5-18.
- Andries, P., & Stephan, U. (2019). Environmental innovation and firm performance: how firm size and motives matter. *Sustainability (Switzerland)*, 11(13), 1-17.
- Anggraini, R R.2007. Pengungkapan Informasi sosial dan faktor yang Mempengaruhi Pengungkapan Informasi sosial dalam Laporan Keuangan Tahunan. *Simposium Nasional Akuntansi IX*. Padang. 23-29 Agustus
- Angreny, W. R. S., Wulan Sumekar, dan Agus Subhan Prasetyo. (2022). Keberlanjutan UMKM berdasarkan Modal Sosial dan Triple Bottom Line. *Jurnal Agribest*, 6(1). 64-75.
- Aniela, Y. (2012). The role of environmental accounting in improving the company's environmental performance and financial performance. *Scientific Periodicals of Accounting Students*, 1(1), 15-19.
- Ashari, M. H., and Yudhi Anggoro. (2021). Mewujudkan Keberhasilan Usaha dengan Penerapan Akuntansi Hijau. *Jurnal Riset dan Aplikasi: Akuntansi dan Manajemen*, 5(1), 45-56.
- Ashari, M. H., and Yudhi Anggoro. (2021). Mewujudkan Keberhasilan Usaha dengan Penerapan Akuntansi Hijau. *Jurnal Riset dan Aplikasi: Akuntansi dan Manajemen*, 5(1), 45-56.
- Chasbiandani, T., Rizal N., and Satria. (2019). Penerapan green accounting terhadap profitabilitas perusahaan Indonesia. *AFRE Accounting and Financial Review*, 2(2), 126-132.

- Covin, J. G., & Slevin, D. P. (1991). A conceptual model of entrepreneurship as firm behavior. *Entrepreneurship Theory and Practice*, 16(1), 7-26
- Chelimo, J. K. and I. O. S. (2014). No Title. Effect of Bookkeeping on Growth of Small and Medium Business Enterprises in Kabarnet Town, Baringo County, Kenya. *International Journal of Science and Research (IJSR)*, 3(12), 432-437.
- Coelho, R., S. Jayantilal, and J. J. Ferreira. (2023). The impact of social responsibility on corporate financial performance: A systematic literature review. *Corp.Soc.Responsib. Environ Manag.* 30. 1535-1560.
- Cohen., B. & M. I. Winn, (2007). Market imperfections, opportunity and sustainable entrepreneurship. *Journal of Business Venturing*, 22(1), 22-49.
- Deegan, C. (2016). *Financial Accounting*. Australia: McGraw-Hill Education.
- Demirel, P., Rentocchini and Tamyada (2019). Born To Be Green: New Insights Into Economics and Management of Green Entrepreneurship. *Small Business Economics*, 759-771.
- Ezeagba, C. E., Rachael., and Chiamaka, (2017). Environmental Accounting disclosures and financial performance: a study of selected food and beverage companies in Nigeria. *International Journal of Academic Research in Business and Social Sciences*, 7(9).
- Fathia, A. N., and Virna Sulfitri. (2023). Pengaruh Corporate Social Responsibility, Carbon Emission Disclosure Dan Kinerja Lingkungan Terhadap Keberlanjutan Perusahaan Dengan Visi Misi Sebagai Variabel Moderasi. *Jurnal Ekonomi Trisakti*, 3(1), 1361-1372.
- Febriyana, N., Refi Tri Anika, Vivi Armadhani, and Maria Yovita R.Pandin. (2023). Penerapan Green Accounting Terhadap Profitabilitas UMKM Tahu Di Surabaya. *Profit: Jurnal Manajemen, Bisnis dan Akuntansi*, 2(3), 152-165.
- Fadelli Hary, Alizar Hasan & Elita Amrin, (2020). Model Konseptual Pengaruh Keberlanjutan terhadap Kinerja Industri Kecil dan Menengah. *Dampak: Jurnal Teknik Lingkungan Universitas Andalas - Vol. 17 No.01 (2020)* 15-24
- Gangi, F., M. Mustilli, and Varrone. (2019). Impact corporate social responsibility knowledge on corporate financial performance: evidence from the European banking industry. *Journal Knowledge Management*, 23(1), 110-134.

- Gazali and Zainurrafiqi. (2023). The Effect Of Green Entrepreneur Orientation On Network Resource Acquisition And Small And Medium Enterprises' Business Performance With Knowledge Transfer And Integration And Green Technology Dynamism As Moderator Variables. *Indonesian Interdisciplinary Journal of Sharia Economics (IJSE)*, 6(1), 136-153.
- Gray, R. (2010). Is accounting sustainability actually accounting for sustainability and how would we know? An exploration narratives of organizations and the planet. *Accounting, Organizations and Societies*, 35(1), 47-62.
- Hana, L. Y., and Ernawati Budi Astuti. (2020). The Implementation Of Green Accounting And Corporate Social Responsibility On Profitability In Manufacturing Companies. *International Students Conference On Accounting & Business*, 950-966.
- Hanifa, D., dan Rozzy Aprirachman. (2022). Analisis Keberlangsungan Usaha: UMKM Dimasa Pandemic Covid-19 Sebagai Dasar Dari Ekonomi Kerakyatan Di Kecamatan Sumbawa. *Nusantara Journal of Economics*, 4(2), 76-83.
- Hansen and Mowen. (2015). *Cornerstones of Cost Management*. Canada: Cengage.
- Hernández-Linares, R.; Kellermanns, F.W.; López-Fernández, M.C. (2021). Dynamic capabilities and SME performance: The moderating effect of market orientation. *J. Small Bus. Manag*, 59, 162-195.
- Ho, A. Y. F., Liang, H. Y., and Tumurbaatar, T. (2019) The impact of corporate social responsibility on financial performance: evidence from commercial banks in Mongolia. *Advances in Pacific Basin Business, Economics and Finance*, 7, 109-153.
- Indriastuti and Najihah. (2020). Enhancing financial performance through environment performance and corporate social responsibility. *Trikonomika*, 19(2), 70-75.
- Indriastuti, M., and Mutamimah. (2023). Green Accounting And Sustainable Performance Of Micro, Small, And Medium Enterprises: The Role Of Financial Performance As Mediation. *The Indonesian Journal Of Accounting Research*, 26(2), 249 - 272.
- Jiang, X., Heng L., Carl F., and Feifei J. (2018a). Green Entrepreneurial Orientation for Enhancing Firm Performance: A Dynamic Capability Perspective. *Journal Cleaner Production*, 198, 1311-1323.
- Jumingan. (2017). *Analisis Laporan Keuangan*. Jakarta: Bumi Aksara.

- Kurnia, A., Amanda Shaura, Santoso Tri Raharjo, dan Risna Resnawaty. (2019). Sustainable Development dan CSR. *Prosiding Penelitian & Pengabdian Kepada Masyarakat*, 6(3), 231 - 237.
- Lako, Andreas. 2018. *Akuntansi Hijau: Isu, Teori, dan Aplikasi*. Jakarta: Salemba Empat.
- Lekmat, L., Selvarajah, and Hewege. (2018). Relationship between Market Orientation, Entrepreneurial Orientation, and Firm Performance in Thai SMEs: The Mediating Role of Marketing Capabilities. *International Journal of Business and Economics*, 17(3), 213–237.
- Lestari, R., Aisyah Nadira, F., Nurleli, N., and Heliiana, H. (2020). The effect of the application of green accounting on the level of profitability of the company. *Accounting Review*, 20(2), 124–131.
- Ling, Y. (2019). The Influence corporate social responsibility on organizational performance. *Journal of Information and Knowledge Management Systems*, 49(3), 327–352.
- Marota, R. (2017). The Green Concepts and Material Flow Cost Accounting Application for Company Sustainability. *Indonesian Journal of Business and Entrepreneurship*, 3(1), 43–51.
- Mas-Verdú, F., Ribeiro-Soriano, D., & Roig-Tierno, N. (2015). Firm survival: The role of incubators and business characteristics. *Journal of Business Research*, 68(4), 793–796. <https://doi.org/10.1016/j.jbusres.2014.11.030>.
- Menne, F., Surya, B., Yusuf, M., Suriani, S., Ruslan, M., & Iskandar, I. (2022). Optimizing the Financial Performance of SMEs Based on Sharia Economy: Perspective of Economic Business Sustainability and Open Innovation. *Journal of Open Innovation: Technology, Market, and Complexity*, 8(18),1-24.
- Nakajima, Kimura, and Wagner. (2015). Introduction of material flow cost accounting (MFCA) to supply chain: a questionnaire study on challenges of constructing a low-carbon supply chain to promote resource efficiency. *Journal of Cleaner Production*, 108, 1302–1309.
- Navarathinam, and Amutha. (2022). Green Entrepreneurship: A Sustainable Development Initiative With Special Reference To Selected Districts. *Journal of Positive School Psychology*, 6(3), 7517– 7526.
- Nurhidayah, dan Ni'am. (2022). Pengaruh CSR terhadap Kemampuan Inovasi Dan Kinerja UMKM (Studi Kasus Penyaluran Dana CSR PT SPHC Pada UMKM Bunga Kopeng). *Jurnal CAPITAL*, 4(2), 11-26.

- Miller D. The correlates of entrepreneurship in three types of firms. *Management Science*. 1983;29(7):770-791.
- Miller, D. (1983). The correlates of entrepreneurship in three types of firms. *Management Science*, 29(7), 770–791.
- Pedron, Macagnan, Simon, D.S., and Vancin. (2020). Environmental disclosure effects on returns and market value. *Environ. Dev. Sustainab.*
- Permatasari, M. P., & Setyastrini, N. L. P. (2019). Factors influencing the disclosure of corporate social responsibility in developed and developing countries empirical evidence of legitimacy theory and stakeholder theory. *Journal of Accounting and Taxation*, 5(1), 29–43.
- Prena, G. D., Dan Komang Wahyu Diarsa. (2019). Pengaruh Kinerja Keuangan Dan Nilai Perusahaan Terhadap Keberlanjutan Usaha (Going Concern) Pada Perusahaan Perbankan Di Bursa Efek Indonesia (BEI). *Jurnal ekonomi dan Pariwisata*, 14(1), 1-8.
- Puteri, F. A., Lindrianasari., Kesumaningrum, N. D., and Farichah. (2018). The effect of corporate social performance and financial performance on corporate social responsibility (CSR) disclosure as an intervening variable toward firm value. *The Indonesian Journal of Accounting Research*, 21(3), 395–422.
- Putra, W. E., and Louis Utama. (2022). Pengaruh Green Entrepreneurial Orientation Dan Green Innovation Terhadap Kinerja Berkelanjutan Industri Gigi Palsu. *Jurnal Manajerial dan Kewirausahaan*, 4(2), 534-545.
- Putri, A. F. H. N., Alviani Indraswari, Yahya Wulandari, Ronnawan Juniarmoko. (2022). Green Accounting: Analisis Penerapan Green Innovation Pada Pengelolaan Limbah Pabrik Tahu di Kartasura. *Jurnal Akuntansi dan Audit Syariah (JAAiS)*, 3(2), 196-214.
- Qian, H., Li P., Howard K. W. F., YangC., and Zhang. (2012). Assessment of groundwater vulnerability in the Yinchuan Plain, Northwest China using OREADIC. *Environmental Monitoring and Assessment*, 184(6), 3613–3628.
- Rahayu, S. D., dan V. S. Paramita. (2023). The Role Of Corporate Social Responsibility In Moderating The Effect Of Financial Performance On Company Value. *Jurnal Riset Bisnis dan Manajemen*. 16(1), 91-97.
- Ratulangi, Pangemanan, and Tirayoh. (2018). The Analysis application of environmental accounting to operational costs of waste management at Manado Pancaran Kasih Hospital. *Going Concerned: Accounting Research Journal*, 13(04), 410–418.
- Romadloni, E. A., dan Dyah Pravitasari. (2022). Pengaruh Penerapan Green Accounting terhadap Profitabilitas Perusahaan: Studi Kasus Pabrik Roti

Monasqu, Desa Gilang, Kec. Ngunut, Kabupaten Tulungagung tahun pembukuan 2015-2021. *Jurnal Akuntansi, Keuangan, dan Manajemen (Jakman)*, 3(2), 141-157.

Rudianto. (2016). *Management Accounting*, Jakarta: Erlangga.

Samson, D. and Daft R. (2015). *Fundamentals of Management: Asia Pasific Edition*. South Melbourne: Cengage Learning.

Selvarajah, D., Murthy, Massilamani, and Mathavi (2018). The impact of corporate social responsibility on firm's financial performance in Malaysia. *Int. J. Bus. Manag.* 13(3), 220.

Vergara, C. C., & Agudo, L. F. (2021). Fintech and sustainability: Do they affect each other? *Sustainability*, 13(13), 1-19.

Witjes, S., Vermeulen, and Cramer. (2017). Exploring corporate sustainability integration to business activities. *Journal of Cleaner Production*, 153(1), 528-538.

Zhai, Y. M., Sun, Tsai, S. B., Wang, Z., Zhao, Y., and Chen. (2018). An empirical study on entrepreneurial orientation, absorptive capacity, and SMEs' innovation performance: A sustainable perspective. *Sustainability (Switzerland)*, 10(2), 1-10.

Zhang, X., Yuan L., Q. Meng and X. Teng. (2023). Green entrepreneurial orientation and financial performance in Chinese firms: The role of stakeholder engagement and green absorptive capacity. *Corporate Social Responsibility and Environmental Management*, 30(3), 1082-1095.