



## Competitive advantage as a mediating variable of corporate social responsibility programs' effect on SME sustainability

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### ABSTRACT

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The important role of small and medium enterprises (SMEs) in the economy requires SMEs to achieve business sustainability. The sustainability of SMEs can be achieved with assistance and guidance from external parties, both government and private, through corporate social responsibility (CSR) programs. This study investigates the mediating role of competitive advantage in the relationship between CSR programs and sustainability. The population of this study comprised SME owners who participated in CSR assistance programs offered by either state-owned enterprises or the private sector. This study collected quantitative data from 110 SMEs in East Java, located in the Malang, Probolinggo, Mojokerto, Kediri, and Blitar regions. Using structural equation modeling (SEM), the result was that companies or governments that provide CSR program assistance to SMEs contribute to an increase in SMEs' competitive advantage and business sustainability. Competitive advantage mediates the relationship between CSR programs and SME business sustainability. For companies or governments, providing CSR programs to SMEs requires mentoring models and CSR programs that focus on providing training to increase product innovation by creating unique products not easily imitated by competitors while maintaining competitive quality and prices. In addition, there is a need for training to increase SMEs' understanding of compliance with legal standards in business management, the importance of establishing a comprehensive code of ethics in business management, and the role of SMEs' contribution to charity so that business sustainability can continue to be pursued.

**Contribution/Originality:** Many studies have discussed the concepts of CSR and sustainability in SMEs. The novelty of this research lies in its investigation of whether CSR programs for SMEs must be mediated by competitive advantage to achieve SME sustainability.

## 1. INTRODUCTION

Small and medium enterprises (SMEs) play an important and strategic role in countries' economic growth, both in developing and developed countries (Candiya, Munene, Ntayi, & Malinga, 2018; Das, Rangarajan, & Dutta, 2020). Micro, small, and medium enterprises (MSMEs) number more than 90% of all existing businesses (Caldera, Desha, & Dawes, 2019). Empirical studies have shown that on an international scale, both in developed and developing countries, including Indonesia, MSMEs are a source of job creation (Das et al., 2020), contribute significantly to efforts to reduce poverty and unemployment (Ipinnaie et al., 2017), increase gross domestic

product (GDP), and maintain economic sustainability. According to the 2020 Economic Census in Indonesia, there were 64.2 million MSMEs, which employed 98.5% of the workforce, supplied 61.07% of the country's GDP, and attracted 60.4% of all investments (Indrawati, 2021). The most important component of the sustainable development of business opportunities is the economic and environmental system. The idea of sustainability and the connection between the economy and the environment are becoming increasingly crucial for politicians.

The important role of SMEs in the economy requires SMEs to achieve business sustainability. The sustainability of SME businesses can be achieved with assistance and guidance from external parties, both government and private, through corporate social responsibility (CSR) programs. Guzmán, Garza-Reyes, Pinzón-Castro, and Kumar (2016) explained that providing SMEs with CSR program assistance can increase their sustainability. Torugsa, O'Donohue, and Hecker (2013) explained that CSR programs have a significant effect on the sustainability of SMEs. Ali (2017) stated that CSR programs directly affect organizational performance. However, implementing a CSR program to increase SME sustainability is not always effective, and the process faces obstacles. The obstacles to CSR programs are partly due to the limited competitive advantage of SMEs. Based on the results of previous empirical studies, partnership programs that assist SMEs with CSR still face obstacles that can affect the sustainability of SMEs, so it is worthwhile to review the role of competitive advantage.

While many researchers have postulated that there is a relationship between social responsibility and the creation of competitive advantage, the nature of this relationship and the existing conditions often need to be determined more closely (Porter & Kramer, 2006). Additionally, managerial opinions of the phenomenon have a direct impact on how CSR policies are formed. Therefore, not every CSR policy will have a direct impact on a company's competitive advantage. According to several studies (Spence, 2016; Tantaló, Caroli, & Vanevenhoven, 2012), some small businesses may benefit from ethical behavior and integrity; however, there are still theoretical and operational gaps. The ability of a firm to strengthen its competitive advantage within its industry is referred to as company competitiveness, and it is necessary to improve our understanding of the relationship between participation in CSR activities and that ability.

Corporate sustainability is an approach that aims to create long-term stakeholder value by implementing business strategies that focus on the ethical, social, environmental, cultural, and economic dimensions of doing business. Several studies (Carroll, 2017; Lyra, De Souza, Verdinelli, & Lana, 2017; Schwartz & Carroll, 2003, 2008) have argued that for organizations to survive in today's marketplace, it is important for them to engage in initiatives focused on sustainability and social responsibility. A framework for corporate sustainability and CSR has been developed, comprising various management levels. The framework is supported by instruments to identify, implement, and control aspects of sustainability (Baumgartner, 2014).

To realize corporate sustainability, CSR is needed so that companies can operate while paying attention to environmental sustainability for future generations and caring for the welfare of the wider community (Pomare, 2018). Many studies have discussed the concepts of CSR and sustainability (Aguinis & Glavas, 2012; Alijani & Karyotis, 2016; Baumgartner, 2014; Chen & Wongsurawat, 2011; Griffin & Sun, 2017; Handayati, Rochayatun, Soetjipto, Sudarmiatin, & Bukhori, 2017; Huda et al., 2018; Romero & Lamadrid, 2014; Van Marrewijk, 2003). Small enterprises can participate in social responsibility using the social responsibility pyramid principle (Spence, 2016). CSR Programs for SMEs are naturally domestically focused and arise from consideration of potential business benefits resulting from improvements in eco-efficiency, a better social environment, or an enhanced profile in the neighborhood. The focus is on implementing easy-to-follow, affordable steps that typically produce clear outcomes (Santos, 2011).

Based on these considerations, it is necessary to study the role of SMEs' competitive advantage in mediating CSR programs' influence on SMEs' sustainability by developing a single model.

## 2. LITERATURE REVIEW

### 2.1. Corporate Social Responsibility

To realize corporate sustainability, CSR is needed so that companies can operate while paying attention to environmental sustainability for future generations and caring for the welfare of the wider community (Pomare, 2018). When a CSR project operates in a way that attempts to develop a competitive advantage for the organization (Burke & Logsdon, 1996), underpinning the strategic character of CSR, it can be a source of opportunity, innovation, and competitive advantage (Porter & Kramer, 2006). It may exist when a company's internal environment, which includes its values and resources, as well as its external environment, which includes market and non-market stakeholders, is compatible with the company's corporate social strategy (CSS), which was developed as a component of a competitive strategy (Berger & Schaeck, 2011). Such a strategy focuses on tying non-value-chain activities to competitive advantage and, hence, to the value-generation process. Given the challenges of long-term goal achievement and competitive advantage, the role of CSR in the competitiveness of SMEs has grown in significance. CSR has been suggested as a viable instrument for boosting company competition (Brunninge, Plate, & Ramirez-Pasillas, 2020).

### 2.2. Competitive Advantage

Adopting strategies that other businesses are not currently using to reduce costs, take advantage of market opportunities, and neutralize competitive threats is what is known as gaining a competitive advantage. Performance is typically thought of as the benefits firms gain as a result of implementing strategies. An organization's competitive advantage and sustainability are linked when increased sustainability increases the market share of its product. The economic stability of developing nations can influence price, quality, and product positioning from the standpoint of the consumer (Kwarteng, Dadzie, & Famiyeh, 2016). Sustainability and competitive advantage are regarded as essential factors in determining whether SMEs succeed or fail in an increasingly unstable global economy. One of the most important elements for SMEs to attain economic sustainability, according to Fiori and Foroni (2019), is a competitive advantage.

### 2.3. SMEs' Sustainability

In order to achieve economic sustainability, businesses must assess the influence of their operations on financial measures such as profitability, cost saving, and the need for management to focus on sustainability. Prioritizing social sustainability requires the distribution of economic power in society. Competition is common and encouraged in the business world, but to enhance the bottom line in social terms, organizations must establish an environment in which everyone can flourish (Kwarteng et al., 2016). In both developed and developing market economies, the application of the social elements of sustainability and their implications for competitive advantage has, for the most part, produced considerable results.

### 2.4. Mediation Effect

Syapsan (2019) asserted that there are two categories of resources that contribute to competitive advantage: tangible resources and intangible resources (for example, human capabilities). One of an organization's most valuable assets for gaining a competitive advantage is its human capabilities. Client satisfaction is ensured by the capacity to strategically address customer wants, which is crucial for SMEs to sustain themselves and achieve a competitive edge. The mediating function of competitive advantage in the relationship between dynamic capacities and business sustainability is further confirmed by Correia, Dias, and Teixeira (2020). According to prior research, competitive advantage has a mediating effect that amplifies the impact of other determinants on sustainability (Yang, Jaafar, Al Mamun, Salameh, & Nawawi, 2022).

Table 1. Operational matrix of research variables.

No	Variable	Dimensions	Indicator	Source
1	CSR programs	Economic responsibility	1. Encourage the development of a long-term strategy. 2. Encourage the establishment of procedures for handling customer complaints. 3. Push to improve product quality.	Carroll (1991)
		Legal responsibility	4. Encourage compliance with the rule of law. 5. Encourage products to comply with legal standards. 6. Encourage knowledge of relevant environmental laws.	
		Ethical responsibility	7. Encourage the establishment of a comprehensive code of ethics. 8. Encourage regulations on health and safety. 9. Encouraging employees to be provided with adequate training to perform work tasks safely.	
		Philanthropic responsibility	10. Encourage partnerships with local businesses. 11. Encourage contributions to charity. 12. Encourage the implementation of programs to reduce the amount of wasted energy and materials.	
2	Competitive advantage	Price	1. Offer competitive prices. 2. Offering prices as low or lower than competitors.	Yang et al. (2022); Martinette, Obenchain-Leeson, Gomez, and Webb (2014); Kiyabo and Isaga (2020)
		Quality	3. Able to compete based on quality. 4. Offers a very reliable product. 5. Offers a very durable product. 6. Offers high-quality products to customers.	
		Product innovation	7. Offers products that are difficult for competitors to imitate. 8. Unique product design. 9. Products have a significant advantage over competing products.	
5	Sustainability	Social	1. Employee involvement in decision-making. 2. Responsive to customer complaints. 3. Support for local culture and activities. 4. Company reputation among suppliers.	Fandeli, Hasan, and Amrina (2020); Yang et al. (2022); Yanti, Amanah, Muldjono, and Asngari (2018)
		Environment	5. Influence on environmental ecology. 6. Resource usage. 7. Assistance with environmental improvement activities.	
		Economy	8. Product and service quality improvement. 9. Effective use of resources.	

### 3. METHODS

This study used a quantitative approach to test the mediating effect of competitive advantage on CSR programs' influence on the sustainability of SMEs in one model. The research was conducted in Malang City, Malang Regency, Batu City, Probolinggo Regency, and Mojokerto Regency, Indonesia. The population of this study comprised SME owners who received CSR program assistance from either state-owned enterprises or the private sector, and the sample size was 110 SME owners. This study used primary data obtained directly from the respondents, which was collected through questionnaires based on the operational variables outlined in Table 1.

The operationalization of variables was the elaboration of research variables, dimensions, and indicators used to measure CSR program variables, competitive advantage, and SMEs' sustainability.

The research variables were measured using a 5-point Likert scale, with a score of 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree. The data was analyzed using structural equation modeling (SEM). Several types of fit indexes were used to measure the degree of suitability between the hypothesized model and the data presented to test the feasibility of the model. After the model met the requirements, the hypothesis was tested based on the critical ratio (CR) with a probability value ( $p$ ). A  $p$ -value  $< 0.05$  indicated a significant effect, and  $p > 0.05$  indicated no significance. Meanwhile, to determine whether a variable could act as a mediating variable, it was tested using the approach of Baron and Kenny (1986). The mediation test determined whether the mediating variable resulted in complete or partial mediation.

## 4. RESULTS

### 4.1. Instrument Testing

Before the instrument was used to carry out research, it was first tested on a predetermined number of respondents, in this case, 30. The results of testing the validity and reliability of the instrument can be seen in Table 2.

**Table 2.** Item validity and reliability test results.

Variable	Items	Correlation		Coefficient	
		Count	Results	Alpha	Results
CSR programs	X1.1.1	0.778	Valid	0.807	Reliable
	X1.1.2	0.777	Valid		
	X1.1.3	0.607	Valid		
	X1.2.1	0.840	Valid		
	X1.2.2	0.605	Valid		
	X1.2.3	0.808	Valid		
	X1.3.1	0.688	Valid		
	X1.3.2	0.804	Valid		
	X1.3.3	0.799	Valid		
	X1.4.1	0.666	Valid		
	X1.4.2	0.659	Valid		
Competitive advantage	X1.4.3	0.761	Valid	0.716	Reliable
	Y1.1.1	0.895	Valid		
	Y1.1.2	0.728	Valid		
	Y1.2.1	0.651	Valid		
	Y1.2.2	0.817	Valid		
	Y1.2.3	0.729	Valid		
	Y1.2.4	0.861	Valid		
Sustainability	Y1.3.1	0.833	Valid	0.885	Reliable
	Y1.3.2	0.766	Valid		
	Y1.3.3	0.776	Valid		
	Y2.1.1	0.790	Valid		
	Y2.1.2	0.747	Valid		
	Y2.2.1	0.662	Valid		
Y2.2.2	0.741	Valid			
Y2.3.1	0.721	Valid	0.885	Reliable	
Y2.3.2	0.702	Valid			

The results of the validity and reliability tests performed on the items show that all items are declared valid and reliable because they meet the criteria of validity and reliability testing.

#### 4.2. Confirmatory Factor Analysis Test

The measurement results of the dimensions or variable indicators that can form latent variables were calculated with confirmatory factor analysis (CFA) and the determination of indicators from the variables CSR program, competitive advantage, and SME sustainability based on factor loading values. A summary of the CFA test results on the dimensions that make up the variables CSR program, competitive advantage, and SME sustainability is shown in Table 3.

**Table 3.** Factor loading ( $\lambda$ ) variable estimator CSR programs.

Variables and dimensions	FL	CR	P.S
CSR programs -> Economic responsibility	1.002	-	-
CSR programs -> Legal responsibility	0.903	4.586	0.000
CSR programs -> Ethical responsibility	0.958	7.409	0.000
CSR programs -> Philanthropic responsibility	0.615	4.972	0.000
Competitive advantage -> Price	0.782	3.540	0.000
Competitive advantage -> Quality	0.925	-	-
Competitive advantage -> Product innovation	0.970	3.174	0.002
Sustainability -> Social	0.968	7.997	0.000
Sustainability -> Environment	1.040	8.231	0.000
Sustainability -> Economy	1.018	-	-

Table 3 shows that the dimensions that make up the variables CSR program, competitive advantage, and SME sustainability have factor loading (FL) values with a significance level ( $p$ ) < 0.05 and CR values greater than 2.0. Therefore, it can be concluded that all dimensions are important contributors to the variables of CSR program, competitive advantage, and SME sustainability.

The results of measuring the indicators that form the variable dimensions of the CSR program with CFA are shown in Table 4.

**Table 4.** Factor loading ( $\lambda$ ) of the dimensions of the CSR program variable.

Dimensions and indicators	FL	CR	P.S
Economic responsibility -> Develop a long-term strategy	0.771	8.403	0.000
Economic responsibility -> Establish procedures for handling customer complaints	0.745	8.099	0.000
Economic responsibility -> Improve product quality	0.792	-	-
Legal responsibility -> Comply with legal regulations	0.395	2.978	0.003
Legal responsibility -> Meet legal standards	0.285	2.328	0.020
Legal responsibility -> Know the relevant environmental laws	0.508	-	-
ethical responsibility -> Establish a comprehensive code of ethics	0.818	8.986	0.000
Ethical responsibility -> Have health and safety regulations	0.775	8.414	0.000
Ethical responsibility -> Provide adequate training to perform work duties safely	0.782	-	-
Philanthropic responsibility -> Partnerships with local businesses	0.405	3.149	0.002
Philanthropic responsibility -> Contribute to charity	0.716	6.220	0.000
Philanthropic responsibility -> Implement programs to reduce the amount of wasted energy and materials	0.802	-	-

According to Table 4, the variables that comprise the dimensions of economic responsibility, legal responsibility, ethical responsibility, and philanthropic responsibility have factor loading (FL) values with significance levels ( $p$ ) < 0.05 and CR values greater than 2.0. It follows that each of these indicators is crucial in developing the dimensions of economic responsibility, legal responsibility, ethical responsibility, and philanthropic responsibility. When examining the loading factor value of each indicator, the indicator thought to have the highest or strongest influence on the dimension of economic responsibility is enhancing product quality. The indicator thought to make the biggest or strongest contribution to legal responsibility is awareness of the pertinent



environmental rules. Implementing a program to reduce the amount of wasted energy and materials is judged to make the biggest or strongest contribution to the dimension of philanthropic responsibility, and the biggest or strongest contributor to the dimension of ethical responsibility is the establishment of a comprehensive code of ethics.

The results of measuring the indicators that contribute to the variable dimensions of competitive advantage with CFA are shown in Table 5.

**Table 5.** Factor loading ( $\lambda$ ) of the dimensions of the competitive advantage variable.

Dimensions and indicators	FL	CR	P.S
Price -> Offers competitive prices	0.715	-	-
Price -> Offers prices as low or lower than competitors	0.473	3.301	0.000
Quality -> Able to compete based on quality	0.495	-	-
Quality -> Offers a very reliable product	0.342	-	-
Quality -> Offers a very durable product	0.698	2.902	0.004
Quality -> Offers high-quality products to customers	0.724	4.163	0.000
Product innovation -> Offers products that are difficult for competitors to imitate	0.590		
Product innovation -> Unique product design	0.671	5.233	0.000
Product innovation -> Products have a significant advantage over competing products	0.747	4.981	0.000

The indicators that form the dimensions of price, quality, and product innovation have factor loading (FL) values with a significance level ( $p$ ) < 0.05 and CR values greater than 2.0. Thus, these indicators contribute significantly to forming the dimensions of price, quality, and product innovation. Furthermore, when considering the loading factor value of each indicator, the indicator that is considered to make the strongest contribution to the dimension of price is "Offers competitive prices." The indicator that makes the strongest contribution to the dimension of quality is offering high-quality products to customers, and the indicator that makes the strongest contribution to the dimension of product innovation is whether products have a significant advantage over competing products.

The results of measuring the indicators that form the dimensions of the sustainability variable with CFA are shown in Table 6.

**Table 6.** Factor loading ( $\lambda$ ) of the dimensions of the sustainability variable.

Dimensions and indicators	FL	CR	P.S
Social -> Employee involvement in decision-making	0.768	-	-
Social -> Responsive to customer complaints	0.770	8.398	0.000
Social -> Support for local culture and activities	0.769	8.408	0.000
Social -> Company reputation among suppliers	0.786	8.534	0.000
Environment -> Influence on environmental ecology	0.760	-	-
Environment -> Resource usage	0.763	8.301	0.000
Environment -> Assistance with environmental improvement activities	0.784	8.561	0.000
Economy -> Product and service quality improvement	0.735	-	-
Economy -> Effective use of resources	0.743	8.001	0.000

The indicators that make up the social, environmental, and economic dimensions have factor loading (FL) values with a significance level ( $p$ ) < 0.05 and CR values greater than 2.0. Thus, all these indicators are important in forming the social, environmental, and economic dimensions. Furthermore, when considering the loading factor value of each indicator, the indicator that makes the strongest contribution to shaping the social dimension is the company's reputation among suppliers. The indicator with the strongest contribution to the environmental dimension is assistance with environmental improvement activities. The indicator with the strongest contribution to shaping the economic dimension is the effective use of resources.

4.3. SEM Analysis Results

The results of structural equation modeling (SEM) are presented in Figure 1.

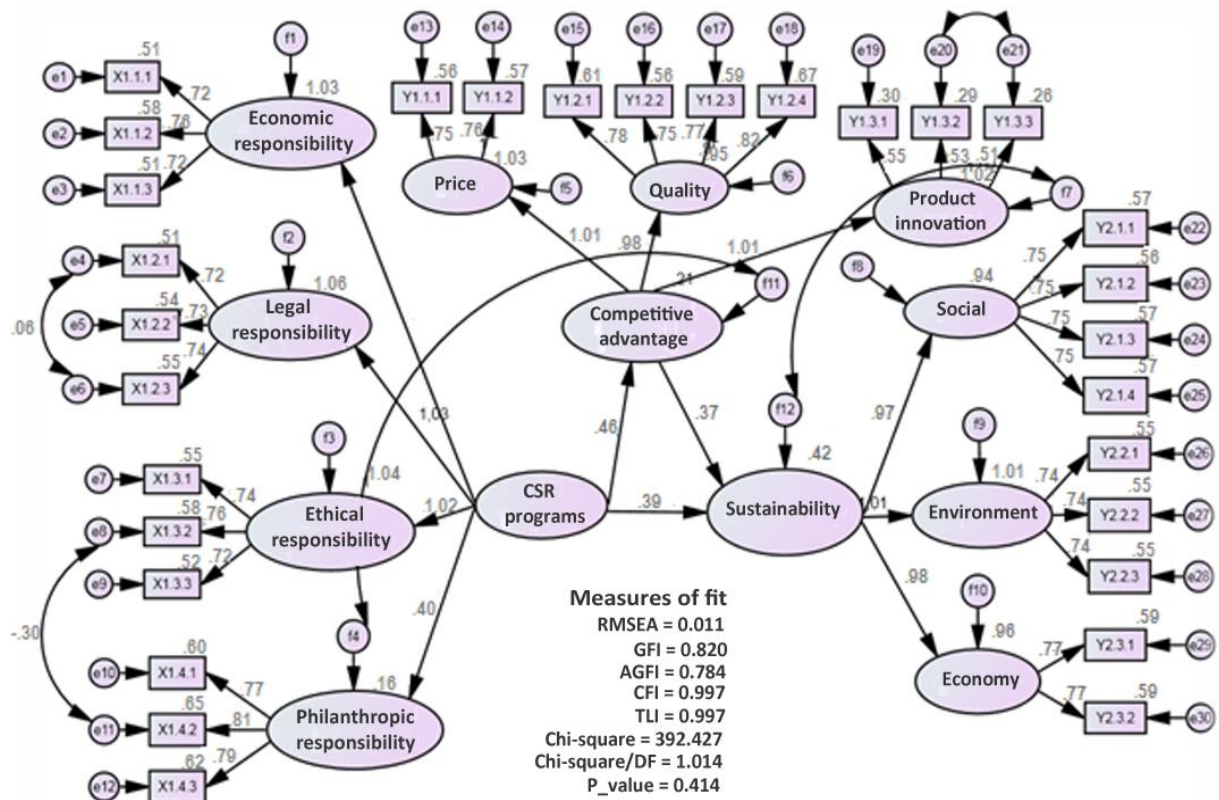


Figure 1. The results of the overall goodness of fit model test.

The final model test results presented in Figure 1 were evaluated based on the goodness of fit indices criteria. The evaluation of the proposed model shows that it has produced a value above critical; therefore, the model can be categorized as suitable and feasible to use for further analysis.

4.4. Hypothesis Testing Results

The hypothesis of the direct effect of the CSR program on competitive advantage and the sustainability of SMEs was tested using the critical ratio (CR) of the results of the weight regression output; if the p-value was lower than a significance of 5%, then there was a direct effect. The results of the hypothesis testing are listed in Table 7.

Table 7. Results of regression weight analysis.

Connection	Path coefficient	CR	P-value	Information
CSR programs -> Competitive advantage	0.463a	4.153	0.000	Significant
Competitive advantage -> Sustainability	0.374b	3.562	0.000	Significant
CSR programs -> Sustainability	0.387c	3.704	0.000	Significant
CSR programs -> Sustainability	0.727d	6.124	0.000	Significant

Note: (a), (b), and (c) are the results of the path coefficients and the overall model, and (d) is the result of the path coefficient of the overall model without any mediating variables.

The results of the direct influence test show that the CSR program variables have a significant effect on competitive advantage and that the CSR program variables and competitive advantage influence the sustainability of SMEs with a p-value lower than 5%, indicating significance. Mediation was tested using the approach of Baron and Kenny (1986) based on the criteria that if (a) and (b) are significant while (c) is significant, where the value of the coefficient (c) is smaller than (d), it can be said to be partial mediation. The test results of the path coefficients of



the CSR program variables controlled by competitive advantage show that they significantly influence the sustainability of SMEs with a coefficient value of 0.387 (c). The coefficient value is smaller than the effect of the CSR program on the sustainability of SMEs without mediating competitive advantage variables, which has a coefficient value of 0.727 (d). Thus, it can be concluded that competitive advantage can partially mediate the indirect effects of CSR programs on SMEs' sustainability.

## 5. DISCUSSION

### 5.1. *The Influence of CSR Programs on Competitive Advantage*

Partnership programs for SMEs carried out by companies or the government often take the shape of CSR programs, which can increase SMEs' ability to increase their competitive advantage. Companies or governments carry out CSR program assistance through the dimensions of economic responsibility, legal responsibility, ethical responsibility, and philanthropic responsibility. Companies or governments implementing CSR programs provide SMEs with an understanding of how to develop long-term strategies, the knowledge of relevant environmental laws, training on how to perform work duties safely, and information about partnerships with local businesses.

The effectiveness of CSR programs carried out by companies or governments is revealed by the increased ability of SMEs to increase their competitive advantages, such as through competitive prices, product quality, and product innovation. The competitive advantage is mainly achieved by SMEs' ability to offer competitive prices compared to their competitors. Also, SMEs improve the quality of their products, ensuring they are reliable, durable, and of high quality so they can compete with their competitors. SMEs offer products with unique designs that are difficult for competitors to imitate and so gain an advantage over their competitors.

Implementing a CSR program is one way to provide opportunities for SMEs to develop their business through competitive advantage. The initial concept is that CSR programs offered by the government and companies can increase innovation and competitive advantage (Porter & Kramer, 2006). The competitive advantage extends the influence of strategic orientation on SMEs' economic sustainability (Yang et al., 2022). Competitive advantages must be continuously sought to ensure business sustainability (Soares, Da Silva Braga, Da Encarnação Marques, & Ratten, 2021). Competitive advantage is the process of creating competitive prices, offering reliable and high-quality products, and displaying product innovation capabilities that produce unique, difficult-to-imitate products that have significant advantages compared to competitors. CSR programs have become increasingly important for the competitiveness of SMEs, and there is a positive relationship between SMEs' CSR activities and competitiveness (Turyakira, Venter, & Smith, 2014).

### 5.2. *The Effect of Competitive Advantage on SME Sustainability*

The ability of SMEs to exercise competitive advantage through competitive prices, product quality, and product innovation contributes to the sustainability of SMEs. The social dimension of SME sustainability is indicated by the SME's reputation among suppliers, while the environmental dimension is indicated by its participation in environmental activities; the economic dimension is indicated by its improving the quality of products and services and using resources effectively. Several studies have suggested the importance of competitive advantage for SMEs in the effort to achieve business sustainability. Sustainability must be viewed more broadly, considering the overall sustainability of SMEs, not only certain aspects (Das et al., 2020). SME sustainability thus depends on social, environmental, and economic involvement (Fandeli et al., 2020). Competitiveness is an important factor in the sustainability of SMEs (Yanti et al., 2018). Competitive advantage stimulates entrepreneurs' creative and innovative thinking and experimenting with new strategies. Therefore, SMEs can unlock their potential by developing product innovations and achieving economic sustainability (Yang et al., 2022). SMEs must also focus on price competition and other competitive advantage factors to improve their image and achieve sustainability (Margahana, 2020).

### *5.3. The Influence of CSR Programs on SME Sustainability*

Companies or governments implementing CSR programs provide SMEs with an understanding of how to develop long-term strategies, the knowledge of relevant environmental laws, training on how to perform work duties safely, and information about partnerships with local businesses. In doing so, they can improve SME sustainability as indicated by improving the quality of products and services to customers and using resources effectively. This result is in line with the study of [Guzmán et al. \(2016\)](#), which explained that providing CSR program assistance to SMEs can increase the sustainability of SMEs. CSR programs significantly affect the sustainability of SMEs ([Torugsa et al., 2013](#)) in the various existing dimensions ([Tandoh, Duffour, Essandoh, & Amoako, 2022](#)). [Ali \(2017\)](#) stated that CSR programs directly affect organizational performance, although the results are inconsistent in several studies ([Tantalo et al., 2012](#))

### *5.4. Competitive Advantage Mediates the Effect of CSR Programs on SME Sustainability*

The results of the mediation test showed that the competitive advantage of SMEs acts as a mediator of the indirect effect of the influence of CSR programs on the business sustainability of SMEs. These results suggest that partnership programs in the form of CSR programs provide SMEs with an understanding of how to develop long-term strategies, the knowledge of relevant environmental laws, training on how to perform work duties safely, and information about partnerships with local businesses, which contribute to SME owners' ability to increase product innovation, such as the ability to create unique, non-imitable, reliable products that enable them to compete with competitors in terms of price and quality. The product innovation ability of SME owners increases because the CSR partnership program increases the sustainability of SME businesses, as indicated by the improved quality of products and services provided to customers and the effective use of resources.

The results of this study build on previous empirical studies conducted by [Ramos, Gomes, and Barbosa-Póvoa \(2014\)](#) and [Conesa, Soto-Acosta, Manzano, and Jorge \(2021\)](#). Combining CSR programs and competitive advantage with product innovation is the best strategy for companies looking to improve their business sustainability while being socially responsible. [Costa and Fonseca \(2022\)](#), [Borger and Kruglianskas \(2006\)](#), and [Ubius, Alas, and Vanhala \(2009\)](#) concluded that the implementation of CSR has a significant effect on product innovation ability. [Rosli and Sidek \(2013\)](#) showed that product and process innovation contribute to a more innovative SME performance. [Turyakira et al. \(2014\)](#) explained that the CSR program has a positive and significant influence on SMEs' competitive advantage. SME partnerships with the government and the private sector through CSR programs can contribute to increasing innovation among SMEs, and increased product, process, and business system innovation create a competitive advantage for SMEs ([Ratnawati, 2017](#)).

## **6. CONCLUSION**

Companies or governments that assist SMEs with CSR programs increase their competitive advantage by increasing SMEs' product innovation, product quality, and product prices. Competitive advantage can mediate the relationship between CSR programs and SME business sustainability. For companies or the government, providing CSR programs to SMEs requires mentoring models and CSR programs linked to training them in product innovation, helping them create unique products that are not easily imitated by competitors while maintaining quality and competitive prices. In addition, there is a need for training to convey an understanding of compliance with legal standards in business management, the importance of establishing a comprehensive code of ethics in business management, and the contribution of SMEs to charity so that business sustainability can continue to be pursued. For SMEs to maximize product innovation, creating prices and product quality that can compete with competitors is important to maintain business sustainability.

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