

### Study of Eco-Innovation and its Implications for Batik MSME Business Performance in Giriloyo Village, Yogyakarta

*B Lena Nuryanti Sastradinata<sup>1</sup>, Ranti Rahma Daniati<sup>2</sup>,*

<sup>1, 2</sup> Indonesian Education University

<sup>1</sup>[lenenuryati@upi.edu](mailto:lenenuryati@upi.edu)

<sup>2</sup>[rantirahma@upi.edu](mailto:rantirahma@upi.edu)

---

#### Info Artikel

Accepted July, 2023

Revised August 25, 2023

Published September 22, 2023

---

#### Kata Kunci:

*Entrepreneurship, Eco innovation, Business Performance*

---

#### Abstract

This research aims to investigate the influence of eco-innovation on the business performance of Batik MSMEs in Giriloyo Village, Yogyakarta. Eco-innovation refers to business practices that focus on environmentally friendly product and process innovation. The issues of global warming, climate change, pollution and waste problems not only pose threats to human life, but also have an impact on business activities. In an era of increasingly intense economic competition, entrepreneurs are required to improve their business performance. According to experts, entrepreneurship as part of the ecological system has an important role in overcoming environmental problems through sustainable transformation of products and processes. The contribution of environmentally friendly products and processes provides not only economic value, but also significant environmental benefits.

This encourages entrepreneurs to improve their innovation capabilities in facing social and environmental challenges. In this context, this research aims to improve the business performance of Batik MSMEs in Giriloyo Village, Yogyakarta. The survey was conducted on 36 Batik MSMEs in Giriloyo Village as the research population. By using simple linear regression analysis, the research results show that eco innovation has a positive and significant effect on the business performance of Batik MSMEs. The level of eco innovation in Batik MSMEs in Giriloyo Village is relatively good

Based on the results of this research, it can be concluded that the higher the level of eco innovation implemented, the higher the business performance of Batik MSMEs in Giriloyo Village. The implication is that entrepreneurs need to consider eco innovation as

an important strategy in improving their business performance. Steps to implement eco innovation, such as developing environmentally friendly products and sustainable production processes, can provide long-term economic benefits and also maintain environmental sustainability. To optimize the results of this research, it is recommended that Batik MSME entrepreneurs in Giriloyo Village continue to increase awareness of its importance. eco innovation and implement it actively. The government can also provide support in the form of policies and incentives to encourage entrepreneurs to implement sustainable business practices. In this way, Batik MSMEs in Giriloyo Village can gain a sustainable competitive advantage and contribute to environmentally friendly economic development.

## INTRODUCTION

Rapid developments in the business sphere today cannot be separated from the demands of sustainability and sustainable growth. Environmental issues such as global warming, climate change, pollution and waste problems have had a significant impact on human life and various business sectors, including Batik MSMEs in Giriloyo Village, Yogyakarta. To maintain competitiveness and face these challenges, sustainable innovation in the form of eco-innovation has become an important focus for entrepreneurs.

Today's rapid economic growth and competition have become factors that contribute to environmental problems which are in the spotlight for various parties such as academics, entrepreneurs, policy makers, government and the international community. Issues such as global warming, climate change, pollution and waste have been proven to not only endanger human life, but also have an impact on business activities, as stated by several experts, namely: Hart, SL, & Milstein, MB (2003); Porter, ME, & Van der Linde, C. (1995).; Jamal, S. (2015). ; Dr. Ana Rocha and colleagues (2019); Muliana, S., Zulfikar, A., & Sanusi, Z. (2019). ; Likewise, experts and entrepreneurs realize that humans are an essential element in the ecosystem and play an important role in overcoming environmental problems through the transformation of products and processes oriented towards sustainability. They believe that the contribution of environmental innovation has the potential to create economic value and environmental benefits simultaneously. This encourages entrepreneurs to improve their innovation capabilities, which is a significant difference in facing current social and environmental challenges. That eco-innovation has a significant positive influence on the business performance of Batik MSMEs in Giriloyo Village. In this context, experts and researchers continue to encourage entrepreneurs to adopt environmental innovation as one of the key strategies in overcoming environmental problems and creating sustainable business opportunities. This research is only the first step in understanding the influence of eco-innovation on the business performance of Batik MSMEs in Kampung Giriloyo. It

is hoped that further research and collaborative efforts will continue to be carried out to deepen understanding of eco-innovation and develop more effective strategies in achieving sustainability and sustainable growth in the MSME sector.

### *EcoInnovation*

That eco innovation has a positive relationship with business performance. Environmental innovation practices not only provide financial benefits, but also open up new market opportunities, improve operational efficiency, and enhance a company's reputation. As a result, the practice of eco innovation is recognized as one of the key factors in achieving sustainable business success. Eco-innovation, as a strategy involving the transformation of products and business processes to achieve sustainability, has received attention from various experts and practitioners: Dr. Tanti Novianti and colleagues (2020), Dr. Nurcahyo H. Sasongko and colleagues (2021); Dr. Wiyono S. Nugroho and colleagues (2019); Dr. Zainal A. Hasibuan and his colleagues (2021); P Dr. Yansen Susanto and his colleagues (2020); expert opinion states that eco-innovation has a positive and significant impact on the business performance of Batik MSMEs in Giriloyo Village. The implications of these findings is the importance of developing appropriate eco-innovation strategies and support from various parties to achieve sustainability and sustainable growth in the MSME sector.

*Eco innovation* become an effective solution in overcoming various challenges faced in business performance. Environmental innovation practices help companies increase efficiency, reduce negative environmental impacts, and create added value for customers. In an increasingly complex and sustainability-oriented business context, eco innovation is an important strategy for achieving sustainable business success. The concept of eco innovation is a new idea related to environmentally friendly ideas and methods. Eco innovation has advantages over conventional innovation because apart from providing economic benefits, it also provides environmental benefits for business people. In an economic context, eco innovation can help companies reduce production costs and create new markets. Meanwhile, the environmental benefits obtained include maintaining ecosystem sustainability, reducing emissions of hazardous substances, maintaining biodiversity, and overcoming climate change and global warming. The presence of eco innovation is a hope for MSMEs and society at large to achieve economic improvements and a clean and healthy environment. . Therefore, eco innovation is the solution that many MSMEs choose in an effort to improve their business performance. Cheng et al., 2014; Geng et al., 2021; Zhang & Walton, 2017 in relation to eco innovation Eco-innovation involves awareness and concern for the environment as one of its main focuses. This involves understanding the negative impacts that business activities have on the environment, such as pollution and environmental degradation. In this context, eco-innovation encourages the development of environmentally friendly business practices and solutions.

Eco-innovation has the potential to have a positive impact on economic and social aspects. By integrating eco-innovation practices, businesses can create added economic value, increase competitiveness and create new opportunities in an increasingly environmentally conscious market. Apart from that, eco-innovation can also provide social benefits, such as improving people's quality of life and increasing access to

sustainable services and Eco-innovation encourages collaboration and cooperation between various stakeholders, such as companies, government, research institutions and society. This collaboration is necessary to facilitate the exchange of knowledge, resources and experience in developing and implementing effective eco-innovation solutions.

Entrepreneurs have an important role in encouraging eco-innovation. They have the ability to identify sustainable innovation opportunities, produce environmentally friendly products and services, and integrate eco-innovation principles in their business strategy. Entrepreneurs can also act as agents of change in driving sustainability and sustainable growth, and responses to increasingly complex environmental challenges, such as climate change, natural resource depletion and pollution. In facing this challenge, eco-innovation creates innovative and creative solutions to reduce negative impacts, promote sustainable resource use, and maintain environmental sustainability, and can increase business efficiency and productivity. By optimizing resource use, reducing waste, and adopting more efficient technology, companies can reduce operational costs, increase productivity, and achieve greater profits. Companies that adopt eco-innovation practices tend to be more attractive to consumers who care about the environment and are aware of sustainable purchasing. This can provide a competitive advantage and enhance brand image in an increasingly environmentally conscious market thereby creating new innovation opportunities and opening up new markets for businesses. By developing products and services that are oriented towards environmental sustainability, companies can expand market reach and create new opportunities for sustainable business growth. In this research, the concept of eco innovation is based on the theory put forward by Rennings (1998) and Tarnawska (2014). Rennings views environmentally friendly products and processes as a means to create innovation that does not harm the environment. This theory is supported by Tarnawska's research which states that eco innovation is part of ecological efficiency that encourages business growth and sustainability. The concept of eco innovation promoted by Rennings and Tarnawska explains that eco innovation is rooted in environmental economic theory. In the context of environmental economics, research on eco innovation confirms that eco innovation has a very important role in supporting sustainable economic development. This can be seen from the concept of eco innovation which emphasizes values that do not harm the environment, so that business activities carried out by MSMEs become more efficient (Rennings, 1998; Tarnawska, 2014).

*eco innovation* has an important role in improving the performance of the Batik MSME business in Giriloyo Village. By implementing eco innovation, MSMEs can create added value through environmentally friendly products and processes, thereby increasing sustainability and business growth. Through awareness and active implementation of eco innovation, Batik MSMEs in Giriloyo Village can become competitive, sustainable business actors and contribute to environmentally friendly economic development.

### **Business Performance**

The concept of business performance refers to the evaluation and measurement of the results achieved by an organization in achieving its business goals and objectives. Business performance reflects the extent to which an organization is successful in

carrying out its operations and achieving desired results. Good business performance is characterized by consistent and sustainable achievement of these indicators. The concept of business performance is very important in measuring, monitoring and managing organizational success as well as determining future improvement and development steps. Kaplan and Norton (1992); Armstrong and Baron (2004); Ittner and Larcker (2003); Neely, A., Adams, C., & Kennerley, M. (2002; Eccles, RG, Ioannou, I., & Serafeim, G. (2011; Holistic business performance measurement includes aspects of sustainability, where organizations integrate environmental considerations, social, and corporate governance (ESG) in their business activities. This encourages organizations to adopt innovative practices, reduce environmental impacts, contribute to society, and implement good governance.

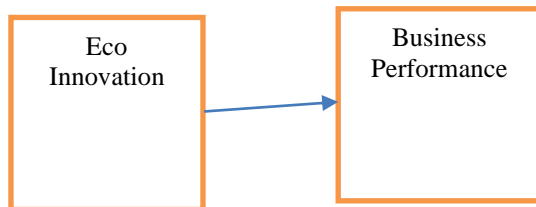
Expert opinions on business performance can provide valuable insight in understanding the concept. The following are several opinions from experts regarding business performance and their references: According to Peter Drucker, Porter, 1985; Kaplan & Norton, 1996; The opinions of these experts provide different perspectives regarding measuring and assessing business performance but essentially to create and maintain a position. excel in the market withinvolves measuring business performance through four perspectives: financial, customer, internal processes, and learning and growth so that business performance can be measured through the achievement of goals and results produced by the organization

By referring to their opinions and combining with current research, we can have a more comprehensive understanding of business performance and how to measure it in relevant contexts. As stated by Rumelt, 2011 Ohmae, 1991; Payne & Frow, 2005; Kaplan & Norton, 2011: that good business performance is characterized by the company's ability to produce added value for stakeholders by involving focused and customer-oriented strategies, and being able to create competitive advantages in the market and using the concept of Value-Based Marketing, which emphasizes the importance of creating value for customers as a determining factor for successful business performance so that the company strategy with clear performance measurements to achieve the desired results.

Business activities must be responsible for the surrounding environment. Business activities are expected to contribute to maintaining a clean and healthy environment, such as protecting the air from pollution, maintaining water quality so that it is not polluted, and carrying out responsible waste management. In an effort to create an environmentally friendly business environment, producers and consumers need to work together to set sustainable business standards.

In this context, business performance becomes important. Business performance is an effort to increase business growth and success, and one of the factors that can encourage it is innovation. In this research, the concept of business performance used refers to strategic entrepreneurship theory. This theory combines strategy and entrepreneurship in creating opportunities, achieving profits, and taking action to create value (Hitt, 2001). Through expert opinions and references, it can be concluded that eco-innovation has a positive relationship with business performance, including increasing competitive advantage, operational efficiency, increasing competitiveness and financial profits. Therefore, in the context of the research "Study of Eco-Innovation and its Implications for the Business Performance of Batik MSMEs in Giriloyo Village,

Yogyakarta," it can be expected that eco-innovation will also have a positive impact on the business performance of Batik MSMEs in the region by understanding the importance of responsibility. towards the environment and through the application of the concept of strategic entrepreneurship, it is hoped that this research can make a meaningful contribution in the context of eco-innovation and business performance.



Several studies also show a positive relationship between eco-innovation and business performance in the MSME sector. For example, research by Bocken et al. (2014) found that adopting eco-innovation practices can increase operational efficiency, reduce production costs, and increase customer satisfaction in MSME businesses; In addition, other research by Horbach (2008) shows that eco-innovation can provide competitive advantages for MSMEs by improving product quality, expanding markets, and strengthening sustainable brand images.

In the context of the research "Study of Eco-Innovation and its Implications for the Business Performance of Batik MSMEs in Giriloyo Village, Yogyakarta," these findings can provide important insights that the adoption of eco-innovation can provide significant benefits for Batik MSMEs. It is hoped that the use of eco-innovation practices such as using environmentally friendly raw materials, reducing waste, and marketing that focuses on sustainability can improve the business performance of Batik MSMEs in Giriloyo Village.

However, it should be noted that each MSME has a unique context and characteristics, so it is important to consider internal and external factors that can influence the adoption and impact of eco-innovation. Therefore, further recommendations could involve developing policies and government support that facilitate the adoption of eco-innovation, as well as collaborative approaches between MSMEs, educational institutions and related organizations in supporting sustainable growth and business sustainability in the Batik MSME sector.

### Formulation of the problem

Eco-innovation has become an increasingly relevant topic in the current business context, especially for the MSME sector that wants to achieve sustainability and sustainable growth. In the batik industry in Giriloyo Village, Yogyakarta, eco-innovation has great potential to have a significant impact on the business performance of Batik MSMEs. Eco-innovation refers to business practices that focus on environmentally friendly product and process innovation. In this context, the formulation of this research problem is to investigate the influence of eco-innovation on the business performance of Batik MSMEs in the region, with a focus on aspects of eco product, eco process and eco marketing. The aim of this research is to gain a

comprehensive understanding of eco innovation and its simultaneous or partial influence on the business performance of Batik MSMEs in Giriloyo Village, Yogyakarta. Meanwhile, the aim of this research is to find out how eco innovation affects the business performance of Batik MSMEs in Giriloyo Village, Yogyakarta.

### Research paradigm

In an increasingly developing business context, the concept of eco-innovation has become a major concern in achieving sustainable economic growth. In an effort to maintain environmental sustainability and improve business performance, Batik MSMEs in Giriloyo Village, Yogyakarta also need to pay attention to implementation of eco-innovation. This research aims to investigate eco-innovation and its implications for the business performance of Batik MSMEs in the region. By studying the concept of eco-innovation which includes eco products, eco processes, and eco marketing, this research is expected to provide a deeper understanding of the influence of eco-innovation on the business performance of Batik MSMEs. Through this research paradigm, we can explore the potential for sustainable business development and make a real contribution to the growth of Batik MSMEs in Giriloyo Village, Yogyakarta. And test the hypothesis about the concept of eco-innovation which includes eco product, eco process, and eco marketing, this research is expected to provide a deeper understanding of the influence of eco-innovation on the business performance of Batik MSMEs. Through this research paradigm, we can explore the potential for sustainable business development and make a real contribution to the growth of Batik MSMEs in Giriloyo Village, Yogyakarta.

## RESEARCH METHODS

### Object of research

This research adopts an entrepreneurial approach to investigate the influence of eco innovation on business performance in Batik MSMEs in Giriloyo, Yogyakarta. There are two variables that are the focus of this research, namely eco innovation as the independent variable (X) and business performance as the dependent variable (Y).

The aim of this research is to gain a deeper understanding of the influence of eco innovation on the business performance of Batik MSMEs in Giriloyo, Yogyakarta. By using explanatory survey methods and simple linear regression analysis in data collection and analysis, this research aims to analyze the relationship between eco innovation and business performance. In this context, research also focuses on the role of eco products, eco processes, and eco marketing in improving the business performance of Batik MSMEs.

Thus, this research is expected to contribute to enriching understanding of how eco innovation works

Based on data analysis, it was found that eco innovation has a positive and significant influence on the business performance of Batik MSMEs in Giriloyo,

Yogyakarta. The eco product dimension shows the most significant contribution to business performance, followed by eco marketing and eco process. This shows the importance of developing environmentally friendly products, marketing that focuses on sustainability, and efficient production processes to improve the business performance of Batik MSMEs.

The implication of this research is the important role of eco innovation in creating competitive advantage and business sustainability. Batik MSMEs in Giriloyo, Yogyakarta need to consider eco innovation as an important strategy in improving their business performance. In this context, the development of environmentally friendly products, the implementation of sustainable business practices and marketing focused on environmental values can be relevant measures.

To achieve optimal results, it is recommended that Batik MSMEs in Giriloyo continue to increase understanding and awareness of the importance of eco innovation. Support from the government and other stakeholders in the form of policies and incentives is also very necessary to encourage sustainable business practices. In this way, Batik MSMEs in Giriloyo can achieve sustainable business performance, contribute to environmentally friendly economic development, and become an example for other MSMEs in adopting eco innovation.

Respondents in this research consisted of Batik MSMEs operating in Giriloyo Village, Yogyakarta. This research adopts a descriptive verification approach, where data is collected through field data collection. The research method used is the explanatory survey method, which involves the use of a questionnaire to collect information from part of the population being studied. Data analysis in this research uses simple linear regression techniques.

By applying an entrepreneurial approach and using relevant research methods, the aim of this research is to provide a deeper understanding of the influence of eco innovation on the business performance of Batik MSMEs in Giriloyo, Yogyakarta. It is hoped that the findings from this research can provide a valuable contribution to MSME owners in developing eco innovation strategies to improve their business performance.

## RESULTS AND DISCUSSION

This research aims to test the effect of eco innovation (X) on business performance (Y). This research uses the Simple Linear Regression analysis method, and data analysis is carried out using SPSS version 22.0 for Windows software. Normality testing is carried out to evaluate whether the data used has a normal distribution or not. The normality test was carried out using the Kolmogorov-Smirnov formula, and statistical analysis was carried out using SPSS version 22.0 for Windows software, as seen in the following table.

**Table 1** Eco Innovation Normality Test  
On Business Performance



### One-Sample Kolmogorov-Smirnov Test

	Unstand ardized Residual s
N	36
Normal Parameters, Mean	.000000
b	0
	Std.
	3.56149
	Deviation
	661
Most Extreme	Absolute
Differences	.131
	Positive
	.093
	Negative
	-.131
Statistical Tests	.131
Asymp. Sig. (2-tailed)	.122c

Source: 2023 Data Processing Results

Based on the results of the table above, the significance value of the research data normality test was obtained at 0.122. By comparing this value with the specified significance level (0.05), it can be concluded that the research variable data has a normally distributed distribution.

The next step in this research is to carry out a linearity test to find out whether there is a linear relationship between the two variables. The regression linearity test was carried out to test the linear relationship between the eco innovation variable and business performance. The results of the linearity analysis can be found in the following table.

**Table 2** Eco Innovation Linearity Test on Business Performance

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	703.917	21	33.520	4.159	.004
Linearity	372.801	1	372.801	46.256	.000
Group Deviation from Linearity	331.116	20	16.556	2.054	.086
Within Groups	112.833	14	8.060		
Total	816.750	35			

Source: 2023 data processing results

Based on table 4.2, it can be seen that eco innovation has a value of  $t_{count} > t_{table}$ , so it can be interpreted that eco innovation has a significant effect on business performance.

**Table 5 Eco Innovation Coefficient**

**On Business Performance**

Model R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.676a	.440	3,613

**Source: 2023 Data Processing Results**

In the table above you can see the Adjusted R Square value (coefficient of determination) or  $R^2 = 0.440 = 44.0\%$ . This means that the eco innovation variable influences the business performance variable by 44.0% (positive) and the remainder is influenced by other variables not included in this research, namely 56.0%.

Based on the table above, the Deviation from Linearity Sig value can be seen. namely 0.086. This value has a value of  $> 0.05$ , which means there is a significant linear relationship between eco innovation and the business performance of Batik MSMEs in Giriloyo Village, Yogyakarta.

The table above shows that the probability value (Sig) of the eco innovation variable is  $< 0.000$ , so the eco innovation variable is declared to have a significant effect or the hypothesis is accepted on the business performance variable. The total variable X is 0.323 and the simple linear regression analysis formula is:

$$Y = a + bX$$

$$Y = 21.967 + 0.323X$$

This means that if the eco innovation variable (X) increases by one unit, then the business performance variable (Y) will increase by 0.323 because the relationship shows a positive relationship (Ghozali, 2006).

**Table 4T Eco Innovation Test on Business Performance**

Hypothesis	Coefficiency en	t <sub>count</sub>	t <sub>tab</sub> E1	Decisionan
X influence uh on Y	0.676	5,343 9	2,032	H <sub>0</sub> rejected

The total coefficient of determination is used to find out what percentage effect eco innovation has on business performance in Batik MSMEs in Giriloyo Village, Yogyakarta. This can be seen in the following table.

**Table 5 Eco Innovation Coefficient  
On Business Performance**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate

**Source: 2023 Data Processing Results**

Based on the table above, it can be seen that the Adjusted R Square (coefficient of determination) or R<sup>2</sup> value is 0.440 or 44.0%. This shows that the eco innovation variable has an influence of 44.0% on the business performance variable (positive influence), while the other 56.0% is the influence of other factors not examined in this research.

To get responses from respondents regarding eco innovation, a questionnaire was distributed to 36 Batik MSME owners in Giriloyo. The questionnaire consists of statements that cover the dimensions of eco product, eco process and eco marketing. The total score for the eco product dimension is 2,938, while the total ideal score is 3,528. The total score for the eco process dimension is 1,965 with a total ideal score of 2,268, and the total score for the eco marketing dimension is 2,502 with a total ideal score of 3,024.

### CONCLUSIONS AND RECOMMENDATIONS

This research aims to test the effect of eco innovation (X) on business performance (Y). This research uses the Simple Linear Regression analysis method, and data analysis is carried out using SPSS version 22.0 for Windows software. Normality testing is carried out to evaluate whether the data used has a normal distribution or not. The normality test was carried out using the Kolmogorov-Smirnov formula, and statistical analysis was carried out using SPSS version 22.0 for Windows software, as seen in the following table.

**Table 1 Eco Innovation Normality Test  
On Business Performance**

#### One-Sample Kolmogorov-Smirnov Test

	Unstandardized Residuals
N	36
Normal Parameters, Mean	.000000
b	0
Std. Deviation	3.56149661

Most Extreme Differences	Absolute Positive	.131
	Negative	,093
Statistical Tests		-.131
Asymp. Sig. (2-tailed)		.131
		.122c

Source: 2023 Data Processing Results

Based on the results of the table above, the significance value of the research data normality test was obtained at 0.122. By comparing this value with the specified significance level (0.05), it can be concluded that the research variable data has a normally distributed distribution.

The next step in this research is to carry out a linearity test to find out whether there is a linear relationship between the two variables. The regression linearity test was carried out to test the linear relationship between the eco innovation variable and business performance. The results of the linearity analysis can be found in the following table.

**Table 2** Eco Innovation Linearity Test on Business Performance

ANOVA Table

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	703.917	21	33.520	4.159	.004
Linearity	372.801	1	372.801	46.256	.000
Group Deviations from Linearity	331.116	20	16.556	2.054	.086
Within Groups	112.833	14	8.060		
Total	816.750	35			

Source: 2023 data processing results

Based on table 4.2, it can be seen that eco innovation has a value of  $t_{count} > t_{table}$ , so it can be interpreted that eco innovation has a significant effect on business performance.

**Table 5** Eco Innovation Coefficient

**On Business Performance**

Model	R	Adjusted R Square	Std. Error of the Estimate
1	.676a	.456	3,440

Source: 2023 Data Processing Results

In the table above you can see the Adjusted R Square value (coefficient of determination) or  $R^2 = 0.440 = 44.0\%$ . This means that the eco innovation variable influences the

business performance variable by 44.0% (positive) and the remainder is influenced by other variables not included in this research, namely 56.0%.

Based on the table above, the Deviation from Linearity Sig value can be seen, namely 0.086. This value has a value of  $> 0.05$ , which means there is a significant linear relationship between eco innovation and the business performance of Batik MSMEs in Giriloyo Village, Yogyakarta.

### CONCLUSION

Based on research conducted regarding the influence of eco innovation on the business performance of Batik MSMEs in Giriloyo Village, Yogyakarta, comprehensive and scientifically based conclusions were found. Eco innovation, which consists of eco products, eco processes and eco marketing, has a significant role in improving the business performance of Batik MSMEs in the region. This research reveals that eco products are the eco innovation dimension with the highest score, indicating awareness and efforts in creating environmentally friendly products. However, it should be noted that the eco process dimension still has room for improvement in order to create a more sustainable production process. Therefore, intensive efforts are needed to develop environmentally friendly innovations in the Batik MSME production process.

The importance of eco innovation in the context of Batik MSMEs in Giriloyo Village is also reflected in its influence on business performance. Eco innovation has a significant positive influence on business performance, although there are other factors that have a supporting role in determining the business performance of Batik MSMEs.

This conclusion underlines the importance of implementing eco innovation as an effective strategy in improving the business performance of Batik MSMEs in Giriloyo Village. Business actors need to understand and adopt innovative environmentally friendly practices, such as sustainable product development, efficient production processes, and marketing that focuses on environmental sustainability. Apart from that, there needs to be support from the government and other stakeholders through policies and incentives to encourage the implementation of eco innovation in Batik MSMEs. By integrating eco innovation into their business activities, Batik MSMEs in Giriloyo Village can achieve sustainable competitive advantages, reduce negative impacts on the environment, and contribute to environmentally friendly economic development. This conclusion provides a basis for further development in the field of eco innovation and business performance research, as well as providing direction to practitioners and decision makers in efforts to achieve sustainability and sustainable growth.

### SUGGESTION

In order to achieve sustainability and sustainable growth, this research provides several recommendations which are expected to be used as a guide for Batik MSMEs in Giriloyo Village, Yogyakarta in implementing eco innovation to improve business performance, so it is hoped that they can:

1. Increase awareness and understanding of eco innovation: Batik MSME players need to continue to increase their understanding of the concept and benefits of



- eco innovation. Training and workshops on innovative, environmentally friendly practices can help increase this awareness and understanding.
2. Encouraging collaboration and knowledge exchange: Collaboration between Batik MSMEs, educational institutions, government and communities can encourage the exchange of knowledge and experience in implementing eco innovation. This can create a supportive environment for continuous innovation.
  3. Sustainable product and process development: Batik MSMEs need to continue to develop environmentally friendly products and create more efficient and sustainable production processes. Innovations in raw materials, technology and production methods can help reduce negative impacts on the environment.
  4. Sustainability-focused marketing: Batik MSMEs can utilize sustainability-focused marketing to improve brand image and product appeal. Communicating the environmental values inherent in products and production processes can attract consumers who care about the environment.
  5. To encourage sustainable business practices, support is needed from central and regional governments and stakeholders in the form of policies and incentives. This includes developing adequate environmental policies, ensuring accessibility of sustainable financing, and providing recognition to MSMEs that implement eco innovation. This support will provide a positive stimulus for MSMEs to adopt and develop environmentally friendly business practices, thereby contributing to sustainable economic growth and environmental conservation.

By implementing these recommendations, Batik MSMEs in Giriloyo Village, Yogyakarta can strengthen their business performance in a sustainable manner, creating added economic value and positive environmental benefits. Apart from that, these steps can also provide an example and inspiration for other MSMEs in adopting eco innovation as part of a strategy to expand their business.