ANALYSIS OF ECO LITERACY, ENVIRONMENTAL CONCERN, PERCEPTION TOWARDS THE BEHAVIOR OF MSMES IN KUDUS REGENCY IN IMPLEMENTING *GREEN ECONOMY*

Heni Risnawati[1], Nurani Puspa Ningrum [2], Hilda Kumala Wulandari[3]

[1] [2]Universitas Muhammadiyah Kudus, Fakultas Ekonomi, Pendidikan dan Hukum. Jl. Ganesha Raya No.I, Purwosari, Kudus. Indonesia
[3] Universitas Muhadi Setiabudi, Fakultas Ekonomi dan Bisnis. Jl. Pangeran Diponegoro, KM2 Pesantunan, Brebes. Indonesia

[*] Corresponding Author (e-mail: henirisnawati@umkudus.ac.id)

Abstract

Objective & object:
Increasing population growth requires effective management of natural resources. Scarcity of natural resources provides awareness to the community with responsible resource management and also considers the environment. This study aims to determine the effect of Eco Literacy, Environmental Concern and Perception on the behavior of MSMEs in Kudus Regency in the Implementation of Green Economy.
Methods:
This study employs a quantitative approach with a causal research design. The sample consists of 41 MSME actors engaged in the food and beverage production sector in Kudus Regency. The sampling technique used is purposive sampling based on specific criteria. Primary data were collected through questionnaires distributed to the selected respondents. The data analysis technique applied is multiple linear regression with the assistance of SPSS software, preceded by classical assumption tests to ensure the validity of the regression model.
Results & Conclusions:
The results of the study show: 1) there is no significant effect of Eco Literacy on behavior in the implementation of Green Economy. 2) there is a significant effect of Environmental Concern and perception on behavior in the implementation of Green Economy. 3) simultaneously between the variables Eco Literacy, Environmental Concern and Perception have a very significant effect on the green economy of MSMEs in Kudus Regency.
Limitations:
The limitation in this study is the small number of respondents. Data collection by questionnaire so that respondents' answers are limited to only providing answers to statements in the questionnaire.
Implications:
The results of this study are expected to contribute to MSMEs to further implement environmentally friendly business activities in realizing the implementation of a green economy.

Keywords: *Eco literacy, Concern environment, MSME perception, Green economy.*

Abstrak
Tujuan & obyek:
Pertumbuhan populasi yang meningkat diperlukan pengelolaan sumber daya alam secara efektif. Kelangkaan sumber daya alam memberikan kesadaran kepada masyarakat dengan pengelolaan sumber daya yang bertanggung jawab dan juga mempertimbangkan lingkungan. Penelitian ini bertujuan untuk mengetahui pengaruh *Eco Literacy*, Kepedulian Lingkungan dan Persepsi terhadap perilaku UMKM Kabupaten Kudus dalam Implementasi *Green Economy*.
Metode:
Penelitian ini menggunakan pendekatan kuantitatif dengan jenis penelitian kausalitas. Sampel dalam penelitian ini berjumlah 41 pelaku UMKM yang bergerak di bidang produksi makanan dan minuman di Kabupaten Kudus. Teknik pengambilan sampel menggunakan metode purposive sampling dengan kriteria tertentu. Data yang digunakan merupakan data primer yang diperoleh melalui penyebaran kuesioner kepada responden. Teknik analisis data yang digunakan adalah analisis regresi linear berganda dengan bantuan software SPSS, didahului dengan uji asumsi klasik untuk memastikan kelayakan model regresi yang digunakan.
Hasil & Simpulan :
Hasil penelitian menunjukan:1) tidak terdapat pengaruh signifikan *Eco Literacy* terhadap perilaku dalam imlementasi *Green Economy*. 2) terdapat pengaruh signifikan Kepedulian Lingkungan dan persepsi terhadap perilaku dalam implementasi *Green Economy*. 3) secara simultan antara variabel *Eco Literacy*, Kepedulian Lingkungan dan Persepsi berpengaruh sangat signifikan terhadap *green economy* UMKM Kabupaten Kudus.
Keterbatasan:
Keterbatasan dalam penelitian ini adalah jumlah responden yang sedikit. Pengambilan data dengan kuesioner sehingga jawaban responden terbatas hanya memberikan jawaban pernyataan yang ada dalam kuesioner.
Implikasi:
Hasil penelitian ini diharapkan dapat memberikan kontribusi kepada UMKM untuk lebih menerapkan aktivitas bisnis ramah lingkungan dalam mewujudkan implementasi green economy.

Kata kunci: *Eco literacy*, Kepedulian lingkungan, persepsi UMKM, *Green economy*.

1. Introduction

The management of natural resources has become a crucial issue amid the growing scarcity caused by excessive exploitation and the lack of human awareness toward environmental sustainability. Rapid population growth and accelerating industrialization have placed significant pressure on the availability of natural resources, leading to shortages in various regions (Rinkesh, 2020). In response to this challenge, the utilization of renewable energy sources such as solar, wind, and hydropower is increasingly relevant, as they help reduce dependence on non-renewable resources and support the transition toward cleaner energy (Ibrahim et al., 2023). Moreover, raising public awareness regarding the importance of responsible resource management and the application of conservation techniques is essential to ensure the sustainable use of natural resources (Wang & Azam, 2024). Globally, climate change and environmental

degradation have become urgent challenges. The rise in carbon emissions, unsustainable exploitation of natural resources, and poor management of industrial waste have caused widespread ecosystem degradation. In response to these conditions, the international community has promoted the concept of a green economy as a development strategy that integrates economic growth with environmental sustainability (Setiyadi, A., Nasrudin, N., & Hilal, 2023).

Indonesia's environmental indicators are increasingly decrease should be a major concern. Climate change will pose significant dangers both from an environmental and socio-economic perspective. Climate change, according to the *Nationally Determined Contribution* (NDC), will increase the likelihood of hydrometeorological disasters, which currently account for 80% of all disasters in Indonesia. Meanwhile, the potential economic losses in Indonesia as a result of climate change will range between 0.66 % until 3.45 % of GDP in 2030 (KLHK, 2020) . Indonesia's economic activities have caused very high levels of environmental degradation. This resulting in the risk of environmental damage impact Indonesia's economic activities are declining, in line with the amendment to Article 33 of the 1945 Constitution. The energy sector is an input for other economic sectors, the transformation of the energy sector from brown energy to green energy is very important to achieve low-carbon national development. (Arif Budimanta, et al).

Micro, Small, and Medium Enterprises (MSMEs) play a crucial role in the structure of Indonesia's economy. In addition to contributing more than 60% to the Gross Domestic Product (GDP), MSMEs also provide employment for the majority of the population. In Kudus Regency, MSMEs in the food and beverage sector are rapidly growing as a driver of the local economy. However, most of these MSMEs have not adopted environmentally friendly practices due to limited knowledge, misconceptions, and low awareness of environmental issues (Amini et al., 2024). Phenomena that occur in MSMEs often not enough care to cleanliness environment in reach objective efficiency, productivity and effectiveness business them. Awareness of the impact environment generally still low. UMKM currently This sued No only to obtain maximum profit, but not quite enough answer to management waste in support preservation environment (Dewi, PP, & Narayana, 2020). With processing environment around place good and proper production so that public around place production No feel disruptive and damaging impacts environment. This is need existence implementation *green economy* so that it can give welfare society and reduce existence damage environment (Komang et al., 2023).

According to *the United Nations Environmental Programme* (UNEP), *Green Economy* is the improvement of human well-being by reducing environmental risks, ecological scarcity through minimizing cars, resource efficiency and social (UNEP, 2013). *Green Economy* is an economic development concept that combines economic development and sustainability by minimizing carbon emissions, one of them is through the digitalization of money. Digitalization of money provides a positive contribution to society, maintaining environmental sustainability and social welfare without the risk of environmental damage, thus encouraging increased economic growth. (Zahra et al., 2024).

Green Economy as an economic system that focuses on the use of renewable energy, reducing emissions and pollution, increasing energy and resource efficiency, and

creating jobs and green technology. (El-Kafafi, 2022). Implementation *Green Economy* can achieve technological changes that allow the implementation of sustainable environmental strategies by utilizing natural resources and waste from its activities can be re-introduced into the production process so as to reduce the causes of pollution. To achieve this goal, alternative green economic policies must be implemented through the allocation of economic resources, stricter environmental regulations, the creation of subsidies, to environmentally friendly activities and optimization of regional planning processes (Basthiani et al., 2024).

A number of study about *green economy* conducted by Zulfikar & Mayvita (2019). Knowledge environment and perception influential to behavior of MSMEs in implementation *green economy.* The same research was also conducted by (Atlantika et al., 2023) , Wijaya et al (2022) . The results of the study show that knowledge environment influential to perception of MSMEs in implement *green economy.* Perception and knowledge environment influential to behavior of MSMEs in implement *green economy.* Next study *Eco-Literacy* to *green economy* conducted by (Setiyadi et al., 2023) , shows that *eco literacy* have significant influence to *green economy.* Research conducted by Darni (2023) yielded different results, namely that environmental knowledge and perceptions of MSMEs did not significantly influence the implementation of a green economy. This constitutes an interesting research gap for further research.

The implementation of a green economy has become a global urgency amidst the worsening environmental crisis. MSMEs, as the backbone of the national economy—including in Kudus Regency—are required to transform toward more sustainable business practices. However, most MSMEs remain focused on short-term profits and lack awareness of the ecological impacts of their activities. Low levels of eco-literacy, environmental concern, and perception of environmentally friendly behavior are key obstacles in this transition. Therefore, this study is essential to analyze these three aspects in order to encourage behavioral change among MSMEs in realizing a contextually relevant and sustainable green economy at the local level.

Updates in study This is merge variable *eco literacy* concern environment, perception to behavior of MSMEs in Kudus Regency in implement *Green Economy.* See Still Lots MSME actors who have not to implement *green economy* in his business is due to lack of knowledge will concept and benefits as well as cost enough application tall cause *green economy* no carried out by MSME owners (Anggraeni et al., 2024). Through knowledge will implementation *green economy* in management waste can the occurrence change perceptions and behaviors that cause attitude positive will matter said. Awareness environment is action and also directed attitude For understand related importance healthy and clean environment. Awareness in environment life can seen from behavior and actions somebody in condition Where somebody do without There is pressure. The purpose of study This is analyze How *eco literacy,* care environment and perception of MSMEs in implement *green economy.* This research can serve as a basis for developing new theories or models for understanding environmentally friendly business behavior. Practically, this research is beneficial for MSMEs as a source of knowledge and motivation to begin implementing sustainable and environmentally

friendly business practices. For the government and policymakers, the results of this study can serve as a reference in developing training programs, outreach programs, or incentives to encourage the transformation of MSMEs toward a green economy.

2. Literature Review
Green Economy

Green economy is draft economy that aims increase welfare society and equality social society, and reduce risk damage environment. Economy green can also interpreted system economy that reduces emission carbon and impact negative to environment. Transformation Indonesian economy towards economy green is one of Indonesia's strategies for go out from the " *middle income trap* ". Sustainable development own three pillars namely economy, environment life, and social. Sustainability economy means grow without damaging the capital base of the economy (Syahwildan et al., 2023)

The United Nations Environment Program (UNEP) defines economy green as economy that leads to increased " welfare and equality" social, at the same time in a way significant reduce risk environment and scarcity ecology ". Economy green can with easy defined as economy low carbon, save source power, and inclusive in a way social. UNEP focuses on the conservation of natural capital, including ecosystem and resources Power nature. *Green economy* Can translated different, but the contents same. There are several definition economy green as proposed by experts (Ospanova, A., Popovychenko, I., & Chuprina, 2022). Issue environment life that matters for generation upcoming. Reduce risk and reduce scarcity source Power environment. UNEP concluded that economy green is low economy carbon, save source power, and inclusive in a way social (Pan, 2011).

Understanding Green Economy from corner view *International Chamber of Commerce* is growth economy and environment sharing not quite enough answer, mutually strengthen and support progress social. A deeper understanding comprehensive about economy green is from Chapple defines economy green as economy energy clean, especially consists of from four 19: energy renewable (energy) solar, wind and heat earth). Energy the more reduce Because material burn fossil, house glass, development equipment technology economical energy, infrastructure and transportation economical energy, cycle repeat rubbish become energy, as well as source energy alternative (Rahmawati & Bayangkara, 2024)

Eco Literacy

The word "ecoliteracy" is a combination of two words, namely ecology and literacy. Ecological is defined as related to the principles of ecology. Ecology tries to understand the reciprocal relationship, the interaction between plants, animals, humans and their natural environment, in order to answer the questions of where they live, how they live and why they live there. While "literacy" is a noun which in the English-Indonesian dictionary means "literacy". The word "literacy" can be defined as a situation where someone has understood or has an understanding of something. Thus, ecoliteracy can be defined as a situation of literacy, understanding, or having an understanding of how

the principles of ecology work in life together on earth. While in a broad sense literacy means a state where people already understand or know about something (Tyas et al., 2021).

Eco literacy is related to the understanding or knowledge of environmental conservation to achieve sustainable living. This concept is in line with the green economy, which prioritizes environmentally friendly production and processing practices. The goal of an environmentally friendly approach is to ensure sustainable survival(Setyawati et al., 2024). Ecological literacy enables individuals to gain environmental knowledge, thus encouraging participation in conservation efforts, starting with changes in consumer behavior (Faiyah et al., 2024).

Enviromental Concern

Concern to environment is an attitude of recognition and appreciation importance guard balance ecology earth. This is not only not quite enough answer individual or a certain group of people, but is calling for all over people man (Ithof, 2019). In the middle change climate global, loss diversity life and pollution rampant environment, important for We all for take steps concrete in protect the planet we live in inhabit. Importance Concern To Environment (Surun & Harsoyo, 2024)

a) Maintenance Balance Ecosystem: Environment natural is a complex network, where each organism and elements play role important in guard balance ecosystem. Concern to environment ensure that activity man No bother balance this, so that ecosystem can Keep going functioning with Good(Suen & Eheart, 2006).

b) Human Health: Healthy environment support health humans clean air, clean water, and fertile land. is factor important in guard health our physical and mental health. Caring to environment help prevent distribution disease consequence pollution and damage environment.

c) Conservation Natural Resources: Sources Power natural is asset valuable must managed in a way wise for future sustainability. With notice impact exploitation excessive to environment, we can ensure that source Power natural This still available For generation upcoming.

d) Change: One of the challenge the biggest one faced man moment This is change global climate. Through action concern to environment, such as reduce emission carbon and reduce use material burn fossils, we can slow down rate change climate and protecting the planet from more impact bad in the future.

Steps For increase concern to environment (Vannia et al., 2023)

a) Education and Awareness: Education about importance environment must started since early. Schools and institutions education other must enter eye lesson about environment and sustainability to in curriculum they.

b) Subtraction Waste: Reduce use plastic very use, recycle repeat, and minimize waste is steps practical that can taken every individual for reduce impact negative to environment.

c) Choosing an Eco-Friendly Lifestyle: Implementation style a better life friendly environment, such as use transportation public, consuming food local and organic, as well as utilise source energy renewable.
d) Participation in Environmental Campaigns and Actions: Join Us with campaigns environment and actions voluntary is effective way for increase awareness and fight for change positive in policy environment.

Perception

Perception is matter important for man as form response to something around it. Perception Can different everyone in to give meaning to a object adapt each other's thoughts. By at a glance perception can interpreted as response direct from something (Maison et al., 2021)**.**

According to Bimo Walgito (2020) perception is a process of organizing, interpreting to the stimulus received by the organism or individual so that become something that means something, and is integrated activities in self individual. In giving response to this stimulus, each individual own each assessment is appropriate experience, feeling, way think those who are different so that the perceptions shown are also different one the same others. According to Jalaludin Rakhmat (2020) state perception is observation about object, event or the relationships obtained with conclude information and interpret message.

In the sense this, more lean that perception as a process that occurs in activity observation and tend to draft attention so that create information or message from the object being observed. The level of attention also becomes influence to A perception. The more precise and clear somebody in notice something that is observed, the more perfect perceptions that arise and increasingly weak attention somebody to something that is observed said, the more the perception shown also decreases (Fahruddin et al., 2022).

Whereas according to Sugihartono (2019) to put forward that perception is ability brain in translate stimulus or process to translate incoming stimuli to in tool senses man. Human senses also participate play a role in the process of determining perception. Sight, hearing and senses other become road first perception process created which then defined by nerves brain until become A perception for him.

From several opinion on can concluded that the process of perception is results from past experiences and events happened in the past. Through senses we, individuals can experience incident the as series events. In addition, the objects that are concluded and given meaning is also interpreted based on stimuli influenced by the environment. The process of giving meaning of information or find information with the stimulus received by the tool senses, so that individual Can realize what is captured by the senses and interpreted information obtained.

Framework theory can depicted as following:

Figure 1
Theoretical Framework
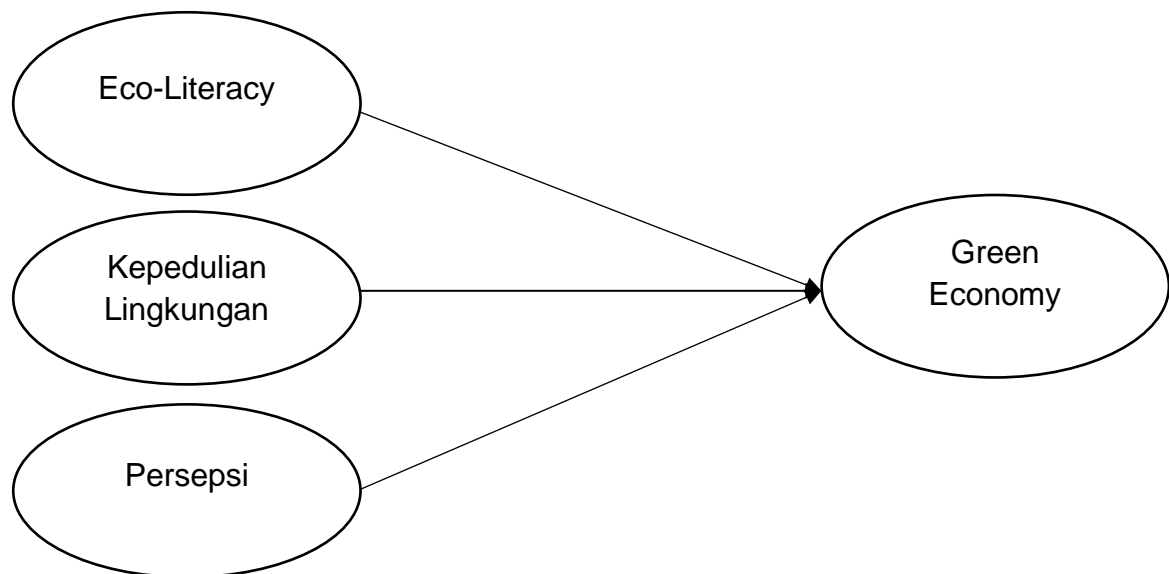
Hypothesis

A. The Influence *of Eco Literacy* on *the Green Economy*
A person's or society's understanding of the importance of *Eco Literacy* is a global ecological awareness to be able to create a balance between human needs and the earth's capacity so that it can live sustainably and also describes awareness about the importance of the environment and the creation of *a green economy*. This hypothesis is supported by research by Setiyadi, *et al* (2023) which states that *Eco Literacy* has a significant influence on *the Green Economy*, so the hypotheses proposed in this study are;

H1: Influence *Eco-Literacy* To The Behavior of Kudus Regency MSMEs in Implementation *Green Economy.*

B. The Influence of Environmental Concern on *the Green Economy*
An attitude that recognizes and appreciates the importance of maintaining the earth's ecological balance is a form of environmental concern. How a human being has the awareness to behave to protect the environment. Awareness of the green environment will encourage someone to use products that have *green economy value.* This hypothesis is supported by research by Atlantika, *et al* (2023) and Wijaya, *et al* (2022) which states that environmental knowledge affects the behavior of MSMEs in implementing the *Green Economy*, so the hypotheses proposed in this study are;

H2: Influence Concern Environment To The Behavior of Kudus Regency MSMEs in Implementation *Green Economy.*

C. The Influence of Perception on *the Green Economy*

Perception is important for humans as a form of response to something that is around them. Perception is also the process of understanding or giving meaning to information to a stimulus obtained from a response to an object, event, or relationship. This hypothesis is supported by the research of Zulfikar & Mayvita (2019) and Wijaya, *et al* (2022) who stated that Perception affects the behavior of MSMEs in implementing the *Green Economy*, so the hypotheses proposed in this study are;

H3: Influence Perception To The Behavior of Kudus Regency MSMEs in Implementation *Green Economy.*

3. Research Method

Data types in study This is is study quantitative. a survey method to examine the influence of ecological literacy, environmental awareness, and perceptions of environmentally friendly behavior on the implementation of a green economy by MSMEs. The research design is causal, as it aims to determine the cause-and-effect relationships between variables. The focus of this study is MSMEs in the food and beverage sector in Kudus Regency, which have the potential to impact the environment through production waste and raw material use

The population in this study was all MSMEs in the food and beverage sector in Kudus Regency. The sampling technique used was purposive sampling technique is a sampling technique based on specific considerations. This technique is used when researchers have specific criteria or goals in selecting research subjects, for example, because they are considered to have the most knowledge or understanding of the problem being studied (Sugiyono, 2017). With the following criteria: (1) MSMEs active for at least two years, and (2) operating in the food and beverage sector. Based on these criteria, 41 respondents were selected as the research sample.

The instrument used in this study was a questionnaire with a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree). The instrument was developed based on indicators adapted from various sources. The ecological literacy variable covers MSMEs' understanding of environmental issues, business impacts on the environment, and environmentally friendly solutions, based on the framework (Setiyadi, A., Nasrudin, N., & Hilal, 2023). The environmental concern variable is measured through attention, attitudes, and involvement in environmental issues, referring to Environmental Concern (Maulita et al., 2020). The perception variable towards the green economy includes perceived benefits, perceived costs, and implementation feasibility, adapted from research (Wijaya et al., 2022). Meanwhile, the behavioral variable regarding green economy implementation includes aspects of waste management, use of environmentally friendly materials, energy efficiency, and clean production practices, based on the OECD Green Growth and Chan indicators (Atlantika et al., 2023)

Analysis of the data used in study This is use analysis multiple linear regression with SPSS assistance. The test used includes: Validity and reliability Assumption testing classic related with data normality test. Then hypothesis test namely the F test and the T test for know whether variable independent influential towards variable dependent. Here equation used in study this:

$Y = \alpha + \beta 1 X 1 + \beta 2 X 2 + \beta 3 X 3 + \epsilon$
Where:
Y = behavior in implementation *green economy*
α = Constant
β 1, β 2, β 3= Coefficient regression
X 1 = *eco literacy*
X 2 = concern environment
X3 = Perception of MSMEs
ϵ = *Error ter*

4. Results and Discussion
4.1. Results
Result of study This can explained as following:

Table 1
Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Green Economy	41	5	25	21.98	4.298
Eco-Literacy	41	8	40	33.78	6.150
Concern Environment	41	10	30	26.10	4.170
Perception	41	8	25	20.78	4.180
Valid N (listwise)	41				

Source: Research Data (2025)

Statistical results descriptive N of 41 and *standard deviation* show data deviation. Variable (X1) *Eco Literacy* has minimum value of 8, maximum value of 40, mean of 33.78 and standard deviation 6.150. Variable concern environment (X2) has minimum value of 10, maximum value of 30, mean of 26.10 and standard deviation 4.170. Variable (X3) Perception have mark your minimum of 8, the maximum value is 25 and the standard deviation as big as 4.180. Variables *green economy* (Y) has minimum value of 5, maximum value of 25, mean of 21.98 and standard deviation 4.298. All variable have average value more big than standard deviation, then can concluded good data distribution.

Validity Test

Tests used for show how far is the accuracy tool medium size used. A valid question item if it meets certain conditions, namely if r count is greater than R-table (Ghozali, 2018: 52). In this study, the R-table of sample 41 with a significance of 5% is at 0.2706. The results of the validity test in this study can be seen in the following table:

Table 2
Validity Test Results
Eco-Literacy

Question Items	Comparative Value		Information
	r- count	r- table	
1	0.708	0.3081	Valid
2	0.772	0.3081	Valid
3	0.772	0.3081	Valid
4	0.837	0.3081	Valid
5	0.863	0.3081	Valid
6	0.810	0.3081	Valid
7	0.802	0.3081	Valid
8	0.835	0.3081	Valid

Source: Research Data (2025)

Table 3
Validity Test Results
Concern Environment

Question Items	Comparative Value		Information
	r- count	r- table	
1	0.864	0.3081	Valid
2	0.747	0.3081	Valid
3	0.870	0.3081	Valid
4	0.937	0.3081	Valid
5	0.789	0.3081	Valid
6	0.872	0.3081	Valid

Source: Research Data (2025)

Table 4
Validity Test Results
Perception of MSMEs

Question Items	Comparative Value		Information
	r- count	r- table	
1	0.858	0.3081	Valid
2	0.632	0.3081	Valid
3	0.895	0.3081	Valid
4	0.898	0.3081	Valid
5	0.821	0.3081	Valid

Source: Research Data (2025)

Table 5
Validity Test Results
Green Economy

Question Items	Comparative Value		Information
	r- count	r- table	
1	0.921	0.3081	Valid
2	0.802	0.3081	Valid
3	0.939	0.3081	Valid
4	0.921	0.3081	Valid
5	0.928	0.3081	Valid

Source: Research Data (2025)

From the results testing validity to four variable, then can concluded that all question items in questionnaire own r value count more big from r-table. It is show that all question items used in valid research.

Reliability Test
Reliability Test in study this can served as following:

Table 6
Reliability Test Results

Variables	*Cronbach Alpha*	Information
Eco Literacy (X1)	0.940	Reliable
Concern Environment (X2)	0.916	Reliable
Perception of MSMEs (X3)	0.922	Reliable
Green Economy (Y)	0.876	Reliable

Source: Research Data (2025)

Test results reliability in table 6 above can known results from testing in column *Cronbach Alpha* all variable that is *Eco Literacy,* Concern Environment, Perception of MSMEs and *Green Economy* the result more from 0.70 to can it is said all instruments on each variable have reliability high and very worthy used in research This.

Data Normality Test
The normality test is carried out using *Kolmogrov Smirnov* and *Shapiro Wilk,* namely if the significant value is greater than 0.05, indicating that the data is normally distributed. The following results from the data normality test, it can be explained as following:

Table 7

Normality test

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		41
Normal Parameters a,b	Mean	.0000000
	Std. Deviation	1.49256947
Most Extreme Differences	Absolute	.134
	Positive	.083
	Negative	-.134
Test Statistics		.134
Asymp. Sig. (2-tailed)		.060 c

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

Source: Research Data (2025)

Based on results analysis show mark Asymp.Sig (2-tailed) 0.60 > 0.05. This is to signify that the research data distributed normally

Table 8.
F Test

ANOVA a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	649,865	4	162,466	65,635	.000 b
	Residual	89.111	36	2.475		
	Total	738,976	40			

a. Dependent Variable: Green Economy

b. Predictors: (Constant), Concern Environment, Perception, Eco Literacy

Source: Research Data (2025)

Based on the results of the F test above show mark significant of 0.000 < 0.05. This is to signify there is influence in a way simultaneous between variable *Eco Literacy,* Concern Environment and Perception very significant influence to *Green Economy* of MSMEs in Kudus Regency.

Table 9
t-test

Coefficients ᵃ

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	4-.027	1,812		1..015	.988
	Eco-Literacy	.098	.102	.140	0.961	.343
	Concern Environment	-.804	.110	.675	6.403	.001
	Perception of MSMEs	.793	.120	.767	6.615	.000

Source: Research Data (2025)

From the results analysis on show t - value *eco literacy* as big as 0.961 < 1.687 of t table value. For mark significant of 0.343 > 0.05, p. This to signify No there is influence significant *Eco-Literacy* to behavior in implementation *Green Economy.* Then Concern environment own t value 6.403 >1.687 t table and significant of 0.001 < 0.05 means there is influence significant Concern environment to behavior in implementation *Green Economy.* For t - value the perception of MSMEs is 6.615 > 1.687 and the significance is 0.000 <0.05. This show that MSME perception has a very significant influence to behavior implementation *Green Economy.*

Table 10 Coefficient Determination

Model Summary ᵇ

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.938 ᵃ	.879	.866	1,573

a. Predictors: (Constant), Eco Literacy, Concern Environment, Perception

b. Dependent Variable: Green Economy

Source: Research Data (2025)

Based on table 10 above obtained the adjusted r square value is 0.866. This is to signify that variable *Eco Literacy,* Concern Environment and Perception to behavior of MSMEs in implementation *Green economy* have contribution of 86.6% and the remaining 13.4% is influenced by other variables that are not entered in study.

4.2. Discussion

Influence *Eco-Literacy* To The Behavior of Kudus Regency MSMEs in Implementation *Green Economy.*
State No there is influence significant *Eco-Literacy* to behavior in implementation *Green Economy* with results show t - value 0.961 < 1.687 of t table value and value significant equal to 0.343 > 0.05. So that can concluded Hypothesis First **rejected.** Research results This No in line with study Setiyadi, *et al* (2023) stated that *Eco-Literacy* have significant

influence to *Green Economy. Research results This No in line with study Setiyadi, et al (2023) stated that Eco-Literacy have significant influence to Green Economy.*

Influence Concern Environment To The Behavior of Kudus Regency MSMEs in Implementation *Green Economy.*

State there is influence significant Concern Environment to behavior in implementation *Green Economy* with results show t count value 6.403 >1.687 t table and value significant equal to 0.001 < 0.05. So that can concluded Hypothesis second **accepted.** Research results This in line with study Atlantika, et al (2023) and Wijaya, et al (2022) who stated knowledge environment influential to behavior of MSMEs in implement *Green Economy.* Research results This in line with study Atlantika, et al (2023) and Wijaya, et al (2022) who stated knowledge environment influential to behavior of MSMEs in implement Green Economy .

Influence Perception To The Behavior of Kudus Regency MSMEs in Implementation *Green Economy.*

State there is very significant influence MSMEs' perception of behavior implementation *Green Economy* with results show t value 6.615 > 1.687 t table and value significance 0.000 <0.05. So can concluded Hypothesis third **accepted.** Research results This in line with study Zulfikar & Mayvita (2019) and Wijaya, *et al* (2022) stated that perception influences the behavior of MSMEs in implementing *Green Economy.* Research results This in line with study Zulfikar & Mayvita (2019) and Wijaya, et al (2022) stated that perception influences the behavior of MSMEs in implementing Green Economy.

Based on the results of the regression analysis, the calculated F value is 65.635 with a significance level of 0.000. This significance value is smaller than α = 0.05, so it can be concluded that the regression model is simultaneously significant. This means that the variables of eco-literacy, environmental concern, and Perception Towards The Behavior Of MSMEs together have a significant influence on the implementation of a green economy in MSMEs

5.Conclusion

There is no influence significant *Eco-Literacy* to behavior in implementation *Green Economy,* so that can concluded Hypothesis First **rejected.** This is Because the more lack of *Eco-Literacy* so will reduce behavior in implementation *Green Economy.* There is influence significant Concern Environment to behavior in implementation *Green Economy,* so that can concluded Hypothesis second **accepted.** This is Because the more increasing Concern Environment so will increase behavior in implementation *Green Economy.* There is very significant influence MSMEs' perception of behavior implementation *Green Economy,* so that can concluded Hypothesis third **accepted.** This is Because the more more increasing Perception of MSMEs then will more increase behavior in implementation *Green Economy.* In general simultaneous between variable *Eco Literacy,* Concern Environment and Perception very significant influence to *Green Economy* of MSMEs in Kudus Regency .

The contribution of this research is to provide an initial empirical picture of the determinants of the Green Economy behavior of MSMEs, as well as being the basis for formulating a more contextual and applicable environmental education program for small

business actors in the region. The implications of these results emphasize the importance of increasing environmental awareness and positive perceptions among MSMEs to encourage them to adopt environmentally friendly practices. The government and relevant institutions need to focus on practical education, outreach, and incentives. This study is limited by the limited number of respondents, narrow sector scope, and solely quantitative approach. Therefore, further research is recommended involving a larger sample size, a mixed approach, and the addition of variables such as policy support and access to green technology.

Acknowledgements

References

Amini, D. S., Nurgiyanti, T., Wiratma, H. D., & Subandi, Y. (2024). Pelatihan Penerapan Green Economy Bagi Pelaku UMKM Binaan Rumah Kreatif Sleman Yogyakarta. *SWARNA: Jurnal Pengabdian Kepada Masyarakat*, *3*(3), 257–263. https://doi.org/10.55681/swarna.v3i3.1124

Anggraeni, R. P., Lestari, S. D., Puspita, D., Kartika, V. F., & Jember, P. N. (2024). Peranan Green Accounting Dalam Mendukung Keberlanjutan UMKM. *Proceeding Accounting, Finance, and Economics*, *1*, 1–9.

Arif Budimanta, Mohammad Ali Nur Sidiq, Telisa Falianty, Firdha Najiya, Muhammad Mulya Tarmizi, A. A. (2021). *National Economic Development Transformation in the Direction of Low Carbon Development ICETRA IPB. November*, 29–30.

Atlantika, Y. N., Manggu, B., & Magdalena, Y. (2023). Analisis Tingkat Pengetahuan Lingkungan, Persepsi, Dan Perilaku Umkm Di Daerah Perbatasan Dalam Upaya Mengimplementasikan Green Economy. *Sebatik*, *27*(1), 87–96. https://doi.org/10.46984/sebatik.v27i1.1973

Basthiani, I. A., Rini, I., Pangestuti, D., & Diponegoro, U. (2024). *The Role Green Economy in Sustainable Development as Long-Term Environmental and Economic Stability: A Literature Review Ikrimah. 0696.*

Dewi, P. P., & Narayana, I. P. (2020). (2020). Implementasi Green Accounting, Profitabilitas, dan Corporate Social Responsibility pada Nilai Perusahaan. *E-Jurnal Akuntansi*, *30*(12), 3253-3262.

El-Kafafi, S. (2022). Entrepreneurial Leadership Effectuation in Higher Education after the COVID-19 Pandemic.African. *Journal of Economics, Politics and Social Studies, 1(1)*, 97–1.

Fahruddin, F., Jana, P., Setiawan, J., Rochmat, S., Aman, A., & Yuliantri, R. D. A. (2022). Student Perception of Online Learning Media Platform During the Covid-19 Pandemic. *Journal of Education Technology*, *6*(1), 126–132. https://doi.org/10.23887/jet.v6i1.42738

Faiyah, L. I., Hasanah, N. A., Hayati, M., Islam, U., Raden, N., & Lampung, I. (2024). *The

Impact of SDG 30 on Eco-Literacy and Green Purchase Maqashid Syariah Perspective.

Ibrahim, H. A., Ayomoh, M. K., Bansal, R. C., Gitau, M. N., Yadavalli, V. S. S., & Naidoo, R. (2023). Sustainability of power generation for developing economies: A systematic review of power sources mix. *Energy Strategy Reviews*, *47*(May 2022), 101085. https://doi.org/10.1016/j.esr.2023.101085

Ithof, M. (2019). Artikel peduli lingkungan. *Jurnal Ilmu Lingkungan*, *2*(11), 0–9.

KLHK. (2020). *Kementerian Lingkungan Hidup dan Kehutanan. 2020. Roadmap Nationally Determined Contribution (NDC) Adaptasi Perubahan Iklim. Tersedia pada: http://ditjenppi.menlhk.go.id/reddplus/images/adminppi/adaptasi/dokumen/Roadma p_ND C_API_opt.pdf*.

Komang, N., Astuti, N., Luh, N., Sri, P., Pradnyani, P., Aristya, P., Wasita, A., & Pura, D. (2023). Pengaruh Penerapan Green Accounting, Profitabilitas, Dan Corporate Social. *Journal Research Of Accounting*, *4*(2), 133–145.

Maison, M., Kurniawan*, D. A., & Anggraini, L. (2021). Perception, Attitude, and Student Awareness in Working on Online Tasks During the Covid-19 Pandemic. *Jurnal Pendidikan Sains Indonesia*, *9*(1), 108–118. https://doi.org/10.24815/jpsi.v9i1.18039

Maulita, Adham, M., & Patrisia. (2020). Tingkat kepedulian, pengetahuan dan persepsi pemilik umkm dalam mengimplementasikan green accounting disamarinda. *Prosiding 4th Seminar Nasional Penelitian & Pengabdian Kepada Masyarakat*, 323–328.

Ospanova, A., Popovychenko, I., & Chuprina, E. (2022). Green economy – Vector of sustainable development. *Problemy Ekorozwoju*, *1*, 17.

Pan, et al. (2011). Rotating Night Shift Work and Risk of Type 2 Diabetes: Two Prospective Cohort Studies in Women. *PLoS Med 8*, 12.

Rahmawati, N., & Bayangkara,.Ketut, I. (2024). Peran Green Economy dalam Meningkatkan Aspek Kesejahteraan Sosial Masyarakat (Studi Literatur). *Jurnal Ekonomi, Akuntansi Dan Manajemen*, *3*(3), 289–301. https://doi.org/10.30640/inisiatif.v3i3.2758

Rinkesh. (2020). *Causes, Effects and Solutions of Depletion of Natural Resources, Conserve Energy Future. https://www.conserve-energy-future.com/causeseffects-solutions-depletion-natural-resources.php*.

Setiyadi, A., Nasrudin, N., & Hilal, S. (2023). Setiyadi, A., Nasrudin, N., & Hilal, S. (2023). Pengaruh Eco Literacy terhadap Green Economy. Jurnal Ilmiah Ekonomi Islam, 9(1), 847–866. https://doi.org/10.29040/jiei.v9i1.8513. *Jurnal Ilmiah Ekonomi Islam, 9(1), 847–866. Https://Doi.Org/10.29040/Jiei.V9i1.8513*.

Setyawati, I., Muslimin, Y., &... (2024). Pembangunan Ekonomi Berbasis SDGS Melalui Eco Literacy Dan Green Economy (Studi Kasus Pembelajaran Seluruh Petani Di Desa Jati Bali, Konawe .... *YUME: Journal of ...*, *7*(2), 1271–1279. https://journal.stieamkop.ac.id/index.php/yume/article/download/7248/4846

Suen, J. P., & Eheart, J. W. (2006). Reservoir management to balance ecosystem and human needs: Incorporating the paradigm of the ecological flow regime. *Water Resources Research*, *42*(3), 1–9. https://doi.org/10.1029/2005WR004314

Surun, M., & Harsoyo, D. (2024). Pengaruh Environmental Concerns, Attitude, Dan

Product Performance Terhadap Minat Beli Pakaian Ramah Lingkungan Pada Generasi Z. *Jurnal Ekonomika Dan Bisnis (JEBS)*, *4*(6), 1699–1707.

Syahwildan, M., Setiawan, I., & Hariroh, F. M. R. (2023). Peran Green Economy Terhadap Pembangunan Berkelanjutan Di Indonesia. *Lentera Pengabdian*, *1*(02), 163–171. https://doi.org/10.59422/lp.v1i02.38

Tyas, D. N., Nurharini, A., Wulandari, D., & Isdaryanti, B. (2021). Kesadaran Prilaku Ramah Lingkungan Dikalangan Mahasiswa. *Qalam: Jurnal Ilmu Kependidikan, 10*(2), 115–125.

Vannia, D., Muhammad Sadat, A., & Pratama Sari, D. A. (2023). Pengaruh Green marketing, Environmental concern, dan Attitude toward behavior terhadap Purchase intention: Studi Pada Laki-kaki Pengguna Skincare Lokal di DKI Jakarta. *Jurnal Bisnis, Manajemen, Dan Keuangan*, *3*(3), 852–863. https://doi.org/10.21009/jbmk.0303.18

Wang, J., & Azam, W. (2024). Natural resource scarcity, fossil fuel energy consumption, and total greenhouse gas emissions in top emitting countries. *Geoscience Frontiers*, *15*(2), 101757. https://doi.org/10.1016/j.gsf.2023.101757

Wijaya, K., Dewi, S., & Safitri, A. (2022). Pengaruh Pengetahuan Lingkungan, Persepsi Dan Perilaku UMKM Batik Di Pekalongan Dalam Mengimplementasikan Green Economy. *Jurnal Iqtisaduna*, *8*(2), 151–165. https://doi.org/10.24252/iqtisaduna.v8i2.32286

Zahra, Y., Fitria, N., & Asyriyanti, ; Mulki. (2024). Analysis of Green Economy Implementation in The Concept of Money Digitalization in Indonesia. *Jurnal Wacana Ekonomi*, *23*(1), 001–009. https://journal.uniga.ac.id/index.php/JA/article/view/3119

Zulfikar, R., & Mayvita, A. (2019). The Level of Environment Knowledge, Perception, and Behavior of South Kalimantan MSME in Implementing the Green Economy. *Prosiding Seminar Nasional Lingkungan Lahan Basah*, *4*(April), 459–464.