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The Impact of Green Tax Policy, Environmental Awareness and Religiosity on The Intention of Umkm to Adopt Circular Economy Practices Moderated by Monetary Value

Gilang Wirawan Wasis Tirta Maulana[a]

[a] *Universitas Islam Negeri Sunan Kalijaga, Yogyakarta, Indonesia*

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Abstract: This study aims to determine the effect of green tax policy, environmental awareness, religiosity and monetary value on the intention of MSMEs to adopt a circular economy system. The sampling technique used is purposive sampling, with a total of 120 samples determined using the G-power application. The data analysis method in this study uses partial least squares structural equation modeling (SEM-PLS). The results of the analysis show that the variables of green tax policy, religiosity and monetary value are proven to have a significant influence on the intention of MSMEs. However, the religiosity variable shows a negative value, so it is considered that the higher the value of one's religiosity, the lower the intention, while the environmental awareness variable is proven to have no significant influence on the intention of MSMEs. Meanwhile, the monetary value variable proved unable to moderate the green tax policy variable, environmental awareness and religiosity on MSME intentions.

Keywords: *Circular Economy, MSME Intention, Environmental Awareness, Monetary Value.*

Introduction

Along with the times, problems will also grow, both in terms of the economy and the environment. A Deloitte survey in 2022 concluded that 89 out of more than 2,000 executives in 21 countries agreed that there was a global climate emergency. Nearly 79% of these leaders believe that the world is at a critical moment in responding to climate change, and 88% agree with the idea of immediate action to address the problem (Susilo *et al*., 2023).

The growth of globalization implies a perspective of change that refers to the accelerated advancement of information and technology (Lee & Min, 2014). The impact of globalization is becoming more and more rapid and along with it come important reform issues in the fields of trade, foreign investment, transportation, tourism and even the implementation of school environment (Kirchherr *et al*., 2023). Examples include industrial ecology, cleaner production, sustainable production and consumption, biomimicry, green economy, and green growth. These and other terms, when taken seriously, characterize the so-called "sustainability" of new ideas that are merely empty symbols rather than paths that essentially lead to cessation (Suchek *et al*., 2021).

Revealing the World Bank's environmental quality data in July 2023, the world population shows that the human population will increase by 4.99% or the equivalent of 8.05 billion people per year. With Indonesia as the fourth ranked country with 277.7 million people (Annur, 2023a).

*Corresponding Author
gwirawan693@gmail.com (G. W. W. T. Maulana).
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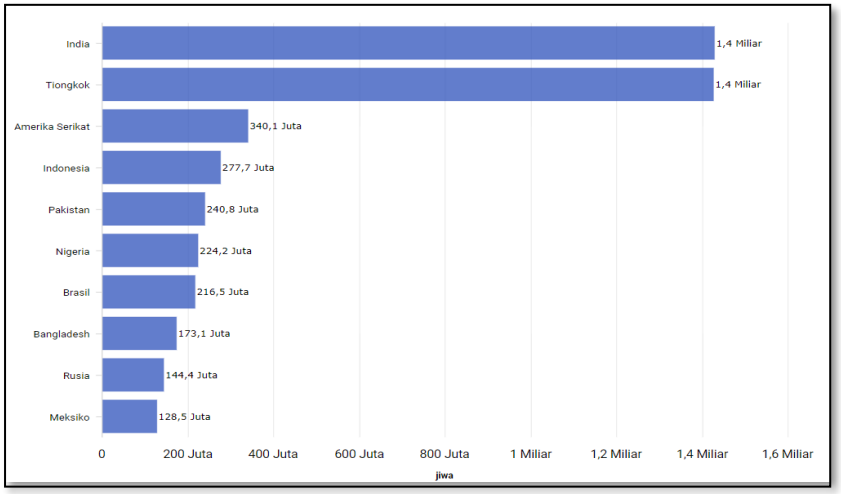

Figure 1.0.1 Chart of 10 Countries with the Most Human Population
Source:(Annur, 2023a)

Each year leads to an increase in consumption and production levels, so the negative externalities on the environment are becoming increasingly serious. The world records that the estimated annual growth of the human population on earth can emit up to 353 million tons of CO2 waste emissions out of a total of 40,172 tons per year, while in a certain period of time, the amount of CO2 waste emissions reached 3,000 tons per year. actually increased by 460 million tons, more than doubling compared to the previous year (Tesalonika & Sutjipto, 2023).

Linear economic models based on the waste capture mechanism are currently being applied to achieve a physical boundary between the two mechanisms. A system where people buy something, use it, and then throw it away with no consideration of reuse or recycling. This model shows a high volume of new production. Linear economics is a polluting system that can damage nature and the climate, eliminating biodiversity. (Knight, 2023). It is estimated that the amount of waste generated annually will reach 2.59 billion tons by 2030 and the number will continue to increase to 3.40 billion tons in the world by 2050. The 2030 Agenda identifies 17 Sustainable Development Goals (SDGs) for balanced development across the three dimensions of sustainable development (economic, social and environmental) and emphasizes Strong economic and social development also depends on sustainable management of our planet's natural resources. (Wijaya & Selvira, 2022)

Waste management is the biggest challenge for government agencies in developing countries. These waste management problems occur in big cities as well as small towns. These problems usually occur due to increased Waste deposits in landfills, high waste management costs and minimal waste management knowledge. (Abdel-Shafy & Mansour, 2018). Waste management problems in Indonesia are caused by the lack of a strong legal basis, lack of landfills, lack of composting efforts, and lack of proper landfill management. (Pesona *et al*., 2023). Handling waste problems according to government regulation no. Perpres 81 of 2012 can be overcome by implementing waste management activities according to the 3R principle, namely reduce, reuse and recycle. (Indonesia, 2012).

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gwirawan693@gmail.com (G. W. W. T. Maulana).
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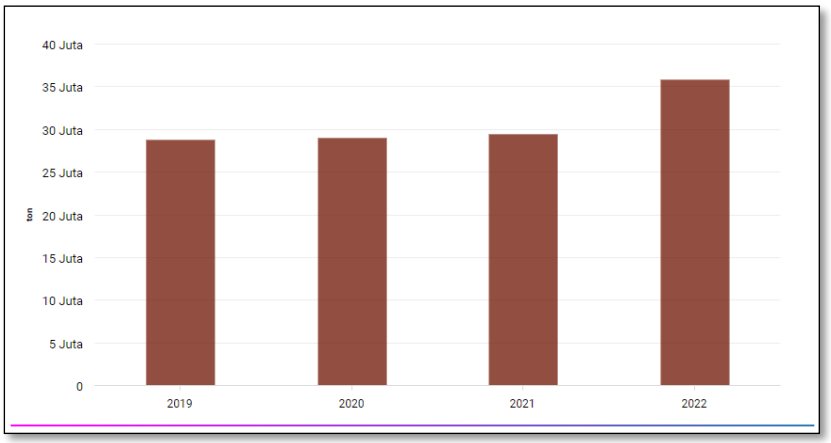

Figure 1.0.2 National Waste Generation Volume
Source*:* (Annur, 2023)

The concept of circular economy focuses on the efficient and effective functioning of the economy at various scales, from governments and individuals, at the global and local levels, to the business world. Simply put, the circular economy helps reduce plastic waste by utilizing plastic waste economically (Sakaria *et al*., 2022). Circular economy practices can reduce costs and create new revenue streams for businesses by reusing materials and minimizing waste. However, in many cases, the technologies required for a circular economy are expensive, and a lack of financial resources hinders the successful implementation of a circular economy. The challenges facing the circular economy are diverse. Some of them raise concerns specifically related to theories of governance, economics, and organization. (Pesona *et al*., 2023).

Based on the 2030 SDG goals, one of which is climate action, green taxes can be used as a tool to address climate change that has a wide impact on people's lives. This can be achieved by developing and optimizing the existing green tax potential in Indonesia. Green taxes are imposed on community activities that produce carbon emissions. (Wijaya & Selvira, 2022).

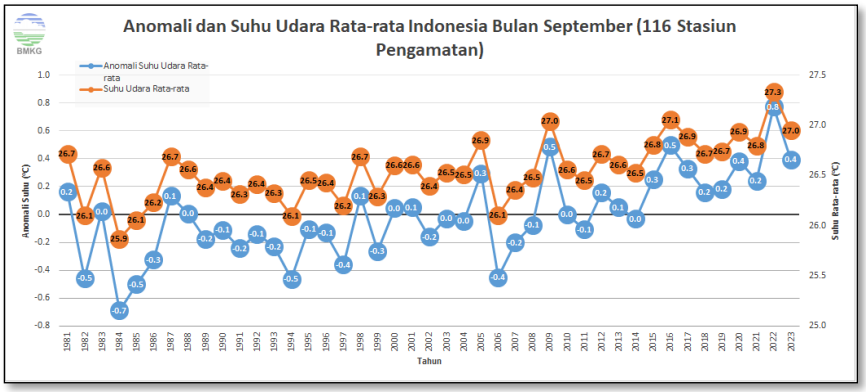

Figure 1.0.3 Average Temperature in Indonesia as of September
Source: (Badan Metrologi Klimatologi dan Geofisika, 2023)

According to the analysis of 116 observation stations of the Metrological, Climatological and Geophysical Agency (BMKG), the average air temperature in September 2023 is 27.0 °C; the climatological normal air temperature for September 2023 is 26.6 °C (within the normal range of 20.1 °C-28.6 °C). Based on these values, Indonesia's air temperature anomaly in September 2023 is 0.4°C (Badan Metrologi Klimatologi dan Geofisika, 2023).

Recommendations for addressing global climate change initiated by Green Infrastructure (GI), which is designed and managed to provide a range of ecosystem services, is comparable to a commitment to green taxes. If green taxes are optimized by considering economic policy and environmental sustainability, Indonesia will get a positive response from global markets and increased global confidence. This includes potential capital flows from investors to support Indonesia in

implementing economic policies that remain mindful of and prioritize environmental ecosystems. (Firmansyah *et al*., 2022).

One way for the entire business sector to become more environmentally friendly is by implementing circular economy practices. This means that businesses can combine profits and environmental benefits (Hossain *et al*., 2020). Most of the literature argues that the implementation of green innovation is necessary to facilitate the preservation of circular economy practices because green innovation requires businesses to pay attention to the environment through the use of environmentally friendly products, methods, materials, and business processes and implement the use of toxic substances that are detrimental to the environment (Yusfiarto, Khoirunnisa, et al., 2023).

Therefore, the adoption to circular economy practices requires changes both within and outside the company, especially Micro, Small and Medium Enterprises (MSMEs). (Yusfiarto, Khoirunnisa, et al., 2023). Internal changes will have a lot to do with behavior, environmental commitment, and organizational capabilities. In other words, internal environmental orientation will also involve how businesses or managers understand their environment. One important factor that prevents the preservation of circular economy practices is the level of awareness of businesses towards their environment. The claim that environmental awareness requires emotional engagement, which then influences the way managers or businesses make business decisions by considering environmental aspects (Escobar-Rodríguez & Carvajal-Trujillo, 2014).

In contrast, the circular economy offers opportunities for biodiversity improvement (carbon neutral), re-absorption of pollution that has been set free in the air (carbon sequestration), and zero waste. All of this is especially true in the agriculture and livestock sectors. It is difficult to get chemical fertilizers. According to various green MSMEs established by Bank Indonesia, there are many reasons that drive MSMEs to implement circular economy practices. subsidized. Seeing opportunities to turn waste into money (seashells, water hyacinth) In addition, the emergence of green economy issues has prompted many countries to establish regulations governing economic activities such as investment, imports, and exports in an effort to implement environmentally friendly and sustainable economic patterns. (Rishanty, 2022).

Using reduction, reuse, and recycling, CE is proven to transform conventional linear business models into circular ones, which include design, procurement, production, consumption, and recovery (Dey *et al*., 2022). There is a link between CE measures and sustainability. Complying with legal regulations on desirable environmental and social goals often makes SMEs as leaders economically inferior. This is because many environmental and social projects are costly and may not help attract customers for the project. (Türkeli *et al*., 2018) examines how circular economy models serve to solve problems of sustainable growth, environmental, and social goals in China and several EU countries. Certain small and medium-sized businesses (SMEs) can achieve CE by transforming their linear processes into circular ones. (Dey *et al*., 2022).

Literature Review

Teori Triple Bottom Line (TBL)

John Elkington, (1997), in his book entitled “Cannibals with Forks, the Triple Bottom Line of Twentieth Century Business”, developed the idea of the Triple Bottom Line (TBL). Elkington said that companies should not only pursue profit but should also pay attention to and be involved in providing the welfare of society (people) and help preserve the environment (planet). TBL is the basis of the hunt, according Slaper, T.F dan Hall, (2011), by measuring the worldwide impact of an organization's activities, such as profitability, shareholders, social, community, and environment. There are three components of TBL as follows: profit is the additional revenue used to guarantee the company's wishes, people is the society that contributes to the company's wishes, and planet is the environment that has a cause-and-effect relationship with the company.

*Corresponding Author

gwirawan693@gmail.com (G. W. W. T. Maulana).

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Natural Resources-Based View (NRBV)

Evolving from the Resources-Based View theory, the NRBV was introduced by Hart in 1995 and consists of three strategies: pollution prevention, product stewardship, and sustainable development. (Hart, 1995). Businesses are forced to reduce the emissions and waste they produce. There are two ways to reduce this pollution: control (waste is captured, stored, and processed with pollution control devices) and prevention (emissions and waste are reduced, altered, or prevented in-house using alternative materials or recycling). As a result, businesses can save money and improve the performance of their operations. In addition, product stewardship prioritizes the use of environmentally friendly raw materials and product design. In conducting its operations, the company will seek direction from Stake Holder in product development design to produce products with green elements. (Jaini & Hussin, 2019).

Circular Economy

Circular economy is an economic approach that focuses on the sustainable and efficient use of natural resources by prioritizing the reuse, recycling, and recovery of materials. (Ellen, 2017). Circular economy keeps goods and services in the economic cycle for as long as possible to reduce environmental impact and Conventional linear economy that focuses on production, consumption, and disposal is different from circular economy theory. generates additional value. (Sri Kurnia *et al*., 2023). A circular economy is a system that aims to maximize the life cycle of products from resource selection, production, consumption, and disposal. This is achieved by encouraging practices such as reusing, repairing, and sharing resources, and zero-waste design. (Mishra *et al*., 2021). Expected consumption level of the CE concept, such as borrowing, sharing, and giving products to others rather than throwing them away (Suwignyo *et al*., 2021).

Green Taxes

Green tax is a new policy tool used by countries to promote energy transformation and environmental conservation. It is a tax imposed on industries and pollutant users to protect the environment. It is considered an effective system to control and reduce the country's carbon dioxide emissions and improve energy efficiency. An environmental tax, also known as a green tax, is a tax whose main purpose is to preserve the environment and promote the development of a country or region. Finland was the first country to implement an environmental tax policy in 1990, under the name Carbon Tax (Fernanda, 2022). The idea was then adopted by Sweden and Norway in 1991, India in 2010, Japan in 2012 and Indonesia in 2017. Green taxes encourage innovation that focuses on poverty, social investment, waste reduction, and manufacturing environmentally friendly products (Yusfiarto, Khoirunnisa, et al., 2023).

Environmental Awareness

According to the Environmental Awareness Ability Measure (EAAM) created by Jha (1998), environmental awareness consists of five dimensions: causes of pollution, conservation of soil, air, water, and forests, conservation of energy, conservation of human health, and conservation of life in nature and farming (Shobeiri *et al*., 2007). Ignorance, poverty, humanity and lifestyle are factors that affect environmental awareness (Munawar *et al*., 2019). Environmental awareness, also known as green consciousness, is a person's ability to understand the relationship between humans and their environment to create a safe and healthy environment. (Ritomiea Ariescy *et al*., 2019). Green consciousness is defined as the customer's awareness that buying green goods will make a positive contribution to the environment. (Sarasuni & Harti, 2021).

Religiosity

Religion is a key component in an individual's relationship with God. Because belief in life itself is a factor that affects a person's ability to live life in accordance with their religious beliefs. Religiosity is the unity between religious beliefs as a cognitive component, religious feelings as an affective component, and religious behavior as a conative component. Therefore, it can be said that the aspect of religiosity consists of a combination of knowledge, feelings, and behavior related to religion in humans (Fitri *et al*., 2019).

Monetary Value

How much a customer spends determines the monetary value. Putting more pressure by encouraging customers who spend the most money to continue doing the activity is the natural tendency (Forsyth & Grimsley, 2022). Monetary value is best defined as the amount of cash available for a property, commodity, or service. As such, this monetary value applies to the value of goods or services in currency. This concept describes the material value that the purchased good or service will generate. Monetary value is measured in a modern economy. Goods with a certain monetary value can be used as a medium of exchange. The price of any property, commodity, or service is influenced by government policies, demand, and supply. Notably, the value of money is essentially proportional to the market price, which is formed by the forces of demand and supply. (Murphy, 2022).

In Sakaria *et al*., research (2022) entitled "Perceptions of the Application of Blockchain Technology for Circular Economy in Plastic Banks" discusses the use of blockchain technology by companies with a circular economy can provide transformative opportunities in improving supply chain operations, tracking, and helping to provide economic exchange value through tokens.

Furthermore, research by Susilo *et al*., (2023) entitled "The Concept of Circular Economy in a Sustainable Business Model to Build a Green Lifestyle of Indonesian Society" resulted in research that the circular economy can generate economic growth and minimize social and environmental damage and can build a green lifestyle of Indonesian society.

Furthermore, research by Suchek *et al*., (2021) with the research title "Innovation And The Circular Economy: A Systematic Literature Review" found that in this perspective, the business models of incumbent companies and startups are different. Incumbent companies can influence the ecosystem that evolves into CE, but they may also be less flexible than startups in capturing opportunities and developing radical innovations.

Furthermore, research by Sri Kurnia *et al*., (2023) with the research title "Circular Solutions for Decent Work and Economic Growth: Lessons from Sustainable Development Goals (SDG) 8" explains that the circular economy offers a promising approach to achieving sustainable development by decoupling economic growth from resource depletion and environmental degradation.

In Jatimulya & Wibowo, research (2023) With the title "Legal Policy for Tax Incentives in the Energy and Transportation Sectors to Support Net Zero Emission in 2060" this study found the need for incentives that encourage community involvement in the energy sector, incentives for public transportation compared to private, and materialization of tax incentive policies that support Net Zero Emission.

Then in research Fernanda, (2022) entitled "Analysis of the Impact, Benefits, and Realization of Green Tax in Indonesia" this study found that in order to support the green tax policy, an approach and socialization to the community is needed so that the community fully supports the green tax policy.

In the research Yusfiarto *et al*., (2023) with the title "The Transition Of SMEs To Green Practices: Aligning Models Of Green Economic Incentives And Green Innovation" found how important it is for umkm to have environmental awareness and understanding of the concept of sustainable business. thus, umkm can get support to implement green innovation. government assistance such as tax incentives and empowerment help sustainable small and medium enterprises (umkm) increase their competitiveness in the market.

*Corresponding Author

gwirawan693@gmail.com (G. W. W. T. Maulana).

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Methodology

This research uses a type of quantitative research. Quantitative research begins with the statement of the problem, the creation of hypotheses or research questions, reviewing relevant literature, and analyzing quantitative data. (Creswell, 2003). This research uses an associative research strategy which is research with the intention of knowing the causal correlation between one variable and another.

Population and Sample

Population is the whole of a group of people or subjects or objects consisting of certain characteristics where the researcher sets it as a topic to be studied and makes an opinion based on sample data (Sekaran & Bougie, 2016) Population is a source of data in certain studies that has a large number and size of the population in this study, namely MSMEs in Sleman. The sample must represent the population to ensure that we can generalize the findings from the research sample to the population as a whole. (Delice, 2001). This research technique used by researchers is the Purposive Sampling Technique, namely determining the sample with certain considerations. In this study, researchers took samples from MSMEs who had knowledge of the Circular Economy.

Types and Techniques of Data Collection

Primary data is data collected by the first person (Ardiansyah *et al*., 2022). The Likert scale is used in the research answer data for each variable to analyze data that gives a score or weight to each research variable question in stages.

Data Analysis Method

The SEM method is an integration of a number of different multivariate techniques into one valid modeling framework Many researchers find the PLS-SEM method attractive because it allows estimation of complex models with many constructs, variable indicators, and structural paths without imposing distributional assumptions on the data. (Hair *et al*., 2013).

1. Data Quality Test (Outer Model)
   a. Validity (Accuracy of Instruments in Measuring Research Contexts)

      Validity in a study is a measure or test to assess how well and precisely the question points that have been formulated, compiled, and developed can measure a concept or theory that is being observed or studied Data can be said to be valid in SmartPLS software if:

      1) Convergence can be seen from the Loading Factor and Average Variance Extracted (AVE) output. The Loading Factor score must be above 0.70 or at least 0.60 and the AVE value must be above 0.50
      2) Discriminant can be seen from the output of The Square Root of AVE the recommended value is <0.9

   b. Reliability (Stability and Consistency of Measuring Tools)

      Reliability ensures that the measuring instrument used is unbiased and produces consistent values both over time and at various points in the research instrument Data can be said to be reliable if:

      1) Cronbach Alpha must produce a value above 0.70 (Fornell & Larcker, 1981). Or at least it is> 0.60.
      2) Composite Reliability must be above 0.70 (Nunnally, 1978). Or at least it is >0.60
2. Structural Equation Modeling Test (Inner Model)

   The structural model helps researchers assess the overall model and test the formulated hypotheses to produce precise and accurate interpretation of findings through the following parameters (Qoyyum *et al*., 2021):

   a. Coefficient of Determination (R-Squared)

      Namely the ability of the independent variable to explain the variance of the dependent variable. Output values of 0.75 (substantial), 0.50 (moderate), and 0.25 (moderate)

   b. Predictive Relevance (Q-Squared)

      An output value above zero (>0) indicates that exogenous latent variables have predictive relevance to endogenous latent variables.

   c. Multicollinearity Test

An output value lower than 3.3 indicates the research variables are spared from Vertical and Lateral Multicollinearity and Common Method Bias problems and the VIF value should ideally be close to 5 or lower.

d. Hypothesis Testing

It can be seen from the Path Coefficient output value and P-values that are significant at the level of <1%, <5%, and a maximum of <10%.

Results and Discussion

Outer Model

1. Loading *Factor*

The loading factor value can be said to be valid if it exceeds the value (0.6) so that it can present well the construct being measured. The following are the results of the loading factor value processed with SmartPLS Version 4 software:

Table 4.1 Loading Factor Test

Variable	Item	Result	Criteria	Description
Green Tax	GT1	-0.033	>0,6	Invalid
	GT2	0.804	>0,6	Valid
	GT3	0.679	>0,6	Valid
	GT4	0.558	>0,6	Invalid
Environmental Awareness	KL1	0.565	>0,6	Invalid
	KL2	0.498	>0,6	Invalid
	KL3	0.775	>0,6	Valid
	KL4	0.794	>0,6	Valid
	KL5	0.163	>0,6	Invalid
Religiosity	R1	0.820	>0,6	Valid
	R2	0.886	>0,6	Valid
	R3	0.873	>0,6	Valid
	R4	0.913	>0,6	Valid
Montary Value	MV1	0.845	>0,6	Valid
	MV2	0.739	>0,6	Valid
	MV3	0.094	>0,6	Invalid
	MV4	0.537	>0,6	Invalid
MSME Intention	INT1	0.583	>0,6	Invalid
	INT2	0.752	>0,6	Valid
	INT3	0.753	>0,6	Valid
	INT4	0.751	>0,6	Valid
	INT5	0.792	>0,6	Valid

Source: SmartPLS Data Output, 2024

From the results above, it can be seen that there is some data that is below 0.6, where the loading factor value does not exceed the limit (0.6) so it is not accepted and is considered invalid data. Then after being processed again, valid and acceptable data is obtained so that it can be used as research data. The following are the results of the loading factor data test using SmartPLS 4 software:

*Corresponding Author

gwirawan693@gmail.com (G. W. W. T. Maulana).

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Table 4.2 Valid Loading Factor Test

Variable	Item	*Outer loadings*	Description
Green Tax	GT2	0.783	Valid
	GT3	0.732	Valid
Environmental Awareness	KL1	0.652	Valid
	KL2	0.688	Valid
	KL3	0.846	Valid
	KL4	0.857	Valid
Religiosity	R1	0.818	Valid
	R2	0.882	Valid
	R3	0.872	Valid
	R4	0.916	Valid
Monetary Value	MV1	0.864	Valid
	MV2	0.782	Valid
MSME Intention	INT2	0.706	Valid
	INT3	0.730	Valid
	INT4	0.786	Valid
	INT5	0.835	Valid

Source: SMartPLS Data Output, 2024

2. Average Variance Extracted

To measure the amount of variation explained by the items within a construct, the average variance extracted value is used. A high AVE value Above (0.5) indicates that the construct his valid convergent validity. The test result on convergent validity using the AVE value are processed using the SmartPLS version 4 applicatoin:

Table 4.1 Average Variance Extracted Test

Variable	*Average Variance Extracted* (AVE)	Criteria	Description
MSME Intention	0.587	>0,5	Valid
Environmental Awareness	0.587	>0,5	Valid
Monetary Value	0.680	>0,5	Valid
Green Tax	0.575	>0,5	Valid
Religiosity	0.762	>0,5	Valid

Source: SMartPLS Data Output, 2024

The AVE value that is above (0.5) in the data table indicates that this research variable has good convergent validity. A high AVE value indicates that most of the variation in latent variables can be effectively explained by relevant indicators.

3. Discriminant Validity

In structural equation modeling with partial least squares (SEM-PLS), discriminant validity testing is intended to ensure that construct indicators have the strongest relationship to themselves rather than other construct indicators. The cross-loading test checks the discriminant validity value on the cross load to see the correlation between the indicator and the latent variable. The cross-loading test shows how much a particular indicator contributes to the measurement of the latent variable.

Below are the results of the cross-loading test processed using SmartPLS 4:

Table 4.4 Discriminant Validity Test

Variables	Green Tax	MSME Intention	Environmental Awareness	*Monetary Value*	Religiosity
GT2	0.783	0.202	0.178	-0.133	-0.122
GT3	0.732	0.185	-0.006	0.223	0.074
INT2	0.099	0.706	-0.081	0.204	-0.150
INT3	0.236	0.730	-0.105	0.049	-0.298
INT4	0.212	0.786	-0.089	0.268	-0.070
INT5	0.221	0.835	-0.028	0.306	-0.129
KL1	0.275	-0.038	0.652	0.059	0.361

KL2	0.078	-0.027	0.688	-0.034	0.362
KL3	0.111	-0.075	0.846	-0.058	0.361
KL4	0.021	-0.103	0.857	0.008	0.447
MV1	0.097	0.250	-0.094	0.864	0.049
MV2	-0.030	0.202	0.095	0.782	0.367
R1	-0.092	-0.133	0.379	0.181	0.818
R2	-0.049	-0.120	0.508	0.238	0.882
R3	0.151	-0.170	0.437	0.271	0.872
R4	-0.118	-0.248	0.430	0.151	0.916

Source: SmartPLS Data Output, 2024

Based on the above findings, it can be concluded that the results of the discriminant validity cross-loading test show that all correlation values between indicators and latent variables meet the established criteria, which are higher than the value limit (0.7) and higher than other indicator constructs. Therefore, it can be concluded that the correlation between other latent variables, as well as the correlation between indicators and latent variables in this study is considered as the relationship between indicators and latent variables.

4. Reliability Test

Structural equation modeling with partial least squares (SEM-PLS) uses reliability tests to determine the extent to which the constructs used in research are consistent and reliable. The most common measuring tools used to measure internal reliability in SEM-PLS are the level of Cronbach's alpha value and composite reliability. Cronbach's alpha value is used to determine the minimum limit of reliability in the data.

If the minimum composite reliability value is more than 0.6, it indicates a good level of internal consistency. The following table shows the results of the reliability test using SmartPLS software version 4:

Table 4.5 Reliability Test

Variables	*Composite reliability*	Criteria	Description
MSME Intention	0.850	>0,6	Reliabel
Environmental Awareness	0.849	>0,6	Reliabel
Monetary Value	0.809	>0,6	Reliabel
Green tax	0.730	>0,6	Reliabel
Religiosity	0.927	>0,6	Reliabel

Source: SmartPLS Data Output, 2024

The table above shows that the results of the internal reliability level of the measuring instrument in this study can be considered adequate, with a composite reliability value that meets the minimum standard (0.6). This value indicates the reliability of the measuring instrument in the SEM-PLS analysis, which indicates that this research is accepted again, and all research variables have met the criteria.

Inner Model

1. Discriminant Coefficient Analysis (R2)

The discrimination coefficient test (R-Square) measures the extent to which the model can explain the proportion of variation in the total variation of endogenous variables. The following are the results of the R-Square test using SmartPLS 4 software:

Table 4.6 R-Square Test

Variable	*R-square*	%	Variable
MSME Intention	0.340	34%	MSME Intention

Source: SmartPLS Data Output, 2024

*Corresponding Author

gwirawan693@gmail.com (G. W. W. T. Maulana).

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The test results show the ability of the independent variable (X) in explaining the dependent variable (Y) by 34%, meaning that the remaining 66% is explained by other variables outside of the variables in this study.

2. Predictive Relevance (Q^2)

The *Q Square* value (Q^2) is a statistical measure used to assess the predictive relevance of the model. The Q^2 value is an indicator of model validity, showing how well the model can predict endogenous variables. If the Q^2 value is greater than 0.05, then the model has significant predictive relevance (Hair, Jr. *et al*., 2016) . The following are the results of the Q-Square test using SmartPLS 4 software:

Table 4.2 Q-Square Test

Variable	Q^2predict	%	Description
MSME Intention	0.082	8,2%	Relevan

Source: SmartPLS Data Output, 2024

The test results show that the model has significant predictive validity, measured through *Q Square*. *A Q Square* criterion value above (0) indicates that the model has predictive relevance, and a Q^2 level greater than 0.05 indicates that the model has a good ability to predict endogenous variables.

3. Multicolleniarity

The *variance inflation factor* (VIF) value is a way to look at the multicollinearity test. It shows how much influence multicollinearity has on the model. A multicollinearity check is necessary to ensure that there is no significant correlation between the measured variables and other constructs. *The variance inflation factor* (VIF) should remain below the threshold of 5 when testing for correlation between independent variables. If the VIF value is less than 5, then the model does not experience multicollinearity (Hair, Jr. *et al*., 2016) . The following VIF value results are tested with SmartPLS 4 software:

Table 4.3 Variance inflation factor test

Variables	MSME Intention
Environmental Awareness	1.498
Monetary Value	1.223
Green Tax	1.161
Religiosity	1.518
Monetary Value x Green Tax	2.023
Monetary Value x Environmental Awareness	2.431
Monetary Value x Religiosity	2.300

Source: SmartPLS Data Output, 2024

The data table above shows that the VIF value test results are all below 5, so the value is considered to have an acceptable level of multicollinearity. Higher VIF values indicate higher levels of multicollinearity; values above 5 may indicate multicollinearity problems.

Hypothesis Test

In SEM-PLS analysis where hypothesis testing is carried out by looking at the *path coefficients* and *t-statistics*. This testing process shows how much influence exogenous variables have on endogenous variables in the structural model. To evaluate the direction of influence and significance between variables in the SEM-PLS model, the *path coefficient* (which is a parameter estimate that measures the strength and direction of the relationship between variables) and *t-statistic* (which is a measure of the statistical significance of the *path coefficient*). A larger *t-statistic* value indicates that the difference between the estimate and the null value is larger. Below are the results of hypothesis testing using SmartPLS 4 software:

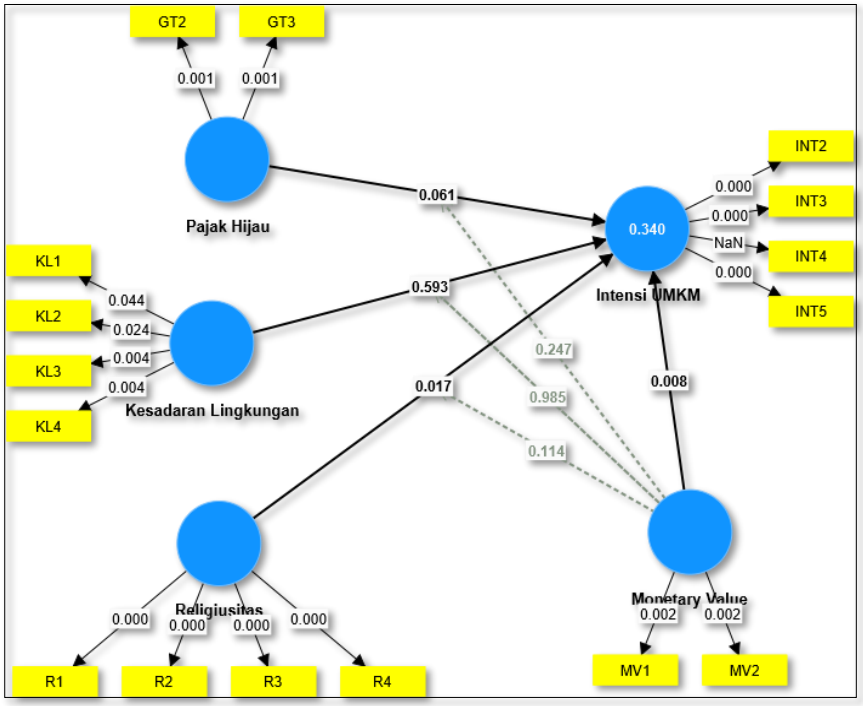

Figure 4.**Error! No text of specified style in document.**1 Hypothesis Test Results
Source: SmartPLS Data Output, 2024

These results can be seen through the *path coefficient* values and *t-statistics* found in the hypothesis framework. The figure also shows the hypotheses that are present directly or partially. and also shows the results of moderation.

The *direct effect path coefficient* test *shows the* effect of variables directly. A significant effect is indicated by a *p-value* below 0.05 and a *t-statistic* greater than 1.96 (Hair, Jr. *et al* .., 2016)

Table 4.4 Hypothesis Test Results

Variable Influence	β	*t-statistics*	*p-values*	Description
Environmental Awareness -> Intention	-0.070	0.534	0.593	Not Accepted
Monetary Value -> Intention	0.427	2.650	0.008	Accepted
Green Tax -> Intention	0.190	1.875	0.061	Accepted
Religiosity -> Intention	-0.250	2.396	0.017	Not Accepted
Monetary Value x Green Tax -> Intention	0.134	1.157	0.247	Not Accepted
Monetary Value x Environmental Awareness -> Intention	-0.004	0.019	0.985	Not Accepted
Monetary Value x Religiosity -> Intention	-0.292	1.579	0.114	Not Accepted

Source: SmartPLS Data Output, 2024

It can be seen from the test results in the table above, which explains that the *monetary* value and religiosity variables have a significant effect on the MSME intention variable with a *p-value* below 0.05 but religiosity tends to be negative. Meanwhile, the variables of green tax, environmental awareness and moderation of *monetary value* on green tax, environmental awareness and religiosity are not significant because the *p-value* is above 0.05.

*Corresponding Author
gwirawan693@gmail.com (G. W. W. T. Maulana).
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Discussion

1. The effect of Green Tax Policy (X1) on MSMEs' intention to adopt circular economy (Y) H1 is accepted.
2. The effect of Environmental Awareness (X2) on the intention of MSMEs to adopt a circular economy (Y) H2 is rejected.
3. The effect of Religiosity (X3) on the intention of MSMEs to adopt a circular economy (Y) H3 is rejected
4. The effect of *Monetary Value* (X4) on the intention of MSMEs to adopt the circular economy (Y) H4 is rejected
5. *Monetary Value* (M) Moderates the Effect of Green Tax Policy (X1) on MSME Intention to Adopt Circular Economy Practices (Y) H5 is rejected.
6. *Monetary Value* (M) Moderates the Effect of Environmental Awareness (X2) on MSME Intention to Adopt Circular Economy Practices (Y) H6
7. *Monetary Value* (M) Moderates the Effect of Religiosity (X3) on MSME Intention to Adopt Circular Economy Practices (Y) H7

Conclusion

After exploring the data from the previous discussion, conclusions were drawn regarding the influence between the variables that have been studied. The first conclusion is that the green tax policy variable (X1), religiosity variable (X3) and monetary value (X4) are proven to have a significant influence on the intention of MSMEs to adopt a circular economy (Y). However, the religiosity variable shows a negative value, so it is considered in this study that the higher the value of one's religiosity, the lower the intention, while the environmental awareness variable (X2) is proven to have no significant influence on the intention of MSMEs to adopt a circular economy (Y). Second, in the analysis of the moderating variable monetary value (M) between green tax policy (X1), environmental awareness (X2) and religiosity (X4) on the intention of MSMEs (Y), it is proven that it cannot significantly moderate the influence of the three variables on the intention of MSMEs to adopt a circular economy.

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*Corresponding Author

gwirawan693@gmail.com (G. W. W. T. Maulana).

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