Readiness of MSMEs in Facing the Industrial Revolution 5.0 through Green Economy

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Abstract
Purpose: This study aims to determine the readiness of MSMEs in Bandar Lampung City in facing the Industrial Revolution 5.0 through the implementation of the Green Economy.

Methodology: This research uses descriptive quantitative analysis, qualitative analysis and descriptive simple linear regression using SPSS software version 23. The population in this study were 118,533 MSMEs in Bandar Lampung City. The research sample was obtained using the Slovin formula as many as 100 MSMEs.

Results: The results show that MSMEs in Bandar Lampung City demonstrate a good understanding of the Green Economy, with an average score of 4.09. However, despite this high understanding, the implementation of Green Economy principles in specific aspects such as waste management and social media campaigns still needs to be improved. In addition, MSMEs in Bandar Lampung City show high readiness in facing the Industrial Revolution 5.0, with an average score of 4.51. MSMEs have started to integrate digital technology and automation in their operations.

Limitations: The limitations of this study include geographical coverage limited to MSMEs in Bandar Lampung City, so the results may not be generalizable to other regions. Additionally, this study does not focus on MSMEs with specific types of businesses, so the results may not capture the specific characteristics or challenges that may be faced by particular business sectors.

Contribution: The results of this study are expected to serve as a reference for policy makers in formulating more effective strategies to support MSMEs in adopting environmentally friendly technologies.

Keywords: *Revolusi; Revolusi Industri 5.0; Green Economy; UMKM; Bandar Lampung.*

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1. Introduction

Today, information and communication technology development necessitates flexible human resources. The Industrial Revolution 4.0's digital revolution has significantly altered many facets of daily life. The Industrial Revolution 4.0 introduces unprecedented innovations based on information and communication technology, especially big data analysis, robot technology, Internet of things, machine to machine communication, digital business to Artificial Intelligence (AI) (Shabrina, 2021; Utami & Fauzi, 2023). Technological developments have an influence on economic growth in Indonesia (Nursari, 2023). Current technological and digital developments are destroying the business world, with the phenomenon of technological disruption, the problem faced by MSMEs is that the competitive advantage possessed by MSME players in Indonesia is decreasing (Idris, Suningsih, Nurdiono, Septiyanti, & Waspodo, 2024; Oktaria, Raras, Alam, Barusman, & Habiburrahman, 2024). Small and medium-sized enterprises (MSMEs) are encouraged to adapt and embrace technological advancements

that can help their business by the effects of the fourth industrial revolution. Technology is still moving forward toward the Industrial Revolution 5.0, which Japan started, even if many MSMEs are still adjusting to the Industrial Revolution 4.0.

The Industrial Revolution 5.0, which is still under development, increases automation and digitization in industry. This concept enhances previous revolutions by integrating technology in human life, so that the internet is used to live daily life, not just share information (Puranamasari et al., 2023). The main focus of Industrial Revolution 5.0 is the merger between technology (AI) and the role of humans, as well as the need to develop systems that are more adaptive and responsive to changes in the production environment (www.djknkemenkeu.go.id & www.ugm.ac.id).

MSMEs are active and independent economic businesses, managed by business entities that are not branches of companies or parts of small or large businesses. MSMEs play an important role in economic development as they can create many jobs and require low initial investment. economic development as they can create many jobs and require a more affordable initial investment more affordable, this is supported by a good corporate social responsibility program. (Barlinti & Aris, 2023; Khoiriah, Yusda, Oktaria, & Hairudin, 2024). MSMEs have an important role in improving people's welfare and supporting national economic growth (Arifin, Putra, Patonah, & Heryati, 2023; Luchindawati, Nuraina, & Astuti, 2021; Utami & Fauzi, 2023). According to data, the MSME sector contributes to the Gross Domestic Product (GDP) of 61% or IDR 9,580 trillion, and the contribution of employment reaches 97% of the total workforce (www.ekon.go.id).

One of Indonesia's provinces, Lampung Province, sometimes known as the "gate of Sumatra," is situated exactly on the island of Sumatra and is home to a wealth of natural resources. The MSME sector's supporting role in Bandar Lampung's economic growth cannot be separated; the province of Lampung's MSMEs numbers are as follows:

Table 1: Number of MSMEs in Lampung Province 2020-2022

No	Year	MSMEs	Description
1	2020	147.556	Base Year
2	2021	150.999	Up 2,3%
3	2022	192.234	Up 27,3%

Source: (www.lampung.bps.go.id)

There is a growing trend in the number of MSMEs in Lampung Province, particularly in 2021–2022. This presents the province government with a chance to form partnerships with MSMEs and the government in order to support MSME players in boosting their competitiveness, developing their product brands, establishing sustainability, fortifying corporate governance, implementing cutting-edge business management training techniques, and managing waste effectively and efficiently. The application of effective governance encourages managers and business owners to carry out their responsibilities and accomplish organizational objectives (Manan & Hasnawati, 2022). MSMEs are dispersed throughout all of the province of Lampung's districts and cities, as shown in the following table:

Table 2. Number of MSMEs per Regency in Lampung Province 2020-2021

No	District/City	Number of MSMEs	
		2020	**2021**
1	Lampung Barat	354	1.747
2	Tanggamus	186	186
3	Lampung Selatan	701	701
4	Lampung Timur	511	547
5	Lampung Tengah	796	796
6	Lampung Utara	364	457
7	Way Kanan	840	840
8	Tulang Bawang	23	23
9	Pesawaran	482	482

| No | District/City | Number of MSMEs | |
		2020	2021
10	Pringsewu	373	1.933
11	Mesuji	292	292
12	Tulang Bawang Barat	179	179
13	Pesisir Barat	68	429
14	Bandar Lampung	118.533	118.533
15	Metro	23.854	23.854

Source: (www.lampung.bps.go.id)

The provincial capital of Lampung, Bandar Lampung City, is inextricably linked to environmental challenges as the hub of the MSMEs and the economy. As of 2022, Bandar Lampung City generated the most garbage, 283,604 tons annually (www.dlh.lampungprov.go.id). Aside from digitalization, the Green Economy is crucial to conquering the Industrial Revolution 5.0 in which digital technology is significant in many facets of human existence, including MSMEs (Castro, Fernandez, & Colsa, 2021).

In order to promote equitable and sustainable economic development and hasten the country's economic recovery following the Covid-19 outbreak, the Indonesian government has implemented a green economy plan (www.ekon.go.id). A green economy is an economic system that prioritizes environmental growth, makes use of environmentally friendly renewable technological resources, and supports waste management and renewable energy sources. The environmental crisis brought on by a shift in human lifestyles toward a desire for ease and speed is what gave rise to the Green Economy (Sa'idah, Nasruddin, Madnasir, & Fasa, 2023). The proliferation of products with single-use packaging is a consequence of the evolution of human lifestyles. It takes tens or even hundreds of years for this packaging trash to degrade, which is not environmentally friendly and damages the ecosystem.

While the Industrial Revolution 5.0 has come, MSMEs in Bandar Lampung City are still adjusting to the Industrial Revolution 4.0. Furthermore, MSMEs in Bandar Lampung City have not properly grasped or implemented the Green Economy, which aspires to promote sustainable and ecologically friendly economic growth. Because of this, MSMEs' enormous potential to promote sustainable development has not been fully realized.

2. Literature Review And Hypothesis Development
2.1 Literature Review
2.1.1 MSMEs
MSMEs are Micro, Small and Medium Enterprises engaged in active and independent economic businesses, managed by business entities that are not branches of companies or parts of small or large businesses. According to Luchindawati et al. (2021) the purpose of MSMEs is to develop and grow their businesses in advancing the country's economy. MSMEs have an important role in improving community welfare and supporting national economic growth (Arifin et al., 2023; Luchindawati et al., 2021; Utami & Fauzi, 2023). Therefore, MSMEs must be able to keep up with the times and be able to adapt to the changes that occur.

2.1.2 Readiness
Luchindawati et al. (2021) define preparedness as an individual's or an organization's attitude toward the accomplishment of a predetermined goal or condition. The state of MSMEs who are prepared to adopt the Green Economy in their operations in order to meet the difficulties posed by the Industrial Revolution is known as readiness in this study. 5.0. Aspects of social equity, economic welfare, and environmental preservation are all taken into consideration while implementing the green economy. MSME actors can be deemed prepared to adopt the Green Economy and meet the difficulties of the Industrial Revolution 5.0 if they have satisfied the aforementioned requirements.

2.1.3 Industrial Revolution 5.0

Although it is still in its early stages, the Industrial Revolution 5.0 has the potential to significantly alter people's lives by expanding automation and digitization in the industrial sector. By incorporating technology into everyday life, this idea builds on the previous revolution by allowing people to use the internet for more than just information sharing (Puranamasari et al., 2023). Industrial Revolution 5.0 centers on the intersection of artificial intelligence (AI) and human involvement, along with the necessity of creating more adaptable and responsive systems in response to shifts in the production environment (www.djkn.kemenkeu.go.id & www.ugm.ac.id).

2.1.4 Green Economy

A "green economy" is an economic system that prioritizes environmental growth, makes use of environmentally friendly renewable technical resources, and supports initiatives like waste management and renewable energy. The environmental catastrophe brought on by a shift in human lives toward a need for ease and speed is the backdrop against which the Green Economy is emerging (Sa'idah et al., 2023). The proliferation of single-use packaging items is a consequence of evolving human habits. The community is feeling the effects of this packaging trash, which is not environmentally friendly and takes decades or even centuries to degrade (Sari, Agustina, & Siagian, 2022).

According to research by (Anwar, 2022), Pangarso, Sisilia, Setyorini, Peranginangin, and Awirya (2022), Luchindawati et al. (2021), and Prasetyo (2021), the green economy is based on five principles, from which it can be inferred that it preserves the sustainability of natural resources for future generations while fostering community welfare and sustainability. Although there are research gaps in this study due to previous researchers' differing opinions on the Green Economy's guiding principles, it is concluded that these principles are focused on enhancing economic aspects while also taking environmental sustainability, waste management, and the future of natural resources into consideration (Arifin et al., 2023; Loiseau et al., 2016; Pradani, Amalia, Ismawati, & Holifah, 2023; Regif, Seran, Naif, Pattipeilohy, & Saputri, 2023). Economic success, social equity, and environmental preservation are the three criteria used by the United Nations Department of Economic and Social Affairs to establish "green economy" indicators (https://sustainabledevelopment.un.org).

2.2 Hypothesis

A formal affirmative statement that forecasts a single research outcome, a transient explanation, or a relationship between two or more variables is known as a research or scientific hypothesis (Sugiyono, 2016). The following theories were developed by the researchers based on this definition:

2.2.1 The influence of the Green Economy on the Readiness of MSMEs in facing the Industrial Revolution 5.0.

Indonesia's economic players must be prepared to take on this issue since technological advancements—specifically, the Industrial Revolution 5.0—will be essential to the country's economic growth. Due to their ability to produce value and create jobs, MSMEs are significant to the economy (Añón Higón & Bonvin, 2024).

Aside from digitalization, the Green Economy is crucial to conquering the Industrial Revolution 5.0 in which digital technology is significant in many facets of human existence, including MSMEs (Sari et al., 2022).

Previous research conducted by (Loiseau et al., 2016); Sari et al. (2022); (Shabrina, 2021; Snowden, 2008) has significant results regarding the role of the green economy in facing the challenges of the industrial revolution 5.0. Based on these explanations, the researcher draws the hypothesis in this study as follows:

H1: Green Economy has a positive influence on the Readiness of MSMEs in facing the Industrial Revolution 5.0.

3. Research methodology

Using primary data, this research is a quantitative descriptive study. Primary data refers to information that is initially documented and collected directly from the source and subject of the investigation (Sugiyono, 2016). For this study, primary data was collected through the distribution of questionnaires containing several statements related to the research conducted on the study's subject, which focused on MSME players and owners in Bandar Lampung City. At the time of the population count for the study, there were 118,533 MSMEs in Bandar Lampung City (www.lampung.bps.go.id). Below is the table of questionnaire statements for the research:

Table 3. Research Questionnaire Statement (Variable X)

No	Pernyataan
1	Saya telah mengetahui dan memahami *Green Economy*.
2	Saya telah memahami pentingnya penerapan *Green Economy*
3	UMKM saya telah menerapkan *Green Economy* dengan cara mengelola limbah yang dihasilkan.
4	UMKM saya telah menggunakan bahan baku yang ramah lingkugan guna menjaga keberlanjutan.
5	UMKM saya telah menerapkan *Green Economy* guna menjaga lingkungan sekitar UMKM saya.
6	UMKM saya telah mengampanyekan *Green Economy* di media sosial.
7	Saya telah mempersiapkan UMKM yang saya jalankan untuk menghadapi tantangan Revolusi Industri 5.0 dengan menerapkan *Green Economy*.

Table 4. Research Questionnaire Statement (Variable Y)

No	Pernyataan
1	Saya telah mengetahui dan menerapkan Revolusi Industri 5.0 dalam menjalankan UMKM saya
2	Saya mengetahui dan memahami bahwa Revolusi Industri 5.0 penting untuk untuk mengikuti perkembangan zaman.
3	Saya memahami bahwa Revolusi Industri 5.0 penting untuk menjaga keberlanjutan UMKM saya.
4	Saya telah memanfaatan Internet dalam menjalankan usaha UMKM saya.
5	Saya telah menjalankan Pemasaran Digital dalam menjalankan usahan UMKM saya.
6	Saya menggunakan dan memanfaatkan mesin/teknologi dalam menjalankan usaha UMKM saya.
7	Saya telah mempersiapkan UMKM yang saya jalankan untuk menghadapi tantangan Revolusi Industri 5.0 dengan menerapkan keberlanjutan serta menggunakan dan mengupdate teknologi yang dalam menjalankan UMKM saya.

A convenience sampling strategy was combined with a non-probability sampling method in the sampling process. Convenience sampling involves gathering information and statistics from the population that is readily accessible (Ghozali, 2019). The Slovin formula was used to calculate the sample size and number of respondents in this study. In this study, researchers used a 10% margin of error by considering the breadth of research coverage with various types of businesses, as well as the size of the population in this study. The formula was calculated with a sample size of 100 respondents. The three dimensions of the study's "green economy" indicators economic, social, and environmental will be examined utilizing a variety of test phases, including the Normality, Validity, Reliability, Descriptive Statistical, and Hypothesis tests (T-test). The following is a table regarding the types of MSMEs in this study.

Table 5. Type of MSME Business

No	Type of MSMe Business	Total
1	Natural Stone	1
2	Workshop	3
3	Flowers	3
4	Cafe	2
5	Cell Phone Counter	4
6	Fashion	4
7	Photography	2
8	Daily Needs	2
9	Beauty	2
10	Rent Room	1
11	Laundry	1
12	FnB	62
13	Medicine	1
14	Petshop	1
15	Lumberyard	1
16	Baby Supplies	1
17	Barber Shop	1
18	Parenting House	1
19	Souvenirs	1
20	Shoes	1
21	Building Shop	2
22	Vegetables and Spices	2
23	Website Developer	1
	Total	100

Source: Data Processed by Researchers

4. Results and Discussion

Between July and August of 2024, 100 MSME actors in Bandar Lampung City were given questionnaires by the researchers, who then collected 100 completed surveys back. The data from the 100 completed surveys was then processed into regression tests.

4.1 Qualitative Analysis Test Results

Table 6 Frequency Distribution of Respondents' Answers to Green Economy Variables (X1)

No	Pernyataan	Rata-rata
1	Saya telah mengetahui dan memahami *Green Economy*.	4,23
2	Saya telah memahami pentingnya penerapan *Green Economy*	4,30
3	UMKM saya telah menerapkan *Green Economy* dengan cara mengelola limbah yang dihasilkan.	3,75
4	UMKM saya telah menggunakan bahan baku yang ramah lingkugan guna menjaga keberlanjutan.	4,12
5	UMKM saya telah menerapkan *Green Economy* guna menjaga lingkungan sekitar UMKM saya.	4,12
6	UMKM saya telah mengampanyekan *Green Economy* di media sosial.	3,89
7	Saya telah mempersiapkan UMKM yang saya jalankan untuk menghadapi tantangan Revolusi Industri 5.0 dengan menerapkan *Green Economy*.	4,20
	Rata-Rata	**4,09**

Source: Data Processed by Researchers

Table 7. Frequency Distribution of Respondents' Answers to MSME Readiness Variables in Facing the Industrial Revolution 5.0 (Y)

No	Pernyataan	Rata-rata
1	Saya telah mengetahui dan menerapkan Revolusi Industri 5.0 dalam menjalankan UMKM saya	4,43
2	Saya mengetahui dan memahami bahwa Revolusi Industri 5.0 penting untuk untuk mengikuti perkembangan zaman.	4,64
3	Saya memahami bahwa Revolusi Industri 5.0 penting untuk menjaga keberlanjutan UMKM saya.	4,58
4	Saya telah memanfaatan Internet dalam menjalankan usaha UMKM saya.	4,61
5	Saya telah menjalankan Pemasaran Digital dalam menjalankan usahan UMKM saya.	4,53
6	Saya menggunakan dan memanfaatkan mesin/teknologi dalam menjalankan usaha UMKM saya.	4,37
7	Saya telah mempersiapkan UMKM yang saya jalankan untuk menghadapi tantangan Revolusi Industri 5.0 dengan menerapkan keberlanjutan serta menggunakan dan mengupdate teknologi yang dalam menjalankan UMKM saya.	4,43
	Rata-Rata	**4,51**

Source: Data Processed by Researchers

4.2 Validity Test Results

Kaiser Meyer Olkin Measure of Sampling Adequacy (KMO-MSA) factor analysis can be used to measure the degree of intercorrelation between variables. If the KMO MSA value is more than 0.5, the analysis can proceed. If the factor loading value of a questionnaire item is greater than 0.5, its validity can be determined. Until there are no more factor loading values <0.5, the factor loading value that is <0.5 and cross loading happens must be eliminated (Ghozali, 2019).

Table 7. Validity Test Result

Variable	Indicator	KMO - MSA Value	Sig Value	Factor Loading	Description (>0,50) Valid
Green Economy (X)	Q1	0,770	0,000	0,709	Valid
	Q2			0,690	Valid
	Q3			0,865	Valid
	Q4			0,718	Valid
	Q5			0,840	Valid
	Q6			0,752	Valid
	Q7			0,835	Valid
Kesiapan UMKM dalam Menghadapi Revolusi Industri 5.0 (Y)	Q1	0,833	0,000	0,910	Valid
	Q2			0,876	Valid
	Q3			0,828	Valid
	Q4			0,757	Valid
	Q5			0,732	Valid
	Q6			0,931	Valid
	Q7			0,926	Valid

Source: Data Processed by Researchers

4.3 Reliability Test Results

According to Ghozali (2019), the accuracy of the instrument used for measurement is the reliability test. The Chronbach Alpha measuring technique and the SPSS version 23 program were used to conduct the reliability test. If the Chronbach Alpha value is larger than 0.6 and the Cronbach Alpha value of the removed items is greater than 0.50, the reliability test results can be considered reliable (Ghozali, 2019).

Table 8. Reability Test Result

Variable	Indicator	Chronbach Alpha Value	Chronbach Alpha If Item Deleted Value	Description (>0,50) Reliabel
Green Economy (X)	Q1	0,863	0,843	Reliabel
	Q2		0,850	Reliabel
	Q3		0,828	Reliabel
	Q4		0,855	Reliabel
	Q5		0,842	Reliabel
	Q6		0,850	Reliabel
	Q7		0,840	Reliabel
Kesiapan UMKM dalam Menghadapi Revolusi Industri 5.0 (Y)	Q1	0,884	0,868	Reliabel
	Q2		0,872	Reliabel
	Q3		0,865	Reliabel
	Q4		0,856	Reliabel
	Q5		0,860	Reliabel
	Q6		0,876	Reliabel
	Q7		0,875	Reliabel

Source: Data Processed by Researchers

4.4 Normality Test Results

Kolmogorov-Smirnov non-parametric statistical analysis is used in this work. The findings of the K-S test can be used to make decisions. If the significance probability value is higher than 0.05, the data is normally distributed. Conversely, the data are not normally distributed if the significance probability value is less than 0.05. The following table displays the normalcy test results, which are as follows:

Table 9. Normality Test Results

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		100
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	3.08368804
Most Extreme Differences	Absolute	.132
	Positive	.076
	Negative	-.132
Test Statistic		.132
Asymp. Sig. (2-tailed)		.200[c]

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.

Source: Data Processed by Researchers

4.5 Simple Linear Regression Analysis Test Results

Simple linear regression analysis is a linear relationship between the independent variable (X) and the dependent variable (Y). This analysis is used to determine the direction of the relationship between the independent variable and the dependent variable whether positive or negative and to predict the value of the dependent variable if the value of the independent variable increases or decreases (Sugiyono, 2016).

Table 10. Test Results of Simple Liniear Regression Analysis

			Coefficients^a			
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	24,380	2,521		9,669	0,000
	X (*Green Economy*)	0,254	0,087	0,283	2,921	0,004

a. Dependent Variable: Y (Kesiapan UMKM dalam menghadapi Revolusi Industri 5.0)

Source: Data Processed by Researchers

Table 10 uses a simple linear regression analysis method to test the effect of the independent variable on the dependent variable, based on the results of the table, the following equation can be prepared:

Readiness of MSMEs in facing the Industrial Revolution 5.0 = 24,380 + 0,254 (X)

The following explanation applies to the regression equation's results:
1. The constant value (α) is 24.380, meaning that MSMEs' preparedness for the Industrial Revolution 5.0 is worth 24.380 if the independent variable (independent) is equal to zero.
2. The Green Economy regression coefficient value (X) is 0.254, meaning that, assuming all other variables remain constant, every 1 point rise in the Green Economy on the questionnaire will translate into a 0.254 increase in MSMEs' degree of readiness to face the Industrial Revolution 5.0.

4.6 Hypothesis Test Results (T-Test)
Table 11. Hypothesis Test Results (T-Test)

			Coefficients^a			
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	24,380	2,521		9,669	0,000
	X (*Green Economy*)	0,254	0,087	0,283	2,921	0,004

b.Dependent Variable: Y (Kesiapan UMKM dalam menghadapi Revolusi Industri 5.0)
Source: Data Processed by Researchers

Based on Table 11 the T hypothesis test above shows the following hypothesis results:
1. Green Economy has a positive influence on the Readiness of MSMEs in facing the Industrial Revolution 5.0. (H1)
   The first hypothesis of this study is accepted based on the results of the calculations in Table 11. The green economy variable (X) has a significance value of 0.004, meaning smaller or <0.05, and a t statistic value of 2.921 (positive). This indicates that the green economy variable (X) has a positive effect on MSMEs' readiness to face the industrial revolution 5.0 (Y) on MSME players in Bandar Lampung City.

4.7 Discussion
Based on the research results presented in Table 11, this study succeeded in answering some of the main questions raised in the problem formulation.
4.7.1 The Level of Readiness of MSMEs in Bandar Lampung City in Facing the Industrial Revolution 5.0
This study shows that the level of readiness of MSMEs in Bandar Lampung City in facing the Industrial Revolution 5.0 is significantly influenced by the application of Green Economy principles. This is evident from the statistical test results which show that Green Economy has a significant positive effect on the readiness of MSMEs. The significance value of 0.004 and the t-statistic value of 2.921 (positive) indicate that MSMEs that have implemented the Green Economy concept are better prepared to adopt advanced technology and automation that characterize the Industrial Revolution 5.0.

4.7.2 Level of Understanding and Implementation of Green Economy Principles in MSMEs in Bandar Lampung City

The findings also indicate that the understanding and implementation of Green Economy principles among MSMEs in Bandar Lampung City is quite good, especially in the context of how these principles can improve their technological readiness. The adoption of Green Economy, which includes energy efficiency, renewable resource management and waste reduction, has provided a solid foundation for MSMEs to adapt to the changes brought by the Industrial Revolution 5.0. This shows that the higher the understanding and application of the Green Economy, the greater the readiness of MSMEs to deal with technological change.

4.7.3 Factors Affecting MSME Readiness in Facing the Industrial Revolution 5.0

The main factor found in this study is the application of the Green Economy as a significant factor affecting the readiness of MSMEs. In addition to the Green Economy, other factors that may play a role, although not the main focus of this study, could include access to technology, training and education related to the Industrial Revolution 5.0, and support from the government and related institutions. Further research can further explore these other factors to get a more complete picture of MSME readiness in the future.

Meanwhile, by looking at the results of this study from the point of view of the variables used, the researcher tries to describe these results as follows:

1. **Level of Understanding and Implementation Green Economy (X)**
   Based on the data presented in Table 6, the average respondent score for the Green Economy variable is 4.09. This shows that MSME players in Bandar Lampung City have a fairly good understanding of the concept of Green Economy and the importance of implementing these principles in their MSME operations. The highest average is found in statements about understanding the importance of implementing the Green Economy (4.30) and the readiness of MSMEs to face the challenges of the Industrial Revolution 5.0 through the implementation of the Green Economy (4.20). However, there were lower scores on specific implementation, such as waste management (3.75) and Green Economy campaigns on social media (3.89), indicating that while understanding is high, implementation can still be improved..

2. **Level of Readiness of MSMEs in Facing the Industrial Revolution 5.0 (Y)**
   Table 7 shows that the average score for the MSME readiness variable in facing the Industrial Revolution 5.0 is 4.51, indicating a fairly high readiness among Bandar Lampung City MSMEs. Respondents showed a strong understanding of the importance of the Industrial Revolution 5.0 for the survival and development of their MSMEs, with the highest average on the statement of understanding the importance of the Industrial Revolution 5.0 (4.64). This indicates that MSMEs in Bandar Lampung City already understand and have largely implemented important elements of the Industrial Revolution 5.0, such as internet utilization, digital marketing, and technology in their operations.

3. **Correlation between Green Economy and Readiness to Face the Industrial Revolution 5.0**
   The data from both tables show the correlation between the understanding and implementation of Green Economy and the readiness of MSMEs in facing the Industrial Revolution 5.0. Although the average score for the Green Economy variable is slightly lower than the readiness to face the Industrial Revolution 5.0, the significant and positive relationship between these two variables confirms that MSMEs that are better at implementing Green Economy principles are also better prepared to face the technological challenges that come with the Industrial Revolution 5.0.

This can be seen from the relatively high response to questions related to readiness to face the challenges of the Industrial Revolution 5.0 through the application of sustainability and new technologies. Understanding and implementing the Green Economy provides a strong foundation for MSMEs to not only meet sustainability standards but also to utilize modern technology effectively, ultimately increasing their competitiveness in an increasingly technology-driven global market.

5. Conclusion

With an average score of 4.09, the results indicate that MSMEs in Bandar Lampung City have a solid understanding of the green economy. Even said, there is always room for improvement when it comes to applying the ideas of the Green Economy to particular areas like waste management and social media marketing. Furthermore, with an average score of 4.51, MSMEs in Bandar Lampung City demonstrate a high level of preparedness for the upcoming Industrial Revolution 5.0. The results show that there is a strong positive association between MSMEs' preparedness for the Industrial Revolution 5.0 and their use of digital technology and automation in their operations. MSMEs have begun to integrate these technologies into their operations. Put differently, the adoption of the Green Economy functions not just as a sustainability strategy but also as a strategy to improve the competitiveness and adaptability of MSMEs amidst rapid technological developments.

Limitations and Future Studies

The limitations of this study include geographical coverage limited to MSMEs in Bandar Lampung City, so the results may not be generalizable to other regions. Additionally, this study does not focus on MSMEs with specific types of businesses, so the results may not capture the specific characteristics or challenges that may be faced by particular business sectors. Further studies are expected to be able to generalize more based on the types of MSMEs in Bandar Lampung City and samples that represent each sub-district in Bandar Lampung City.

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