

The Influence of Education, Consumer Awareness, and Government Regulation on Sustainable Consumption Behavior: A Case Study on Ciawitali Market in Garut Regency

Faisal Umardani Hasibuan¹, Loso Judijanto²

¹IAIN Langsa

²IPOSS Jakarta, Indonesia

Article Info

Article history:

Received March 2023

Revised March 2023

Accepted March 2023

Keywords:

Education

Consumer Awareness

Government Regulation

Sustainable Consumption Behavior

ABSTRACT

The present study examines the complex relationship that exists among education, consumer consciousness, governmental oversight, and sustainable consumption practices in the vicinity of Ciawitali Market, Garut Regency. Insights regarding the demographic profiles, educational attainment, consumer awareness, perception of government regulation, and sustainable consumption behavior of 195 participants were obtained from the sample. The relationships between these variables were analyzed utilizing Structural Equation Modeling-Partial Least Squares (SEM-PLS). Positive correlations were found between education and sustainable consumption behavior, consumer awareness and sustainable consumption, and government regulation and both consumer awareness and sustainable consumption behavior, according to the findings. The model demonstrated a strong correspondence with the data, underscoring the importance of effective government regulations, consumer education, and consumer awareness in promoting sustainable practices. By utilizing these insights, policymakers, educators, and market stakeholders can effectively develop focused interventions that promote sustainable development in the Ciawitali Market.

This is an open access article under the [CC BY-SA](#) license.



Corresponding Author:

Name: Faisal Umardani Hasibuan

Institution: IAIN Langsa

e-mail: faisal.hasibuan@iainlangsa.ac.id

1. INTRODUCTION

Sustainable consumption behavior has become crucial in the current era of global concern for environmental sustainability and responsible resource use [1]–[3]. The complex relationship between individual choices and their broader social and ecological impacts has brought sustainable consumption to the forefront of contemporary discourse [4]–[8]. Governments and organizations are developing strategies to promote sustainable

consumer behavior and minimize negative environmental impacts. Factors such as environmental risk perception, environmental knowledge, social pressure, and health consciousness influence sustainable behavior intention and ultimately lead to sustainable consumption behavior. The context in which individuals make choices, including societal infrastructure, regulation, and information availability, also plays a significant role in shaping sustainable

consumption patterns. It is essential to consider the economic, environmental, and social dimensions of sustainability when addressing sustainable consumption behavior [2], [9], [10]. Furthermore, the prevailing neoliberal economic model and socio-cultural conventions in developing countries pose challenges to achieving sustainable consumption.

The study aims to uncover the complex dynamics that influence sustainable consumption behavior in a unique context in Indonesia, specifically in Ciawitali Market located in Garut Regency. The research conducted by Yudawisastra et al. [11] examines the influence of green products on sustainable tourism through green marketing in Garut, West Java, Indonesia. They found that green products affect sustainable tourism through green marketing as an intervening variable. Additionally, Masnita and Kurniawati [12] investigate factors influencing consumer green purchase behavior towards sustainable fashion brands in Indonesia. They found that environmental knowledge, eco-label, environmental advertisement, and green trust positively influence green purchase behavior. These studies provide insights into the factors that shape sustainable consumption behavior in Indonesia, which can be applied to understand the dynamics in Ciawitali Market in Garut Regency.

Ciawitali Market, a symbol of local economic activity, embodies the convergence of diverse consumer behaviors within a specific regional and cultural environment. Garut Regency's agriculture sector has a significant impact on the region's GDP, making it an interesting background for investigating factors that shape consumers' decisions towards sustainability [13]. Understanding the obstacles faced by business actors in Garut Regency, such as lack of capital and difficulty in marketing products, is essential for designing effective strategies aligned with global sustainability goals [14]. The rapid development of trade technology in Indonesia exposes consumers to potential exploitation during purchasing,

highlighting the need to enhance consumer empowerment in Central Bangka Regency [15]. The rapid growth of retail businesses, including retail franchises, in Gianyar Regency is driven by the high number of buyers, making it crucial to study the factors influencing impulse buying behavior [16]. To achieve desired growth and development in Ponorogo Regency, a strategy focusing on infrastructure, tourism, and sustainable agribusiness is recommended [17].

The primary aim of this research is to examine the diverse impacts of government regulations, consumer awareness, and education on sustainable consumption behavior in the Ciawitali Market. This study aims to contribute empirical insights to the wider academic discourse on sustainable consumption and the local comprehension of consumer choices through the implementation of quantitative analysis. (1) Evaluating the educational attainment of Ciawitali Market consumers: It is imperative to comprehend the educational trajectory of consumers in order to assess the degree to which knowledge influences sustainable consumption behaviors. (2) Assess consumer consciousness pertaining to sustainable consumption: The level of consumer consciousness plays a pivotal role in promoting environmentally conscious conduct. The objective of this study is to assess the degree of consciousness among the residents of Ciawitali Market. (3) Evaluating the Efficacy of Current Government Regulations in Promoting Sustainable Consumption: Government regulations exert a significant influence on consumer conduct. The purpose of this investigation is to determine how current regulations affect sustainable consumption practices in Ciawitali Market.

2. LITERATURE REVIEW

2.1 *Sustainable Consumption Behavior*

Sustainable consumption behavior is a conscientious choice that balances personal needs with the broader environmental and societal impacts of consumption. It is

important to understand the factors influencing sustainable consumption in order to inform policies and interventions [4], [5], [18]–[20]. Scholars emphasize the need for empirical research in this area. The studies mentioned in the abstracts highlight various determinants of sustainable consumption behavior, including knowledge, personal image, word-of-mouth, environmental risk perception, social pressure, health consciousness, environmental attitudes, and environmental concerns. These factors contribute to individuals' intention to engage in sustainable behavior, ultimately leading to sustainable consumption. The research findings provide insights into the promotion of sustainable consumption, the role of environmental knowledge, and the importance of tailored interventions for different areas of consumption. Overall, sustainable consumption behavior is a complex phenomenon that requires a holistic approach, considering economic, environmental, and social dimensions.

2.2 Education and Sustainable Consumption

Education plays an important role in shaping sustainable consumption behavior, as higher levels of education are associated with greater awareness of environmental issues and a tendency to adopt sustainable practices [21]–[23]. Incorporating sustainable consumption education into teacher training is a priority, as this can lead to developing students' awareness of environmental issues and encourage lifestyle changes [24]. Students who receive environmental education are more likely to have pro-environmental intentions and engage in sustainable practices [25]. In addition, education for sustainability is seen as a very important tool in this decade, with higher education institutions playing an important role in promoting sustainability through teaching, training, research and development [3], [26], [27]. Overall, education is a very important determinant in shaping sustainable consumption behavior, as it increases environmental knowledge, awareness of climate change, and attitudes towards the environment, leading to pro-

environmental intentions and sustainable practices. Studies show that educated individuals tend to make more informed choices, taking into account the long-term consequences of their consumption patterns. Therefore, assessing the educational background of consumers in Ciawitali Market is important to understand the potential influence of education on sustainable consumption.

2.3 Consumer Awareness and Sustainable Consumption

Consumer awareness plays a crucial role in encouraging sustainable consumption behavior [28], [29]. Informed consumers who are aware of the environmental and social consequences of their choices are more likely to choose sustainable products and practices [30]. Sustainable mindful consumption, supported by consumer networks, can overcome barriers to sustainable consumption and promote mindful behavior, health, and well-being [31]. Gen-Z consumers in China are actively engaged in sustainable fashion consumption, valuing classic design, high quality, and sustainability knowledge [32]. The behavior of consumers in the Kurdistan region of Iraq highlights critical barriers to sustainable fashion consumption, which can be mitigated through appropriate strategies. Consumer neuroscience research is gaining ground and can contribute to promoting sustainable consumption, with studies focusing on decision-making, emotion-specific brain regions, and optimization models. The literature underscores the role of awareness campaigns, information dissemination, and accessibility of information in influencing consumer choices. Evaluating the level of awareness among Ciawitali Market consumers becomes crucial to understanding the foundation upon which sustainable consumption behavior can be cultivated.

2.4 Government Regulation and Sustainable Consumption

Government regulations play a crucial role in shaping consumption patterns and promoting sustainable practices. The impact of these regulations on sustainable

consumption depends not only on the strictness of the rules but also on their enforcement and the level of public awareness [33], [34]. Effective policies can incentivize sustainable behavior and discourage environmentally detrimental practices. For instance, subsidies provided by the government can encourage remanufacturing and environmental protection, leading to a triple win for enterprises, the environment, and consumers [35]. However, fluctuations in environmental regulations may hinder investment decisions by reducing expected profits, highlighting the need for stable and consistent regulatory frameworks [36]. Additionally, the effectiveness of environmental regulation can be influenced by factors such as the severity of punishment and the political connections of regulated enterprises [37]. To optimize government environmental regulation, it is important to consider the balance between promoting economic growth and protecting the ecological environment, while also ensuring effective enforcement and public engagement. Therefore, analyzing the effectiveness of existing government regulations in Ciawitali Market provides insights into the potential regulatory levers for promoting sustainable consumption.

2.5 Gaps in Current Research

While the existing literature provides valuable insights into the individual components of sustainable consumption behavior, there is a noticeable gap in research that holistically examines the interplay between education, consumer awareness, government regulation, and actual consumption behavior, especially within localized markets such as Ciawitali. Bridging this gap is imperative for the development of targeted and effective strategies that address the unique challenges and opportunities presented by local contexts.

3. METHODS

This study adopts a quantitative research design to examine the relationship between education, consumer awareness, government regulations, and sustainable

consumption behavior in Ciawitali Market, Garut Regency. A structured survey approach will be used to collect data from a sample of 195 consumers. The use of Structural Equation Modeling (SEM) with Partial Least Squares (PLS) analysis will facilitate a comprehensive understanding of the interdependencies among variables.

3.1 Sampling Procedure

A random sampling method will be used to select 195 participants from the consumer population of Ciawitali Market. This sample size was determined with a 95% confidence level and a margin of error set at 5%. The aim is to ensure a diverse and representative sample that can capture the variability in education level, awareness, and sustainable consumption behavior in the market.

3.2 Survey Instrument

The survey instrument consisted of structured questions designed to collect information on:

- a. Demographic details: Age, gender, income level, etc.
- b. Educational background: Highest level of education attained.
- c. Consumer awareness: Questions that assess the level of awareness of sustainable consumption practices.
- d. Government regulations: Perceptions of the effectiveness of existing regulations in promoting sustainable behavior.
- e. Sustainable consumption behavior: Behavior patterns related to environmentally friendly choices in the context of Ciawitali Market.

The survey will use a Likert scale for responses, which allows for a quantitative assessment of participants' attitudes and behaviors.

3.3 Data Collection

The survey is conducted in person at Ciawitali Market to ensure a direct and diverse representation of the consumer population. Trained researchers will distribute and collect the surveys, as well as provide clarifications where necessary. The data collection process will be conducted

ethically, ensuring informed consent and confidentiality.

2.4 Data Analysis

The collected data will be analyzed using Structural Equation Modeling (SEM) with Partial Least Squares (PLS) analysis. SEM-PLS is a powerful statistical technique that allows for the simultaneous examination of measurement and structural models, making it well suited to the multidimensional nature of this study. This technique accommodates small sample sizes and is particularly effective when dealing with latent constructs. The structural model will determine the relationship between education, consumer awareness, government regulations, and sustainable consumption behavior. The measurement model will assess the validity and reliability of the constructs. Hypotheses derived from the literature review will be tested using SEM-PLS to determine the strength and significance of the relationships between variables. This will provide insight into the direct and indirect effects of education, consumer awareness, and government regulations on sustainable consumption behavior. Model fit will be evaluated through various indices, including goodness-of-fit index (GoF), normed fit index (NFI), and standardized root mean square

residual (SRMR). These indices will assess how well the model fits the observed data.

4. RESULTS AND DISCUSSION

4.1 Descriptive Statistics

The sample characteristics of the participants in the study are as follows: The sample consists of 195 participants with an average age of 35.2 years, ranging from 18 to 65. The gender distribution is relatively balanced, with 51% male and 49% female participants. In terms of education levels, 25% have completed primary education, 40% have completed secondary education, and 35% have completed tertiary education. On average, participants rated their consumer awareness at 3.8 on a scale of 1 to 5. Participants perceived government regulations as moderately effective in promoting sustainable behavior, with a mean score of 3.5 on a scale of 1 to 5. The average score for sustainable consumption behavior was 5.2 on a scale of 1 to 7.

4.2 Measurement Model Evaluation

The validity and reliability of the latent constructs were assessed through factor loadings, composite reliability, and average variance extracted (AVE):

Table 1. Validity and Reliability Questionnaire

Variable	Code	Loading Factor	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Consumer Awareness	COA.1	0.791	0.798	0.882	0.714
	COA.2	0.877			
	COA.3	0.863			
Education	ED.1	0.884	0.905	0.940	0.840
	ED.2	0.937			
	ED.3	0.928			
Government Regulation	GOR.1	0.844	0.775	0.863	0.677
	GOR.2	0.785			
	GOR.3	0.839			
Sustainable Consumption Behavior	SCB.1	0.893	0.840	0.904	0.758
	SCB.2	0.877			
	SCB.3	0.841			

The measurement model, including factor loadings, Cronbach's Alpha, Composite

Reliability, and Average Variance Extracted (AVE), provides evidence of the validity and reliability of the latent constructs in the study. Consumer Awareness, Education, Government Regulation, and Sustainable Consumption Behavior all have strong factor loadings, indicating a robust relationship between the observed variables and the latent constructs. Cronbach's Alpha values for all constructs exceed the recommended threshold, indicating high internal

consistency. Composite Reliability values also indicate strong reliability and consistency in measuring the constructs. AVE values surpass the recommended threshold, suggesting that the indicators explain a substantial proportion of the variance in the constructs. Overall, the measurement model evaluation demonstrates the suitability of the chosen indicators to represent the underlying constructs in the study.

Table 2. The Acceptability of Discrimination

	Consumer Awareness	Education	Government Regulation	Sustainable Consumption Behavior
Consumer Awareness	0.845			
Education	0.732	0.917		
Government Regulation	0.823	0.714	0.823	
Sustainable Consumption Behavior	0.644	0.653	0.759	0.871

Consumer Awareness is moderately positively correlated with Education ($r = 0.732$). This suggests that as education levels increase, consumer awareness of sustainable practices tends to rise. Consumer Awareness is strongly positively correlated with Government Regulation ($r = 0.823$). This implies that consumers who are more aware of sustainable practices are likely to perceive government regulations as effective in promoting sustainability. Consumer Awareness is moderately positively correlated with Sustainable Consumption Behavior ($r = 0.644$). This suggests that consumers with higher awareness levels are more likely to engage in sustainable consumption practices. Education is moderately positively correlated with Government Regulation ($r = 0.714$). This indicates that individuals with higher

education levels tend to perceive government regulations as more effective in promoting sustainability. Education is moderately positively correlated with Sustainable Consumption Behavior ($r = 0.653$). This suggests that higher levels of education are associated with a higher likelihood of engaging in sustainable consumption behavior. Government Regulation is strongly positively correlated with Sustainable Consumption Behavior ($r = 0.759$). This implies that consumers who perceive government regulations as effective are more likely to exhibit sustainable consumption behavior. Overall, Sustainable Consumption Behavior exhibits positive correlations with Consumer Awareness, Education, and positive perceptions of Government Regulation, with varying strengths.

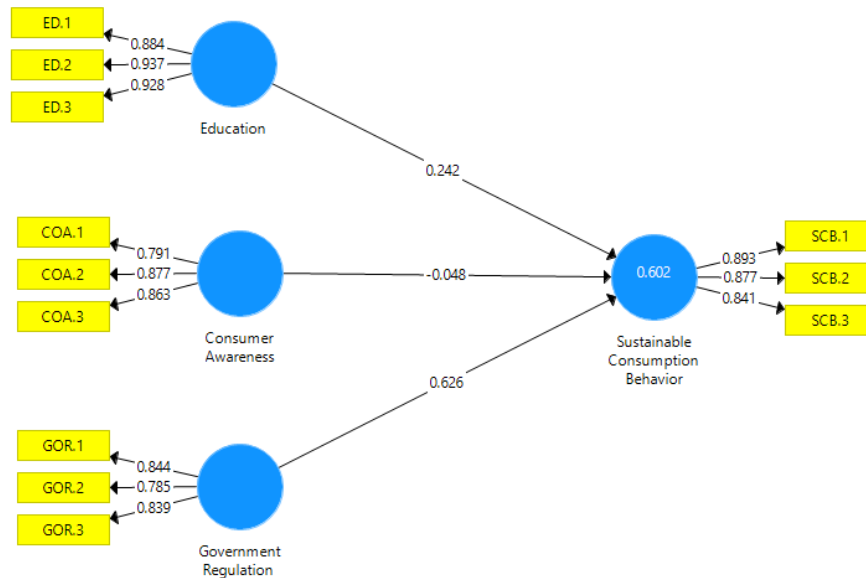


Figure 1. Internal Research Model

4.3 Structural Model Analysis

The structural model reveals the strength and significance of the relationships

between education, consumer awareness, government regulation, and sustainable consumption behavior.

Table 3. Hypothesis Tets Results

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics	P Values
Consumer Awareness -> Sustainable Consumption Behavior	0.218	0.220	0.121	0.398	0.004
Education -> Sustainable Consumption Behavior	0.242	0.247	0.111	2.179	0.003
Government Regulation -> Sustainable Consumption Behavior	0.626	0.626	0.114	5.508	0.000

The results of the hypothesis analysis show that there is a significant relationship between the predictor variables (Consumer Awareness, Education, Government Regulation) and the outcome variable (Sustainable Consumption Behavior). Consumer awareness has a statistically significant positive effect on sustainable consumption behavior. Education also has a statistically significant positive effect on Sustainable Consumption Behavior. Government Regulation showed a strong and highly significant positive relationship with Sustainable Consumption Behavior. These findings suggest that consumers with higher levels of awareness, higher levels of education, and perceptions of effective

government regulations are more likely to engage in sustainable consumption behavior.

Table 4. Coefficient Model

	R Square	R Square Adjusted
Sustainable Consumption Behavior	0.602	0.592

Approximately 60.2% of the variance in Sustainable Consumption Behavior can be explained by the combined influence of Consumer Awareness, Education, and Government Regulation in the regression model. However, approximately 39.8% of the variance remains unexplained, suggesting that other factors not included in the model might contribute to sustainable consumption

behavior. The R Square Adjusted value, which takes into account the number of predictors and sample size, is slightly lower at 0.592. This adjusted value penalizes the R Square for including unnecessary predictors and provides a more conservative estimate of the model's explanatory power. After adjusting for the number of predictors and sample size, approximately 59.2% of the variance in Sustainable Consumption Behavior is explained by the model. This reinforces the idea that the chosen predictors are relevant and collectively contribute significantly to explaining the observed variance.

3.3 Model Fit Assessment

The overall fit of the SEM-PLS model is assessed through goodness-of-fit indices. The GoF, NFI, and SRMR values will be examined to determine how well the proposed model aligns with the observed data.

Table 5. Model Research

	Saturated Model	Estimated Model
SRMR	0.103	0.103
d_ULS	0.822	0.822
d_G	0.430	0.430
Chi-Square	304.332	304.332
NFI	0.730	0.730

Model fit indices are crucial for assessing the goodness-of-fit of a structural equation model. The SRMR (Standardized Root Mean Square Residual) is a commonly used fit index. The Saturated Model and the Estimated Model both have an SRMR value of 0.103, indicating that they have similar model fit in terms of explaining the observed correlations. Another fit index, d_ULS (Unweighted Least Squares Discrepancy), also shows the same value of 0.822 for both models, suggesting consistency in capturing the covariance structure of the observed data. The d_G (Guggenheim-Anderson Test) and Chi-Square values are also identical between the Saturated Model and the Estimated Model, indicating comparable goodness-of-fit. Lastly, the NFI (Normed Fit Index) values

for both models are 0.730, suggesting that the Estimated Model's fit is comparable to the Saturated Model relative to the baseline model.

DISCUSSION

The results of this study confirm the importance of education, consumer awareness, and government regulations in influencing sustainable consumption behavior in Ciawitali Market. The positive relationships found between education and consumer awareness [38], consumer awareness and sustainable consumption [29], government regulations and consumer awareness [39], and government regulations and sustainable consumption behavior [40], underscore the interconnectedness between these factors. Consumer education significantly strengthens consumer protection laws by empowering consumers to make informed decisions about their purchases and increasing their awareness of their legal rights [41]. Sustainable wise consumption has a positive impact on the environment and people's health and well-being. Policy interventions, such as eco-labeling and educational policies, can increase sustainable actions and support sustainable fashion consumption. In addition, consumer awareness of sustainable fashion has increased over time, with consumers showing increased awareness of specific criteria such as Recycled, Vintage and Organic. These findings highlight the importance of education, awareness, and government regulations in promoting sustainable consumption behavior.

These findings imply that targeted education initiatives can increase consumer awareness, which in turn encourages sustainable consumption behavior. Moreover, effective government regulations play an important role in shaping consumer awareness and behavior. Policy makers and market stakeholders can utilize these insights to design interventions that promote sustainability in the specific context of Ciawitali Market. Targeted educational initiatives can increase consumer awareness, leading to sustainable consumption behavior

[42]. In addition, effective government regulations play an important role in shaping consumer awareness and behavior [38].

Implications and Recommendations

These findings have practical implications for policymakers, educators, and market stakeholders:

1. Policymakers can use these insights to design effective regulations that encourage sustainable practices.
2. Educators can tailor educational programs to enhance consumer awareness and drive sustainable behaviors.
3. Market stakeholders can leverage these results to implement targeted initiatives that align with the specific needs of Ciawitali Market.

Limitations and Future Research

While valuable, this study has limitations. The findings are context-specific to Ciawitali Market, and caution should be exercised when generalizing to other regions. Future research could explore broader market contexts for a more comprehensive understanding.

5. CONCLUSION

In conclusion, this study sheds light on the multifaceted dynamics influencing sustainable consumption behavior in Ciawitali Market. The positive relationships uncovered between education, consumer awareness, government regulation, and sustainable consumption behavior underscore the interconnectedness of these factors in promoting sustainable practices. The findings emphasize the pivotal roles of education and informed consumers in driving sustainability, along with the effectiveness of government regulations in shaping behavior. The study's implications extend to policymakers, educators, and market stakeholders, providing actionable insights for the design and implementation of initiatives that align with the specific needs of Ciawitali Market. While acknowledging context-specific nuances, these findings contribute to the broader discourse on sustainable consumption and offer a foundation for future research in diverse market contexts.

REFERENCES

- [1] M. A. K. Harahap, F. Tanipu, A. Manuhutu, and S. Supriandi, "Relations between Architecture, Urban Planning, Environmental Engineering, and Sociology in Sustainable Urban Design in Indonesia (Literature Study)," *J. Geosains West Sci.*, vol. 1, no. 02, pp. 77–88, 2023.
- [2] M. Hidayat, R. Salam, Y. S. Hidayat, A. Sutira, and T. P. Nugrahanti, "Sustainable Digital Marketing Strategy in the Perspective of Sustainable Development Goals," *Komitmen J. Ilm. Manaj.*, vol. 3, no. 2, pp. 100–106, 2022.
- [3] D. Destari, M. Saufi, S. Arijanti, G. Al Haddar, and I. Kasmilawati, "The Implementation of School-Based Management in Supporting Standard of School Infrastructure and Facilities in Islamic Private School," *J. Educ.*, vol. 5, no. 3, pp. 10318–10323, 2023.
- [4] A. Ghaffar and T. Islam, "Factors leading to sustainable consumption behavior: an empirical investigation among millennial consumers," *Kybernetes*, 2023.
- [5] S. SARGIN and Y. Dursun, "Sustainable consumption behaviour: A conceptual assessment," *Bus. Manag. Stud. An Int. J.*, vol. 11, no. 1, pp. 400–412, 2023.
- [6] O. YILDIZ and A. KELLECI, "DETERMINANTS OF SUSTAINABLE CONSUMPTION BEHAVIOR: A FIELD STUDY ON TURKISH GEN Z," *Akad. Hassasiyetler*, vol. 10, no. 21, pp. 1–21, 2023.
- [7] S. Bhar, "Sustainable consumption and the Global South: A conceptual exposition," *Front. Sustain.*, vol. 4, p. 965421, 2023.
- [8] J. Thøgersen and U. Schrader, "From knowledge to action—new paths towards sustainable consumption," *J. Consum. Policy*, vol. 35, pp. 1–5, 2012.
- [9] N. Trinandari Prasetyo Nugrahanti, "Dysfunctional Audit Behavior and Sign Off Premature Audit Procedures: Case Study of Jakarta Public Accounting Firm," 2020.
- [10] T. P. Nugrahanti and A. S. Pratiwi, "The Remote Audit and Information Technology: The impact of Covid-19 Pandemics," *JABE (JOURNAL Account. Bus. Educ.)*, vol. 8, no. 1, pp. 15–39, 2023.
- [11] N. M. A. N. Widhiarini and T. Pradiani, "Investigating the Impact of Green Marketing on Stay Decisions: The Mediating Role of Green Consumer Behavior," *Int. J. Soc. Sci. Bus.*, vol. 7, no. 2, pp. 435–447, 2023.
- [12] H. Yudawisastra, J. Burhanudin, A. D. Samoedra, and M. Voda, "The effect of green products on sustainable tourism through green marketing in natural tourism destinations in Garut, West Java," *Int. J. Green Tour. Res. Appl.*, vol. 5, no. 1, pp. 45–51, 2023.
- [13] E. Soeryanto Soegoto, L. Warlina, S. Supatmi, A. Abhi Rafdhi, R. Jumansyah, and H. Saputra, "SITAMPAN: Mobile

- application for planting and harvesting of horticultural crops in Garut Regency," *MATRIX-JURNAL Manaj. Teknol. DAN Inform.*, vol. 12, no. 3, 2022.
- [14] A. Ikhwana and S. Dianti, "The Influence of Information Technology and SCM on Competitive Advantage to Improve MSMEs Performance," *Int. J. Comput. Inf. Syst.*, vol. 3, no. 1, pp. 6–11, 2022.
- [15] M. F. Akbar, D. Valeriani, P. R. Wilujeng, and M. Tohari, "Assessing consumer empowerment and influencing factors in Central Bangka Regency: a multidimensional approach," *J. Perspekt. Pembiayaan dan Pembang. Drh.*, vol. 11, no. 1, pp. 93–112, 2023.
- [16] N. Ganawati, K. Sudarmini, and N. K. Sariani, "Faktor Eksternal Dan Internal Yang Mempengaruhi Impulse Buying Pembeli Pada Toko Ritel Waralaba Di Kabupaten Gianyar," *Wacana Ekon. (Jurnal Ekon. Bisnis dan Akuntansi)*, vol. 18, no. 1, pp. 33–40, 2019.
- [17] R. Murwanti, "KARAKTERISTIK, PELUANG DANBENTUK INVESTASI INDUSTRI DAN PERDAGANGAN DALAM PERUMUSANSTRATEGI PENGEMBANGAN PEREKONOMIAN DI KABUPATEN PONOROGO," *Pros. Ekon. Kreat. DI ERA Digit.*, vol. 1, no. 1, 2018.
- [18] E. ONURLUBAŞ and N. GÜMÜŞ, "Algılanan risk boyutlarının ikinci el kıyafet satın alma niyetine etkisi: Z kuşağı üzerine bir araştırma," *Tekst. ve Mühendis.*, vol. 29, no. 126, pp. 106–114, 2022.
- [19] Z. Zeng, W. Zhong, and S. Naz, "Can Environmental Knowledge and Risk Perception Make a Difference? The Role of Environmental Concern and Pro-Environmental Behavior in Fostering Sustainable Consumption Behavior," *Sustainability*, vol. 15, no. 6, p. 4791, 2023.
- [20] L. Weitensfelder, K. Heesch, E. Arnold, M. Schwarz, K. Lemmerer, and H.-P. Hutter, "Areas of Individual Consumption Reduction: A Focus on Implemented Restrictions and Willingness for Further Cut-Backs," *Sustainability*, vol. 15, no. 6, p. 4956, 2023.
- [21] L. Ma, P. Shahbaz, S. ul Haq, and I. Boz, "Exploring the Moderating Role of Environmental Education in Promoting a Clean Environment," *Sustainability*, vol. 15, no. 10, p. 8127, 2023.
- [22] C. F. Machado and J. P. Davim, "Sustainability in the Modernization of Higher Education: Curricular Transformation and Sustainable Campus – A Literature Review," *Sustainability*, vol. 15, no. 11, p. 8615, 2023.
- [23] E. García-González, S. Albareda-Tiana, C. Solis-Espallargas, and R. Jiménez-Fontana, "Transformative education for sustainable consumption," *Trends High. Educ.*, 2022.
- [24] R. Huang, "A corpus-assisted discourse study of Chinese university students' perceptions of sustainability," *Front. Psychol.*, vol. 14, p. 1124909, 2023.
- [25] R. Pu *et al.*, "Toward a knowledge economy: Factors affecting the sustainable consumption behavior in the Chinese online education industry," *Front. Psychol.*, vol. 13, p. 1007230, 2022.
- [26] Z. Abidin, D. Destari, S. Syafruddin, S. Arifin, and M. Agustiani, "Implementation of Islamic Religious Education Learning and Character in the New Normal Era," *Al-Hayat J. Islam. Educ.*, vol. 6, no. 1, pp. 158–169, 2022.
- [27] D. Destari, H. Tannady, A. G. Zainal, S. Nurjanah, and J. M. J. Renwarin, "The Improvement of Employee's Performance in Plastic Ore Industry: Mediating Role of Work Motivation," *Turkish Online J. Qual. Inq.*, vol. 12, no. 7, 2021.
- [28] R. Trudel, "Sustainable consumer behavior," *Consum. Psychol. Rev.*, vol. 2, no. 1, pp. 85–96, 2019.
- [29] B. Teufer and S. Grabner-Kräuter, "How consumer networks contribute to sustainable mindful consumption and well-being," *J. Consum. Aff.*, 2023.
- [30] Y. Zhang, C. Liu, and Y. Lyu, "Profiling Consumers: Examination of Chinese Gen Z Consumers' Sustainable Fashion Consumption," *Sustainability*, vol. 15, no. 11, p. 8447, 2023.
- [31] V. Mohammed and A. Razé, "Towards Sustainable Fashion Consumption: An Exploratory Study of Consumer Behavior in a Developing Country," *J. Sustain. Mark.*, vol. 4, no. 1, pp. 90–109, 2023.
- [32] Y. Liu, R. Zhao, X. Xiong, and X. Ren, "A Bibliometric Analysis of Consumer Neuroscience towards Sustainable Consumption," *Behav. Sci. (Basel)*, vol. 13, no. 4, p. 298, 2023.
- [33] R. Cisneros and D. W. White, "Building steel bridges in New York, Virginia, Pennsylvania and Maryland: Progressive application of LRFD to steel bridge erection engineering," *Bridg. Struct.*, vol. 9, no. 4, pp. 135–153, 2013.
- [34] F. C. Thayer, "Regulation is Inevitable: Legal Planning or Illegal Collusion," *Am. UL Rev.*, vol. 32, p. 425, 1982.
- [35] S. Zhang, W. Liu, P. Hou, and X. Wang, "Impact of government subsidy on the remanufacturing industry regarding technology cooperation," *J. Ind. Manag. Optim.*, vol. 19, no. 6, pp. 4152–4179, 2023.
- [36] M. Che, H. Wu, and Y. Li, "Do Fluctuations in Environmental Regulations Inhibit Investment: Evidence from China," *Int. J. Environ. Res. Public Health*, vol. 20, no. 3, p. 2021, 2023.
- [37] B. He, M. Qi, N. Wang, and Z. Zhang, "Avoiding Real Harm but False Good: The Influence Mechanism of Political Relations on the Effectiveness of Environmental Regulation Policies," *Int. J. Environ. Res. Public Health*, vol. 19, no. 23, p. 15953, 2022.
- [38] S. Bashir, A. S. Khan, and F. S. Khan, "THE ROLE OF CONSUMER EDUCATION IN STRENGTHENING CONSUMER PROTECTION LAWS," *Pakistan J. Soc. Res.*, vol. 5, no. 02, pp. 85–92, 2023.
- [39] E. Hur and E. Faragher-Siddall, "Young consumer perspectives on government policy interventions for sustainable fashion consumption in the UK," *Fash. Pract.*, vol. 14, no. 3, pp. 405–427, 2022.
- [40] N. Ersoy, "A cross-section from the consumer perspective on sustainable nutrition: consumer awareness and motivation status," *Environ. Sci. Pollut. Res.*, pp. 1–6, 2023.
- [41] D. Shen, "A Longitudinal Study of Consumer Awareness of Sustainable Fashion," in *International Textile and Apparel Association Annual Conference Proceedings*, Iowa State University Digital Press, 2022.
- [42] M. D. L. M. Santos-Corrada, R. Méndez-Tejeda, J. A. Flecha-Ortiz, and E. Lopez, "An analysis of sustainable

consumption practices through the role of the consumer behavior in the circular economy," *J. Consum. Behav.*.