THE INFLUENCE OF REGULATIONS ON GREEN MARKETING THROUGH CONSUMER BEHAVIOR IN SHRIMP EXPORTING COMPANIES

F.X. Adi Purwanto¹
Nuddin Harahap²
Moh. Khusaini³
Gatot Ciptadi⁴
M. Faishal Aminuddin⁵
Nurul Badriyah⁶

ABSTRACT

Objective: This study aimed to analyze the influence of regulations on green marketing through consumer behavior in shrimp exporting companies in East Java.

Theoretical Framework: In this topic, regulations refer to how policies and rules set by the government or regulatory bodies influence the way consumers act, behave, or make decisions in consumption activities. These regulations can apply in various economic fields and sectors, such as health, environment, finance, consumer products, and others.

Method: A quantitative method was used, while data were collected through a survey of shrimp exporting companies in East Java. The samples comprised 42 shrimp companies and data were analyzed using SEM-PLS.

Results and Discussion: The results showed that government regulations have a significant effect on consumer behavior in shrimp exporting companies. Regulations that effectively guide consumers towards selecting environmentally friendly products can motivate companies to further improve green marketing.

Research Implications: The results provide practical guidance for shrimp exporting companies in the quest to achieve sustainable growth through environmentally responsible business strategies.

Originality/Value: This research highlights the role of regulations in encouraging companies to adopt environmentally friendly marketing practices and is specifically carried out in shrimp exporting companies in East Java, Indonesia.

Keywords: East Java, Green Marketing, Indonesia, Regulations, SEM-PLS, Shrimp.

¹ Brawijaya University, Malang, Indonesia. E-mail: adi.purwanto@hangtuah.ac.id  
Orchid: https://orcid.org/0000-0001-9966-0217
² Brawijaya University, Malang, Indonesia. E-mail: adi.purwanto@hangtuah.ac.id  
Orchid: https://orcid.org/0000-0001-9966-0217
³ Brawijaya University, Malang, Indonesia. E-mail: khusaini@ub.ac.id  
Orchid: https://orcid.org/0000-0003-0472-9678
⁴ Brawijaya University, Malang, Indonesia. E-mail: ciptadi@ub.ac.id  
Orchid: https://orcid.org/0000-0003-7806-7411
⁵ Brawijaya University, Malang, Indonesia. E-mail: mfaishal@ub.ac  
Orchid: https://orcid.org/0000-0002-3195-4814
⁶ Brawijaya University, Malang, Indonesia. E-mail: nurulbayhaqi@ub.ac.id  
Orchid: https://orcid.org/0009-0002-8407-2564
A INFLUENCIA DA REGULAÇÃO NO MARKETING VERDE ATRAVÉS DO COMPORTAMENTO DO CONSUMIDOR EM EMPRESAS EXPORTADORAS DE CAMARÃO

RESUMO

Objetivo: Este estudo teve como objetivo analisar a influência das regulamentações no marketing verde por meio do comportamento do consumidor em empresas exportadoras de camarão em Java Oriental.

Referencial Teórico: Neste tópico, regulamentação refere-se a como as políticas e regras estabelecidas pelo governo ou órgãos reguladores influenciam a forma como os consumidores agem, se comportam ou tomam decisões nas atividades de consumo. Estas regulamentações podem ser aplicadas em vários campos e setores econômicos, tais como saúde, ambiente, finanças, produtos de consumo, entre outros.

Método: Foi utilizado um método quantitativo, enquanto os dados foram coletados através de uma pesquisa com empresas exportadoras de camarão em Java Oriental. As amostras incluíram 42 empresas de camarão e os dados foram analisados usando SEM-PLS.

Resultados e Discussão: Os resultados mostraram que as regulamentações governamentais têm um efeito significativo no comportamento do consumidor nas empresas exportadoras de camarão. Regulamentações que orientem efetivamente os consumidores na seleção de produtos ecologicamente corretos podem motivar as empresas a melhorar ainda mais o marketing verde.

Implicações da pesquisa: Os resultados fornecem orientação prática para empresas exportadoras de camarão na busca de alcançar um crescimento sustentável através de estratégias empresariais ambientalmente responsáveis.

Originalidade/Valor: Esta pesquisa destaca o papel das regulamentações no incentivo às empresas a adotarem práticas de marketing ecológicamente corretas e é realizada especificamente em empresas exportadoras de camarão em Java Oriental, na Indonésia.

Palavras-chave: Java Oriental, Marketing Verde, Indonésia, Regulamentações, SEM-PLS, Camarão.

LA INFLUENCIA DE LA REGULACIÓN SOBRE EL COMERCIALIZACIÓN VERDE A TRAVÉS DEL COMPORTAMIENTO DEL CONSUMIDOR EN EMPRESAS EXPORTADORAS DE CAMARÓN

RESUMEN

Objetivo: Este estudio tuvo como objetivo analizar la influencia de las regulaciones sobre el marketing ecológico a través del comportamiento del consumidor en las empresas exportadoras de camarón en Java Oriental.

Marco teórico: En este tema, las regulaciones se refieren a cómo las políticas y reglas establecidas por el gobierno o los organismos reguladores influyen en la forma en que los consumidores actúan, se comportan o toman decisiones en las actividades de consumo. Estas regulaciones pueden aplicarse en diversos campos y sectores económicos, como salud, medio ambiente, finanzas, productos de consumo y otros.

Método: Se utilizó un método cuantitativo, mientras que los datos se recopilaron mediante una encuesta a empresas exportadoras de camarón en Java Oriental. Las muestras comprendían 42 empresas camaroneras y los datos se analizaron utilizando SEM-PLS.

Resultados y Discusión: Los resultados mostraron que las regulaciones gubernamentales tienen un efecto significativo en el comportamiento del consumidor en las empresas exportadoras de camarón. Las regulaciones que guían efectivamente a los consumidores hacia la selección de productos amigables con el medio ambiente pueden motivar a las empresas a mejorar aún más el marketing ecológico.

Implicaciones de la investigación: Los resultados brindan una guía práctica para las empresas exportadoras de camarón en la búsqueda de lograr un crecimiento sostenible a través de estrategias comerciales ambientalmente responsables.

Originalidad/Valor: Esta investigación destaca el papel de las regulaciones a la hora de alentar a las empresas a adoptar prácticas de marketing respetuosas con el medio ambiente y se lleva a cabo específicamente en empresas exportadoras de camarón en Java Oriental, Indonesia.
INTRODUCTION

The increasing awareness of environmental issues and climate change was reported to have motivated companies toward focusing on environmentally friendly business practices. In this context, one sector under scrutiny is the fishing industry, specifically shrimp exporting companies. Shrimp is one of the leading export commodities in Indonesia, playing an important role in regional and national economic growth, specifically in East Java.

The fishing industry also has destructive effects on the ecology, such as degradation of marine ecosystems, overfishing, and pollution. To address these challenges, concrete steps are needed to achieve environmentally sound and sustainable marketing of shrimp products. Meanwhile, green marketing refers to the study of all efforts in consumption, production, distribution, promotion, and product packaging activities as a response to environmental concerns (Dahlstrom, 2011).

One instrument that influences green marketing is regulations or policies issued by the government. Regulations refer to governmental rules and policies that establish the essential institutions required for fostering competition, managing financial matters, enforcing private contracts, safeguarding private property, as well as providing protections for patents, copyrights, and other related matters (Fritschler in Komarudin, 2020). In the context of shrimp management, processing, waste handling, and other practices, regulations have the potential to motivate exporting companies in East Java to operate in a more environmentally responsible manner. A study by Alabdali (2019) showed that regulations had a significant impact on green marketing.

Despite the importance of regulations, the success of implementation depends on the response or behavior of consumers. Consumer behavior is an ongoing progression, comprising the pre-purchase, purchase, and post-purchase stages. This progression illustrates the interconnected stages that delineate the consumer approach to decision-making (Kotler & Keller, 2016). Consumer behavior increasingly aware of environmental issues and eco-friendly products can motivate companies to change business practices to meet market demands. This concept also influences green marketing, as proven in a study by (Alabdali, 2019).
This survey was carried out to identify and analyze the impact of regulations on the marketing of green shrimp products by exporting companies in East Java. The study will investigate how existing regulations influence the business practices of shrimp exporting companies, as well as how consumer behavior responds to products marketed with the label "environmentally friendly."

The results are expected to provide valuable insight for the shrimp exporting industry in facing existing regulatory challenges. This study can also serve as a reference showcasing the influence of regulations on consumer behavior and organizational innovation in the global business context. Additionally, the study provides recommendations for governments and companies to build more effective regulatory frameworks and support sustainable economic growth.

2 THEORETICAL FRAMEWORK

2.1 REGULATORY THEORY

Fritschler in Komarudin (2020) explains the definition of regulations from two perspectives, namely traditional and social aspects. The traditional form refers to government regulations that establish essential institutions for increasing competition, controlling monetary sustain, enforcing private contracts, safeguarding private property, as well as providing patent and copyright protection. The traditional concept leads to regulations that support business activities in the economic field. Regarding the second definition, regulations in the social aspect refer to rules and established guidelines for environmentally sustainable production methods, the qualifications of prospective employees, approved labor conditions, compensation terms, retirement plans, and related matters. In this definition, the notion of regulation prioritizes the public interest over the market in the economy. There are 4 indicators in the variable of government regulations namely 1) Response through the social environment of companies; 2) Response through the disclosure of social information; 3) Support for government programs; and 4) Compliance with government regulations (Basuki & Patrioty, 2009).

2.2 CONSUMER BEHAVIOR

According to Kotler & Keller (2016), consumer behavior is an ongoing process spanning through pre-purchase, purchase, and post-purchase stages, reflecting the
interconnected phases in consumer decision-making. Consumer behavior is subject to the influence of various factors, including cultural, social, personal, and psychological. As stated by Kotler (2018), the indicators include 1) Cognitive component, comprising consumer beliefs and perceptions; 2) Affective component, delving into the emotional aspect and sentiments; as well as 3) Conative component, portraying inclinations and actual behavior directed towards an object.

2.3 GREEN MARKETING

Dahlstrom (2011) explained that green marketing is the examination of all activities related to consumption, manufacturing, circulation, delivery, advertising, and product packaging as a response to environmental concerns. According to Arseculeratne & Yazdanifard (2014), the indicators of green marketing include: 1) Green Products, 2) Green Prices, 3) Green Distribution, and 4) Green Promotion.

Considering the presentation of the theory, previous studies, and the conceptual framework in Figure 1, the following hypotheses were proposed:

**Figure 1**

*Conceptual Framework*

![Conceptual Framework Diagram](image)

Source: author

Regulations in the context of consumer behavior refer to how policies and rules set by the government or regulatory bodies influence the way consumers act, behave, or make decisions in consumption activities. These regulations can apply in various economic fields and sectors, such as health, environment, finance, consumer products, and others.
Ayuba (2021) states that environmental regulations can influence consumer preferences for environmentally friendly products or services. Regulations that set safety and quality standards for products or services can influence consumer perceptions and preferences for certain brands.

Nurulhaq & Kismartini (2019) prove that regulations influence consumer behavior. Government regulations such as rules for reducing the use of plastic bags motivate consumers to embrace other alternatives such as using tote or other non-plastic bags, specifically when shopping.

H1: Regulations influence consumer behavior

Alabdali (2019) states that consumer behavior influences green marketing. Theoretically, this study associated regulations with innovation. Consumers who are more concerned about the environment tend to consider the impact of products and services before purchasing. Consequently, companies pay more attention to the environmental impact of the products and services, promoting those with a better effect.

Davari & Strutton (2014) prove that consumer behavior impacts green marketing. Consumers who are concerned about environmental issues typically possess the intrinsic motivation to use green products. These categories of consumers are more likely to notice or be attracted to green promotional activities. Finally, environmentally concerned consumers are usually more willing than their counterparts to pay higher prices to acquire green offerings.

Bartels & Hoogendam (2011) found that individuals identifying with environmentally friendly consumer groups are more inclined toward buying organic food products. In addition, brand knowledge and attitudes concerning specific organic products may affect buying behavior. This implies that consumer behavior can influence the purchase of environmentally friendly products, thereby facilitating green marketing programs. As reported by Hussain et al (2020), environmental care influences eco-friendly purchasing behavior. In other words, consumers who care about the environment tend to buy environmentally friendly products, thereby increasing green marketing (Chou et al., 2020; Chekima et al., 2015; Govender & Govender, 2016; Groenning et al., 2018; Shabbir et al., 2020; Yang & Chai, 2022).

H2: Consumer behavior influences green marketing

Yuan et al (2021) in a survey concluded that there is a positive relationship between government regulations and the marketing of environmentally friendly products. The results showed that regulations set by the government motivate the implementation of green marketing. Theoretically, this study associated regulations with green marketing.
Green et al (2000) mentioned that the role of the consumer in greening the economy has long been recognized by environmentalists. Since the late 1980s, environmentalist activist organizations have advocated the use of consumer pressure. This includes boycotting environmentally damaging products and positive purchasing of green ones, to influence the offerings and policies of companies toward environmental responsibility. The views and preferences of end consumers on environmental performance are increasingly becoming integral to the rhetoric of business organizations in the attempts to interpret sustainable development for their ends.

H3: Regulations influence eco-friendly marketing

3 METHODOLOGY

This study used a quantitative method and data were collected through a survey of shrimp exporting companies in East Java to evaluate the adoption level of organizational innovation and the perceptions of applicable government regulations. Furthermore, data collection aimed to identify consumer behavior regarding preferences and purchasing decisions for shrimp products. The study population comprised 42 shrimp companies represented by company managers selected using total sampling techniques. Data were collected through a questionnaire and analysis was conducted with SEM-PLS analysis.

4 RESULTS AND DISCUSSIONS

4.1 OUTER MODEL EVALUATION

4.1.1 Convergent Validity

To evaluate the achievement of convergent validity, the outer loading value or loading factor was used. Convergent validity was considered satisfactory when the outer loading value exceeded 0.7. The subsequent section provides the outer loading values for each indicator within the study variables.

The information provided in Table 1 showed that each indicator within the study variable had an outer loading value exceeding 0.7. Ghozali (2016) suggests that an outer loading value between 0.5 and 0.6 meets the criteria for convergent validity. Based on the data obtained,
none of the variable indicators had an outer loading value below 0.5. This implied that all indicators were not only suitable but valid for use in subsequent analysis.

**Table 1**

*Outer Loading*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Indicators</th>
<th>Outer Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulation</td>
<td>R1</td>
<td>0.833</td>
</tr>
<tr>
<td></td>
<td>R2</td>
<td>0.867</td>
</tr>
<tr>
<td></td>
<td>R3</td>
<td>0.902</td>
</tr>
<tr>
<td></td>
<td>R4</td>
<td>0.892</td>
</tr>
<tr>
<td>Consumer Behavior</td>
<td>PK1</td>
<td>0.808</td>
</tr>
<tr>
<td></td>
<td>PK2</td>
<td>0.925</td>
</tr>
<tr>
<td></td>
<td>PK3</td>
<td>0.916</td>
</tr>
<tr>
<td>Green Marketing</td>
<td>PRL1</td>
<td>0.905</td>
</tr>
<tr>
<td></td>
<td>PRL2</td>
<td>0.830</td>
</tr>
<tr>
<td></td>
<td>PRL3</td>
<td>0.873</td>
</tr>
<tr>
<td></td>
<td>PRL4</td>
<td>0.844</td>
</tr>
</tbody>
</table>

**4.1.2 Discriminant Validity**

To evaluate discriminant validity, the average variance extracted (AVE) value for each indicator was examined. The model was typically considered to have good discriminant validity when the AVE value exceeded 0.5, as proposed (Ghozali, 2016).

The data presented in Table 2 showed that the AVE value for the regulatory, consumer behavior, and green marketing variables exceeded 0.5. Consequently, it was concluded that each variable had strong discriminant validity.

**Table 2**

*Average Variant Extracted (AVE)*

<table>
<thead>
<tr>
<th>Variable</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulation</td>
<td>0.764</td>
</tr>
<tr>
<td>Consumer Behavior</td>
<td>0.782</td>
</tr>
<tr>
<td>Green Marketing</td>
<td>0.746</td>
</tr>
</tbody>
</table>

**4.1.3 Composite Reliability**

Composite reliability serves as a crucial factor in assessing the reliability of indicators within a variable. A variable is deemed to satisfy the composite reliability criterion when its value exceeds 0.6, as proposed (Ghozali, 2016). The subsequent section provides the composite reliability values for each variable used in this study.
According to the information provided in Table 3, the composite reliability values for regulatory variables, consumer behavior, and green marketing exceeded 0.6. Therefore, it was concluded that each variable had strong composite reliability.

Table 3

Composite Reliability

<table>
<thead>
<tr>
<th>Variable</th>
<th>Composite Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulation</td>
<td>0.928</td>
</tr>
<tr>
<td>Consumer Behavior</td>
<td>0.915</td>
</tr>
<tr>
<td>Green Marketing</td>
<td>0.921</td>
</tr>
</tbody>
</table>

4.1.4 Cronbach Alpha

The reliability assessment, showed by a composite reliability score can be further substantiated through the application of Cronbach’s alpha. A variable is considered reliable or meets the Cronbach alpha criterion when the value is greater than 0.7 (Eisingerich & Rubera, 2010). The subsequent section presents the Cronbach alpha values for each variable.

Data presented in Table 4 showed that the Cronbach alpha value for each variable exceeded 0.7. This suggested that each variable fulfilled the criteria set for the Cronbach alpha value. Consequently, it was concluded that all variables had a substantial level of reliability.

Table 4

Cronbach Alpha

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cronbach Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulation</td>
<td>0.897</td>
</tr>
<tr>
<td>Consumer Behavior</td>
<td>0.859</td>
</tr>
<tr>
<td>Green Marketing</td>
<td>0.886</td>
</tr>
</tbody>
</table>

4.2 INNER MODEL EVALUATION

The schematic representation of the inner model in Figure 2 showed that the most significant impact was attributed to regulations on consumer behavior, with a value of 14.350. Meanwhile, the smallest effect was observed in the aspect of green marketing regulations, at 3.354.
Data presented in Table 5 showed that regulations had a significant impact on consumer behavior with a p-value of 0.000 (<0.05). These results imply that regulatory variables have a significant effect on organizational innovation. Similarly, Ayuba (2021) reported that regulations influenced consumer behavior.

### Table 5

**Hypothesis Testing**

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Impact</th>
<th>T-statistics</th>
<th>P-Values</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>Regulation → Consumer Behavior</td>
<td>14,350</td>
<td>0,000</td>
<td>Accepted</td>
</tr>
<tr>
<td>H2</td>
<td>Consumer Behavior → Green Marketing</td>
<td>3,623</td>
<td>0,000</td>
<td>Accepted</td>
</tr>
<tr>
<td>H3</td>
<td>Regulation → Green Marketing</td>
<td>17,976</td>
<td>0,000</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

Regulations that prohibit or limit dangerous products can protect consumers from undesirable health or safety risks. Restrictions on certain products also motivate finding safer or better alternatives.

The influence of consumer behavior on green marketing was significant as showed by a p-value of 0.000 (<0.05). The results were strengthened by Alabdali (2019) stating that green marketing was influenced by consumer behavior.
Consumer behavior reflects market demand for environmentally friendly products or services. When consumers are increasingly concerned about environmental and sustainability issues, the motivation to select products with a lower detrimental impact increases. Companies that comprehend and respond to these preferences will strive to provide more environmentally friendly products to meet market needs and demands.

The impact of regulations on green marketing was significant as showed by a p-value of 0.000 (<0.05). This result implies that regulations have a significant influence on consumer behavior. Yuan et al., (2021) prove that regulations impact consumer behavior. The stronger the regulations, the better the consumer behavior.

The influence of regulations on green marketing is an important factor in motivating companies to adopt more sustainable and environmentally responsible business practices. Regulations set by governments or regulatory bodies can affect how companies market environmentally friendly products or services and how consumers access these products. Strong environmental regulations serve as a catalyst, compelling companies to adopt more sustainable business practices and influencing consumer preferences toward environmentally friendly products.

5 CONCLUSION

In conclusion, government regulations have a significant impact in influencing the implementation of green marketing and consumer behavior within the context of shrimp exporting companies in East Java. The government must be more active in providing regulations for companies regarding environmentally friendly operations, thereby increasing green marketing. This study contributes to the literature on the relationship between regulations, green marketing, and consumer behavior in the global business industry. The results also provide practical guidance for shrimp exporting companies in the quest to achieve sustainable growth through environmentally responsible business strategies.

REFERENCES

The Influence of Regulations on Green Marketing Through Consumer Behavior in Shrimp Exporting Companies


