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Opportunities and Challenges in Implementing Green Marketing in The Fish Cracker Home Industry

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ABSTRACT

This study investigates the implementation potential of green marketing in the fish cracker home industry located in Pesisir Village, Besuki District, using a SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis framework. The research reveals that despite operating traditionally and on a small scale, the industry possesses natural strengths aligned with green marketing principles. These include the use of fresh, locally sourced raw materials, low-emission traditional processing methods, and efficient resource use—such as utilizing the entire fish to reduce organic waste. However, key weaknesses were identified, including limited awareness of green marketing concepts, lack of training, constrained access to environmentally friendly technologies, and reliance on plastic packaging. Opportunities for expansion are evident through rising environmental awareness among consumers, especially in urban areas, and consistent demand from neighboring regions like Malang and Madura. Additionally, government support for SME and sustainable local products offers strategic leverage. Nonetheless, several threats persist, including fluctuating raw material prices, unstructured waste management, and competition from more eco-conscious producers. Supporting and inhibiting factors were analyzed, showing that while internal values and traditional practices support a sustainable approach, limited knowledge and financial capacity hinder full implementation. The study concludes that with targeted interventions such as training, technological assistance, and sustainable packaging innovation, this industry holds significant potential to adopt green marketing as a competitive and responsible strategy. Future research should explore the scalability of these findings across similar rural industries and investigate the long-term impact of green marketing adoption on economic resilience and ecological preservation.

Keywords: Green Marketing, Fish Cracker Industry, Rural SME, Economic Resilience.

I. Introduction

The Besuki coast is located in Situbondo Regency, East Java, which is known for its potential natural resources, especially marine products. Communities in this area primarily depend on the fisheries sector and



home industries, such as the production of fish crackers. Fish crackers are one of the leading products produced by home industries in Pesisir Besuki. This product is not only a source of income for the community, but also has strong cultural and traditional values. The sea catch processed into fish crackers has its characteristics. On November 3, 2024, researchers made observations related to the existence of home industries in the coastal village of Besuki, and the results were that seven home industries were engaged in marine catches. The marine catches were used as a mixture of processed ingredients to make fish crackers, and the fish used was janggalak fish.

Pesisir Village is located close to the sea, providing fishermen access to catch various types of fish, including janggalak fish, the main ingredient of fish crackers. This marine catch has a distinctive characteristic that makes fish crackers from Pesisir Village, Besuki Subdistrict, different from those in other regions. Among the seven home industries, the production of fish crackers in this area is quite significant. Pesisir Village in Besuki Subdistrict, Situbondo Regency, is rich in potential natural resources, especially marine products. The local community relies heavily on the fisheries sector and home industries, especially in producing fish crackers. Fish crackers are one of the leading products that not only provide a source of income but also reflect the cultural values and traditions of the local community. Before the existence of the home industry, the community's livelihood depended entirely on the marine sector, which caused their income to be unstable because sea catches tended to fluctuate and decline. The presence of the home industry has proven to have a positive impact, as seen from the increasing number of household businesses in the village. This shows that the home industry is essential in improving the community's economy. In addition, the home industry also helps fishermen, mainly since not all fish catches can be sold to factories. For example, fish with low selling value can be processed or developed into food products with higher economic value.

Developing small businesses such as seafood-based home industries is the right choice to improve the economy of the Coastal Villages, whose income is mainly dependent on the fisheries sector. This is because fishermen's income tends to be low and is highly influenced by weather conditions. With home industries or other small businesses, people in coastal areas, especially coastal areas, can get support to improve their economy. Usually, these home-based businesses are managed by the business owners' families, although it is not uncommon for residents to be involved as laborers. Small businesses in the form of home industries in the Besuki Coastal Village area are now growing rapidly. Many people have established home industries, such as fish crackers, pindang fish, fish sauce, salted fish (*anchovies*), etc (Ahmad et al., 2023). The home industry processes raw materials or semi-finished goods into finished products with added value for greater profits. In addition to being profit-oriented, home industry players have begun applying moral and ethical values in running their businesses. This aims to create good discipline in the business activities they manage. Business success is closely related to the ability to face product competition. In this context, the primary key to sustainability and competitive advantage of a business is its ability to understand and meet customer needs and expectations effectively (Putro et al., 2024). Achieving this requires a strategic approach in the form of implementing creative ideas and product innovations that are relevant to market trends. This step aims to create a strong appeal in the eyes of consumers while ensuring that the products offered can provide added value in the form of superior quality. Thus, customer satisfaction is not only the result, but also the foundation that strengthens the business position in dynamic market competition.

Green marketing is a marketing strategy that aims to increase the selling value of products and contribute to environmental preservation and community empowerment (Bunga-Aurelia et al., 2024). Green marketing has become an essential strategy in response to increasing consumer awareness of environmentally friendly products. In Indonesia, particularly in the home industry sector, this strategy presents an opportunity to improve competitiveness in a market increasingly concerned with sustainability. Implementing green marketing offers added value potential for the fish crackers home industry in Pesisir Village, Besuki Sub-district. However, there are obstacles to overcome, such as increased production costs and limited market access. Public awareness of environmental and health issues is now a major driving factor for companies to integrate sustainability into their marketing strategies. With this approach, products like fish crackers in Pesisir Village, Besuki District, can adopt green marketing practices to improve their

competitiveness. Green marketing allows micro-enterprises in the region to overcome marketing challenges while contributing to environmental conservation.

Green marketing is also one of the marketing strategies that not only aims to increase the selling value of the product but also contributes to environmental preservation and community empowerment (Hasibuan et al., 2022). Green marketing has become an essential strategy in response to increasing consumer awareness of environmentally friendly products. In Indonesia, particularly in the home industry sector, this strategy presents an opportunity to improve competitiveness in a market increasingly concerned with sustainability. For the fish crackers home industry in Pesisir Village, Besuki, the application of green marketing offers added value potential. However, there are obstacles to overcome, such as increased production costs and limited market access. Green marketing emerged as a response to the environmental impact caused by the company's operational activities, ranging from product design, production processes, packaging, use, to product disposal (Ahmad et al., 2023). Green marketing includes environmentally friendly marketing activities, such as recyclable products free from materials that damage the ozone layer, and support for sustainability. This activity involves various aspects, including production, packaging, pricing, logistics, and promotion.

Implementing this strategy can help fish cracker products improve their competitiveness by offering environmentally friendly added value, such as using environmentally safer packaging or a low-waste production process. Public awareness about the importance of quality of life and health is increasingly opening enormous opportunities for environmentally friendly products. Explained that consumers often contribute to environmental damage by purchasing products that are not environmentally friendly or using them unsafely. However, current trends show that people are beginning to understand the dangers of synthetic chemicals, so they are more selective in choosing safe food products for health and the environment. Green marketing can also make the production process more efficient, focusing on environmental sustainability, which society increasingly accepts. This approach makes it easier for marketers to design appropriate strategies (Rahardjo & Wibowo, 2022). By paying attention to environmental aspects, companies also have the opportunity to market products and services internationally, open access to new markets, and gain a competitive advantage. However, implementing green marketing also faces several obstacles, such as higher production costs for product innovation and environmentally friendly packaging. Nonetheless, this strategy can save production costs in the long run through recycling and waste reduction efficiencies. In addition, green marketing has the potential to open access to international markets and give fish crackers a competitive advantage in the global market. Thus, analyzing the constraints and potential of green marketing is essential to help fish crackers develop effective marketing strategies in Pesisir Village, Besuki Sub-district. This strategy will improve the welfare of coastal communities and contribute to better environmental sustainability. Implementing green marketing is expected to be an important step in encouraging local economic growth while preserving the environment in coastal areas. In addition to increasing success in marketing fish crackers, a strategy to face market competition must be developed by prioritizing innovation and product quality. One relevant strategy is the implementation of green marketing. This strategy emphasizes the importance of sustainability through environmentally friendly production processes, the use of recycled materials, waste reduction, and environmentally safe packaging.

II. Literature Review and Hypothesis Development

In this modern era, the need for environmental conservation is increasingly becoming a significant concern. Growing public awareness about the detrimental impact of human activities on the environment and the balance of ecosystems is driving companies to integrate sustainability into their business strategies. In response to this trend, green marketing emerged as a strategic approach focusing on business profits and environmental responsibility. This strategy includes product development, production processes, and promotional methods that minimize negative environmental impacts. By adopting Green Marketing, companies meet the expectations of consumers who are increasingly aware of the importance of

sustainability and contribute to maintaining the balance of the global ecosystem, creating sustainable added value for businesses and society.

Green marketing is a business strategy that focuses on promoting products or services with environmental sustainability and human well-being in mind. In a global context that is increasingly concerned with environmental issues, this approach is an important step for companies to meet market demands and strengthen their image as responsible businesspeople. With consumers' increasing awareness of the environmental impact of every purchase decision, Green Marketing offers a strategic solution. This approach helps companies address the needs of consumers who are more concerned about sustainability and serves as a differentiation tool in a competitive market while demonstrating a real commitment to the planet's future and future generations' health. Green marketing is also a marketing approach that focuses on environmentally friendly policies and practices in company management. This strategy involves identifying, anticipating, and adapting to consumer needs and environmental issues to create profits for the company while supporting sustainable management (Papadas et al., 2018). In this context, green marketing is not just about promoting environmentally friendly products but also includes developing recyclable products and sustainable production processes (Teona et al., 2020). Green marketing also reflects a paradigm shift in business, where companies must focus on profitability and social and environmental responsibility. This is in line with the increasing public awareness of the importance of sustainability and the negative impact of industrial activities on the environment. By applying green marketing principles, companies can build a positive image and loyalty among consumers increasingly concerned about environmental issues. In 1976, Henion and Kinnear introduced the concept of ecological marketing. This discipline explicitly examines the good and bad impacts of marketing activities on the environment, including pollution, declining energy reserves, and depletion of non-energy resources. The concept was first used in a workshop organized by the American Marketing Association (AMA), which brought together academics, business practitioners, and public policy makers. This approach represents the first step in understanding the relationship between marketing practices and environmental sustainability. By bringing together various stakeholders, ecological marketing provides a starting point for formulating marketing strategies that prioritize economic profit and ecological responsibility, highlighting the importance of integrating sustainability principles in marketing activities amid global challenges to resource conservation.

2.1. Principles of Green Marketing

a. Environmentally friendly products

Eco-friendly products in green marketing are goods that are designed to minimize negative impacts on the environment. This includes using recyclable materials, reducing toxic substances, and sustainable production processes, thus supporting sustainability and environmental preservation. Eco-friendly products play an important role in the global effort to protect the environment. By choosing sustainable products, consumers gain personal benefits and contribute to the planet's health. Companies committed to producing eco-friendly goods are meeting market demand and actively maintaining environmental sustainability.

b. Transparency and Honesty

Transparency and honesty are two important pillars in green marketing practices. In this context, companies are expected to provide accurate and precise information regarding the environmental claims they make about their products and services. This builds consumer trust and helps create a more sustainable market. Transparency and honesty in green marketing are not just about meeting legal obligations, but also about building strong relationships with consumers. By avoiding greenwashing and providing accurate information, companies can create long-term value, increase customer loyalty, and contribute to

environmental sustainability. Companies committed to transparency and honesty will have a significant competitive advantage in a world increasingly aware of environmental issues.

c. Sustainable Innovation

Sustainable innovation is an approach that integrates sustainability principles into product development and business processes. In the context of green marketing, sustainable innovation focuses on creating new, environmentally friendly products and continuously improving existing processes to reduce negative environmental impacts. Sustainable innovation is key to achieving sustainability goals in business. By integrating sustainability principles into product and process development, companies can reduce their environmental impact, improve competitiveness, and meet evolving market demands. While there are challenges to face, the long-term benefits of sustainable innovation are far greater for the company, society, and the environment.

d. Consumer Education and Engagement

Consumer education and engagement are important aspects of green marketing strategies that aim to increase consumer awareness and participation in environmental conservation efforts. By actively engaging consumers, companies can build brand loyalty and create a greater positive impact on the environment. Effective education can help consumers understand pressing environmental issues like climate change, pollution, and biodiversity decline. This awareness can encourage them to make more sustainable choices.

e. Compliance with Environmental Regulations

Compliance with environmental regulations is a crucial aspect for companies implementing green marketing. These regulations include various laws and standards that governments and international organizations set to protect the environment and encourage sustainable business practices. Complying with these regulations is important to avoid legal sanctions and build a good reputation and trust among consumers. Violations of environmental regulations can result in significant fines, legal sanctions, and even business closure. Compliance helps companies avoid legal risks that can be financially and reputationally costly.

2.2. Green Marketing Constraints

Learning from failures and mistakes and committing to continuous improvement are key to overcoming challenges. This approach allows businesses to correct existing weaknesses and use them as a platform for future growth. Solid team support and effective communication also play an important role. With cooperation and mutual support, teams can more easily overcome obstacles and achieve common goals. With the right strategy, obstacles become challenges and opportunities for innovation and strengthening of the business position. For example, an issue initially considered an obstacle may provide new insights into aspects of the business that require revamping or innovation. This, in turn, helps to improve the competitiveness of the business in the market. Individuals learn from the observations and experiences of others. In a business context, teams can learn from failures experienced by other members and mistakes made in the industry. By sharing experiences and discussing mistakes, teams can develop better strategies to avoid similar problems in the future (Bandura, 1977). Effectively managing constraints and turning them into opportunities is significant in achieving long-term success and sustainability. Flexible and learning-oriented businesses will better survive and thrive amidst the ever-changing dynamics. In an era of increasing environmental awareness, many companies are trying to implement green marketing strategies to attract consumers who

care about sustainability. However, despite these good intentions, companies often face various obstacles that can hinder the effectiveness of these strategies. These constraints are not only related to products and marketing, but also involve pricing, distribution, promotion, and people involvement.

2.3. Green Marketing Potential

Potential is a term that refers to the basic ability or capability that someone or something has, which can be developed or optimized. In this context, potential is often thought of as latent and can be further explored through effort, learning, or experience (Dai, 2020). Potential is also a complex and multidimensional concept encompassing various aspects of a person's basic abilities. By understanding the definition of potential in depth, we can better appreciate the importance of self-development through effort, learning, and experience. Every individual can develop; therefore, we must create an environment that supports exploring this potential to achieve the best results in life. Potential development is crucial to achieving optimal outcomes in an individual's life. This process begins with potential identification, where individuals need to recognize their abilities and talents through self-assessment or feedback from others. Once potential has been identified, the next step is to provide appropriate training and education to hone those abilities. Various methods, such as courses, workshops, and mentoring, can be practical tools. Meanwhile, the potential of green marketing refers to the opportunities companies can utilize to improve their business performance by integrating environmentally friendly practices in marketing strategies (Adeyemi & Aslam, 2025).

2.4. Home Industry

The home industry is a small-scale business unit focusing on a specific industrial activity. "Home" refers to a house, residence, or hometown. In contrast, "industry" refers to a production process, craft, or business activity producing goods. In other words, a home industry is a small business that operates within the home or local community, utilizing nearby resources. It is called a small business because the production process is often home-based, with a limited scale in terms of capital, labor, and technology used. This business model reflects the economic independence of the community, where the home not only functions as a place to live but also as a center of productivity that supports the livelihood of the family and the surrounding community. The term "industry" can be understood through two main perspectives. In general, industry refers to companies engaged in the economy, particularly in the secondary sector, which includes manufacturing and processing raw materials into finished or semi-finished products. However, in economic theory, industry has a more specific meaning: a collection of companies that produce the same type of goods and compete in the same market. Small businesses, including home industries, are often informal. This means that they are not officially registered, have no formal legality, and are not incorporated. Nevertheless, these small businesses play a significant role in creating jobs, supporting community livelihoods, and contributing to local economic development. In Law No. 20/2008, wealth and income criteria differentiate between micro, small, and medium enterprises. For micro businesses, the maximum total net worth is Rp. 50,000,000, with an annual turnover not exceeding Rp. 300,000,000. Meanwhile, small businesses have a net worth between Rp. 50,000,000 and Rp. 500,000,000, or an annual turnover ranging from Rp. 300,000,000 to Rp. 2,500,000,000. Meanwhile, medium-sized enterprises include net worths above Rp. 500,000,000 to Rp. 10,000,000,000, with an annual turnover between Rp. 2,500,000,000 to Rp. 50,000,000,000 (Ministry of Cooperatives and Small and Medium Enterprises of the Republic of Indonesia, 2008).

This analysis shows that the classification based on wealth and turnover is not only a legal guideline but also reflects the economic capacity of each business category. This aims to provide clear direction in developing and empowering the micro and small business sectors, including home industries, to contribute more optimally to economic growth, innovation, and poverty alleviation. In addition, this regulation also provides legal protection and access to financing for small business actors to encourage the sustainability of their businesses. On the Besuki coast, there are four home industries of fish cracker products, where one of

the fish they use is the janggalak fish. Janggalak fish is the main ingredient they use in the production process of making fish crackers. Local fishermen usually catch Janggalak fish in the coastal area. This provides an advantage in terms of raw material accessibility. However, it is important to ensure that the supply of this fish is stable throughout the year. Suppose Janggalak is only available in large quantities during certain seasons. In that case, the home industry needs to strategize on keeping stocks or finding alternative ingredients when availability is low. Fish cracker production can be disrupted if janggalak is a seasonal fish. In this case, frozen stock storage or pre-processing, such as drying janggalak fish, can be a solution. The process starts from cleaning the fish, mixing the janggalak with other ingredients such as flour, steaming, drying, and frying the crackers.

2.5. Description of Green marketing and the Home industry

Green Marketing is a marketing strategy focusing on environmentally friendly and sustainable products and services. It encompasses a range of practices that aim to reduce negative impacts on the environment and promote awareness of the importance of sustainability. Green marketing involves using renewable raw materials, reducing waste, and developing energy-efficient products. In addition, this strategy also includes transparent communication regarding the environmental benefits of products and efforts to educate consumers about the importance of choosing sustainable products. Meanwhile, Home industry is a form of small business that operates from home, where production, marketing, and administrative activities are carried out domestically. Home industries often involve family members and utilize resources found at home, such as easily accessible equipment and raw materials. These enterprises can cover various sectors, such as food and beverages, handicrafts, textiles, and other creative products.

III. Research Method

This research uses a qualitative method with a descriptive approach. The qualitative method is an approach that collects and analyzes data in the form of words, both oral and written, as well as human behavior. In this method, the data obtained is not calculated or converted into numbers, so the analysis focuses more on deep understanding than quantification (Lim, 2024). The data produced is in the form of descriptive information, such as speech, writing, and images that are relevant to the phenomenon under study. The descriptive qualitative approach was chosen because the problem under study requires a thorough analysis. This method allows researchers to understand the phenomenon without reducing the data to certain variables. This approach is very suitable for studying complex issues and requires an in-depth interpretation of the meaning contained in the data. Primary data collection was conducted through three main techniques: interviews, observation, and documentation. An interview is a method of obtaining information through direct interaction between researchers and interviewees. The method applied in this research is a qualitative method rooted in the philosophy of postpositivism. In qualitative research, data collection is carried out in a natural environment, otherwise known as a natural setting, where the phenomenon under study occurs naturally without intervention that changes the original conditions. This approach allows researchers to understand the context, interactions, and dynamics of these situations. The data analysis used is SWOT analysis. According to Kotler (2002), SWOT analysis is the identification of various factors that are systematically arranged to formulate a company's strategy. This analysis is based on logic that can analyze strengths (Strength) and opportunities (Opportunity) but can simultaneously minimize weaknesses (Weakness) and threats (Threat).

IV. Results and Discussion

4.1. Data Analysis of Green Marketing Implementation in Fish Cracker Business in Pesisir Village, Besuki District

Applying green marketing in the fish cracker business in Pesisir Village using SWOT analysis. The following are the results of interviews covering SWOT Analysis:

1 Strength

The company's Strengths are superior factors, such as product reliability, special skills, and characteristics that distinguish it from competitors' products. This makes the company more competitive than its rivals. Strengths include resources, expertise, and other advantages that differentiate against competitors. These competencies become key assets that give the company an edge in the market. These strengths can come from internal resources, strong financial conditions, good brand image, leadership position in the market, solid relationships between buyers and suppliers, and various other supporting factors. In the context of applying green marketing to the home industry products of Pesisir Besuki fish crackers, strengths can be seen from the use of fresh and environmentally friendly local raw materials, the production process, which is still partly done traditionally to produce a lower carbon footprint, and the awareness of business actors of the importance of environmental sustainability. In addition, the value of local wisdom and the image of clean and natural products can be a major attraction for consumers who are starting to care about sustainable products. These advantages provide an excellent opportunity to build a strong position in the growing green market. From the interview with Ms. Iseh, it was explained that one of the main strengths of the fish crackers home industry in Pesisir Besuki lies in using fresh fish raw materials caught directly from local fishermen. The fish used, such as jenggelek fish, are carefully selected to ensure the quality of the taste of the crackers produced. The production process also utilizes all fish parts, including the mashed bones, resulting in a nutritious product while minimizing organic waste. This reflects practices that align with green marketing principles, namely raw material efficiency and waste reduction. The proximity of production sites to raw material sources is a significant logistical advantage, as it reduces the need for long-distance transportation that can impact carbon emissions. In addition, the long-term relationship with local fishermen means a stable and sustainable supply chain.

Regarding hygiene, mbak iseh emphasizes maintaining sanitation in the production area, from the steaming kitchen to the production tools that are always washed and stored correctly after use. These practices support the image of a hygienic and quality product, which can be a key selling point if positioned in a green marketing strategy. These strengths show that although the business is small-scale and traditional, natural elements support a green marketing direction.

2 Weaknesses

The company's shortcomings or limitations regarding resources, skills, and abilities can hinder organizational performance. These obstacles come from resource limitations, skills, and capacities that can reduce the company's operational effectiveness. Factors such as facilities, financial conditions, managerial capabilities, marketing expertise, and brand reputation can be the source of these weaknesses. In the context of applying green marketing to the home industry products of Pesisir Besuki fish crackers, some of the weaknesses that may be faced include limited knowledge of business actors about green marketing concepts and strategies, lack of access to environmentally friendly technology, and limited funds to innovate in sustainable packaging or green product certification. In addition, the absence of an optimal waste management system and the lack of environmental awareness in the production process are also obstacles that can hinder the positioning of products in green markets that demand higher sustainability standards.

From the interviews with Mak Ipa, the owner of the fish cracker home industry, and Ms. Iseh, the daughter of the owner of the fish cracker home industry, it can be concluded that several main weaknesses become obstacles in applying green marketing. First, there is a lack of knowledge and understanding of green marketing and environmental sustainability issues, both on the part of business owners and their workers. Due to the limited educational background and the absence of related counseling or training in the surrounding environment, the promotional aspects are carried out simply through WhatsApp and Facebook, using makeshift photos without attractive visual design techniques.

3 Opportunity

Opportunities are various external conditions or situations that can provide benefits and advantages for a business if utilized appropriately. Opportunities can include increasing public awareness of the importance of protecting the environment, changing consumer preferences towards environmentally friendly products, and developing green marketing trends in local and global markets. In addition, government support in the form of MSME empowerment programs and promotion of sustainable products is also a positive gap that can be maximized. By utilizing this opportunity, the fish crackers home industry in Besuki Coast has the potential to increase competitiveness, attract consumers who care about the environment, and expand market reach with a more socially and ecologically responsible business image. From the interview results, Ms. Farida, as the daughter of the fish crackers home industry, also sees a great opportunity in this business. Demand continues to exist, especially ahead of holidays or the holiday season. Even buyers outside the region, such as Malang and Madura, regularly order. The market opportunity is still wide, especially if the fish crackers home industry can expand marketing through social media or cooperation with souvenir shops. Many people like fish crackers, but not many people know about this fish cracker product. So, in the future, these fish crackers can be further improved in terms of promotion, packaging, and quality to compete more widely.

4 Treatment

Threats are external factors that can harm business continuity if not immediately anticipated. Factors such as the emergence of new competitors, slowing market growth, increased bargaining power of consumers or suppliers, technological changes, and new or changing government regulations can all hinder business development, so these threats must be taken seriously. Suppose business actors cannot adjust to sustainable marketing trends or consumer demand for environmentally friendly products. In that case, the business position can be pushed out by more adaptive and innovative competitors. From the interview with Ms. Yul, a fish cracker home industry worker, fluctuations in the price of raw materials such as flour and fish are a real threat to the sustainability of the fish cracker business. Increases in raw material prices directly affect the selling price of the final product, which, if too high, can reduce consumer purchasing power. This is a big challenge for home-based businesses because profit margins can decrease or even experience losses if not appropriately managed. Dependence on volatile primary raw materials is also an obstacle to maintaining price consistency and consumer confidence, especially if products begin to be positioned as environmentally friendly, which is usually associated with certain qualities and added value.

4.2. Analysis of the application of green marketing using the SWOT method in the fish cracker home industry

The application of green marketing in the fish cracker industry in Pesisir Village, Besuki, can be analyzed through a SWOT approach to understand the potential and challenges this business faces more comprehensively. In terms of strengths, this business utilizes local raw materials such as jenggelek fish, purchased daily from fishermen. It applies traditional production processes that are energy efficient and

produce minimal waste. The production location is close to the source of raw materials, maintains cleanliness, and has good relations with local suppliers, which are advantages. Demand from consumers outside the region, such as Malang and Madura, also opens opportunities to expand the market with an environmentally friendly approach. In addition, supporting government programs for sustainable SMEs has excellent potential for development. However, there are several weaknesses, such as the low understanding of business actors on green marketing due to a lack of training, limited education levels, and limited capital and technology to innovate, especially in environmentally friendly packaging. Product promotion is still simple and has not prioritized the value of sustainability. The absence of a structured waste management system and dependence on plastic packaging are also obstacles. Opportunities for implementing green marketing are increasingly open with increasing public awareness of environmental issues, especially among the younger generation and urban consumers. Threats include fluctuations in raw material prices, low environmental awareness in traditional markets, and competition from similar products that apply sustainability principles. By strengthening local advantages, utilizing existing opportunities, and overcoming obstacles through training and collaboration, this fish cracker home industry has the potential to develop green marketing as a sustainable, superior strategy.

4.3. Discussion of the potential application of green marketing in the fish cracker home industry in Besuki coastal village

The potential for implementing green marketing in the fish cracker home industry in Pesisir Village, Besuki, is vast and promising from the production characteristics and locally available resources. Although the company is currently not fully implementing green marketing strategies in a structured manner, naturally and indirectly, the practices carried out by this fish cracker business already reflect the principles of sustainability that are the basis of the green marketing concept. This provides a strong foundation for developing a green marketing strategy that improves product competitiveness and contributes to environmental conservation and local economic empowerment.

One of the main strengths underlying the implementation of green marketing is the use of fresh, local raw materials. One of the primary raw materials used to make crackers is fish, which is obtained directly from fishermen around the coastal village of Besuki Subdistrict, thus ensuring the freshness and quality of the product. The type of fish used, such as jenggelek fish, not only provides a distinctive taste that consumers like, but is also thoroughly processed down to the bones, as researchers have indicated in the interview transcript above that the bones of jenggelek fish are mashed to make dough, thus minimizing organic waste from the production process. This practice reflects efficiency in utilizing natural resources, which is one of the important pillars of green marketing. The production process is still traditional, which can be another added value. Such as using simple equipment and human labor in production stages such as steaming, drying, and packaging, making this process low in emissions and not dependent on fossil fuel-based energy. In addition, the production location of the fish crackers home industry in coastal Besuki, which is close to sources of raw materials such as fish collectors and flour selling stalls, is also a significant logistical advantage. Short distances in the raw material supply chain reduce transportation needs and fuel consumption. The hygiene and sanitation aspects in the production process also concern business actors. Based on the results of interviews with workers and owners, the cleanliness of the production site is carried out regularly, especially after the draining and processing stages. Equipment such as steamers, baking sheets, and stirrers is thoroughly washed and stored correctly. This contributes to product quality and reinforces the image of a hygienic product responsible for consumer health.

Despite the many natural forces in its favor, the home industry still faces several challenges in implementing green marketing optimally. One of the main challenges is the lack of understanding of green marketing concepts among business owners and the workforce. They have not received counseling or training on sustainable business practices, so the existing potential has not been fully utilized. Product packaging still uses conventional plastic due to convenience and cost considerations, even though current consumer trends

are increasingly leading to products with environmentally friendly packaging. However, opportunities for green marketing development are wide open. Consumers, especially from the younger generation and urban communities, are increasingly aware of the importance of protecting the environment and are starting to choose products that demonstrate ecological responsibility. Fish crackers from Pesisir Besuki have great potential to penetrate a broader market with an approach emphasizing sustainability, from raw materials, production processes, to packaging. In addition, support from the government through MSME empowerment programs and the promotion of sustainable local products can be a driving force for change. Suppose this home industry can partner with training institutions, related agencies, or academics. In that case, this business can be upgraded to become a regional flagship product that emphasizes green marketing principles. Small steps such as replacing plastic packaging with biodegradable materials, labeling products with environmental information, and educating consumers about environmentally friendly production practices can be the beginning of a significant transformation in the marketing strategy of this business. With various local advantages and opportunities, the potential for implementing green marketing in the fish crackers home industry in Pesisir Village, Besuki, is very feasible to be developed as a strategic step to increase product added value, expand markets, and create long-term sustainability for business actors and the surrounding environment.

4.4. Supporting and inhibiting factors for the application of green marketing in the home industry

The implementation of green marketing in the fish crackers home industry in Pesisir Village, Besuki Sub-district, is influenced by various internal and external factors. Identifying the supporting and inhibiting factors is an important step in understanding the readiness of the fish crackers business to transform towards sustainable marketing practices. The implementation of green marketing in fish crackers in Pesisir Village, Besuki, has promising opportunities, given several fundamental conditions that support implementing environmentally based marketing strategies. However, this potential cannot be separated from the challenges that must be faced, especially related to business actors' limited resources and technical knowledge. Therefore, to understand the extent to which green marketing strategies can be optimally implemented, it is necessary to examine both the supporting and inhibiting factors.

Regarding supporting factors, the fish crackers business in Pesisir Village has several natural and cultural strengths that strongly support the direction of green marketing development. One of these is using local and fresh raw materials, namely jenggelek fish, purchased directly from local fishermen. This practice ensures the product's freshness and contributes to reducing carbon emissions due to long-distance transportation. The geographical proximity between raw material sources and production sites is a distinct advantage in supporting logistical efficiency and supply chain sustainability. The efficient utilization of raw materials is also a hallmark of the fish cracker production process. All parts of the fish, including bones, are used in making the crackers, so organic waste is minimized. This not only reflects environmental responsibility but also increases the overall nutritional value of the product. In addition, traditional production methods using human labor and manual equipment make the process energy-efficient and low-emission. Although simple, this practice aligns with the principle of environmentally friendly production.

Businesses' awareness of the cleanliness of the production environment should also be appreciated. Equipment and work areas are cleaned regularly, reflecting consumer health and product quality concerns. Long-term relationships with fishermen as raw material suppliers demonstrate a commitment to an inclusive and sustainable local economy, strengthening the product image in the green marketing strategy. In addition, market demand for fish crackers from Desa Pesisir is high, especially from areas such as Malang and Madura. This indicates an opportunity to expand market share, especially in the segment of consumers who are increasingly environmentally conscious.

On the other hand, potential support from the government through MSME empowerment programs and the promotion of sustainable local products are strategic opportunities for developing green marketing if utilized adequately by business actors. However, behind these various strengths, several significant

inhibiting factors still need serious attention. One of the main obstacles is the low knowledge of business actors and the workforce on the concept of green marketing itself. Until now, no special counseling or training has been provided regarding sustainable business practices. This is exacerbated by the relatively low level of education among businesses and workers, most of whom have only attended primary school. This limits their ability to understand and implement innovations, including sustainability. Apart from knowledge, limited technology and capital are also significant challenges. There is no environmentally friendly production or packaging technology at an affordable price that small businesses like this can access. Limited capital also hampers efforts to replace conventional plastic packaging with more environmentally friendly materials. Plastic is chosen because it is readily available and cheap, even though its existence contradicts the spirit of green marketing. In terms of promotion, this business still relies on simple methods such as disseminating information through WhatsApp and Facebook, without a visual communication strategy emphasizing the value of product sustainability. This makes efforts to build an environmentally friendly product image that is not optimal in the eyes of consumers. Another important issue is the absence of a structured waste management system, although organic waste is relatively minimal. Non-organic production residues, such as used plastic or wrapping waste, have not been managed systematically. Finally, fluctuations in the price of raw materials such as fish and flour are also obstacles to maintaining the consistency of product selling prices. If the price of raw materials rises, the product price is forced to increase, which can reduce competitiveness, especially in markets that prioritize ecological value but are still price sensitive. Considering the various supporting and inhibiting factors, implementing green marketing in fish crackers in Pesisir Village, Besuki, requires support from various parties, including the government, academics, and non-governmental organizations, to provide training, technological assistance, and access to markets that support sustainability. Finally, the discussion section should acknowledge the study's limitations and highlight any unresolved questions or areas for future investigation.

V. Conclusion

The fish cracker home industry in Pesisir Village, Besuki District, holds significant potential for applying green marketing principles. This is evident from the existing production practices that naturally align with sustainability values, such as using locally sourced raw materials, energy-efficient traditional production methods, and the optimal utilization of fish to minimize waste. These practices provide a strong foundation for integrating environmentally friendly marketing strategies. However, further efforts are needed in areas such as education for business actors, innovative and eco-friendly packaging development, and more strategic promotional activities emphasizing sustainability to enhance competitiveness and ensure long-term business sustainability. Despite this potential, several inhibiting factors present challenges to the effective implementation of green marketing. These include the low levels of education and limited environmental awareness among business actors, constraints in capital and technology, and continued reliance on plastic packaging. Additionally, current promotional efforts remain basic and often lack a straightforward sustainability narrative—the absence of substantial government support further hampers progress. Therefore, collaborative efforts among stakeholders- local businesses, government agencies, and community organizations- are essential to facilitate a successful transition toward more sustainable and environmentally conscious marketing practices.

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