Case Study of Operational Implementation of Fast Moving Consumer Goods Product Waste Management

ABSTRACT

Improving brand image in the market is a crucial aspect for companies seeking to innovate their business, including fast-moving consumer goods (FMCG) companies that operate in a highly dynamic business environment. Significant risks arise if food and beverage waste is not managed safely, especially products that are no longer fit for consumption in terms of quality control and safety. This study aims to analyze how waste management companies can handle FMCG products that are returned to the market (market returns). The method used is qualitative descriptive, systematically and thoroughly illustrating waste management that can be utilized, for instance, as animal feed.The purpose of the study was to determine how Waste Management Companies can manage Market Return products. The research method used is descriptive qualitative to describe clearly, systematically and accurately how to manage fixed waste into waste that can be used as animal feed. Implementing safe and innovative waste disposal practices for market returns in the FMCG sector not only minimizes environmental risks but also enhances brand image and operational efficiency. Further research is needed to establish regulatory frameworks and optimize resource utilization for waste repurposing.

Keywords: *Fast-Moving Consumer Goods, Market Returns, Waste Management, Quality Control, Safe Disposal, Sustainability, Animal Feed Repurposing*

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1. INTRODUCTION

Sustainability Strategies in the Fast-Moving Consumer Goods (FMCG) Industry

The FMCG industry holds immense potential for advancing renewable energy, particularly through innovative waste management solutions such as transforming sawdust into biofuel pellets. This approach addresses the dependency on fossil fuels while mitigating environmental impact.

Sustainable Strategies for FMCG
Efforts to enhance sustainability in FMCG production and distribution include:

1. **Eco-Friendly Materials**: Shifting from plastics to biodegradable alternatives such as cloth bags, bamboo, and refillable containers.
2. **Renewable Energy**: Utilizing solar panels, wind power, and biofuels to energize operations and transportation fleets.
3. **Sustainable Supply Chain Practices**: Enhancing collaboration between suppliers and retailers, optimizing logistics to reduce environmental footprints.
4. **Circular Economy**: Minimizing waste and encouraging resource reuse through sustainable economic models.
5. **Stakeholder Collaboration**: Engaging communities, NGOs, and governments to promote responsible resource management, such as water conservation.

These initiatives support long-term sustainability and lower environmental impact in FMCG operations.

Characteristics of FMCG Products
FMCG products, including packaged food, beverages, toiletries, and cosmetics, are defined by their high turnover and affordability. They often have a short shelf life, emphasizing the need for efficient production, distribution, and waste management. Key FMCG producers in Indonesia include Nestle, Unilever, Indofood, Garuda Food, and Ultra Jaya, among others.

Market Return Management Challenges
Market return management is critical for maintaining brand reputation and environmental responsibility. Challenges include discrepancies in shipment documentation, improper waste disposal risks, and ensuring that expired products are securely destroyed. Mismanagement of these products can lead to reputational damage if compromised products reach consumers.

Proposed Solutions:
1. Implementing a barcode-based calculation system integrated with a web-based monitoring application for real-time, accurate tracking of market returns.
2. Collaborating with third-party waste management companies to process expired goods into raw materials or alternative fuels, such as in the cement industry.

Case Study: Waste in the Garment Industry
Preliminary observations in household garment production identified waste from overproduction and defects as a significant challenge. Utilizing focused questionnaires and systematic observations can help quantify and address waste management issues.

Conclusion
The FMCG industry can play a pivotal role in advancing sustainability through innovative waste management, eco-friendly practices, and renewable energy adoption. Efficient market return management and collaboration with stakeholders ensure reduced environmental impact and strengthened brand reputation. This approach not only aligns with global sustainability goals but also sets a benchmark for other industries to follow.
This study underscores the need for an integrated approach to manage market returns and production waste, highlighting the importance of technology and collaboration in achieving sustainability objectives.

Product Innovation
According to Kotler and Keller (2009), innovation encompasses new products, services, ideas, and perceptions. Innovation is defined as any product or service that consumers perceive as novel. In simpler terms, innovation can be seen as a breakthrough related to the creation of new products.
However, Kotler also emphasizes that innovation extends beyond the development of new products or services. It includes new business ideas and processes, serving as a critical mechanism for companies to adapt to dynamic environments. Businesses are therefore encouraged to generate fresh ideas and innovative products while delivering exceptional service to customers. Innovation is increasingly vital not only for ensuring business sustainability but also for gaining a competitive edge.
Setiadi (2010) identifies five key characteristics of innovation:
1. **Relative Advantage**: The primary question to assess a product's potential success is whether it offers a significantly greater advantage than the product it replaces.
2. **Compatibility**: This refers to how well a product aligns with existing values and the past experiences of potential users, significantly influencing the acceptance of new products.
3. **Complexity**: The perceived difficulty in understanding and using an innovation affects its adoption. The more complex a product, the harder it is to gain user acceptance.
4. **Trialability**: The degree to which an innovation can be tested or tried before full commitment. Products that allow consumers to experiment in real conditions are generally adopted more quickly. To accelerate adoption, the product must demonstrate its advantages.
5. **Observability**: The extent to which the benefits or results of using an innovation are visible to others. Innovations with easily observable results are more likely to be adopted, as visibility and ease of communication help showcase their effectiveness to peers and communities.

In summary, successful innovation involves creating products or ideas that provide clear benefits, align with user values, are easy to adopt, and offer tangible advantages that can be demonstrated and observed. These factors collectively determine the speed and likelihood of adoption by consumers.

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2. MATERIAL AND METHODS

This study uses a qualitative descriptive method by seeking data on how to manage fast-moving consumer goods waste. Qualitative research is used to understand social phenomena that occur from the perspective of participants. Participants are people who are interviewed, observed and asked to provide opinions, data, thoughts and perceptions. Respondents in this study were the operational managers of PT. Karya Kita Jaya in Purwakarta city, Cinangka village. The initial observation step was to find out what was managed by the waste company, and the uses of the waste that had been managed. Then, data was taken at will to make it easier for researchers and to select respondents randomly. This study took a sample of 6 respondents. These respondents were interviewed with several questions and then the results of the interviews were recorded, documented, and analyzed. Furthermore, the answers between respondents were compared to reach conclusions regarding the processing of industrial waste that had been carried out.

Theoretical Framework, Basic Thinking and Research Hypothesis are as follows:

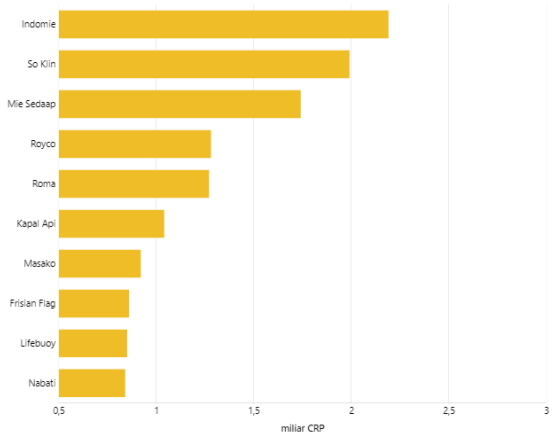
Theoretical Framework works In this final research assignment, the following theoretical framework can be put forward:

1. Fast Moving Cunsomer Goods (FMCG) products;
2. FMCG Product Producing Companies
3. Destruction Process as a basis for maintaining the Brand Image of FMCG Companies;

Meta data
Interviews or interviews are one form of interpersonal communication which is a form of direct communication without the intermediary of individual media, in this case the role of speaker and listener is done alternately, and often these roles are combined. Interviews are a dyadic communication process with serious intent and purpose, designed for the exchange of behavior and involving a question and answer process. What is meant by the process in this case is the occurrence of a dynamic process alternately with several variables involved where the degree of the system/structure is not too certain (flexible). While what is meant by dyadic is an interview or interview is an interaction between two parties (individual to individual) no more than two parties, namely the interviewer and the interviewe.

3. RESULTS AND DISCUSSION

Table 1. Most searched companies in Indonesia (2022)



Source: Databox, 2022

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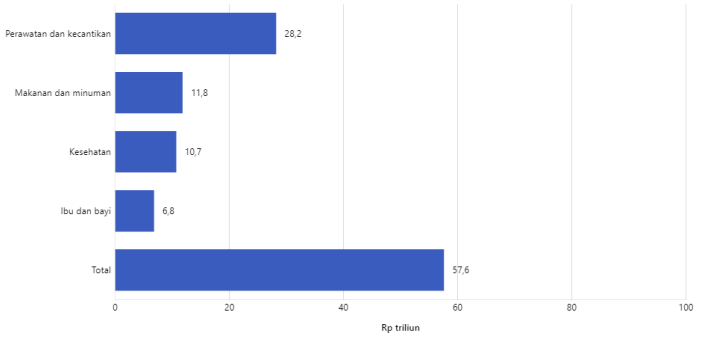

List 1 : the most sought after FMCG products in Indonesia

Source: Databox, 2023

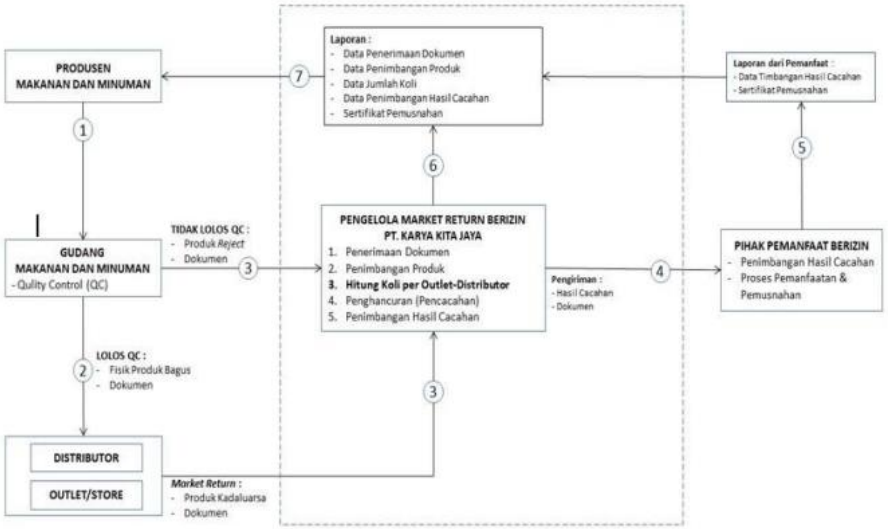

Fig 1 : Flow Diagram of Business Process of FMCG Product Market Return Management

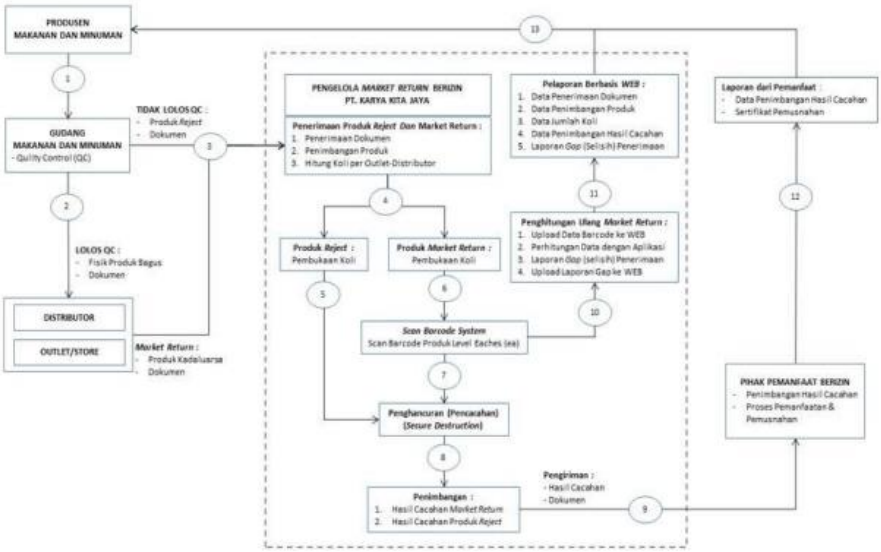

Fig 2 : Framework for Thinking in Designing a System for Market Return Acceptance of FMCG Products Using a Web-based Barcode System

Hypothesis Framework

Main Hypothesis:

1. Implementation of effective FMCG waste management can reduce environmental impacts.
2. The use of environmentally friendly technology in FMCG waste management can increase operational efficiency.
3. Community involvement and environmental awareness influence the success of FMCG waste management.

Specific Hypothesis:

1. The use of an integrated waste management system can reduce waste volume by 30%.
2. The application of recycling technology can increase the economic value of waste by 25%.
3. Environmental training and awareness can increase community participation in waste management by 40%.
4. Implementation of an effective waste management system can save operational costs by 20%.

Research Variables:

1. Independent variable: Implementation of FMCG waste management.
2. Dependent variables: Environmental impact, operational efficiency, economic value of waste.
3. Moderating variables: Community involvement, environmental awareness.
4. Control variables: Type of waste, waste management technology.

Research methods

1. Case study: Analysis of FMCG waste management implementation in a specific company.
2. Survey: Collecting data from the public and company employees.
3. Interviews: Collecting data from stakeholders.
4. Data analysis: Descriptive statistics, regression analysis, SWOT analysis.

4. CONCLUSION

Implementing safe and innovative waste disposal practices for market returns in the FMCG sector not only minimizes environmental risks but also enhances brand image and operational efficiency. Further research is needed to establish regulatory frameworks and optimize resource utilization for waste repurposing.

DEFINITIONS, ACRONYMS, ABBREVIATIONS

- FMCG: Fast Moving Cunsomer Goods
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COMPETING INTERESTS DISCLAIMER:
Authors have declared that they have no known competing financial interests OR non-financial interests OR personal relationships that could have appeared to influence the work reported in this paper.

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