Enhancing Competitive Edge: Green Commerce and Digital Marketing Implementation in Supply Chain Industry

Iqbal Ramadhani Mukhlis

1Department of Informatics, Universitas Hayam Wuruk Perbanas, Surabaya, Indonesia
e-mail: iqbal.ramadhani@perbanas.ac.id

* Corresponding Author: E-mail: iqbal.ramadhani@perbanas.ac.id

ARTICLE INFO

Received: March 25th, 2024
Accepted: April 24th, 2024
Published: July 2nd, 2024

Keywords:
Business Digital; Digital Marketing; Green Commerce; Supply Chain Management

ABSTRACT

Green business or sustainable business includes sustainable operational activities, using environmentally friendly materials, producing minimal waste products, managing labor sustainably, and responsible delivery methods. The goal of sustainable business is to eliminate negative impacts on the environment, both on a local and global scale. PT. Abaka Supply Chain is a company operating in the supply chain sector in Indonesia which has long been dedicated to providing the best solutions in renewable fuels. This company is known for its commitment to environmentally friendly business with the production of Biomass Wood Pellets. The application of Green Commerce is the main focus in research, with a focus on environmentally friendly practices that can be implemented in industrial supply chains. This research is included in the applied research category because it uses a qualitative descriptive analysis methodology to provide practical findings that are relevant to digital marketing. Additionally, the Digital Marketing aspect involves implementing online marketing strategies, optimizing social media, and how to approach the market efficiently through digital platforms. Integrating Green Commerce and Digital Marketing can provide valuable insight, as well as being an important milestone in advancing the industry towards a more sustainable and highly competitive future.

Introduction

In this era of globalization, the supply chain industry has become one of the main pillars in strengthening company competitiveness in an increasingly complex and dynamic market [1]. Increasing competitive advantage has become the main focus for companies to maintain their position amidst intense competition [2]. In this context, an approach that continues to develop is through the use of environmentally friendly trade and the implementation of digital marketing strategies. Environmentally friendly trade has become an increasingly urgent issue in a global context that is increasingly concerned about the environment. Companies that are able to integrate sustainable and environmentally friendly trading practices into their supply chains have the potential to gain significant competitive advantage [3].
PT. Abaka Supply Chain, a supply chain management company, faces significant challenges in adopting and integrating digital marketing strategies to strengthen its position in an increasingly competitive market. The company faces several problems in terms of digital marketing [4]. First, there is a lack of deep understanding of how to effectively exploit the potential of digital marketing. PT. Abaka Supply Chain may not yet fully understand the various digital platforms available and how to optimize their use to reach the target audience efficiently. Second, there is a lack of skilled human resources in managing and implementing digital marketing strategies. The rapid development of information technology requires special skills in managing successful digital campaigns. PT. Abaka Supply Chain may face difficulties in recruiting or training staff who have the required skills and experience in this regard. To overcome these problems, PT. Abaka Supply Chain needs to implement a number of targeted and effective solutions. First, companies can consider holding regular training and workshops to increase staff understanding of digital marketing and develop the necessary skills. Second, PT. Abaka Supply Chain can establish strategic partnerships with leading digital marketing agencies or contract independent digital marketing experts to help design and execute effective marketing campaigns. This can provide access to deeper knowledge and experience in managing digital marketing strategies.

Meanwhile, the application of digital marketing has fundamentally changed the business landscape, allowing companies to reach a wider audience more cost-efficiently, as well as providing deeper insights into consumer behavior [5]. However, although there is an understanding of the importance of green commerce and digital marketing in context of increasing competitive advantage, there is still a research gap in understanding how the integration of these two aspects can have a significant impact on the supply chain industry. Therefore, this research aims to investigate and analyze the relationship between green trade and the application of digital marketing in the context of increasing competitive advantage in the supply chain industry. By understanding the dynamics of the interaction between green trade and digital marketing, it is hoped that this research can provide valuable insights for business practitioners and academics in designing more effective strategies to strengthen companies' competitive positions in an ever-changing global market. Through this approach, it is hoped that it can encourage the creation of more sustainable business practices and make a positive contribution to environmental preservation and inclusive economic growth.

Literature Study

1. Green Commerce

Green commerce is a term used to refer to trade or business activities carried out by considering their impact on the environment and trying to minimize their footprint. The green commerce concept emphasizes the importance of considering environmental aspects in business decisions and integrating sustainability principles into the processes of production, distribution and consumption of goods and services. This is in line with global efforts to reduce pollution, preserve biodiversity, reduce greenhouse gas emissions and improve the ecological balance of our planet.
2. Supply Chain Management

Supply Chain Management (SCM) is a systematic approach to managing the flow of goods and services from start to finish, from raw materials to finished products delivered to end consumers. The main goal of Supply Chain Management is to ensure operational efficiency, optimize costs, increase customer satisfaction, and minimize production cycle times. This involves good coordination between various parts of an organization as well as between different organizations in the supply chain.

3. Digital Marketing Strategy

A digital marketing strategy is a plan designed to utilize various digital channels and online technologies to achieve the marketing goals of a company or brand. Includes the use of digital platforms and tools such as websites, social media, email, search engines, digital content and others to increase brand visibility, create customer engagement and generate sales or conversions. Digital marketing strategies must be tailored to specific business goals, target markets, and available resources, and continually updated and adjusted according to changes in technology trends and online consumer behavior [6].

Research Methods

Because it uses qualitative descriptive analysis research methodologies to provide practical findings relevant to digital marketing that may be implemented more widely, this study falls under the applied research category. Research conducted to examine, identify, and characterize a phenomenon that takes place at PT. Abaka Supply Chain is known as qualitative descriptive research. Primary data for technical data collecting comes from observations and interviews. In the meantime, secondary data was gathered from earlier studies that were pertinent to the investigation that was done, as seen in Figure 1.

Figure 1. Collecting Data Methodology
1. Primary Data

Interview Method

Asking target informants questions and receiving their answers is the process of conducting interviews to gather data for research [7]. In order to enable thorough and understandable data collection, the interviews used in this study were systematic, meaning that pre-planned questions were asked of the participants. The interview procedure is conducted directly at PT. Abaka Supply Chain once preliminary work, including selecting the target source and creating a set of questions, has been completed.

Table 1. Questions during the Interview Session

<table>
<thead>
<tr>
<th>No</th>
<th>Interview Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>How long does PT. Abaka Supply Chain is already established and carrying out production activities?</td>
</tr>
<tr>
<td>2</td>
<td>What products you produce and sell?</td>
</tr>
<tr>
<td>3</td>
<td>How do you get raw materials for production?</td>
</tr>
<tr>
<td>4</td>
<td>How PT. Abaca supply chain manages waste and becomes a zero-waste company?</td>
</tr>
<tr>
<td>5</td>
<td>How is the product promotion that you have done?</td>
</tr>
<tr>
<td>6</td>
<td>What have been the obstacles so far in marketing wood pellet products?</td>
</tr>
<tr>
<td>7</td>
<td>How do you overcome problems if they occur in the wood pellet production process?</td>
</tr>
<tr>
<td>8</td>
<td>What are your hopes for the future for your business?</td>
</tr>
</tbody>
</table>

Observation Method

Observation is the process of making observations about study subjects [8]. The observations gathered in this study included an analysis of the marketing strategies employed and the supply chain system or procedures that PT. Abaka Supply Chain has put in place. It is anticipated that researchers will learn more about the degree of efficacy of the marketing plan that PT. Abaka Supply Chain will employ thanks to the findings of these observations.

2. Secondary Data

Literature study involves gathering information from earlier studies that is pertinent to the research that will be done. Secondary data is used in this study through analyses of company reports, books, and evaluations of earlier research publications [9].

Interviews, observations, and completed literature research are used as data gathering methods. Data collection and analysis are then completed, along with summaries of the previously examined data results [10].

Results and Discussion

Research Result

Based on the results of interviews and observations in the field, PT. Abaka Supply Chain, a company engaged in the production and distribution of biomass wood pellets, has successfully implemented the Green Commerce concept as the main foundation in their operations. With a focus on sustainability and environmental responsibility, the company has formed a strategy aimed at reducing environmental impacts and supporting sustainable economic growth. One of the steps taken by PT. Abaka Supply Chain ensures that the raw materials used for wood pellet production come from
sustainable sources and are well managed. They work with suppliers who have responsible planting and harvesting practices, which helps maintain the sustainability of forests and ecosystems. In addition, PT. Abaka Supply Chain has invested in environmentally friendly technology and production processes. They use the latest technology to minimize greenhouse gas emissions and waste in the production process, as well as optimize energy efficiency to reduce the environmental impact of their operations[11].

Digital Marketing Strategy

Figure 2. Integrated Digital Marketing in Abaka Supply Chain
(Source: PT. Abaka Supply Chain Documentation)

PT. Abaka Supply Chain has its own digital marketing strategy that is integrated with each other that has been shown in Figure 2. There are nine integrated digital marketing in PT Abaka Supply Chain, such as search engine optimization, social media marketing, content marketing, email marketing, online advertising, landing page marketing, mobile marketing, affiliate marketing, and viral marketing.

1. Search Engine Optimization (SEO)

PT. Abaka Supply Chain has successfully implemented an effective Search Engine Optimization (SEO) strategy to increase their online visibility and visibility. By utilizing the best SEO techniques, companies have succeeded in optimizing the ranking of their websites in major search engines such as Google, Bing, and Yahoo [12].
Through careful keyword research and quality content optimization, PT. Abaka Supply Chain has been successful in targeting keywords relevant to their industry that has been shown in Figure 3. They ensure that their website is optimized for the keywords most searched for by their potential customers, thereby increasing the chances of their site appearing on the first page of search results. Additionally, companies also optimize their websites’ technical factors, including page loading speed, SEO-friendly URL structure, and proper use of meta tags.

2. Social Media Marketing (SMM)

PT. Abaka Supply Chain has successfully implemented an effective Social Media Marketing (SMM) strategy on the Instagram platform, leveraging the power of visuals and user engagement to strengthen their brand and increase interaction with their audience.
the performance of their posts and continuously optimize their strategies based on data analysis to achieve optimal results.

3. **Content Marketing**

PT. Abaka Supply Chain has strengthened their online presence through smart Content Marketing strategies oriented towards providing added value to their audience. Understanding that quality and relevant content is the key to attracting attention and retaining followers, the company has developed various types of informative and inspiring content [13].

![Figure 5: Content Marketing](Source: PT. Abaka Supply Chain Documentation)

Their Content Marketing strategy includes a variety of formats, including blog articles, infographics, guides, case studies, and videos that have been shown in Figure 5. This content not only educates, but also entertains and inspires audiences, making them more likely to interact and share.

4. **Email Marketing**

By utilizing their well-organized customer database, PT. Abaka Supply Chain Designs Email Marketing campaigns to suit individual preferences and needs. They send relevant content, such as special offers, product updates, and informative content, to their customers on a regular basis [14].

![Figure 6: Email Marketing](Source: PT. Abaka Supply Chain Documentation)
PT. Abaka Supply Chain also optimized the design and structure of their emails to ensure an attractive and easy-to-read appearance across a variety of devices that has been shown in Figure 6. They use clear and compelling calls to action to encourage customers to take desired actions, such as visiting a website, following on social media, or making a purchase.

5. **Landing Page Marketing**

PT. Abaka Supply Chain has successfully implemented an effective Landing Page Marketing strategy to increase conversions and drive quality traffic to their website. By understanding the importance of an optimized landing page, the company has designed and optimized landing pages that are attractive and persuasive [15].

![Landing Page Marketing](Source: PT. Abaka Supply Chain Documentation)

They ensure that the message conveyed on the landing page matches the specific campaign or offer being promoted that has been shown in Figure 7. This helps in conveying a consistent message and makes visitors more likely to take the desired action. Additionally, PT. Abaka Supply Chain uses engaging visual elements and clear, compelling calls to action to encourage visitors to take action. They also conduct regular A/B testing to optimize their landing page performance, including conversion rates and visitor retention rates.

6. **Mobile Marketing**

PT. Abaka Supply Chain has made smart use of Mobile Marketing via Google Maps to increase their visibility in the local market. By focusing on strategies that leverage the power of navigation and local search, companies have succeeded in creating engaging experiences for users searching for the services or products they offer [16].
One of the important steps taken by PT. Abaka Supply Chain is optimizing their business profile on Google My Business that has been shown in Figure 8. They ensure that information such as addresses, telephone numbers and operating hours listed on Google Maps is accurate and up to date. This helps potential customers find and contact companies easily when they conduct local searches.

7. **Affiliate Marketing**

PT. Abaka Supply Chain has successfully implemented Affiliate Marketing strategies as an integral part of their marketing efforts. Within this framework, the company has established partnerships with a number of relevant affiliate partners in their industry.

Apart from that, PT. Abaka Supply Chain also develops attractive incentive programs for affiliate partners, such as sales commissions or performance-based bonuses that has been shown in Figure 9. This provides additional motivation for affiliate partners to actively promote the company’s products or services.

8. **Viral Marketing**

Leveraging TikTok’s popularity as a short video sharing platform, the company has created unique and engaging content to reach a wider audience. They pick trends or challenges that are going viral on TikTok and combines them with their brand message in clever and creative ways [17]. The content they create is not only entertaining, but also contains elements that indirectly promote their products or services.
Apart from that, PT. Abaka Supply Chain also invites user participation by challenging them to create and share content related to their brand that has been shown in Figure 10. This creates a greater viral effect, where users are actively involved in spreading the brand message through sharing and creating their own content.

**Supply Chain Management of Wood Pellets**

The wood pellet production process involves several stages which include collecting raw materials, preparing raw materials, drying, grinding, mixing, pelletizing, cooling, filtering and packaging that has been shown in Figure 11. The following is the general flow of the wood pellet production process: 1) **Raw Material Collection** - The raw material for wood pellets usually comes from wood waste, sawdust, wood chips, or other biomass materials. These raw materials are collected from sources such as wood...
processing factories, forests, or wood waste from other industries. 2) **Drying** - The prepared raw materials are then dried to reduce the water content. Drying is carried out using a drying device such as a rotary dryer or conveyor dryer until it reaches a humidity level suitable for the next process. 3) **Milling** - The dry raw materials are then ground into fine powder using a grinding machine. The milling process aims to produce wood powder with a consistent particle size and in accordance with specifications for making pellets. 4) **Mixing** - The ground wood powder is then mixed with additional materials such as adhesive or other binding materials to help the palletization process. This mixture is fed into a mixer or mixer to achieve even distribution.

5) **Palletization** - The raw material mixture is then fed into the pelletizing machine that has been shown in Figure 12. In this machine, raw materials are compressed and processed into dense and compact pellets through pressure and heat. Pellets are usually formed using molds and dispensed in the form of small cylinders. 6) **Cooling** - The newly made pellets are then cooled to reduce their temperature before further processing or packaging. Cooling can be done using an air cooling or water-cooling system. 7) **Filtering** - After cooling, the pellets may go through a filtration process to remove any unwanted dust or powder that may have formed during the production process. 8) **Packaging** - Pellets that have been produced are then packaged in suitable packaging for distribution and sale. Packaging can be plastic bags, mil bags, or other packaging according to customer preferences or market requirements.

**Analysis Implementing Digital Marketing**

Implementation of digital marketing at PT. Abaka Supply Chain made changes to their marketing strategy. After implementing a digital marketing strategy, they have begun to be known by the wider community through their many digital platforms.

<table>
<thead>
<tr>
<th>Media</th>
<th>Before</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td>Search Engine Optimization (SEO)</td>
<td>No Available</td>
<td>Number 1 in Google Search</td>
</tr>
<tr>
<td>Social Media Marketing</td>
<td>No Available</td>
<td>Instagram, Facebook</td>
</tr>
<tr>
<td>Content Marketing</td>
<td>No Available</td>
<td>Instagram Ads</td>
</tr>
<tr>
<td>Email Marketing</td>
<td>No Available</td>
<td>Gmail</td>
</tr>
<tr>
<td>Online Advertising</td>
<td>Whatsapp</td>
<td>Whatsapp, Google My Business</td>
</tr>
<tr>
<td>Landing Page Marketing</td>
<td>No Available</td>
<td>Website Landing Page</td>
</tr>
<tr>
<td>Mobile Marketing</td>
<td>Whatsapp Business</td>
<td>Whatsapp, Google Maps</td>
</tr>
</tbody>
</table>

**Figure 12. Process and Flow of Making Wood Pellets**
(Source: PT. Abaka Supply Chain Documentation)
Based on Table 2, this is proven by the 9 strategies implemented, as many as 7 are adaptations to the application of new technology that did not previously exist. This will help in their marketing strategy.

### Analysis of Satisfaction implementing Digital Marketing

<table>
<thead>
<tr>
<th>Media</th>
<th>Before</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affiliate Marketing</td>
<td>No Available</td>
<td>Brochure</td>
</tr>
<tr>
<td>Viral Marketing</td>
<td>No Available</td>
<td>Tik Tok</td>
</tr>
</tbody>
</table>

Analysis of Satisfaction implementing Digital Marketing

Table 3. User Satisfaction After Implementing Digital Marketing

<table>
<thead>
<tr>
<th>Media</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Search Engine Optimization (SEO)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>Social Media Marketing</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>Content Marketing</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>Email Marketing</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>Online Advertising</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>Landing Page Marketing</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>Mobile Marketing</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>Affiliate Marketing</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>Viral Marketing</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2,22</td>
<td>7,78</td>
<td>10</td>
</tr>
</tbody>
</table>

This analysis was carried out based on Table 3, which a questionnaire distributed to 10 workers who worked at PT. Abaka Supply Chain. The results of the questionnaire stated that employee satisfaction in implementing digital marketing was quite high. This is evidenced by the average score showing a score of 5 (very satisfied) of 7.78, an average score of 4 (satisfied) of 2.22 and the average score showing a score of 3 (quite satisfied), 2 (not satisfied), and 1 (very dissatisfied) as 0.

### Conclusion

PT. Abaka Supply Chain is a company engaged in the production and sale of wood pellets. The implementation of green commerce has been implemented with a focus on sustainability and environmental responsibility, the company has formed a strategy aimed at reducing environmental impacts and supporting sustainable economic growth.

Digital media-based marketing strategies have been implemented but only 1 has been implemented, namely WhatsApp business. By implementing a digital marketing strategy, there are 9 new aspects that are starting to be implemented. With the digital marketing strategy implemented, it is hoped that the marketing of wood pellet products at PT. Abaka Supply Chain can run more optimally.

User satisfaction in implementing digital marketing is quite high, this is proven by the user satisfaction score of 2.22 for satisfied and 7.78 for very satisfied.

Hopes for further research are: 1). The digital marketing optimization model used by PT. Abaka Supply Chain can be implemented sustainably so that its success can be measured in the next five years; 2). Further research can collaborate or combine with other models so that maximum results can be obtained in optimizing digital marketing.
in industry; and 3). Increasing the company's ability to maximize marketing strategies with a wider scope.

References


