

## Analysis of Development through Digital Marketing in Technology 4.0 Era at 'Laksana Berkah' Potato Seed House

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**ABSTRACT:** This research aims to develop a digital marketing strategy to enhance the market potential of potato seedlings at 'Laksana Berkah Potato Seed House' in Pulosari Village, Bandung Regency. The study will explore digital innovations and technologies to optimize agricultural product marketing, particularly potato seedlings, leveraging the Technology 4.0 era. As a producer and distributor of quality potato seedlings, 'Laksana Berkah Potato Seed House' faces challenges in effective marketing. The research will investigate digital marketing strategies, including e-commerce platforms, social media, websites, and mobile applications, to expand market reach and improve efficiency. Additionally, the potential of technologies such as big data analytics, artificial intelligence, and marketing automation will be explored to enhance marketing strategy effectiveness. The study will also consider the socio-economic impact of digital marketing implementation on local farmers and the regional economy. The findings are expected to offer strategic recommendations for 'Laksana Berkah Potato Seed House' and contribute to enhancing the competitiveness of the local agricultural sector in Bandung Regency.

**Keywords:** Digital Marketing Strategy; Potato Seedlings; Technology 4.0.



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## INTRODUCTION

Agriculture is one of the crucial sectors in Indonesia's economy, as a significant portion of the population relies on it for livelihoods (Garrett et al., 2018; Garriga et al., 2019; Xue et al., 2020). One promising agricultural commodity for development is potatoes. Potatoes not only serve as a staple food but also hold high economic value both domestically and internationally. In Kabupaten Bandung, particularly in Desa Pulosari, Kecamatan Pangalengan, there is the 'Laksana Berkah' Potato Seed House focusing on breeding and developing high-quality potato seeds.

West Java is one of Indonesia's provinces that has prioritized potatoes as a crop for cultivation. It ranks second after Central Java as Indonesia's potato production center from 2012 to 2016, with

a production increase over the last three years from 2014 to 2016. This underscores West Java's potential in expanding potato production, supported by favorable climatic conditions and requisite potato cultivation prerequisites .

Despite its potential, marketing agricultural products, including potato seeds, faces various challenges (Barak & Mualam, 2022; Larue & Petit, 2023; Sammis, 2017). These include limited market access, farmers' low awareness of modern marketing technologies, and intense competition both domestically and internationally. The advent of Industry 4.0 and digital technology offers significant opportunities to overcome these challenges. Digital technologies enable farmers and agricultural stakeholders to market their products more widely, efficiently, and effectively through various digital platforms.

The potato seed business at 'Laksana Berkah' faces several marketing challenges in the Technology 4.0 era. As a producer of high-quality potato seeds, the company must navigate the complexities of digital marketing to effectively reach and engage with potential customers (Drummond et al., 2020; Harlon, 2019; Liyanaarachchi et al., 2021; McGruer, 2020; Yaiprasert & Hidayanto, 2023). One key problem is the need to effectively communicate the superior quality and suitability of their potato seeds compared to other options available in the market. Establishing a strong online presence and leveraging digital channels to showcase the product's material quality and suitability for use is crucial. Additionally, the company must address concerns about the perception of used goods, as consumers may be wary of purchasing secondhand potato seeds. Effectively marketing the value and reliability of their products, despite being used, is essential to driving sales and building customer trust in the digital landscape (Carr et al., 2023; Lange et al., 2023a, 2023b). Furthermore, it is imperative for 'Laksana Berkah' to implement a robust digital marketing strategy that emphasizes product quality, utilizing platforms such as social media to enhance visibility, offer promotional incentives that attract consumers, and provide detailed information about the superior features and benefits of their potato seeds (Al Adwan et al., 2023; Kingsnorth, 2019; Rustholkarhu et al., 2022). This multifaceted approach would not only help the company overcome the marketing challenges posed by the Technology 4.0 era, but also enable it to effectively showcase the exceptional quality and suitability of its potato seeds, ultimately driving increased sales and building a strong customer base in the digital marketplace (Borden et al., 2017; van der Bend et al., 2022; Weber et al., 2021).

According to Kotler (2008), Marketing is the process of meeting human needs and wants through exchange processes to enrich this definition is explained in terms: needs, wants, demands, products, exchanges, transactions, and markets. Market structure, behavior, and performance are approached to solve specific problems, especially in agricultural product marketing

According to Shanty Permata Sari (2020), there are 5 indicators that can elaborate on marketing strategies to increase sales, which are used, including ease, efficiency, price, flexibility, payment methods and good service. According to Bambang and Diaz (2020), meanwhile, online shopping trends and digital marketing can be opportunities for manufacturers to welcome the era of the fourth industrial revolution. Online shopping or some other online shopping activities become a new lifestyle for internet users.

The importance of digital marketing, digital marketing has proven to be able to increase market reach and efficiency in various industrial sectors, including agriculture (Bassano et al., 2019; Watini et al., 2022). Through digital marketing, agricultural products can be promoted and sold online, reaching a broader consumer base without geographical limitations. Additionally, digital marketing enables direct interaction with consumers, provides more transparent product information, and builds closer customer relationships.

## **METHOD**

The researchers will employ a qualitative research method. This process involves crafting research questions and temporary procedures for data collection in participant settings, conducting inductive data analysis, organizing partial data into themes, and subsequently interpreting the meaning of the data. The final activity involves compiling a report in a flexible structure.

This qualitative research method will utilize in-depth interviews as the interviewing technique, employing snowball sampling for data collection. The qualitative research process consists of three stages:

### **1. Orientation or Description Stage:**

In this stage, the researcher describes what is seen, heard, felt, and asked.

### **2. Reduction/Focus Stage:**

Here, the researcher reduces all the information obtained in the first stage. During this reduction process, the researcher sifts through the data found in stage 1 to focus on specific issues. In this stage, the researcher sorts the data by selecting which data is interesting, important, useful, and novel.

### **3. Selection Stage:**

In this stage, the researcher elaborates on the established focus in more detail. The research object will be conducted at the 'Laksana Berkah' Potato Seed House.

For data collection, the research will utilize documents, archival recordings. Regarding data analysis techniques, the study will employ the interactive qualitative model from Miles and Huberman (2014), consisting of data reduction, data display, and conclusion drawing or verification, which interactively relate during and after data collection. Data analysis is conducted throughout the research process, as a characteristic of qualitative research paradigm.

To test the validity of the data obtained to ensure it aligns with the research objectives and purposes, the study will use triangulation techniques, comparing and checking data reduction, data presentation, conclusion drawing, and verification degrees back to the trustworthiness of information obtained through different qualitative time and tool checks. Checking the validity of the data, besides being used to refute the allegations made against qualitative research saying it is not scientific, is also an inseparable element of the body of qualitative research knowledge. Data validity is conducted to prove whether the research conducted is scientific research as well as to

test the data obtained from direct observation interviews, participant observations, and physical devices.

## **RESULT AND DISCUSSION**

Developing the potential market for potato seeds through digital marketing in the Technology 4.0 era at the Laksana Berkah Potato Seed House presents a significant opportunity to expand the company's reach and customer base. Currently, the company's marketing efforts are limited to conventional methods and WhatsApp, without a comprehensive utilization of social media platforms or a dedicated website. By implementing a well-rounded digital strategy, Laksana Berkah can significantly enhance its visibility, engagement, and sales.

One crucial component of the digital strategy is the development of informative and e-commerce-enabled websites. These platforms can serve as a central hub for customers to learn about the company's products, services, and the benefits of using their high-quality potato seeds. Customers can easily browse the selection, compare varieties, and even place orders directly through the website, providing a seamless and convenient purchasing experience.

In addition to the website, establishing a strong presence on popular social media platforms like Facebook, Instagram, and Twitter can help Laksana Berkah connect with a wider audience, share engaging content, and foster a sense of community among its customers. Through these platforms, the company can showcase its expertise, share valuable information, and respond to customer inquiries in a timely and personalized manner.

Optimizing search engine optimization and utilizing search engine marketing techniques, such as Google Ads, can significantly enhance the company's online visibility. By ensuring that Laksana Berkah's website and content appear prominently in search engine results, the company can attract more potential customers who are actively searching for potato seeds or related products.

Providing high-quality content, such as blogs, articles, video tutorials, and infographics, can add tremendous value for customers. This content can educate customers on best practices for growing and caring for potato crops, offer insights into the industry, and showcase the company's expertise. By sharing this valuable information, Laksana Berkah can establish itself as a trusted and knowledgeable resource in the potato seed industry, further enhancing its reputation and customer loyalty.

Moreover, email marketing can be an effective tool for building personalized communications with customers. By collecting email addresses and sending targeted updates, promotions, and information, the company can foster stronger relationships and keep customers informed about new products, services, or special offers.

The strategy to develop the potato seed market potential through digital marketing in the Industry 4.0 era offers numerous benefits and opportunities for 'Laksana Berkah' Potato Seed House in

Pulosari Village, Pangalengan District, Bandung Regency. With strengths such as high product quality, technical expertise in potato cultivation, and a strong local reputation, they possess a solid foundation to build upon.

However, they also face weaknesses that need to be addressed, such as limited digital knowledge and skills among the staff, constrained financial and technological resources, and potentially limited internet access and infrastructure in the rural areas where they operate. These factors could hinder their ability to effectively leverage digital marketing channels and platforms.

Nonetheless, the significant opportunities presented by digital marketing are undeniable. By embracing this approach, 'Laksana Berkah' can expand their market reach far beyond their local area, tapping into broader national and even international markets. Digital marketing can also improve their marketing efficiency, allowing them to better target and engage with potential customers through various channels, such as search engine optimization, social media platforms, e-commerce marketplaces, and paid advertising.

Furthermore, collaborating with e-commerce platforms or agritech startups can provide 'Laksana Berkah' with access to larger customer bases, advanced technological solutions, and valuable insights to enhance their digital marketing strategies. However, they must also be mindful of the threats posed by digital competition, rapid technological changes, and the risk of an inability to adapt to evolving digital trends.

To capitalize on these opportunities and mitigate the threats, 'Laksana Berkah' Potato Seed House should develop and implement a comprehensive digital marketing plan. This may involve investing in staff training to build digital competencies, upgrading their technological infrastructure, partnering with relevant e-commerce or agritech companies, and continuously monitoring and adapting their strategies to stay ahead of the curve in the rapidly changing Industry 4.0 landscape.

## **CONCLUSION**

The 'Laksana Berkah' Potato Seed House in Pulosari Village, Pangalengan District, Bandung Regency, can enhance its potato seed market potential through digital marketing strategies in the Industry 4.0 era. This includes focusing on optimizing its website and SEO for online visibility, utilizing social media platforms such as Facebook, Instagram, and WhatsApp for customer education and interaction, and leveraging e-commerce platforms like Shopee and Tokopedia for seamless transactions. Additionally, email marketing with regular newsletters and digital advertising through Google Ads and Facebook Ads can expand market reach.

Furthermore, implementing IoT technology for cultivation monitoring, utilizing big data for market analysis, and employing AI for automated customer service will enhance efficiency and competitiveness. Regular evaluation through KPIs such as sales growth, ad conversion rates, and customer feedback will ensure the effectiveness and sustainability of these strategies. Without embracing these digital approaches, the market potential may not be fully realized, making it

difficult to reach potential customers and diminishing business competitiveness due to inefficiency and lack of innovation in meeting evolving market needs.

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