E-COMMERCE TECHNOLOGY BASED BUSINESS DEVELOPMENT IN THE DIGITAL ERA: PESANTRENPRENEUR EXPERIENCE

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ABSTRACT
This research aims to examine the development of an e-commerce technology-based business for red ginger products by the Alam Bumi Al-Quran Islamic Boarding School on the Shopee platform. The research method used is a qualitative approach using interviews, observation and document analysis. The research results show that utilizing Shopee features, such as product descriptions, quality photos, discount vouchers and flash sales, is effective in increasing product visibility and building consumer trust, which is reflected in positive reviews and customer satisfaction. Islamic boarding schools also integrate halal principles in product production and distribution, which is an added value compared to competitors. The marketing strategy involves collaborating with local communities, using Shopee's analytical features to adjust promotions, and utilizing social media to increase sales conversions. The active role of students in managing online stores is also a key success factor. The impact of e-commerce on the economic independence of Islamic boarding schools can be seen from the increase in sales volume which supports Islamic boarding school operations and provides practical experience for students in managing digital businesses. Despite facing challenges related to resistance to modernization, limited digital literacy, and technical obstacles, Islamic boarding schools overcome these with intensive training and the development of appropriate guidelines. This research provides insight for other Islamic boarding schools in adopting digital technology to support economic independence without ignoring religious (Islamic) values.

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I. INTRODUCTION

Islamic boarding schools are most praised by many people because they have a very strategic role in Indonesian society [1], not only as religious education institutions, but also as centers for character formation and economic empowerment for students [2]. In the educational context, Islamic boarding schools do not only focus on learning religious knowledge but also play a role in developing the entrepreneurial potential of their students [3]. This is important to support the economic independence of Islamic boarding schools, which are often faced with limited funds and facilities [4]. Various businesses run by Islamic boarding schools, such as food production, crafts, or agriculture, are one way to achieve this goal [5].

However, the increasingly rapid development of technology in the digital era is encouraging the growth of new digital-based businesses [6]. The impact of this is creating the growth of marketplaces with their respective advantages and disadvantages which pamper consumers to choose similar goods and services on marketplaces [7]. Especially in the digital field, Islamic boarding schools face big challenges in adapting [8]. In this digital era, opportunities to develop business are increasingly wide open through e-commerce platforms. Islamic boarding schools have great potential to utilize e-commerce [9]. E-commerce allows Islamic boarding schools to expand their market reach more efficiently, as well as market the products they produce in a more modern and practical way [10]. One form of technology adoption that several Islamic boarding schools are starting to implement is the use of e-commerce platforms, such as Shopee, which is a relevant and affordable marketing alternative [11]. Through Shopee, Islamic boarding schools can sell various products made by students, such as honey, herbs and handicraft products, to a wider market. The process of using Shopee begins with registering an account and opening an online shop, which is then continued with product management, optimizing descriptions and images, as well as implementing digital marketing strategies so that products are easier for potential buyers to find.

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The Alam Bumi Al-Quran Wonosalam Islamic Boarding School in Jombang, East Java, is a concrete example of the application of e-commerce technology in developing Islamic boarding school businesses. By utilizing the Shopee platform, this Islamic boarding school has succeeded in marketing their superior product, namely red ginger which is branded "Red Ginger." This product not only supports the economic independence of Islamic boarding schools but also upholds sharia principles in every aspect of business activities carried out. In addition, adopting the Shopee e-commerce platform makes it easy to increase product visibility and expand markets, which were previously difficult to reach conventionally. Concretely, the Alam Bumi Al-Quran Wonosalam Islamic Boarding School in Jombang, East Java as one of the Islamic boarding schools for entrepreneurs in East Java, in practice uses e-commerce applications through the Shopee platform, such as utilizing Shopee features such as Shopee Live to carry out interactive promotions, Shopee Ads to increase product visibility, and Shopee PayLater which allows customers to buy using an installment system, thereby increasing transaction potential. Apart from that, the Alam Bumi Al-Quran Islamic Boarding School, actively develops marketing strategies, such as providing discounts and participating in flash sale programs, in order to increase the attractiveness of their products in the digital market.

The impact of implementing e-commerce technology is very significant for the Alam Bumi Al-Quran Womosalam Jombang Islamic Boarding School, where from an economic perspective, the use of Shopee has helped increase the Islamic boarding school's income, which is then allocated for the development of educational facilities and the welfare of the students. In terms of education, students also get benefits in the form of direct learning related to digital marketing skills, business management and financial technology, which can be a provision for them in the future. Concretely, the results that have been achieved include an increase in the number of transactions compared to conventional sales methods. Before using Shopee, marketing of Islamic boarding school products was more limited to direct sales in the surrounding environment and through social media with a limited reach. However, after optimizing Shopee as the main platform, Islamic boarding school products can now reach customers in various regions, even outside the province. Several testimonials from students involved in managing online stores stated that they gained valuable experience in understanding digital trading mechanisms, from managing orders to interacting with customers.

However, although e-commerce offers various opportunities, its adoption in Islamic boarding schools is not without challenges. One of the main challenges is how to integrate Islamic boarding school religious and traditional values with modern technology [12]. Islamic boarding schools must ensure that the adoption of this technology does not conflict with the sharia principles on which their operations are based. The Alam Bumi Al-Quran Islamic Boarding School shows that digital technology, if used wisely, can support the economic transformation of Islamic boarding schools without sacrificing the cultural identity and values characteristic of Islamic boarding schools.

To adopt e-commerce effectively, Islamic boarding schools can implement several strategic steps. First, form a digital Islamic boarding school team consisting of students and managers with interests and skills in the fields of technology and business. This team is tasked with managing the online shop, from creating an account on Shopee to digital marketing, with internal and external training support. Second, optimizing Islamic boarding school products to be more competitive in the digital market. Improving packaging quality, attractive product descriptions, and using professional photos are key. The right pricing strategy and participation in e-commerce promotional programs can also increase product attractiveness. Third, make maximum use of e-commerce features. Shopee Live can be used for interactive promotions, while Shopee Ads helps increase product visibility in searches. With this strategy, Islamic boarding school products are more easily accessible to consumers without abandoning sharia values in business. Fourth, develop students' skills in digital marketing as part of the curriculum. Students can learn digital marketing, online financial management, and customer communication, making this experience a useful skill set after graduation. Fifth, collaborate with various parties, such as the MSME community, universities and business training institutions, to support the sustainability of Islamic boarding school digital businesses. This collaboration strengthens the Islamic boarding school entrepreneurial ecosystem and ensures that Islamic boarding school businesses are more structured and develop sustainably.

Based on this background, this research aims to explore more deeply how the Alam Bumi Al-Quran Islamic Boarding School develops its business through the Shopee e-commerce platform. The main focus of this research is to analyze the marketing strategies implemented, the challenges faced in the digitalization process, and the impact of implementing e-commerce on the economic independence of Islamic boarding schools. It is hoped that this research can provide practical insight into the development of digital-based Islamic boarding school businesses and contribute to the understanding of the application of e-commerce in Islamic boarding school environments, which not only supports economic aspects, but also maintains the integrity of sharia values which are the basis for Islamic

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boarding school management. Thus, this research makes a unique contribution by connecting three main aspects; education, economics, and technology in one comprehensive study. By examining the implementation of e-commerce in the Islamic boarding school environment, this research not only enriches academic literature, but also provides practical recommendations for Islamic boarding school managers who want to adapt to the digital era. In addition, this research confirms that digital transformation in Islamic boarding schools can occur without sacrificing traditional values, so that it can become a model for other religious educational institutions in Indonesia.

II. MHETHOD

This research uses a qualitative research design with a case study approach to explore the experiences of the Bumi Al-Quran Islamic Boarding School in utilizing e-commerce technology through the Shopee platform. This approach was chosen because it allows researchers to explore in depth the process of adopting e-commerce technology in the Islamic boarding school context. Case studies provide a framework for understanding the social, cultural, and economic dynamics that influence successful e-commerce implementation. This research focuses on an in-depth analysis of the marketing strategy for red ginger products, including how Islamic boarding schools integrate religious values with modern technology to support sharia-based economic independence.
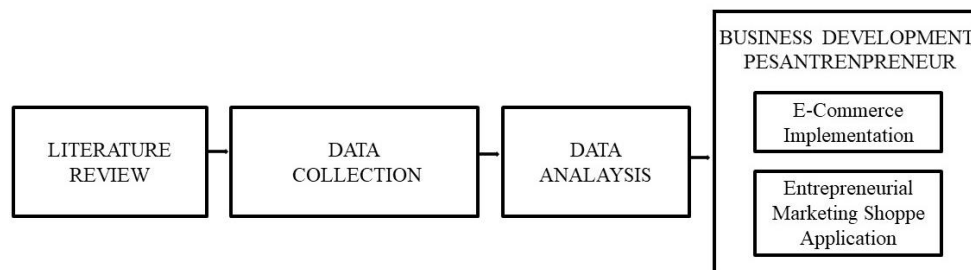

Figure 1. Research Method Flow

In the process, this research also highlights the challenges faced by Islamic boarding schools in adopting e-commerce technology. One of the main challenges is the limited human resources who have expertise in the field of digital technology. Islamic boarding schools often have to rely on students or managers who have basic knowledge of technology, so training and mentoring becomes an urgent need. Apart from that, infrastructure constraints such as limited internet access in some areas are also obstacles in optimizing the use of the Shopee platform. However, Islamic boarding schools have managed to overcome most of these challenges with a collaborative approach, involving local communities and external partners to provide technical support and training. This shows that the success of technology adoption depends not only on internal factors, but also on adequate external support.

The qualitative approach in this research involves collecting data through in-depth interviews, participant observation, and document analysis. Interviews were conducted with Islamic boarding school managers, students and other related parties to gain a comprehensive perspective on the e-commerce adoption process. Participatory observation was carried out to directly understand the marketing activities of red ginger products through Shopee. In addition, document analysis includes a review of financial reports, marketing strategies and promotional materials used by Islamic boarding schools. This approach aims to produce a holistic understanding of the factors that influence the success of Islamic boarding schools in utilizing digital technology.

Primary data collection was carried out through in-depth interviews with the management of the Bumi Al-Quran Islamic Boarding School, students, and other related parties who were directly involved in the marketing process of red ginger products through the Shopee application. This interview is designed to explore information about experiences, challenges and strategies implemented in utilizing e-commerce technology. Apart from that, participatory observation was also carried out to directly monitor marketing activities, from the packaging process to interactions with customers on the Shopee platform. This primary data aims to provide an empirical picture regarding the implementation of e-commerce in supporting the economic independence of Islamic boarding schools.

Secondary data was collected through analysis of relevant documents, such as financial reports, marketing strategies and promotional materials used by Islamic boarding schools. These documents are analyzed to understand financial management patterns, the effectiveness of marketing strategies, and how Islamic boarding

schools utilize the features available on Shopee. Apart from that, secondary data also includes literature related to the adoption of e-commerce technology in the Islamic boarding school environment, which was obtained from academic journals, books and previous research reports. These data are used to strengthen the analysis and provide in-depth theoretical context.

The primary and secondary data collection process was carried out systematically to ensure the validity and reliability of the data. Data triangulation was applied by comparing the results of interviews, observations and document analysis to ensure consistency of information. In addition, researchers also took detailed notes during data collection to accurately document findings. The collected data is then organized based on themes relevant to innovation adoption theory, thus facilitating the further analysis process. This approach ensures that the data obtained reflects existing reality and supports the research objectives.

This research focuses on the case study of the Bumi Al-Quran Islamic Boarding School to understand in depth the process of adopting e-commerce technology in marketing red ginger products through Shopee. This case study involves an exploration of the internal dynamics of Islamic boarding schools, including how managers and students collaborate in integrating digital technology into the Islamic boarding school's economic system. Researchers made direct observations of marketing activities, starting from the red ginger production process to distribution via the Shopee platform. This case study aims to identify the key factors that influence the success of Islamic boarding schools in utilizing e-commerce, taking into account social, cultural and religious value aspects.

In carrying out case studies, Paparini et al. [13], explains that research uses a case study design because this design is a more suitable strategy if the main question of a research concerns how or why, if the researcher has little opportunity to control the events to be investigated, and if the focus of the research is on contemporary (current) phenomena in a real life context. According to Rauthmann et al. [14], case studies are also carried out to obtain an in-depth understanding of the situation and meaning of the thing or subject being studied. Apart from that, according to Nazir [15], case studies also emphasize studying quite a lot of variables in a small number of units. According to Quintens & Matthyssens [16], case studies can also enable researchers to have a complete and integrated understanding of the interrelation of various facts and dimensions of the specific case being studied. A form of in-depth research about an aspect of the social environment in which humans are included. Case studies occur when researchers explore a single entity or phenomenon (the case) which is limited by time, activities and data collection during that time [17]. Empirical research that investigates phenomena in real life contexts, when the boundaries between phenomena and context are not clearly visible, and multiple sources are used [18].

The case study in this research, namely in-depth interviews, was conducted with Islamic boarding school managers as key informants. The manager of the Islamic boarding school is KH. Achmad Ghozali Fadeli (Islamic boarding school teacher), students, and parties directly involved in the Islamic boarding school business who market red ginger products. Interviews are designed to explore information about motivations, challenges and strategies implemented in utilizing e-commerce technology. Apart from that, researchers also observed interactions between Islamic boarding schools and surrounding communities to understand how Islamic boarding schools socialize the use of Shopee as a marketing tool. Data obtained from interviews and observations were analyzed to identify patterns relevant to innovation adoption theory, such as compatibility and relative superiority of e-commerce technology.

This case study also involves analysis of internal Islamic boarding school documents, such as financial reports, marketing strategies, and promotional materials. These documents are used to understand how Islamic boarding schools manage resources and utilize Shopee features to increase sales of red ginger products. Researchers also study sales statistical data to evaluate the effectiveness of the marketing strategies implemented. With this approach, the Bumi Al-Quran Islamic Boarding School case study provides in-depth empirical insight into how e-commerce technology can be adopted effectively in the Islamic boarding school environment, without ignoring traditional and religious values as the characteristics of Islamic boarding schools in Indonesia.

III. RESULTS AND DISCUSSION

A. *Technology Based Business Development for E-Commerce Red Ginger Products on the Shopee Platform*

The research results show that the marketing strategy for red ginger products on the Shopee platform implemented by Pesantrenpreneur Alam Bumi Al-Quran involves the use of main features such as informative product descriptions, the use of high-quality photos, and competitive price offers. Islamic boarding schools also take advantage of promotional features such as discount vouchers and flash sales [19] to attract customer interest. This strategy has proven effective in increasing product visibility on e-commerce platforms, so that it can reach a

wider range of consumers than traditional marketing methods. This is in line with the research results of Dellyana & Sudrajad [9] which states that e-commerce is a digital tool that makes it easier for Islamic boarding school transactions and economic processes to run.

In addition, Pondok Pesantren Bumi Al-Quran integrates a sharia-based approach in its marketing strategy, such as ensuring that the entire production process and product distribution comply with halal principles. This halal principle is as referred to in the opinion of Febriyanni [20] where the idea of halal not only includes the avoidance of prohibited (haram) substances, but also the safety and quality lements of processing procedures, handling, equipment used, storage, packaging, transportation and distribution. This is an added value that differentiates the red ginger products from the Bumi Al-Quran Islamic Boarding School, Wonosalam, Jombang, East Java from other competitors. By highlighting halal aspects and product quality, Islamic boarding schools have succeeded in building consumer trust, which is reflected in the increase in the number of positive reviews and customer satisfaction levels on Shopee.

The sharia-based marketing model implemented by the Alam Bumi Al-Quran Islamic Boarding Schools, is unique compared to e-commerce models in general, especially in ensuring compliance with halal principles and Islamic business ethics. When compared with e-commerce strategies implemented by religious-based institutions in other countries, such as Islamic Boarding Schools in Malaysia or digital Islamic boarding schools in Turkey, this Islamic boarding school stands out in terms of community-based economic integration. While sharia e-commerce in Malaysia tends to be supported by strong government regulations and more advanced digital infrastructure, Pesantren Bumi Al-Quran places more emphasis on strengthening the community-based economic ecosystem through empowering students and the surrounding community. Another advantage of this model lies in its holistic approach in managing the halal supply chain, from production to distribution, which not only meets formal halal standards but also pays attention to aspects of sustainability and community welfare. This approach is similar to the halal business model developing in the Middle East, where adherence to Islamic principles is not only part of regulatory compliance, but also a differentiation strategy that increases consumer confidence. Thus, the integration of sharia-based e-commerce at the Bumi Al-Quran Islamic Boarding School not only functions as a digital transaction tool, but also as an instrument of economic empowerment that prioritizes Islamic values. This model has the potential to be replicated in various countries with strong Muslim communities, especially in the context of the Islamic boarding school economy which is increasingly developing in the digital era.

Another advantage of this model lies in its holistic approach in managing the halal supply chain, from production to distribution, which not only meets formal halal standards but also pays attention to aspects of sustainability and community welfare. This approach is similar to the halal business model developing in the Middle East, where adherence to Islamic principles is not only part of regulatory compliance, but also a differentiation strategy that increases consumer confidence. Apart from providing economic benefits for Islamic boarding schools and students, the sharia-based e-commerce that is implemented also has an impact on the local economy. With the development of the Islamic boarding school business, job opportunities are created for the surrounding community, both in the form of direct work such as product production and packaging, as well as indirect work through the distribution and marketing chain. This is in line with the concept of community-based economics, where the growth of Islamic boarding school businesses not only benefits the institution internally, but also makes a real contribution to improving the welfare of the surrounding community. Furthermore, the existence of a digital-based Islamic boarding school business ecosystem can also be a model for small businesses in the Islamic boarding school environment to adopt technology to expand their market. Thus, the role of Islamic boarding schools is not only limited to religious education, but also as a driving force for sustainable economic development. Thus, the integration of sharia-based e-commerce at the Bumi Al-Quran Islamic Boarding School not only functions as a digital transaction tool, but also as an instrument of economic and social empowerment that contributes to the development of a more inclusive and sustainable community.

In an effort to expand market reach, the Bumi Al-Quran Wonosalam Jombang Islamic boarding school also collaborates with local communities who have an interest in herbal products. This was expressed by the head of the Islamic boarding school, KH. Ahmad Ghozali Fadeli, in Islamic boarding schools, through this collaboration, Islamic boarding schools can utilize community networks to introduce red ginger products to more potential customers. Apart from that, Islamic boarding schools hold seminars and workshops discussing the benefits of red ginger, which not only functions as an educational tool but also as an indirect marketing strategy. This approach helps build brand awareness among the community while strengthening the image of Islamic boarding schools as producers of high-quality herbal products that are unique to Islamic boarding schools. However, in implementing

sharia-based e-commerce, there are a number of challenges that need to be considered. Some of the main challenges faced are internal resistance to technology adoption and limited digital literacy among students and Islamic boarding school managers. This is not much different from what is experienced by similar institutions in other countries. In Malaysia, for example, Islamic Boarding Schools also face difficulties in building adequate digital infrastructure, especially in rural areas. Meanwhile, in Türkiye, one of the main obstacles is how to balance religious education and digital business skills without sacrificing deeply rooted traditional values. As a solution, several strategies that have been successfully implemented in other countries can be adopted. Malaysia has developed a digital training program specifically for Islamic boarding schools, working with universities and technology companies to improve the skills of Islamic boarding school students and teaching staff in utilizing e-commerce.

In Türkiye, an Islamic boarding school-based business incubator model has been implemented, where students are not only taught digital business theory, but are also given direct experience in managing small online businesses. The Bumi Al-Quran Islamic Boarding School can adopt a similar approach by building partnerships with higher education institutions or technology companies to provide digital literacy training for students and Islamic boarding school managers. Apart from that, implementing an Islamic boarding school-based business incubator model can also be a solution to ensure that students have direct experience in managing digital businesses, so that they are better prepared to face economic challenges after graduating. Thus, the integration of sharia-based e-commerce at the Bumi Al-Quran Islamic Boarding School not only functions as a digital transaction tool, but also as an instrument of economic and social empowerment that contributes to the development of a more inclusive and sustainable community. Critical evaluation of challenges and solutions adapted from the experience of similar institutions in other countries can help Islamic boarding schools optimize their digital business models, while ensuring the economic and social sustainability of Islamic boarding schools in the long term.

The marketing strategy also involves optimizing the use of Shopee's analytical features to monitor sales performance. This was expressed by the head of Islamic boarding school KH. Ahmda Ghozali Fadeli, where the data obtained from this feature is used to identify customer purchasing patterns, such as certain times with the highest sales. Based on this analysis, Islamic boarding schools can adjust promotional strategies, such as holding discounts on certain days, thereby increasing the effectiveness of marketing campaigns. This data-based approach helps Islamic boarding schools make more strategic decisions. The results of the research analysis show that Islamic boarding schools also use social media to support marketing strategies at Shopee. Social media is used to direct potential customers to the Islamic boarding school online shop on Shopee through interesting promotional content, such as video tutorials on using red ginger and customer testimonials. This synergy between social media and e-commerce platforms strengthens marketing efforts, thereby increasing visitor traffic to online stores and increasing sales conversion opportunities.

However, this research also found that the success of marketing strategies cannot be separated from the active role of students who are tasked with managing online stores. The following is an overview of students at Pesantrenpreneur Bumi Al-Quran Wonosalam Jombang in applying an e-commerce based digital technology platform in marketing red ginger products.

As Islamic boarding schoolpreneurs in Jombang, Pondok Pesantren Alam Bumi Al-Quran, Santri are trained to understand how the Shopee platform works, including stock management, interaction with customers, and management of promotions. The role of these students is not only to support marketing operations, but also to provide practical experience in utilizing digital technology, which ultimately increases their capacity to support the Islamic boarding school's economic independence.

B. Evaluation of the Effectiveness of Shopee Features in Supporting Pesantrenpreneur

The research results show that Shopee features, such as informative product descriptions and high-quality photos, play a significant role in increasing the attractiveness of Pesantren Bumi Al-Quran's red ginger products. Product descriptions that list the health benefits of red ginger and its halal production process provide additional confidence to consumers. Product photos taken with optimal lighting also succeed in attracting the attention of potential buyers. This combination increases click rates on product pages, which is an important first step in the sales conversion process.

Shopee promotional features, such as discount vouchers and flash sales, proven effective in increasing sales of red ginger products. Research finds that promotional periods with discounts attract a higher number of purchases compared to normal days. Flash sales, in particular, create urgency for customers to purchase products immediately, thereby increasing sales volume in a short period of time. This strategy not only increases income, but also helps

expand the Islamic boarding school's customer base.

Shopee's analytical features make a significant contribution in supporting strategic decision making. Data obtained from this feature, such as times of highest sales and customer demographics, is used by Islamic boarding schools to design more effective marketing campaigns. For example, Islamic boarding schools utilize this data to determine the optimal timing for launching promotions, which has been proven to increase campaign effectiveness. With a data-based approach, Islamic boarding schools can allocate resources more efficiently.

In addition, the customer review feature on Shopee helps build the reputation of red ginger products. Positive reviews covering product quality, delivery speed, and customer service increase the trust of potential buyers. Research notes that products with positive reviews are more likely to attract new buyers. Pesantren also actively respond to customer reviews, both positive and negative, to demonstrate commitment to service quality, which ultimately strengthens customer loyalty.

However, research also found several challenges in utilizing Shopee features optimally. For example, stock management during promotional periods requires more careful planning to avoid product shortages. In addition, paid advertising features require additional investment which must be balanced with the right marketing strategy to provide maximum results. However, with adequate training for students and managers, Islamic boarding schools are able to overcome these challenges and continue to increase the effectiveness of using Shopee features.

C. The Impact of E-Commerce Technology on the Economic Independence of Pesantrenpreneur

The research results show that the adoption of e-commerce technology through the Shopee platform has had a significant impact on the economic independence of the pesantrenpreneur Bumi Al-Quran Islamic Boarding School. By utilizing Shopee features, Islamic boarding schools have succeeded in expanding the market reach of red ginger products outside the region, which was previously difficult to achieve through traditional marketing methods. This increase in sales volume provides a direct contribution to the Islamic boarding school's income, so that it is able to support various educational programs and other operational activities without relying entirely on donations or external funding sources.

In addition, the use of e-commerce allows Islamic boarding schools to manage business more efficiently. With Shopee's analytical features, Islamic boarding schools can monitor sales trends, identify customer preferences, and design more effective marketing strategies. This efficiency not only increases revenue, but also reduces operational costs, such as distribution and promotion costs. This creates a more sustainable business model, which ultimately strengthens the position of Islamic boarding schools as independent economic entities in the digital era.

The integration of e-commerce technology also has a positive impact on empowering students. In the online shop operational process, students are actively involved, from stock management to interaction with customers. This involvement provides them with practical skills in utilizing digital technology, which is an important provision to face future economic challenges. Thus, e-commerce not only supports the economic independence of Islamic boarding schools, but also contributes to developing human resource capacity in the Islamic boarding school environment.

Furthermore, the success in utilizing e-commerce has improved the image of the Bumi Al-Quran Islamic Boarding School as an institution that is adaptive to technological developments without abandoning religious values. Red ginger products that are marketed according to sharia principles are a special attraction for consumers, especially those who prioritize halal aspects in their consumption. This shows that digital technology can be integrated harmoniously with Islamic boarding school values, thereby creating a unique competitive advantage in the market. However, research also notes that this success cannot be separated from the challenges faced, such as the need for digital literacy training for students and Islamic boarding school managers. However, with the support of e-commerce technology, Islamic boarding schools are able to overcome these obstacles gradually. The resulting positive impact shows that the adoption of digital technology can be one of the main strategies in achieving Islamic boarding school economic independence in the digital era.

Furthermore, the sustainability of this strategy requires a systematic approach in strengthening human resource capacity in the Islamic boarding school environment. Developing a digital-based curriculum, collaborating with various parties in entrepreneurship training, and optimizing social media for marketing are strategic steps that can strengthen the competitiveness of Islamic boarding school products in the wider market. In addition, this research highlights the importance of internal regulations that ensure every e-commerce transaction remains in accordance with sharia principles, so that consumer trust can continue to be maintained. The success of the Bumi Al-Quran Islamic Boarding School in integrating traditional values with modern technology has become an inspiring model for other Islamic boarding schools who want to develop their economic independence without ignoring their

religious identity.

D. The Role of Santri in the Implementation and Operation of E-Commerce at Pesantrenpreneur

The research results show that santri have a central role in the implementation and operation of e-commerce at the Bumi Al-Quran Islamic Boarding School. They are actively involved in various stages, from stock management to marketing red ginger products on the Shopee platform. The digital literacy training given to students allows them to understand Shopee features, such as store management, promotions and sales data analysis. This involvement not only supports smooth operations but also increases the capacity of students to utilize digital technology effectively.

This was stated by KH. Ghozali Fadeli, where the students also act as liaison between the Islamic boarding school and customers, especially in terms of interactions on e-commerce platforms. They are responsible for responding to customer inquiries, handling complaints, and ensuring the transaction process runs smoothly. Research notes that fast responses and friendly service from students contribute to increased customer satisfaction. This is reflected in the positive reviews received by red ginger products on Shopee, which ultimately strengthens the reputation of Islamic boarding school online stores.

Another thing was also conveyed by one of the students who was assigned to create promotional content. Where students contribute to creating promotional content to support product marketing. They produce visual material, such as high-quality product photos and promotional videos, which are then uploaded to Shopee and social media. The students' creativity in compiling interesting content helps increase the visibility of red ginger products on digital platforms. Research finds that the synergy between promotional content and Shopee features, such as flash sales, significantly increases sales volume.

The role of students in e-commerce operations also includes managing logistics, such as packaging and shipping products. They ensure that the products are packaged well according to standards, so that they reach the customers in optimal condition. Observations show that the involvement of students in this process increases operational efficiency and reduces the risk of errors, such as sending inappropriate products. This is an important factor in maintaining customer trust in Islamic boarding school online stores.

The involvement of students in implementing e-commerce has a positive impact on their skills development. The research notes that through this hands-on experience, students gain a practical understanding of digital business management, which is an important provision for the future. In addition, their active role in e-commerce operations strengthens their sense of responsibility and independence, in line with the Islamic boarding school's goal of creating a generation that is able to adapt to technological developments without abandoning religious values.

E. Challenges and Solutions in Integrating Digital Technology with Pesantrenpreneur Values

This research found that one of the main challenges in integrating digital technology with pesantrenpreneur or Islamic boarding school values was initial resistance from several parties in the Islamic boarding school environment. Some managers and students are worried that the use of e-commerce technology could shift the main focus of Islamic boarding schools as religious education institutions. These concerns reflect the importance of striking a balance between modernization and preserving traditional values. To overcome this, Islamic boarding schools hold internal discussions and training which emphasizes that technology can be used as a tool to support economic independence without sacrificing religious identity.

Apart from resistance, limited digital literacy among students and Islamic boarding school managers is a significant challenge. Many students are initially unfamiliar with using e-commerce platforms such as Shopee, so they need time to learn and adapt. Pesantren Bumi Al-Quran overcomes this challenge by holding intensive training that covers online store management, digital marketing strategies, and the use of analytical features. This approach not only improves students' technical skills but also strengthens their confidence in utilizing technology to support Islamic boarding school economic activities.

Research also notes that the integration of digital technology often faces technical obstacles, such as unstable internet connectivity in Islamic boarding school areas. This can hinder online store operations, especially in terms of stock updates and response to customers. To overcome this problem, Islamic boarding schools are working with local internet service providers to improve network quality. Apart from that, Islamic boarding schools also adopt a schedule-based work system, where students take turns managing the online shop to ensure operations continue to run despite technical obstacles.

Another challenge faced is maintaining consistent sharia values in all business processes, from production to marketing. Research finds that Islamic boarding schools face a dilemma in utilizing certain features on Shopee,

such as flash sales, which can be considered inconsistent with the principles of price fairness in Islam. To overcome this, Islamic boarding schools develop internal guidelines that ensure that all marketing strategies remain in accordance with sharia values. This approach helps Islamic boarding schools maintain religious integrity while remaining competitive in the digital market.

Finally, research shows that one of the main solutions in integrating digital technology with Islamic boarding school values is through effective communication with the surrounding community. Bumi Al-Quran Islamic Boarding School actively promotes the benefits of e-commerce to the community, including how this technology can support economic independence without violating religious values. Through this approach, Islamic boarding schools have succeeded in building support from the community, which ultimately strengthens the successful implementation of digital technology in the Islamic boarding school environment.

The findings of this research emphasize the importance of policies in supporting the digitalization of Islamic boarding schools. The government and religious institutions have a strategic role in facilitating e-commerce adoption through various steps. Providing digital infrastructure, especially in remote areas, is a crucial first step, supported by national programs such as "Digitalization of Islamic Boarding Schools." Apart from that, digital literacy training for students and Islamic boarding school managers can be carried out in collaboration with universities and technology companies. From an economic perspective, funding in the form of grants or tax incentives for e-commerce-based Islamic boarding school businesses can encourage the growth of this sector. Legal certainty is also needed through clear sharia regulations and standards, in collaboration with the MUI and halal certification institutions. Finally, collaboration with the private sector can strengthen the Islamic boarding school digital ecosystem, for example with a special platform in a large marketplace to expand the reach of sharia-based products. With these steps, Islamic boarding schools can more optimally utilize digital technology to support education and economic independence.

IV. CONCLUSION

This research shows that the adoption of e-commerce technology through the Shopee platform has had a significant impact on the business development and economic independence of Pesantrenpreneur Alam Bumi Al-Quran in Jombang, East Java. By strategically utilizing Shopee features, this Islamic boarding school has succeeded in increasing the visibility of red ginger products, expanding the market, and building greater consumer trust. The active role of students in managing online stores not only streamlines operations, but also enriches their practical skills in the increasingly developing digital business world.

Marketing strategies that involve collaboration with local communities, as well as utilizing Shopee's analytical features, have proven effective in driving higher sales conversions. Despite facing challenges such as resistance to change, limited digital literacy, and technical obstacles, Islamic boarding schools have managed to overcome them through an intensive training approach and strong communication with the community. This success shows that with the right assistance, these obstacles can be managed well.

Overall, this research confirms that e-commerce technology, if applied properly, can be a very effective tool in strengthening the economic independence of Islamic boarding schools in the digital era. More than that, this approach is also able to empower students, while maintaining and developing the religious values that are characteristic of Islamic boarding schools, without sacrificing the basic principles that underlie their existence.

Based on these findings, it is recommended that other Islamic boarding schools that want to adopt digital technology can emulate the Pesantrenpreneur Alam Bumi Al-Quran model, with a focus on sustainable and in-depth digital training for students. Closer collaboration with local communities and utilizing analytical features to understand consumer behavior can also accelerate business growth. Further research should focus on identifying factors that influence the sustainability and scalability of Islamic boarding school e-commerce businesses, as well as conducting a more in-depth study of the technical obstacles faced in the long term. Exploring the application of this model in other Islamic boarding schools from various regions will also provide broader insight into the potential and challenges of implementing technology in the Islamic boarding school context in general.

A conclusion section is not required. Although a conclusion may review the main points of the paper, do not replicate the abstract as the conclusion. A conclusion might elaborate on the importance of the work or suggest applications and extensions.

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