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Enhancing Marketing Performance in Batik Malay Industry: Optimization Competitive Advantage by Leveraging Augmented Reality Marketing

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Abstract

This research aims to explore how augmented reality (AR) and a company's unique resources optimize competitive advantages to enhance marketing performance using a qualitative approach with triangulated in-depth interviews. This study's findings revolve around three main themes: improving marketing performance, increasing competitiveness, and strengthening customer relationships. The results show that AR can improve marketing performance by optimizing competitive advantage and customer relationships. In addition, this research provides practical guidance for practitioners in the batik industry to utilize AR as an effective marketing tool and to assist in making strategic decisions regarding technology investment and product development. The focus on batik as Indonesia's cultural heritage adds value to promoting and preserving local culture through technological innovation. The theoretical contribution of this research connects Resource-Based View (RBV) theory with the implementation of augmented reality (AR) technology for batik marketing. It develops our understanding of how a company's unique resources and capabilities can be used to create a long-term competitive advantage through innovative technologies. Developing knowledge on integrating modern technology with traditional creative industries opens the way for further research in similar contexts. The results show that AR can improve marketing performance by optimizing competitive advantage and customer relationships. In addition, this research provides practical guidance for practitioners in the batik industry to utilize AR as an effective marketing tool and to assist in making strategic decisions regarding technology investment and product development. The focus on batik as Indonesia's cultural heritage adds value to promoting and preserving local culture through technological innovation. The theoretical contribution of this research connects Resource-Based View (RBV) theory with the implementation of augmented reality (AR) technology for batik marketing. It develops our understanding of how a company's unique resources and capabilities can be used to create a long-term competitive advantage through innovative technologies. Developing knowledge on integrating modern technology with traditional creative industries opens the way for further research in similar contexts.

Keywords: Augmented Reality Marketing, Competitive Advantage, Performance, Customer Experience, Digital Marketing.

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1. Introduction

Augmented Reality marketing (ARM) has a transformative impact, as marketing communication prioritizing technology has the potential to improve consumer experience and consumer responses to purchasing decisions (Reis & Melão, 2023;Gallardo et al., 2018; Bellalouna, 2021;Du et al., 2022;Okhotan et al., 2015). Previous research has revealed ARM's superior ability to interactively enhance consumer experiences (Gallardo et al., 2018;Bellalouna, 2021;Chen & Lin, 2022).. Consumers can see and interact with products or services in Unity 3D simulations (Vilkina, 2020;Sung, 2021;Tutak & Brodny, 2022; Dwivedi et al., 2021). ARM integrates information or digital objects into consumer perceptions as new experiences in the digital marketing about products or services (Scholz & Smith, 2016; Schultz & Kumar, 2024;Kraus et al., 2022;Gabriel et al., 2023).

This study aims to examine augmented reality marketing (ARM) digital marketing technology for Batik Melayu Riau's marketing performance by optimizing its competitive advantage. Through ARM technology, Riau Malay Batik products can be presented uniquely and attractively, allowing consumers to see the natural beauty of the product and, obtain additional information regarding the motif, unique design, cultural value, and history of Riau Melayu Batik before they decide to buy. Augmented Reality (AR) has a significant role in improving business competitiveness and marketing performance by providing a user experience that allows businesses to create engaging and interactive experiences for consumers. With AR, consumers can view products in real or virtual contexts, such as by testing products or viewing additional information directly in their environment.

Augmented Reality marketing can help businesses differentiate their products from their competitors (Darma et al., 2018;Darma et al., 2019;Vilkina, 2020;Du et al., 2022). Features such as virtual try-ons, interactive storytelling, and virtual tours allow consumers to experience products that are more immersive and engagingly. In addition, more profound education and information can be obtained because AR allows businesses to convey additional information about products more visually and interestingly. For example, in the marketing context of Riau Malay Batik, AR can be used to show motifs, cultural values , and history more comprehensively and impressively. AR can also increase consumer engagement by providing personalized and relevant experiences. For example, consumers can " try on" products according to their preferences, increasing customer trust and satisfaction. By integrating AR into marketing strategies, businesses can optimize marketing processes by expanding their market reach and reaching a global audience (Bellalouna, 2021;Gabajová et al., 2021; Karuppiah et al., 2023). This technology also allows for the better tracking and analysis of consumer interactions, which can help improve future marketing strategies.

The potential for the batik market, both in Indonesia and around world, is quite large and continues to grow. The following section explains the potential of the batik market based on the statistical data. According to data from the Central Statistics Agency (BPS), the export value of batik and batik products from Indonesia continues to increase. In 2019, Indonesian batik exports reached approximately USD 52.4 million. Even though it fell in 2020 owing to the COVID-19 pandemic, this sector showed signs of recovery and improvement in the following years. Batik is indigenous cultural heritage site, in Indonesia that was recognized by UNESCO as a humanitarian heritage site for oral and intangible culture in 2009. It increases Indonesian people's awareness and pride in batik, which impacts high demand within the country.

Indonesian Batik, including Riau Malay Batik, is exported to various countries, including Malaysia, Japan, the United States, Europe, and Australia. There is an increasing global

awareness and appreciation of ethnic and sustainable products. As a product that is environmentally friendly and has high cultural value, it has a special place in the hearts of global consumers who care about sustainability and uniqueness. With government support and increasing awareness at home and abroad, the batik market has bright prospects. Overall, AR brings innovation to how products are marketed and strengthens business competitiveness by improving consumer experience, product differentiation, and overall marketing strategy efficiency, thus increasing marketing performance (Bernd, 2016, Rauschnabel et al., 2022).

This study explores how an innovation technology augmented reality and company's unique resources by optimizing competitive advantages to enhance marketing performance. Understanding how a company's unique resources and capabilities can create long-term competitive advantages through innovative technology is essential. By implementing ARM technology, the marketing performance of Batik Melayu Riau can be improved, as seen in sales growth, increasing the number of customers, and increasing profits by optimizing its competitive advantages.

2.   Literature Review

This study draws on the resource-based view (RBV), which highlights the strategic use of tangible and intangible resources to convert potential competitive advantages into sustainable, long-term gains (Wernerfelt, 1984; Barney, 1991; Cabrera-suárez et al., 1994; Barney, 2001; Barney et al., 2011; Fatoki, 2021). It asserts that a company's competitive edge and overall performance are rooted in the strength of its resources. However, there are varied perspectives on the RBV. For example, Wheelen et al., (2018); Mahdi & Nassar, (2021); Yang et al., (2022)argue that RBV should focus on a company's capabilities rather than just its resources, suggesting that companies must leverage their resources effectively to enhance performance—similarly, Korsakienė & Raišienė, 2022 and Reis & Melão, 2023 stress the primacy of capabilities over mere resources. Hence, we posit that early RBV advocates centered their theory on the competitive capabilities of firms, achievable through a synergistic brand of financial, technological, and human resources. Focus on a holistic combination of financial, technological, and human resources.

The resource-based view (RBV) theory can be explained by the Augmented Reality (AR) phenomenon in marketing, especially in the batik industry. The RBV emphasizes the importance of utilizing unique and difficult-to-imitate resources to create sustainable competitive advantages (Mardatillah et al., 2019). AR can be considered one such resource. Transform Potential into a long-term competitive advantage. According to RBV, companies must leverage unique resources to create sustainable competitive advantages (Kocak et al., 2017; Liao et al., 2017; Kumar et al., 2024). AR in batik marketing allows companies to provide customers with uniquely valuable and interactive shopping experience. For example, AR applications can allow customers to try batik motifs virtually, provide detailed visualization of batik motifs and textures, and provide additional information about the history and cultural meaning. Difficult to Imitate (inimitable) and Complex to Replace (non-substitutable).

Furthermore, inimitable resources that are difficult for competitors to imitate provide a solid competitive advantage. When implemented innovatively and distinctively, AR technology becomes difficult for competitors to imitate (Dwivedi et al., 2021; Du et al., 2022; Gabriel et al., 2023). For example, the interactive experience provided by an AR application specific to Riau Batik may only be easily replicated by other companies with significant investments in technology and development. Non-substitutable resources that are difficult to replace with other

technologies are also important for competitive advantage. As a marketing technology, AR offers a unique way to interact with customers that cannot be easily replaced by other technologies such as conventional advertising or regular e-commerce.

Improved brand image and customer loyalty are the result of effective resource utilization. By providing rich and interactive experiences through AR, companies can enhance their brand image in an innovative and customer-oriented manner. Customers who are satisfied with this experience are more likely to become loyal and return to shop again. AR can reduce long-term promotional costs by replacing the need for physical exhibitions and expensive advertising campaigns. Once developed, AR applications can be used repeatedly for various promotional campaigns, thereby reducing saving long-term costs.

The development and implementation of AR technology require financial investment, technological expertise, and human resource training. However, the result is a competitive advantage that is difficult to imitate and can significantly improve marketing performance. Using a mobile application that allows customers to try various batik designs virtually and to view additional information about each motif is part of the RBV theory of unique resource utilization. The promotional campaign uses AR filters on social media, allowing users to try batik motifs and share their experiences, improving brand image and customer loyalty according to the RBV theory. Batik product catalogs with AR technology allow customers to view products in 3D and get additional information, adding value to the shopping experience and making it difficult for competitors to imitate.

This research uses resource-based view (RBV) theory in the context of Augmented Reality (AR) in the batik industry to show how innovative technology can be used as a unique resource to create sustainable competitive advantages. By implementing AR, batik companies can improve customer experience, brand image, and customer loyalty, as well as reduce long-term promotional costs in accordance with RBV principles (Barney, 2007; Barney et al., 2011; Liao et al., 2017; Du et al., 2022; Grabowska & Saniuk, 2022).

2.1 Research Value

This research has significant research value in several aspects:

First, it provides a theoretical contribution by connecting the Resource-Based View (RBV) theory with the implementation of Augmented Reality (AR) technology in the context of batik marketing. It develops our understanding of how a company's unique resources and capabilities can be used to create a long-term competitive advantage through innovative technologies.

Second, Methodological contribution, using a qualitative approach and case studies, this research provides in-depth insight into the experiences and perceptions of batik industry players regarding the application of AR in marketing. The use of using in-depth interview methods and data triangulation increased the validity and reliability of the research findings.

Third, Managerial Implications: The results of this study have important managerial implications for batik companies and other industries that want to adopt AR technology. This includes strategies to improve brand image, customer loyalty, and long-term promotional cost efficiency through the implementation of AR.

Fourth, Practical Implications: This study provides practical guidance for practitioners in the batik industry or other sectors to utilize AR technology as an effective marketing tool. This can help them make strategic decisions regarding technology investment and product development.

Fifth, social, and cultural contributions, focusing on batik as Indonesia's cultural heritage, also have value in promoting and preserving local culture through technological innovation. Implementing AR can enrich customer experiences by deepening their understanding of the values and stories of each batik motif.

Sixth, Knowledge Development: This research contributes to the development of knowledge about how modern technology, such as AR, can be applied effectively in the context of traditional creative industries such as batik. This paves the way for further research on integrating technology with cultural heritage.

These study provides new insights into the relationship between RBV and AR in the context of batik marketing. It provides a valuable framework for developing business strategies and policies that support innovation and growth of creative industries in Indonesia and the world. To develop a research theory that focuses on the use of Augmented Reality (AR) on marketing performance, the following is a theoretical framework that can be used: Augmented Reality (AR) as an Innovative Marketing Tool, AR utilizes technology to present digital information or visual elements in a real-world context, improving user experience. The influence of AR on consumer engagement: AR can increase consumer engagement with products or brands through immersive and direct interactions. Enables consumers to view products in a more detailed and relevant context, thereby facilitating purchasing decisions. The use of AR can increase consumers' perceptions of a brand as innovative or modern. AR can provide a competitive advantage that is difficult for competitors to imitate; and differentiation from competitors differentiates brands in a crowded market.

Augmented reality impacts customer conversion and retention by providing engaging and informative experiences. By increasing consumer interaction and satisfaction, AR can increase long-term customer loyalty and —cost efficiency in marketing strategies, therby- reducing long-term promotional costs. Although the initial investment in AR development may be high, its long-term use can reduce promotional costs because of to its effectiveness in attracting and retaining customers. AR can become an integral component of a broader digital marketing strategy, amplifying the impact and reach of marketing campaigns. This theory proposes that using AR in marketing can significantly improve marketing performance by increasing consumer engagement, strengthening brand image, increasing conversion and customer retention, and optimizing long term cost efficiency. By integrating AR into marketing strategies, companies can achieve a sustainable competitive advantage and strengthen their position in the competitive market.

3. Method

This study employed a qualitative methodology with a case study approach to identify various aspects and categories from interview data, which were subsequently organized into different use cases using NVIVO 12. These use cases are detailed across several stages, specifically examining how the use of Augmented Reality (AR) in the marketing of Riau Malay Batik can be challenging for competitors to replicate (inimitable) and difficult to replace with other technologies (non-substitutable). This research adopts a specific approach to explore how optimizing competitive advantages through Augmented marketing can effectively enhance the marketing performance of Malay batiks in Riau, Indonesia.

This study focuses on small and medium enterprise entrepreneurs who have been in the Riau Malay Batik business for over three years in Riau Province, Indonesia. In-depth semi-

structured interviews were conducted with 30 Riau Malay Batik industry participants in Riau Province. A total of 30 participants from 10 different business groups within the Riau Malay Batik industry were selected as primary respondents. Respondents included business owners and marketing managers in the industry.

In a more applicable context, this study uses a data triangulation approach to combine various methods and data sources to strengthen the validity and reliability of the research findings. It is essential to ensure the reliability, validity, and accuracy of the findings and provide a more holistic picture of the complex reality of the research subject (Abraham & Sundaram, 2019). This study uses various methods such as in-depth interviews, direct observation, and document analysis, which are the most appropriate approaches to investigate the phenomenon under study.

Participants provided verbal informed consent because, verbal consent was preferred in the participant's culture. Participants felt more comfortable and confident giving verbal consent after receiving a detailed explanation of the study. Verbal consent allowed them to ask questions and get clarification before giving consent. Detailed explanations of the study were given, and verbal consent was recorded with the consent of the participants. The verbal consent process was recorded using an audio recorder, and there were witnesses to ensure transparency of consent.

Participants' willingness to participate in this study was obtained without coercion, and their involvement was to provide opinions on improving marketing performance in the Malay Batik industry through optimizing competitive advantages by utilizing Augmented Reality marketing. Participants were fully informed about the purpose of the study and agreed to participate voluntarily.

Selecting samples and determining inclusion and exclusion criteria are crucial stages that influence the validity and generalizability of the research results. The following explains this process: The first step is to define the population or group that is the focus of the research. In this study, the population included business owners, marketing managers, and batik consumers. After selecting the sampling method, the sampling frame is developed. This involves creating a list of individuals or entities who might be research participants, such as a list of existing batik businesses in Riau, Indonesia. Selecting the actual sample from this research by determining the sample frame developed, the researcher selects the actual sample that will be invited or asked to participate in the research. Sampling can be performed randomly or by considering specific characteristics such as business size, length of operation, or geographic location.

3.1 Inclusion and Exclusion Criteria

Inclusion Criteria:
These criteria were used to decide who was eligible to be part of the research sample. The inclusion criteria were clear and relevant to the research objectives. Examples of inclusion criteria for research on batik marketing in Riau include the following :
 - Entrepreneurs or managers who have been active in the batik industry for at least three years.
 - Individuals or businesses located in the Riau region of, Indonesia
 - People who have knowledge or experience in marketing batik products.

Exclusion Criteria:
Exclusion criteria were used to exclude individuals or entities from the research sample. These criteria help ensure that the sample consists of relevant subjects and provide valuable insights. Examples of exclusion criteria in Riau Malay batik marketing research in Indonesia include the following:
 - Batik business that has been operating for less than three years.
 - Individuals or businesses not located in the Riau Region of, Indonesia
 - People who do not have relevant knowledge or experience in the batik industry.

Criteria Justification:
Researchers explained in detail in the research report why the inclusion and exclusion criteria were chosen. This justification can be based on relevance to the research objectives, desire to obtain a representative sample, or to control variables that could influence the research results.
By carrying out this process carefully, researchers can ensure that the selected sample is appropriate to the research objectives, maximize the relevance of the findings, and minimize the bias that may arise when interpreting research results.
Data collection for this research utilized various methods such as individual and group interviews, data collection from multiple industries, and data triangulation. Direct interaction with business actors and consumers provided rich insights into their perceptions, attitudes, and preferences towards Malay Batik.
    The data were analyzed using NVIVO 12, incorporating triangulation from various sources to verify the research findings. The interview data were transcribed to facilitate analysis and grouped into different use cases to demonstrate the uniqueness and success of AR utilization. In-depth semi-structured interviews were conducted with the participants, and audio or video recordings were subsequently transcribed into written text. The transcription process was crucial for the subsequent analysis of the interview content. Individual and group interviews were comprehensively analyzed to identify key themes, patterns, and emerging findings. The interview data were categorized into different use cases, showcasing the uniqueness and effectiveness of AR in Malay Batik marketing and exploring the underlying factors. These steps ensure the validity and reliability of the obtained data, providing valuable insights into how leveraging Augmented Reality (AR) marketing can optimize competitive advantages.

4.   Results and Discussion
4.1   Results
The application of Augmented Reality (AR) technology in the batik industry has brought about significant changes in marketing strategies to improve performance and achieve competitive advantage. In this context, this study examines how AR can be optimized to improve consumer experience, strengthen brand image, and promote the cultural value of batik. The Resource-Based View (RBV) focuses on how a company's unique resources and capabilities can be used to create sustainable added value through technological innovation.

Figure 1. Word Cloud

Based on figure 1 word cloud and table 1, translation word cloud, six words appeared most frequently in the marketing themes before using augmented reality. Of these six words, customer was most frequently expressed by informants. This shows that customers are the informants' main focus when marketing batik products. Attracting customers is the main task that needs to be performed. Based on the word cloud, social media and exhibition show the informants' ways of attracting customers to come and buy their products. However, these methods remain traditional. The word competition also shows that the informants are very concerned about competition in their batik industry.

Table 1. Translation Word Cloud

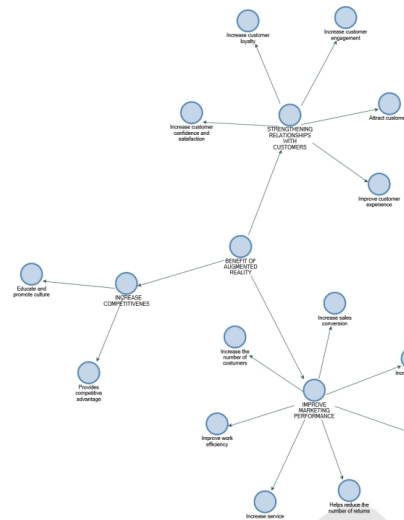| Word	English translation	Count	Weight percentage
Customer	Customers	12	7.89
Media	Media	8	5.26
Social	Social	8	5.26
Competition	Competitive	7	4.61
Digital Marketing	Digital Marketing	6	3.95
	Total	**41**	

Figure 2. Project Map Benefits of Augmented Reality Marketing

Based on Figure 2 and Table 2, three themes and 15 sub-themes were identified, as shown in the table above. These three themes show the three main benefits that informants feel when using augmented reality. The 15 sub-themes represent the benefits derived from the main benefits of using augmented reality.

Table 2. Themes and Sub-Themes Benefits of Augmented Reality

Themes	Sub-Themes
Improve Marketing Performance	Improve work efficiency
	Helps reduce the number of returns
	Increase Sales
	Improving services
	Increase sales conversions
	Increase the number of customers
	Helps expand market reach
Increase Competitiveness	Value provides a competitive advantage
	Educate and promote culture
Strengthening Relationships with Customers	Improve customer experience
	Increase customer loyalty
	Increase customer engagement
	Increase customer confidence and satisfaction
	Attract customers

Source : Data Processing, NVIVO 12

5.1. Improve Marketing Performance

5.1.1 Improve work efficiency

This theme describes informants' views on the benefits of augmented technology, which can increase work efficiency. According to the participant, augmented reality can increase work efficiency in two ways: cost and time. One informant revealed that augmented reality could help reduce time and costs in creating prototypes: "*AR helps them in understanding new designs better and reduces the time and costs required to create prototypes* " (Mr. B). Another informant stated that the use of augmented reality is beneficial in the sales process: "Yes, the sales process becomes more efficient because customers can directly see the product virtually, reducing the time they spend considering a purchase." (Mrs. Sr)

5.1.2 Increase Sales

One indicator of the success of implementing augmented reality expressed by informants is an increase in sales: "*We measure success through increased sales*." (Mr. Budi). "Our sales have also increased due to a more interesting and satisfying shopping experience." (Mrs.Ra) Another informant revealed that this increase in sales reached a significant level: "Yes, we saw a significant increase in sales after implementing AR." (Mr. B).

5.1.3 Improving Services

According to the informant, augmented reality makes the services provided to customers more responsive: "*Additionally, AR also allows us to provide better and more responsive service, as we can quickly adapt and develop products based on customer feedback.*". (Mr. An). In addition, another informant revealed that augmented reality technology is used to increase personal touch in services that cannot be obtained using traditional methods: "We use this technology as a tool to enhance, not replace, the personal touch in our services." (Mrs. Ra).

5.1.4 Increase sales conversions

The use of augmented reality can reduce batik sales cycles. The products displayed virtually allow customers to decide to buy the products offered quickly. This certainly increases sales conversion: "*AR has shortened the sales cycle for our batik products by enabling customers to make purchasing decisions more quickly. With AR, customers can view and try products virtually before purchasing, reducing the time needed to consider and decide. This has increased our sales conversions and reduced the time it takes to close a sale."* " (Mr. R)

5.1.5 Helps Reduce the number of returns

Customers can view products virtually using AR. Customers can try a product to determine whether its suitability. According to the informant, returns of goods are reduced: "*AR features also help reduce the number of returns because customers can see and try products virtually before buying*" (Mrs. L). Several informants revealed that reducing returns also indicates the success of implementing augmented reality: "We measure success through...reducing the number of returns and complaints" (Mr.B). "We measure the success of AR implementation by several metrics, including….Reduced product return rates" (Mr.R).

5.1.6 Helps expand market reach

The use of augmented reality not only attracts customers from Indonesia but can also attract customers from outside Indonesia. The informant felt the broad market reach of augmented reality: "*AR is beneficial for expanding our market reach. We can reach customers worldwide by enabling them to see and try products. This has helped us enter international markets more effectively and expand our customer base beyond the physical locality of our stores.*" " (Mrs. Nur).

Another informant revealed that the exciting thing about using augmented reality is that international customers can see and feel the products as if they were present in a physical store: "*AR allows international customers to see and experience our products as if they were in our physical stores, which is very helpful in reaching the global market*" (Mr. An).

5.1.7 Increase the number of customers

Another indicator of the successful use of augmented reality is the increase in customers: "*We measure success through.....an increase in the number of new customers that come from word of mouth recommendations*". (Mr. Bu). Another informant revealed that the increase in the number of customers mainly came from millennial and Generation Z customers,: " with an increase in the number of customers from millennials and Generation Z, who are more interested in technology and innovative shopping experiences." (Mrs. Rn).

Another informant stated that the increase in the number of customers occurred not only among the millennial generation and Generation Z but also among customers with different age backgrounds: "*We are seeing a significant increase in the number of customers from the younger generation, especially those aged between 20 to 35 years. AR technology appeals to them because they are more familiar with the technology and look for a different shopping experience. However, customers of all ages have also started enjoying this feature after being given sufficient guidance and explanation*'" (Mrs. Ra).

5.2 Increase Competitiveness
5.2.1 Value provides a competitive advantage

One participant explained competitive advantage in detail: "*AR provides a competitive advantage by offering a unique and interactive shopping experience that is difficult to find in other batik stores. This differentiates us from competitors and attracts the attention of more customers. In terms of marketing performance, AR allows us to attract and retain customers more effectively. Data obtained from customer interactions with AR technology helps us understand their preferences and behavior so we can design more targeted marketing campaigns. In addition, this technological innovation strengthens our brand image as a modern and innovative business, further increasing our attractiveness to consumers.*'" (Mrs. Ra). Based on participant' expressions, competitive advantage can be seen from several indicators, such as unique shopping experiences and technological innovation. Another informant expressed the modern and interactive side of the marketing concept using AR as an indicator of competitive advantage: "AR gives us a competitive advantage by providing a more modern and interactive shopping experience to our customers." (Mr. R).

5.2.2 Educate and promote culture

Education and the promotion of culture are two things that cannot be separated. For the informant, the use of augmented reality is not only aimed at improving marketing performance and attracting customers, but it also contains an educational element about cultural values as well as a means of cultural promotion: "*AR also makes it easier for us to educate customers about the cultural and historical values behind each batik motif... I believe AR will help increase sales and play an important role in preserving and promoting batik culture to the younger generation."* " (Mr. Ra).

Another informant believes that AR will not eliminate the traditional touch of Batik but will instead maintains and strengthens its authentic qualities and cultural values; "*Through AR, we display batik designs visually and include educational information about the meaning and history behind each motif. We work closely with local batik craftsmen to ensure that every product we offer maintains its traditional quality and authenticity*" (Mrs. Ratna). "We ensure that AR does not remove the traditional touch of batik by reinforcing traditional cultural and aesthetic values in every product we offer." (Mrs Nur).

5.3 Strengthening Relationships with Customers
5.3.1 Improve Customer Experience

Customer experience is one of the focuses of informants using augmented reality: "*AR impacts our marketing strategy by placing a greater focus on customer experience."* " (Mrs. Ratnawati). One informant said that one of the biggest benefits of using AR is improving the customer experience: "The biggest benefit of using AR is… improving the overall customer experience." (Mrs. Nur). Augmented reality gives customers new experiences they have never had before: "I see the huge potential of AR in providing new experiences to customers…in a way that has never been done before." (Mrs Dw).

5.3.2 Increase customer loyalty

A more personalized experience is possible when augmented reality markets batik products. This personal experience will later cause customers to be more loyal in buying the products offered: "*AR allows us to provide a more engaged and personalized experience to our customers. With AR, customers can explore our batik products in a way they have never done before. This experience….strengthens their emotional bond with our brand. As a result, we saw increased customer retention and loyalty to our batik brand*". (Mr. R).

Apart from a more personalized experience, the interactive side of using augmented reality and product quality are also factors that support customers returning to shop for the products offered: "*Customers who are satisfied with our interactive experience and product quality are more likely to return to shop again*(Mrs. Rn)

5.3.3 Increase customer confidence and satisfaction

Confidence to buy is one of the essential things augmented reality uses in marketing. Customers must first be convinced that the product being sold is indeed different. The virtual sales model makes customers more confident purchasing products: "*Customers are more confident and satisfied with their purchases because they can see product details virtually*" (Mrs. Dw). "They feel more comfortable and confident with their choice after trying batik virtually" (Mrs. Ln). "Customers are more interested and feel confident in buying after seeing the product virtually" (Mr.R)

Satisfaction is another variable after buyers feel confident about purchasing a product. Another informant revealed that satisfaction is one indicator of the success of using augmented reality: "We measure success through….the level of customer satisfaction..." (Mr.B)

5.3.4 Increase customer engagement
The informants revealed that virtual product marketing in augmented reality makes customers feel more involved in it: "Customers feel more involved and appreciated when they can try various batik motifs virtually" (Mrs.Rn). "They felt more connected and involved with our products, and the virtual exhibition helped them better understand the details and beauty of batik motifs" (Mrs. Dw). "We use AR as a key feature in our digital marketing campaigns. This attracts the attention of more people on social media and increases engagement with potential customers" (Mrs.Sr).

5.3.5 Attract customers
Interest is characterized by the customer's attention and interest in the product being sold. Most informants said that using augmented reality could attract customers ' attention to the products being sold: "*By showing how AR works, we can attract the attention of more customers and increase their interest in our products*" " (Mr. An). "We use AR as a key feature in our digital marketing campaigns. This attracts more people's attention on social media and increases engagement with potential customers" (Mrs. Sr). "We can attract the attention of more customers by offering innovative AR features, which not all of our competitors may have" (Mr.R)

Furthermore, if you look at the hierarchy chart displayed based on figure 3, informants tend to reveal that the benefits of augmented reality are more significant in strengthening customer relationships.
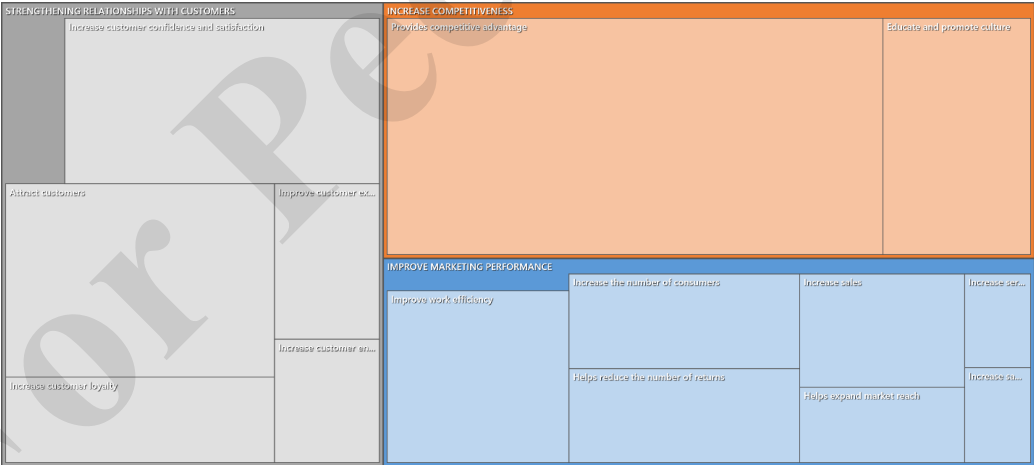

Figure 3. Diagram Hirarchy

For informants, the use of augmented reality in batik marketing first aims to strengthen their relationships with customers, after that increase competitiveness and then improve marketing performance.

6. Discussion

This research's findings revolve around three main themes: improving marketing performance, increasing competitiveness, and strengthening customer relationships. Augmented reality can increase work efficiency in two ways, namely cost and time. Augmented reality can increase operational efficiency by reducing the time required to design, modify, and test prototypes (Vilkina, & Klimovets, 2020; Walentek & Ziora, 2023). Digital models can be created and changed quickly without the need for actual physical materials at an early stage, meaning companies can reduce the use of raw materials and the time required for development. This aligns with the concept of reducing production costs and increasing productivity. Augmented reality is used to increase the personal touch in service that cannot be obtained using traditional methods so that consumers feel appreciated and strengthen relationships with consumers.

In this research, augmented reality (AR) in the batik business is connected to the RBV theory. AR technology is a unique resource that is difficult for competitors to imitate. By providing a virtual try-on feature, batik companies can offer consumers a different and more exciting shopping experience. Product visualization technology in AR allows consumers to see the details of batik motifs and textures. By providing a more engaging shopping experience and reducing the number of returns, companies can increase efficiency and customer satisfaction, ultimately strengthening competitive advantages that positively impact sales (Sung, 2021; Tan et al., 2022; Wieland et al., 2024). The use of Augmented Reality (AR) in the batik business can bring significant changes in the way batik is promoted, sold, and appreciated by consumers.

This research shows that customer experience is critical to building competitive advantage. The unique shopping experience provided by AR can increase customer engagement and satisfaction. AR allows customers to try products virtually, seeing how they would look or function in real life, improving purchasing decisions and customer loyalty. In the AR application, Virtual Try-On allows consumers to try various batik motifs and designs virtually before buying. They can see how batik will look when worn without having to try it on physically.

This study's findings align with research (Porter, 1985, 1990) that competitive advantage identifies two main types of strategies to achieve competitive advantage, namely differentiation and cost leadership. In the AR context, differentiation strategies are very relevant. Companies can differentiate themselves from competitors by offering unique and interactive AR shopping experiences. AR can make the shopping experience more engaging and personalize customer interactions with products, which is difficult for competitors to imitate. Our research results found that the benefits of using AR are that consumers get a more exciting shopping experience because they can see their appearance in the batik of their choice, increasing the possibility of purchasing. Reducing returns means that consumers can make better decisions by trying products virtually, reducing the likelihood of returns due to dissatisfaction.

Product visualization in AR technology can provide detailed visualization of batik motifs and textures. Consumers can see fine details and fabric quality better through AR displays. So, product details appear more straightforward because consumers can appreciate the quality and uniqueness of batik motifs. Then it generates consumer trust because they can see the product in more detail, thereby increasing consumer confidence in the quality of the product; this can

strengthen relationships with consumers, which has an impact on increasing sales (Tan et al., 2022; Voicu et al., 2023).

The benefits of AR in the batik business are also education and product stories; batik producers can provide additional information about each batik motif. Consumers can scan batik cloth or product labels to get a story about the origin of the motif, the manufacturing process, and its cultural meaning. Increasing cultural values is another benefit of using AR in the batik business because consumers can understand and appreciate the cultural and historical values behind each batik motif. Furthermore, product differentiation is also available through in-depth information about the product to differentiate batik from other manufacturers.

Competitive advantage is obtained from resources and capabilities that are unique and difficult for competitors to imitate (Porter, 1985, 1990; Barney, 2007; Wernerfelt, 2013; Vilkina, 2020; Gabajová et al., 2021; Karuppiah et al., 2023). AR can be considered a valuable resource due to its ability to create unmatched experiences and modernize marketing concepts. A company's capability to implement and utilize AR effectively is critical to creating a competitive advantage. Interactive Catalog in AR will provide a unique experience for consumers. Consumers use interactive catalogs equipped with AR technology to scan images or catalog pages to see 3D versions of batik products. More interesting interactions: Interactive catalogs make choosing products more exciting and informative (Scholz & Smith, 2016; Gallardo et al., 2018; Du et al., 2022). Consumers can easily choose a product because they can see the product from various angles and get additional information quickly. They apply AR in promotional and branding campaigns, such as AR filters on social media that allow users to try on batik motifs virtually or participate in contests using batik-themed AR filters.

Increasing engagement with AR-based promotional campaigns can attract the attention of more consumers, especially the younger generation who are active on social media. Attractive promotions can help expand market reach and increase brand awareness. They use AR in physical stores to provide a more interactive shopping experience. Consumers can scan products in stores for additional information, usage tutorials, or related product recommendations. It is an interesting shopping experience; consumers get additional information and relevant recommendations when shopping at the store. More complete and interactive information can increase customer satisfaction.

This research also emphasizes that AR in the batik business can provide a more exciting and informative experience for consumers, increase sales, and help strengthen the cultural value and quality of batik. This is as stated (Darma et al., 2019): Exploring competitive advantage by optimizing local resources, including by utilizing AR technology, not only helps in marketing and sales but also in education and preserving batik cultural heritage. With the right adoption, AR can be a very effective tool in developing the batik business in this digital era.

The educational aspect and product story become a unique resource that provides additional information about batik motifs presented through AR, helping educate consumers about the cultural and historical values behind each motif. This enriches the customer experience and differentiates batik products from others, strengthening the company's position in the market. Likewise, interactive catalogs that use AR technology provide a unique and exciting way for consumers to interact with products. This experience can increase consumer interest and engagement, make it easier for them to choose products, and increase the likelihood of purchase.

The findings of this research indicate that the use of AR in batik marketing becomes a competitive advantage due to the unique combination of resources, such as technology, skills,

and knowledge about batik culture. In-depth knowledge of batik motifs and their stories is a unique resource for batik companies for education and cultural promotion media. By using AR to educate consumers about batik culture, companies can increase consumer appreciation and loyalty, strengthening profitable long-term relationships (Gallardo et al., 2018; Gabajová et al., 2021; Kowalczuk et al., 2021; Du et al., 2022).

Relationships with customers are getting stronger because using AR to enhance customer experiences shows the company's ability to utilize advanced technology to meet consumer needs. Positive and interactive experiences can increase customer satisfaction and loyalty, which is a valuable asset for the company. Loyalty programs powered by AR technology can offer a more personalized and engaging experience. High customer loyalty helps companies maintain a stable customer base and increases lifetime value. AR enables more active consumer interactions through social media campaigns or physical stores. High levels of engagement can create closer relationships between brands and consumers, encourage brand advocacy, and increase brand awareness.

The ability to provide more detailed and interactive information about products through AR increases transparency and consumer trust. High consumer trust contributes to customer satisfaction and reduces the risk of product returns. Creative marketing campaigns using AR can attract the attention of new consumers in innovative ways. Companies can increase market share and ensure continued growth by continuing to attract new customers and retain existing ones. By integrating AR into marketing strategies, batik companies can leverage their unique resources and capabilities to create sustainable competitive advantages. The use of AR not only helps promote and sell batik products but also increases the cultural value and quality of batik in the eyes of consumers. This approach is in line with RBV theory, which emphasizes the importance of managing unique resources and capabilities to achieve competitive advantage and improve marketing performance. This discussion illustrates how various themes and subthemes in improving marketing performance, increasing competitiveness, and strengthening customer relationships can be implemented based on relevant marketing and management theories.

7. Conclusion, Implications, Limitations, and Future Research

AR (Augmented Reality) is a powerful technology in modern marketing that can significantly improve various aspects discussed in this research. AR in marketing provides various advantages, including increasing marketing performance efficiency, reducing returns, increasing sales, increasing competitive advantage, and strengthening relationships with customers. While AR adoption has challenges, such as high initial costs and the need for consumer education, the benefits can be enormous in the long run. This research concludes that improving marketing performance, increasing competitiveness, and strengthening customer relationships are three main themes that are very important in modern business strategy. Using various marketing and management theories, we can understand how related subthemes interact and contribute to overall business success.

Increasing work efficiency, reducing the number of returns, increasing sales, providing better service, increasing sales conversion, increasing the number of customers, and increasing market expansion can be achieved through a structured strategy based on existing theory. In addition, competitive advantage, education, and cultural promotion, as well as improving customer experience, loyalty, engagement, trust, and customer satisfaction, also play an essential role in building profitable long-term customer relationships.

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This research provides a theoretical contribution by connecting the Resource-Based View (RBV) theory with implementing Augmented Reality (AR) technology in batik marketing. This develops our understanding of how a company's unique resources and capabilities can be used to create long-term competitive advantage through innovative technologies. By using a qualitative approach and case studies, this research provides in-depth insight into the experiences and perceptions of batik industry players regarding the application of AR in marketing. Using in-depth interview methods and data triangulation increases the validity and reliability of research findings.

The results of this research have important managerial implications for batik companies and other industries that want to adopt AR technology. This includes strategies to improve brand image, customer loyalty, and long-term promotional cost efficiency through the implementation of AR. This research provides practical guidance for practitioners in the batik industry or other sectors to utilize AR technology as an effective marketing tool. This can help them make strategic decisions regarding technology investment and product development.

Focusing on batik as Indonesia's cultural heritage, this research also has value in promoting and preserving local culture through technological innovation. Implementing AR can enrich customer experiences by deepening their understanding of the values and stories behind each batik motif. This research contributes to understanding how modern technology, such as AR, can be applied effectively in traditional creative industries such as batik. This paves the way for further research into integrating technology with cultural heritage. Overall, this research enriches the theoretical and methodological literature and provides valuable practical insights for managers and practitioners in the batik industry and other creative sectors while preserving and promoting local culture through innovative technology.

Limitations of this research are based on research findings based on marketing and management theories that may only be fully applicable to some industries or markets. The specific context of a particular industry or market may influence the relevance and effectiveness of a proposed strategy. Applying various strategies and theories in business practice can be complex and require significant resources. Not all companies have the capabilities or resources necessary to implement these changes. Rapid changes in market trends, technology, and consumer behavior can affect the theories' relevance. This research may only partially capture the latest dynamics of the market.

Further research could focus on applying these strategies in specific industries to understand how industry context influences the effectiveness of various theories and strategies. It is also essential to explore how the latest technological developments, such as artificial intelligence and big data analytics, can be used to improve marketing performance and customer relationships. Longitudinal studies that monitor the implementation of these strategies over a more extended period could provide deeper insight into the long-term impacts and sustainability of the proposed strategies. Additional research can be conducted to understand changes in consumer behavior influenced by evolving social and economic factors and how marketing strategies can be adapted to these changes.

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Disclosure statement
No potential conflict of interest was reported by the author(s)

Author's contribution

AM, LMA, & SY carried out the research, wrote and revised the article AM, AM & LMA conceptualised the central research idea and provided the theoretical framework. AM, LMA & SY designed the research, supervised research progress; AM, LMA anchored the review, AM & SY revisions and approved the article submission.

Data availability statement
The study did not involve any data sets and the articles collected were sourced from https://www.scopus.com/ home.uri, accessed on 2024 and https://scholar.google.com/ accessed on 2024.

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Enhancing Marketing Performance in Batik Malay Industry: Optimization Competitive Advantage by Leveraging Augmented Reality Marketing

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Abstract

This research aims to explore how augmented reality (AR) and a company's unique resources optimize competitive advantages to enhance marketing performance using a qualitative approach with triangulated in-depth interviews. This study's findings revolve around three main themes: improving marketing performance, increasing competitiveness, and strengthening customer relationships. The results show that AR can improve marketing performance by optimizing competitive advantage and customer relationships. In addition, this research provides practical guidance for practitioners in the batik industry to utilize AR as an effective marketing tool and to assist in making strategic decisions regarding technology investment and product development. The focus on batik as Indonesia's cultural heritage adds value to promoting and preserving local culture through technological innovation. The theoretical contribution of this research connects Resource-Based View (RBV) theory with the implementation of augmented reality (AR) technology for batik marketing. It develops our understanding of how a company's unique resources and capabilities can be used to create a long-term competitive advantage through innovative technologies. Developing knowledge on integrating modern technology with traditional creative industries opens the way for further research in similar contexts. The results show that AR can improve marketing performance by optimizing competitive advantage and customer relationships. In addition, this research provides practical guidance for practitioners in the batik industry to utilize AR as an effective marketing tool and to assist in making strategic decisions regarding technology investment and product development. The focus on batik as Indonesia's cultural heritage adds value to promoting and preserving local culture through technological innovation. The theoretical contribution of this research connects Resource-Based View (RBV) theory with the implementation of augmented reality (AR) technology for batik marketing. It develops our understanding of how a company's unique resources and capabilities can be used to create a long-term competitive advantage through innovative technologies. Developing knowledge on integrating modern technology with traditional creative industries opens the way for further research in similar contexts.

Keywords: Augmented Reality Marketing, Competitive Advantage, Performance, Customer Experience, Digital Marketing.

1. Introduction

Augmented Reality marketing (ARM) has a transformative impact, as marketing communication prioritizing technology has the potential to improve consumer experience and consumer responses to purchasing decisions (Reis & Melão, 2023;Gallardo et al., 2018; Bellalouna, 2021;Du et al., 2022;Okhotan et al., 2015). Previous research has revealed ARM's superior ability to interactively enhance consumer experiences (Gallardo et al., 2018;Bellalouna, 2021;Chen & Lin, 2022).. Consumers can see and interact with products or services in Unity 3D simulations (Vilkina, 2020;Sung, 2021;Tutak & Brodny, 2022; Dwivedi et al., 2021). ARM integrates information or digital objects into consumer perceptions as new experiences in the digital marketing about products or services (Scholz & Smith, 2016; Schultz & Kumar, 2024;Kraus et al., 2022;Gabriel et al., 2023).

This study aims to examine augmented reality marketing (ARM) digital marketing technology for Batik Melayu Riau's marketing performance by optimizing its competitive advantage. Through ARM technology, Riau Malay Batik products can be presented uniquely and attractively, allowing consumers to see the natural beauty of the product and, obtain additional information regarding the motif, unique design, cultural value, and history of Riau Melayu Batik before they decide to buy. Augmented Reality (AR) has a significant role in improving business competitiveness and marketing performance by providing a user experience that allows businesses to create engaging and interactive experiences for consumers. With AR, consumers can view products in real or virtual contexts, such as by testing products or viewing additional information directly in their environment.

Augmented Reality marketing can help businesses differentiate their products from their competitors (Darma et al., 2018;Darma et al., 2019;Vilkina, 2020;Du et al., 2022). Features such as virtual try-ons, interactive storytelling, and virtual tours allow consumers to experience products that are more immersive and engagingly. In addition, more profound education and information can be obtained because AR allows businesses to convey additional information about products more visually and interestingly. For example, in the marketing context of Riau Malay Batik, AR can be used to show motifs, cultural values , and history more comprehensively and impressively. AR can also increase consumer engagement by providing personalized and relevant experiences. For example, consumers can " try on" products according to their preferences, increasing customer trust and satisfaction. By integrating AR into marketing strategies, businesses can optimize marketing processes by expanding their market reach and reaching a global audience (Bellalouna, 2021;Gabajová et al., 2021; Karuppiah et al., 2023). This technology also allows for the better tracking and analysis of consumer interactions, which can help improve future marketing strategies.

The potential for the batik market, both in Indonesia and around world, is quite large and continues to grow. The following section explains the potential of the batik market based on the statistical data. According to data from the Central Statistics Agency (BPS), the export value of batik and batik products from Indonesia continues to increase. In 2019, Indonesian batik exports reached approximately USD 52.4 million. Even though it fell in 2020 owing to the COVID-19 pandemic, this sector showed signs of recovery and improvement in the following years. Batik is indigenous cultural heritage site, in Indonesia that was recognized by UNESCO as a humanitarian heritage site for oral and intangible culture in 2009. It increases Indonesian people's awareness and pride in batik, which impacts high demand within the country.

Indonesian Batik, including Riau Malay Batik, is exported to various countries, including Malaysia, Japan, the United States, Europe, and Australia. There is an increasing global

awareness and appreciation of ethnic and sustainable products. As a product that is environmentally friendly and has high cultural value, it has a special place in the hearts of global consumers who care about sustainability and uniqueness. With government support and increasing awareness at home and abroad, the batik market has bright prospects. Overall, AR brings innovation to how products are marketed and strengthens business competitiveness by improving consumer experience, product differentiation, and overall marketing strategy efficiency, thus increasing marketing performance (Bernd, 2016, Rauschnabel et al., 2022).

This study explores how an innovation technology augmented reality and company's unique resources by optimizing competitive advantages to enhance marketing performance. Understanding how a company's unique resources and capabilities can create long-term competitive advantages through innovative technology is essential. By implementing ARM technology, the marketing performance of Batik Melayu Riau can be improved, as seen in sales growth, increasing the number of customers, and increasing profits by optimizing its competitive advantages.

2. Literature Review

This study draws on the resource-based view (RBV), which highlights the strategic use of tangible and intangible resources to convert potential competitive advantages into sustainable, long-term gains (Wernerfelt, 1984; Barney, 1991; Cabrera-suárez et al., 1994; Barney, 2001; Barney et al., 2011; Fatoki, 2021). It asserts that a company's competitive edge and overall performance are rooted in the strength of its resources. However, there are varied perspectives on the RBV. For example, Wheelen et al., (2018); Mahdi & Nassar, (2021); Yang et al., (2022)argue that RBV should focus on a company's capabilities rather than just its resources, suggesting that companies must leverage their resources effectively to enhance performance—similarly, Korsakienė & Raišienė, 2022 and Reis & Melão, 2023 stress the primacy of capabilities over mere resources. Hence, we posit that early RBV advocates centered their theory on the competitive capabilities of firms, achievable through a synergistic brand of financial, technological, and human resources. Focus on a holistic combination of financial, technological, and human resources.

The resource-based view (RBV) theory can be explained by the Augmented Reality (AR) phenomenon in marketing, especially in the batik industry. The RBV emphasizes the importance of utilizing unique and difficult-to-imitate resources to create sustainable competitive advantages (Mardatillah et al., 2019). AR can be considered one such resource. Transform Potential into a long-term competitive advantage. According to RBV, companies must leverage unique resources to create sustainable competitive advantages (Kocak et al., 2017; Liao et al., 2017; Kumar et al., 2024). AR in batik marketing allows companies to provide customers with uniquely valuable and interactive shopping experience. For example, AR applications can allow customers to try batik motifs virtually, provide detailed visualization of batik motifs and textures, and provide additional information about the history and cultural meaning. Difficult to Imitate (inimitable) and Complex to Replace (non-substitutable).

Furthermore, inimitable resources that are difficult for competitors to imitate provide a solid competitive advantage. When implemented innovatively and distinctively, AR technology becomes difficult for competitors to imitate (Dwivedi et al., 2021; Du et al., 2022; Gabriel et al., 2023). For example, the interactive experience provided by an AR application specific to Riau Batik may only be easily replicated by other companies with significant investments in technology and development. Non-substitutable resources that are difficult to replace with other

technologies are also important for competitive advantage. As a marketing technology, AR offers a unique way to interact with customers that cannot be easily replaced by other technologies such as conventional advertising or regular e-commerce.

Improved brand image and customer loyalty are the result of effective resource utilization. By providing rich and interactive experiences through AR, companies can enhance their brand image in an innovative and customer-oriented manner. Customers who are satisfied with this experience are more likely to become loyal and return to shop again. AR can reduce long-term promotional costs by replacing the need for physical exhibitions and expensive advertising campaigns. Once developed, AR applications can be used repeatedly for various promotional campaigns, thereby reducing saving long-term costs.

The development and implementation of AR technology require financial investment, technological expertise, and human resource training. However, the result is a competitive advantage that is difficult to imitate and can significantly improve marketing performance. Using a mobile application that allows customers to try various batik designs virtually and to view additional information about each motif is part of the RBV theory of unique resource utilization. The promotional campaign uses AR filters on social media, allowing users to try batik motifs and share their experiences, improving brand image and customer loyalty according to the RBV theory. Batik product catalogs with AR technology allow customers to view products in 3D and get additional information, adding value to the shopping experience and making it difficult for competitors to imitate.

This research uses resource-based view (RBV) theory in the context of Augmented Reality (AR) in the batik industry to show how innovative technology can be used as a unique resource to create sustainable competitive advantages. By implementing AR, batik companies can improve customer experience, brand image, and customer loyalty, as well as reduce long-term promotional costs in accordance with RBV principles (Barney, 2007; Barney et al., 2011; Liao et al., 2017; Du et al., 2022; Grabowska & Saniuk, 2022).

2.1 Research Value

This research has significant research value in several aspects:

First, it provides a theoretical contribution by connecting the Resource-Based View (RBV) theory with the implementation of Augmented Reality (AR) technology in the context of batik marketing. It develops our understanding of how a company's unique resources and capabilities can be used to create a long-term competitive advantage through innovative technologies.

Second, Methodological contribution, using a qualitative approach and case studies, this research provides in-depth insight into the experiences and perceptions of batik industry players regarding the application of AR in marketing. The use of using in-depth interview methods and data triangulation increased the validity and reliability of the research findings.

Third, Managerial Implications: The results of this study have important managerial implications for batik companies and other industries that want to adopt AR technology. This includes strategies to improve brand image, customer loyalty, and long-term promotional cost efficiency through the implementation of AR.

Fourth, Practical Implications: This study provides practical guidance for practitioners in the batik industry or other sectors to utilize AR technology as an effective marketing tool. This can help them make strategic decisions regarding technology investment and product development.

Fifth, social, and cultural contributions, focusing on batik as Indonesia's cultural heritage, also have value in promoting and preserving local culture through technological innovation. Implementing AR can enrich customer experiences by deepening their understanding of the values and stories of each batik motif.

Sixth, Knowledge Development: This research contributes to the development of knowledge about how modern technology, such as AR, can be applied effectively in the context of traditional creative industries such as batik. This paves the way for further research on integrating technology with cultural heritage.

These study provides new insights into the relationship between RBV and AR in the context of batik marketing. It provides a valuable framework for developing business strategies and policies that support innovation and growth of creative industries in Indonesia and the world. To develop a research theory that focuses on the use of Augmented Reality (AR) on marketing performance, the following is a theoretical framework that can be used: Augmented Reality (AR) as an Innovative Marketing Tool, AR utilizes technology to present digital information or visual elements in a real-world context, improving user experience. The influence of AR on consumer engagement: AR can increase consumer engagement with products or brands through immersive and direct interactions. Enables consumers to view products in a more detailed and relevant context, thereby facilitating purchasing decisions. The use of AR can increase consumers' perceptions of a brand as innovative or modern. AR can provide a competitive advantage that is difficult for competitors to imitate; and differentiation from competitors differentiates brands in a crowded market.

Augmented reality impacts customer conversion and retention by providing engaging and informative experiences. By increasing consumer interaction and satisfaction, AR can increase long-term customer loyalty and —cost efficiency in marketing strategies, therby- reducing long-term promotional costs. Although the initial investment in AR development may be high, its long-term use can reduce promotional costs because of to its effectiveness in attracting and retaining customers. AR can become an integral component of a broader digital marketing strategy, amplifying the impact and reach of marketing campaigns. This theory proposes that using AR in marketing can significantly improve marketing performance by increasing consumer engagement, strengthening brand image, increasing conversion and customer retention, and optimizing long term cost efficiency. By integrating AR into marketing strategies, companies can achieve a sustainable competitive advantage and strengthen their position in the competitive market.

3. Method

This study employed a qualitative methodology with a case study approach to identify various aspects and categories from interview data, which were subsequently organized into different use cases using NVIVO 12. These use cases are detailed across several stages, specifically examining how the use of Augmented Reality (AR) in the marketing of Riau Malay Batik can be challenging for competitors to replicate (inimitable) and difficult to replace with other technologies (non-substitutable). This research adopts a specific approach to explore how optimizing competitive advantages through Augmented marketing can effectively enhance the marketing performance of Malay batiks in Riau, Indonesia.

This study focuses on small and medium enterprise entrepreneurs who have been in the Riau Malay Batik business for over three years in Riau Province, Indonesia. In-depth semi-

structured interviews were conducted with 30 Riau Malay Batik industry participants in Riau Province. A total of 30 participants from 10 different business groups within the Riau Malay Batik industry were selected as primary respondents. Respondents included business owners and marketing managers in the industry.

In a more applicable context, this study uses a data triangulation approach to combine various methods and data sources to strengthen the validity and reliability of the research findings. It is essential to ensure the reliability, validity, and accuracy of the findings and provide a more holistic picture of the complex reality of the research subject (Abraham & Sundaram, 2019). This study uses various methods such as in-depth interviews, direct observation, and document analysis, which are the most appropriate approaches to investigate the phenomenon under study.

Regulation of the Minister of Research, Technology, and Higher Education of the Republic of Indonesia No. 69 of 2016 concerning the Code of Ethics for Research and Development (*Menteri Riset, Teknologi*, 2019)*:*

Article 10 *States that all research must adhere to ethical principles, including research with minimal risk. Consent from research subjects must be obtained, but the consent form can be adjusted to the level of risk of the research.*

The guidelines state that low-risk social and humanities research can use simplified consent. This usually includes research that does not disclose sensitive information and does not endanger the welfare of participants. Researchers must still obtain consent from participants, at least verbally or through simplified consent.

This research falls into low-risk social and humanities research that can use simplified verbal consent because this research does not reveal sensitive information and does not endanger the welfare of participants. In this study participants provided verbal informed consent because, verbal consent was preferred in the participant's culture. Participants felt more comfortable and confident giving verbal consent after receiving a detailed explanation of the study. Verbal consent allowed them to ask questions and get clarification before giving consent. Detailed explanations of the study were given, and verbal consent was recorded with the consent of the participants. The verbal consent process was recorded using an audio recorder, and there were witnesses to ensure transparency of consent.

Participants' willingness to participate in this study was obtained without coercion, and their involvement was to provide opinions on improving marketing performance in the Malay Batik industry through optimizing competitive advantages by utilizing Augmented Reality marketing. Participants were fully informed about the purpose of the study and agreed to participate voluntarily.

Selecting samples and determining inclusion and exclusion criteria are crucial stages that influence the validity and generalizability of the research results. The following explains this process: The first step is to define the population or group that is the focus of the research. In this study, the population included business owners, marketing managers, and batik consumers. After selecting the sampling method, the sampling frame is developed. This involves creating a list of individuals or entities who might be research participants, such as a list of existing batik businesses in Riau, Indonesia. Selecting the actual sample from this research by determining the sample frame developed, the researcher selects the actual sample that will be invited or asked to participate in the research. Sampling can be performed randomly or by considering specific characteristics such as business size, length of operation, or geographic location.

3.1 Inclusion and Exclusion Criteria

Inclusion Criteria:
These criteria were used to decide who was eligible to be part of the research sample. The inclusion criteria were clear and relevant to the research objectives. Examples of inclusion criteria for research on batik marketing in Riau include the following :
- Entrepreneurs or managers who have been active in the batik industry for at least three years.
- Individuals or businesses located in the Riau region of, Indonesia
- People who have knowledge or experience in marketing batik products.

Exclusion Criteria:
Exclusion criteria were used to exclude individuals or entities from the research sample. These criteria help ensure that the sample consists of relevant subjects and provide valuable insights. Examples of exclusion criteria in Riau Malay batik marketing research in Indonesia include the following:
- Batik business that has been operating for less than three years.
- Individuals or businesses not located in the Riau Region of, Indonesia
- People who do not have relevant knowledge or experience in the batik industry.

Criteria Justification:
Researchers explained in detail in the research report why the inclusion and exclusion criteria were chosen. This justification can be based on relevance to the research objectives, desire to obtain a representative sample, or to control variables that could influence the research results.
By carrying out this process carefully, researchers can ensure that the selected sample is appropriate to the research objectives, maximize the relevance of the findings, and minimize the bias that may arise when interpreting research results.
Data collection for this research utilized various methods such as individual and group interviews, data collection from multiple industries, and data triangulation. Direct interaction with business actors and consumers provided rich insights into their perceptions, attitudes, and preferences towards Malay Batik.
The data were analyzed using NVIVO 12, incorporating triangulation from various sources to verify the research findings. The interview data were transcribed to facilitate analysis and grouped into different use cases to demonstrate the uniqueness and success of AR utilization. In-depth semi-structured interviews were conducted with the participants, and audio or video recordings were subsequently transcribed into written text. The transcription process was crucial for the subsequent analysis of the interview content. Individual and group interviews were comprehensively analyzed to identify key themes, patterns, and emerging findings. The interview data were categorized into different use cases, showcasing the uniqueness and effectiveness of AR in Malay Batik marketing and exploring the underlying factors. These steps ensure the validity and reliability of the obtained data, providing valuable insights into how leveraging Augmented Reality (AR) marketing can optimize competitive advantages.

4.   Results and Discussion

4.1   Results

The application of Augmented Reality (AR) technology in the batik industry has brought about significant changes in marketing strategies to improve performance and achieve competitive advantage. In this context, this study examines how AR can be optimized to improve consumer experience, strengthen brand image, and promote the cultural value of batik. The Resource-Based View (RBV) focuses on how a company's unique resources and capabilities can be used to create sustainable added value through technological innovation.

Figure 1. Word Cloud

Based on figure 1 word cloud and table 1, translation word cloud, six words appeared most frequently in the marketing themes before using augmented reality. Of these six words, customer was most frequently expressed by informants. This shows that customers are the informants' main focus when marketing batik products. Attracting customers is the main task that needs to be performed. Based on the word cloud, social media and exhibition show the informants' ways of attracting customers to come and buy their products. However, these methods remain traditional. The word competition also shows that the informants are very concerned about competition in their batik industry.

Table 1. Translation Word Cloud

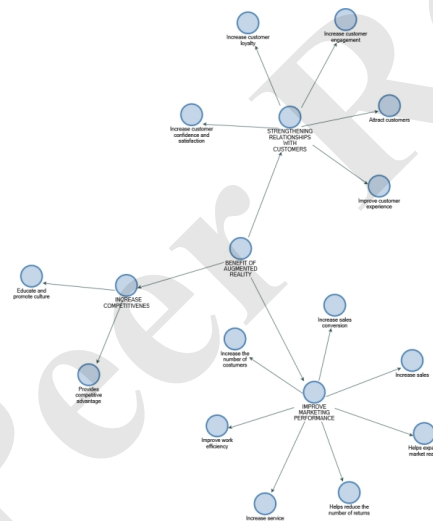| Word	English translation	Count	Weight percentage
Customer	Customers	12	7.89
Media	Media	8	5.26
Social	Social	8	5.26
Competition	Competitive	7	4.61
Digital Marketing	Digital Marketing	6	3.95
Total		**41**	

Figure 2. Project Map Benefits of Augmented Reality Marketing

Based on Figure 2 and Table 2, three themes and 15 sub-themes were identified, as shown in the table above. These three themes show the three main benefits that informants feel when using augmented reality. The 15 sub-themes represent the benefits derived from the main benefits of using augmented reality.

Table 2. Themes and Sub-Themes Benefits of Augmented Reality

Themes	Sub-Themes
Improve Marketing Performance	Improve work efficiency
	Helps reduce the number of returns
	Increase Sales
	Improving services
	Increase sales conversions
	Increase the number of customers
	Helps expand market reach
Increase Competitiveness	Value provides a competitive advantage
	Educate and promote culture
Strengthening Relationships with Customers	Improve customer experience
	Increase customer loyalty
	Increase customer engagement
	Increase customer confidence and satisfaction
	Attract customers

Source : Data Processing, NVIVO 12

5.1. Improve Marketing Performance

5.1.1 Improve work efficiency

This theme describes informants' views on the benefits of augmented technology, which can increase work efficiency. According to the participant, augmented reality can increase work efficiency in two ways: cost and time. One informant revealed that augmented reality could help reduce time and costs in creating prototypes: "*AR helps them in understanding new designs better and reduces the time and costs required to create prototypes* " (Mr. B). Another informant stated that the use of augmented reality is beneficial in the sales process: "Yes, the sales process becomes more efficient because customers can directly see the product virtually, reducing the time they spend considering a purchase." (Mrs. Sr)

5.1.2 Increase Sales

One indicator of the success of implementing augmented reality expressed by informants is an increase in sales: "*We measure success through increased sales*." (Mr. Budi). "Our sales have also increased due to a more interesting and satisfying shopping experience." (Mrs.Ra) Another informant revealed that this increase in sales reached a significant level: "Yes, we saw a significant increase in sales after implementing AR." (Mr. B).

5.1.3 Improving Services

According to the informant, augmented reality makes the services provided to customers more responsive: "*Additionally, AR also allows us to provide better and more responsive service, as we can quickly adapt and develop products based on customer feedback.*". (Mr. An). In addition, another informant revealed that augmented reality technology is used to increase personal touch in services that cannot be obtained using traditional methods: "We use this technology as a tool to enhance, not replace, the personal touch in our services." (Mrs. Ra).

5.1.4 Increase sales conversions

The use of augmented reality can reduce batik sales cycles. The products displayed virtually allow customers to decide to buy the products offered quickly. This certainly increases sales conversion: "*AR has shortened the sales cycle for our batik products by enabling customers to make purchasing decisions more quickly. With AR, customers can view and try products virtually before purchasing, reducing the time needed to consider and decide. This has increased our sales conversions and reduced the time it takes to close a sale.*" " (Mr. R)

5.1.5 Helps Reduce the number of returns

Customers can view products virtually using AR. Customers can try a product to determine whether its suitability. According to the informant, returns of goods are reduced: "*AR features also help reduce the number of returns because customers can see and try products virtually before buying*" (Mrs. L). Several informants revealed that reducing returns also indicates the success of implementing augmented reality: "We measure success through...reducing the number of returns and complaints" (Mr.B). "We measure the success of AR implementation by several metrics, including….Reduced product return rates" (Mr.R).

5.1.6 Helps expand market reach

The use of augmented reality not only attracts customers from Indonesia but can also attract customers from outside Indonesia. The informant felt the broad market reach of augmented reality: "*AR is beneficial for expanding our market reach. We can reach customers worldwide by enabling them to see and try products. This has helped us enter international markets more effectively and expand our customer base beyond the physical locality of our stores.*" " (Mrs. Nur).

Another informant revealed that the exciting thing about using augmented reality is that international customers can see and feel the products as if they were present in a physical store: "*AR allows international customers to see and experience our products as if they were in our physical stores, which is very helpful in reaching the global market*" (Mr. An).

5.1.7 Increase the number of customers

Another indicator of the successful use of augmented reality is the increase in customers: "*We measure success through…..an increase in the number of new customers that come from word of mouth recommendations*". (Mr. Bu). Another informant revealed that the increase in the number of customers mainly came from millennial and Generation Z customers,: " with an increase in the number of customers from millennials and Generation Z, who are more interested in technology and innovative shopping experiences." (Mrs. Rn).

Another informant stated that the increase in the number of customers occurred not only among the millennial generation and Generation Z but also among customers with different age backgrounds: "*We are seeing a significant increase in the number of customers from the younger generation, especially those aged between 20 to 35 years. AR technology appeals to them because they are more familiar with the technology and look for a different shopping experience. However, customers of all ages have also started enjoying this feature after being given sufficient guidance and explanation*'" (Mrs. Ra).

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5.2 Increase Competitiveness

5.2.1 Value provides a competitive advantage

One participant explained competitive advantage in detail: "*AR provides a competitive advantage by offering a unique and interactive shopping experience that is difficult to find in other batik stores. This differentiates us from competitors and attracts the attention of more customers. In terms of marketing performance, AR allows us to attract and retain customers more effectively. Data obtained from customer interactions with AR technology helps us understand their preferences and behavior so we can design more targeted marketing campaigns. In addition, this technological innovation strengthens our brand image as a modern and innovative business, further increasing our attractiveness to consumers.*" (Mrs. Ra). Based on participant' expressions, competitive advantage can be seen from several indicators, such as unique shopping experiences and technological innovation. Another informant expressed the modern and interactive side of the marketing concept using AR as an indicator of competitive advantage: "AR gives us a competitive advantage by providing a more modern and interactive shopping experience to our customers." (Mr. R).

5.2.2 Educate and promote culture

Education and the promotion of culture are two things that cannot be separated. For the informant, the use of augmented reality is not only aimed at improving marketing performance and attracting customers, but it also contains an educational element about cultural values as well as a means of cultural promotion: "*AR also makes it easier for us to educate customers about the cultural and historical values behind each batik motif... I believe AR will help increase sales and play an important role in preserving and promoting batik culture to the younger generation.*" (Mr. Ra).

Another informant believes that AR will not eliminate the traditional touch of Batik but will instead maintains and strengthens its authentic qualities and cultural values; "*Through AR, we display batik designs visually and include educational information about the meaning and history behind each motif. We work closely with local batik craftsmen to ensure that every product we offer maintains its traditional quality and authenticity*" (Mrs. Ratna). "We ensure that AR does not remove the traditional touch of batik by reinforcing traditional cultural and aesthetic values in every product we offer." (Mrs Nur).

5.3 Strengthening Relationships with Customers

5.3.1 Improve Customer Experience

Customer experience is one of the focuses of informants using augmented reality: "*AR impacts our marketing strategy by placing a greater focus on customer experience.*" (Mrs. Ratnawati). One informant said that one of the biggest benefits of using AR is improving the customer experience: "The biggest benefit of using AR is… improving the overall customer experience." (Mrs. Nur). Augmented reality gives customers new experiences they have never had before: "I see the huge potential of AR in providing new experiences to customers…in a way that has never been done before." (Mrs Dw).

5.3.2 Increase customer loyalty

A more personalized experience is possible when augmented reality markets batik products. This personal experience will later cause customers to be more loyal in buying the products offered: "*AR allows us to provide a more engaged and personalized experience to our customers. With AR, customers can explore our batik products in a way they have never done before. This experience ....strengthens their emotional bond with our brand. As a result, we saw increased customer retention and loyalty to our batik brand*". (Mr. R).

Apart from a more personalized experience, the interactive side of using augmented reality and product quality are also factors that support customers returning to shop for the products offered: "*Customers who are satisfied with our interactive experience and product quality are more likely to return to shop again*(Mrs. Rn)

5.3.3 Increase customer confidence and satisfaction

Confidence to buy is one of the essential things augmented reality uses in marketing. Customers must first be convinced that the product being sold is indeed different. The virtual sales model makes customers more confident purchasing products: "*Customers are more confident and satisfied with their purchases because they can see product details virtually*" (Mrs. Dw). "They feel more comfortable and confident with their choice after trying batik virtually" (Mrs. Ln). "Customers are more interested and feel confident in buying after seeing the product virtually" (Mr.R)

Satisfaction is another variable after buyers feel confident about purchasing a product. Another informant revealed that satisfaction is one indicator of the success of using augmented reality: "We measure success through....the level of customer satisfaction..." (Mr.B)

5.3.4 Increase customer engagement

The informants revealed that virtual product marketing in augmented reality makes customers feel more involved in it: "Customers feel more involved and appreciated when they can try various batik motifs virtually" (Mrs.Rn). "They felt more connected and involved with our products, and the virtual exhibition helped them better understand the details and beauty of batik motifs" (Mrs. Dw). "We use AR as a key feature in our digital marketing campaigns. This attracts the attention of more people on social media and increases engagement with potential customers" (Mrs.Sr).

5.3.5 Attract customers

Interest is characterized by the customer's attention and interest in the product being sold. Most informants said that using augmented reality could attract customers ' attention to the products being sold: "*By showing how AR works, we can attract the attention of more customers and increase their interest in our products*" " (Mr. An). "We use AR as a key feature in our digital marketing campaigns. This attracts more people's attention on social media and increases engagement with potential customers" (Mrs. Sr). "We can attract the attention of more customers by offering innovative AR features, which not all of our competitors may have" (Mr.R)

Furthermore, if you look at the hierarchy chart displayed based on figure 3, informants tend to reveal that the benefits of augmented reality are more significant in strengthening customer relationships.
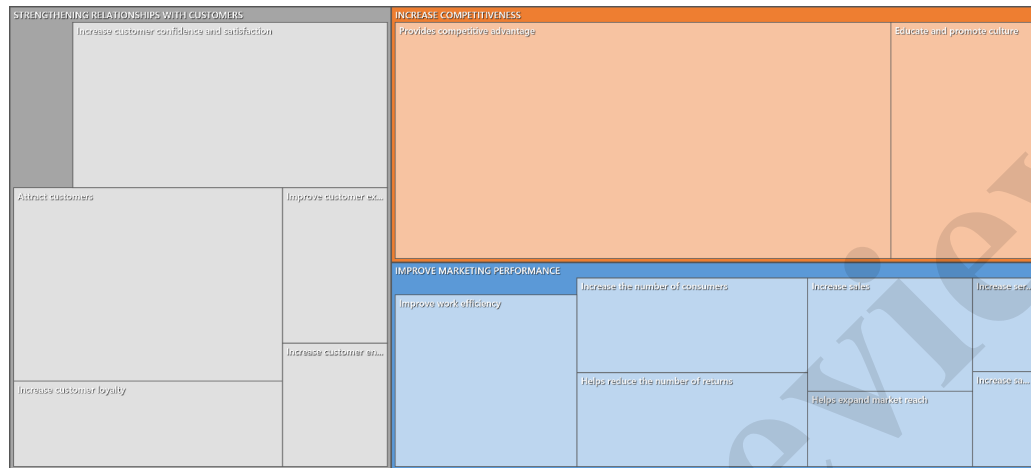
Figure 3. Diagram Hirarchy

For informants, the use of augmented reality in batik marketing first aims to strengthen their relationships with customers, after that increase competitiveness and then improve marketing performance.

6. Discussion

This research's findings revolve around three main themes: improving marketing performance, increasing competitiveness, and strengthening customer relationships. Augmented reality can increase work efficiency in two ways, namely cost and time. Augmented reality can increase operational efficiency by reducing the time required to design, modify, and test prototypes (Vilkina, & Klimovets, 2020; Walentek & Ziora, 2023). Digital models can be created and changed quickly without the need for actual physical materials at an early stage, meaning companies can reduce the use of raw materials and the time required for development. This aligns with the concept of reducing production costs and increasing productivity. Augmented reality is used to increase the personal touch in service that cannot be obtained using traditional methods so that consumers feel appreciated and strengthen relationships with consumers.

In this research, augmented reality (AR) in the batik business is connected to the RBV theory. AR technology is a unique resource that is difficult for competitors to imitate. By providing a virtual try-on feature, batik companies can offer consumers a different and more exciting shopping experience. Product visualization technology in AR allows consumers to see the details of batik motifs and textures. By providing a more engaging shopping experience and reducing the number of returns, companies can increase efficiency and customer satisfaction, ultimately strengthening competitive advantages that positively impact sales (Sung, 2021; Tan et al., 2022; Wieland et al., 2024). The use of Augmented Reality (AR) in the batik business can bring significant changes in the way batik is promoted, sold, and appreciated by consumers.

This research shows that customer experience is critical to building competitive advantage. The unique shopping experience provided by AR can increase customer engagement and satisfaction. AR allows customers to try products virtually, seeing how they would look or

function in real life, improving purchasing decisions and customer loyalty. In the AR application, Virtual Try-On allows consumers to try various batik motifs and designs virtually before buying. They can see how batik will look when worn without having to try it on physically.

This study's findings align with research (Porter, 1985, 1990) that competitive advantage identifies two main types of strategies to achieve competitive advantage, namely differentiation and cost leadership. In the AR context, differentiation strategies are very relevant. Companies can differentiate themselves from competitors by offering unique and interactive AR shopping experiences. AR can make the shopping experience more engaging and personalize customer interactions with products, which is difficult for competitors to imitate. Our research results found that the benefits of using AR are that consumers get a more exciting shopping experience because they can see their appearance in the batik of their choice, increasing the possibility of purchasing. Reducing returns means that consumers can make better decisions by trying products virtually, reducing the likelihood of returns due to dissatisfaction.

Product visualization in AR technology can provide detailed visualization of batik motifs and textures. Consumers can see fine details and fabric quality better through AR displays. So, product details appear more straightforward because consumers can appreciate the quality and uniqueness of batik motifs. Then it generates consumer trust because they can see the product in more detail, thereby increasing consumer confidence in the quality of the product; this can strengthen relationships with consumers, which has an impact on increasing sales (Tan et al., 2022; Voicu et al., 2023).

The benefits of AR in the batik business are also education and product stories; batik producers can provide additional information about each batik motif. Consumers can scan batik cloth or product labels to get a story about the origin of the motif, the manufacturing process, and its cultural meaning. Increasing cultural values is another benefit of using AR in the batik business because consumers can understand and appreciate the cultural and historical values behind each batik motif. Furthermore, product differentiation is also available through in-depth information about the product to differentiate batik from other manufacturers.

Competitive advantage is obtained from resources and capabilities that are unique and difficult for competitors to imitate (Porter, 1985, 1990; Barney, 2007; Wernerfelt, 2013; Vilkina, 2020; Gabajová et al., 2021; Karuppiah et al., 2023). AR can be considered a valuable resource due to its ability to create unmatched experiences and modernize marketing concepts. A company's capability to implement and utilize AR effectively is critical to creating a competitive advantage. Interactive Catalog in AR will provide a unique experience for consumers. Consumers use interactive catalogs equipped with AR technology to scan images or catalog pages to see 3D versions of batik products. More interesting interactions: Interactive catalogs make choosing products more exciting and informative (Scholz & Smith, 2016; Gallardo et al., 2018; Du et al., 2022). Consumers can easily choose a product because they can see the product from various angles and get additional information quickly. They apply AR in promotional and branding campaigns, such as AR filters on social media that allow users to try on batik motifs virtually or participate in contests using batik-themed AR filters.

Increasing engagement with AR-based promotional campaigns can attract the attention of more consumers, especially the younger generation who are active on social media. Attractive promotions can help expand market reach and increase brand awareness. They use AR in physical stores to provide a more interactive shopping experience. Consumers can scan products in stores for additional information, usage tutorials, or related product recommendations. It is an

interesting shopping experience; consumers get additional information and relevant recommendations when shopping at the store. More complete and interactive information can increase customer satisfaction.

This research also emphasizes that AR in the batik business can provide a more exciting and informative experience for consumers, increase sales, and help strengthen the cultural value and quality of batik. This is as stated (Darma et al., 2019): Exploring competitive advantage by optimizing local resources, including by utilizing AR technology, not only helps in marketing and sales but also in education and preserving batik cultural heritage. With the right adoption, AR can be a very effective tool in developing the batik business in this digital era.

The educational aspect and product story become a unique resource that provides additional information about batik motifs presented through AR, helping educate consumers about the cultural and historical values behind each motif. This enriches the customer experience and differentiates batik products from others, strengthening the company's position in the market. Likewise, interactive catalogs that use AR technology provide a unique and exciting way for consumers to interact with products. This experience can increase consumer interest and engagement, make it easier for them to choose products, and increase the likelihood of purchase.

The findings of this research indicate that the use of AR in batik marketing becomes a competitive advantage due to the unique combination of resources, such as technology, skills, and knowledge about batik culture. In-depth knowledge of batik motifs and their stories is a unique resource for batik companies for education and cultural promotion media. By using AR to educate consumers about batik culture, companies can increase consumer appreciation and loyalty, strengthening profitable long-term relationships (Gallardo et al., 2018; Gabajová et al., 2021; Kowalczuk et al., 2021; Du et al., 2022).

Relationships with customers are getting stronger because using AR to enhance customer experiences shows the company's ability to utilize advanced technology to meet consumer needs. Positive and interactive experiences can increase customer satisfaction and loyalty, which is a valuable asset for the company. Loyalty programs powered by AR technology can offer a more personalized and engaging experience. High customer loyalty helps companies maintain a stable customer base and increases lifetime value. AR enables more active consumer interactions through social media campaigns or physical stores. High levels of engagement can create closer relationships between brands and consumers, encourage brand advocacy, and increase brand awareness.

The ability to provide more detailed and interactive information about products through AR increases transparency and consumer trust. High consumer trust contributes to customer satisfaction and reduces the risk of product returns. Creative marketing campaigns using AR can attract the attention of new consumers in innovative ways. Companies can increase market share and ensure continued growth by continuing to attract new customers and retain existing ones. By integrating AR into marketing strategies, batik companies can leverage their unique resources and capabilities to create sustainable competitive advantages. The use of AR not only helps promote and sell batik products but also increases the cultural value and quality of batik in the eyes of consumers. This approach is in line with RBV theory, which emphasizes the importance of managing unique resources and capabilities to achieve competitive advantage and improve marketing performance. This discussion illustrates how various themes and subthemes in improving marketing performance, increasing competitiveness, and strengthening customer relationships can be implemented based on relevant marketing and management theories.

7. Conclusion, Implications, Limitations, and Future Research

AR (Augmented Reality) is a powerful technology in modern marketing that can significantly improve various aspects discussed in this research. AR in marketing provides various advantages, including increasing marketing performance efficiency, reducing returns, increasing sales, increasing competitive advantage, and strengthening relationships with customers. While AR adoption has challenges, such as high initial costs and the need for consumer education, the benefits can be enormous in the long run. This research concludes that improving marketing performance, increasing competitiveness, and strengthening customer relationships are three main themes that are very important in modern business strategy. Using various marketing and management theories, we can understand how related subthemes interact and contribute to overall business success.

Increasing work efficiency, reducing the number of returns, increasing sales, providing better service, increasing sales conversion, increasing the number of customers, and increasing market expansion can be achieved through a structured strategy based on existing theory. In addition, competitive advantage, education, and cultural promotion, as well as improving customer experience, loyalty, engagement, trust, and customer satisfaction, also play an essential role in building profitable long-term customer relationships.

This research provides a theoretical contribution by connecting the Resource-Based View (RBV) theory with implementing Augmented Reality (AR) technology in batik marketing. This develops our understanding of how a company's unique resources and capabilities can be used to create long-term competitive advantage through innovative technologies. By using a qualitative approach and case studies, this research provides in-depth insight into the experiences and perceptions of batik industry players regarding the application of AR in marketing. Using in-depth interview methods and data triangulation increases the validity and reliability of research findings.

The results of this research have important managerial implications for batik companies and other industries that want to adopt AR technology. This includes strategies to improve brand image, customer loyalty, and long-term promotional cost efficiency through the implementation of AR. This research provides practical guidance for practitioners in the batik industry or other sectors to utilize AR technology as an effective marketing tool. This can help them make strategic decisions regarding technology investment and product development.

Focusing on batik as Indonesia's cultural heritage, this research also has value in promoting and preserving local culture through technological innovation. Implementing AR can enrich customer experiences by deepening their understanding of the values and stories behind each batik motif. This research contributes to understanding how modern technology, such as AR, can be applied effectively in traditional creative industries such as batik. This paves the way for further research into integrating technology with cultural heritage. Overall, this research enriches the theoretical and methodological literature and provides valuable practical insights for managers and practitioners in the batik industry and other creative sectors while preserving and promoting local culture through innovative technology.

Limitations of this research are based on research findings based on marketing and management theories that may only be fully applicable to some industries or markets. The specific context of a particular industry or market may influence the relevance and effectiveness of a proposed strategy. Applying various strategies and theories in business practice can be complex and require significant resources. Not all companies have the capabilities or resources

necessary to implement these changes. Rapid changes in market trends, technology, and consumer behavior can affect the theories' relevance. This research may only partially capture the latest dynamics of the market.

Further research could focus on applying these strategies in specific industries to understand how industry context influences the effectiveness of various theories and strategies. It is also essential to explore how the latest technological developments, such as artificial intelligence and big data analytics, can be used to improve marketing performance and customer relationships. Longitudinal studies that monitor the implementation of these strategies over a more extended period could provide deeper insight into the long-term impacts and sustainability of the proposed strategies. Additional research can be conducted to understand changes in consumer behavior influenced by evolving social and economic factors and how marketing strategies can be adapted to these changes.

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Disclosure statement

No potential conflict of interest was reported by the author(s)

Author's contribution

AM, LMA, & SY carried out the research, wrote and revised the article AM, AM & LMA conceptualised the central research idea and provided the theoretical framework. AM, LMA &

SY designed the research, supervised research progress; AM, LMA anchored the review, AM & SY revisions and approved the article submission.

Data availability statement

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Enhancing Marketing Performance in Batik Malay Industry: Optimization Competitive Advantage by Leveraging Augmented Reality Marketing

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Abstract

This research aims to explore how an augmented reality (AR) and company's unique resources by optimizing competitive advantages to enhance marketing performance using a qualitative approach with triangulated in-depth interviews. This research's findings revolve around three main themes: improving marketing performance, increasing competitiveness, and strengthening customer relationships. The research results show that AR can improve marketing performance by optimizing competitive advantage and customer relationships. In addition, this research provides practical guidance for practitioners in the batik industry to utilize AR as an effective marketing tool and assist in making strategic decisions regarding technology investment and product development. The focus on batik as Indonesia's cultural heritage also adds value in promoting and preserving local culture through technological innovation. The theoretical contribution of this research connects the Resource-Based View (RBV) theory with the implementation of augmented reality (AR) technology for batik marketing. It develops our understanding of how a company's unique resources and capabilities can be used to create long-term competitive advantage through innovative technologies. Developing knowledge about integrating modern technology with traditional creative industries opens the way for further research in similar contexts. The research results show that AR can improve marketing performance by optimizing competitive advantage and customer relationships. In addition, this research provides practical guidance for practitioners in the batik industry to utilize AR as an effective marketing tool and assist in making strategic decisions regarding technology investment and product development. The focus on batik as Indonesia's cultural heritage also adds value in promoting and preserving local culture through technological innovation. The theoretical contribution of this research connects the Resource-Based View (RBV) theory with the implementation of augmented reality (AR) technology for batik marketing. It develops our understanding of how a company's unique resources and capabilities can be used to create long-term competitive advantage through innovative technologies. Developing knowledge about integrating modern technology with traditional creative industries opens the way for further research in similar contexts.

Keywords: Augmented Reality Marketing, Competitive Advantage, Performance, Customer Experience, Digital Marketing.

1. Introduction

Augmented Reality marketing has a transformative impact as marketing communications prioritizing technology has the potential to improve consumer experience and consumer response to purchasing decisions (Reis & Melão, 2023;Gallardo et al., 2018; Bellalouna, 2021;Du et al., 2022;Okhotan et al., 2015). Previous research reveals ARM's superior ability to enhance consumer experiences interactively (Gallardo et al., 2018;Bellalouna, 2021;Chen & Lin, 2022).. Consumers see and interact with products or services in Unity 3D simulations (Vilkina, 2020;Sung, 2021;Tutak & Brodny, 2022; Dwivedi et al., 2021). ARM integrates information or digital objects into consumer perceptions as new experiences in digital marketing about products or services (Scholz & Smith, 2016; Schultz & Kumar, 2024;Kraus et al., 2022;Gabriel et al., 2023).

This research aims to examine augmented reality marketing (ARM) digital marketing technology for Batik Melayu Riau's marketing performance by optimizing its competitive advantage. Through ARM technology, Riau Malay Batik products can be presented uniquely and attractively, allowing consumers to see the natural beauty of the product, as well as obtain additional information regarding the motif, unique design, cultural value, and history of Riau Melayu Batik before they decide to buy. Augmented Reality (AR) has a significant role in improving businesses' competitiveness and marketing performance by providing a user experience that allows businesses to create engaging and interactive experiences for consumers. With AR, consumers can view products in real or virtual contexts, such as testing products or viewing additional information directly in their environment.

Augmented Reality Marketing can help businesses differentiate their products from competitors (Gallardo et al., 2018;Darma et al., 2019;Vilkina, 2020;Du et al., 2022). Features such as virtual try-ons, interactive storytelling, or virtual tours allow consumers to experience products more immersive and engagingly. In addition, more profound education and information can be obtained because AR allows businesses to convey additional information about products more visually and interestingly. For example, in the marketing context of Riau Malay Batik, AR can be used to show motifs, cultural values , and history more comprehensively and impressively. AR can also increase consumer engagement by providing a more personalized and relevant experience. For example, consumers can virtually " try on" products according to their preferences, increasing customer trust and satisfaction. By integrating AR into marketing strategies, businesses can optimize marketing processes by expanding market reach and reaching a global audience (Bellalouna, 2021;Gabajová et al., 2021; Karuppiah et al., 2023). This technology also allows for better tracking and analyzing consumer interactions, which can help improve future marketing strategies.

The potential for the batik market, both in Indonesia and in the world, is quite large and continues to grow. The following section explains the potential of the batik market based on statistical data. According to data from the Central Statistics Agency (BPS), the export value of batik and batik products from Indonesia continues to increase. In 2019, the value of Indonesian batik exports reached around USD 52.4 million. Even though it fell in 2020 due to the COVID-19 pandemic, this sector showed signs of recovery and improvement in the following years. Batik is one of Indonesia's indigenous cultural heritages, and it was recognized by UNESCO as a humanitarian heritage for oral and intangible culture in 2009. It increases Indonesian people's awareness and pride in Batik, which impacts high demand within the country.

Indonesian Batik, including Riau Malay Batik, is exported to various countries, including Malaysia, Japan, the United States, Europe, and Australia. There is increasing global awareness and appreciation of ethnic and sustainable products. As a product that is environmentally friendly and has high cultural value, Batik has a special place in the hearts of global consumers who care about sustainability and uniqueness. With government support and increasing awareness at home and abroad, the potential of the batik market has bright prospects. Overall, AR brings innovation in how products are marketed and strengthens business competitiveness by improving consumer experience, product differentiation, and overall marketing strategy efficiency so that marketing performance increases (Bernd, 2016, Rauschnabel et al., 2022).

This research explores how an innovation technology augmented reality and company's unique resources by optimizing competitive advantages to enhance marketing performance. Understanding how a company's unique resources and capabilities can create long-term competitive advantages through innovative technology is essential. By implementing ARM technology, the marketing performance of Batik Melayu Riau can be improved, as seen in sales growth, increasing the number of customers, and increasing profits through optimizing competitive advantages.

2. Literature Review

This paper draws on the resource-based view (RBV), which highlights the strategic use of tangible and intangible resources to convert potential competitive advantages into sustainable, long-term gains (Wernerfelt, 1984; Barney, 1991; Cabrera-suárez et al., 1994; Barney, 2001; Barney et al., 2011; Fatoki, 2021) assert that a company's competitive edge and overall performance are rooted in the strength of its resources. However, there are varied perspectives on RBV. For example, Wheelen et al., (2018); Mahdi & Nassar, (2021); Yang et al., (2022)argue that RBV should focus on a company's capabilities rather than just its resources, suggesting that companies must leverage their resources effectively to enhance performance—similarly, Korsakienė & Raišienė, 2022 and Reis & Melão, 2023 stress the primacy of capabilities over mere resources. Hence, we posit that early RBV advocates centered their theory around the competitive capabilities of firms, achievable through a synergistic blesnd of financial, technological, and human resources. Focus on a holistic combination of financial, technological, and human resources.

The resource-based view (RBV) theory can be explained by the Augmented Reality (AR) phenomenon in marketing, especially in the batik industry. RBV emphasizes the importance of utilizing unique and difficult-to-imitate resources to create sustainable competitive advantages (Mardatillah et al., 2019). AR can be considered as one such resource. Transform Potential into a long-term competitive advantage. According to the RBV, companies must leverage unique resources to create sustainable competitive advantages (Kocak et al., 2017; Liao et al., 2017; Kumar et al., 2024). AR in batik marketing allows companies to provide customers with uniquely valuable and interactive shopping experiences. For example, AR applications can allow customers to try on batik motifs virtually, provide detailed visualization of batik motifs and textures, and provide additional information about the history and cultural meaning. Difficult to Imitate (Inimitable) and Complex to Replace (Non-Substitutable).

Furthermore, inimitable resources that are difficult for competitors to imitate will provide a solid competitive advantage. When implemented innovatively and distinctive, AR technology becomes difficult for competitors to imitate (Dwivedi et al., 2021; Du et al., 2022; Gabriel et al., 2023). For example, the interactive experience provided by an AR application specific to Riau

batik may only be easily replicated by other companies with significant investments in technology and development. Non-substitutable resources that are difficult to replace by other technologies are also important for competitive advantage. As a marketing technology, AR offers a unique way to interact with customers that cannot be easily replaced by other technologies such as conventional advertising or regular e-commerce.

Improved brand image and customer loyalty are the result of effective resource utilization. By providing rich and interactive experiences through AR, companies can enhance their brand image as innovative and customer-oriented. Customers satisfied with this experience are more likely to become loyal and return to shop again. AR can reduce long-term promotional costs by replacing the need for physical exhibitions or expensive advertising campaigns. Once developed, AR applications can be used repeatedly for various promotional campaigns, saving long-term costs.

The development and implementation of AR technology require financial investment, technological expertise, and human resource training. However, the result is a competitive advantage that is difficult to imitate and can significantly improve marketing performance. Using a mobile application that allows customers to try on various batik designs virtually and view additional information about each motif is part of the RBV theory of unique resource utilization. The promotional campaign uses AR filters on social media, allowing users to try on batik motifs and share their experiences, improving brand image and customer loyalty according to the RBV theory. Batik product catalogs with AR technology allow customers to view products in 3D and get additional information, adding value to the shopping experience and being difficult for competitors to imitate.

This research uses the resource-based view (RBV) theory in the context of Augmented Reality (AR) in the batik industry to show how innovative technology can be used as a unique resource to create sustainable competitive advantages. By implementing AR, batik companies can improve customer experience, brand image, and customer loyalty, as well as reduce long-term promotional costs in accordance with RBV principles (Barney, 2007; Barney et al., 2011; Liao et al., 2017; Du et al., 2022; Grabowska & Saniuk, 2022).

2.1 Research Value
This research has significant research value in several aspects:

First, this research provides a theoretical contribution by connecting the Resource-Based View (RBV) theory with the implementation of Augmented Reality (AR) technology in the context of batik marketing. It develops our understanding of how a company's unique resources and capabilities can be used to create long-term competitive advantage through innovative technologies.

Second, Methodological contribution, using a qualitative approach and case studies, this research provides in-depth insight into the experiences and perceptions of batik industry players regarding the application of AR in marketing. Using in-depth interview methods and data triangulation increases the validity and reliability of research findings.

Third, Managerial Implications: The results of this research have important managerial implications for batik companies and other industries that want to adopt AR technology. It includes strategies to improve brand image, customer loyalty, and long-term promotional cost efficiency through the implementation of AR.

Fourth, Practical Implications: This research provides practical guidance for practitioners in the batik industry or other sectors to utilize AR technology as an effective marketing tool. This

can help them make strategic decisions regarding technology investment and product development.

Fifth, Social, and Cultural Contribution, focusing on batik as Indonesia's cultural heritage, this research also has value in promoting and preserving local culture through technological innovation. Implementing AR can enrich customer experiences by deepening their understanding of the values and stories behind each batik motif.

Sixth, Knowledge Development: This research contributes to the development of knowledge about how modern technology, such as AR, can be applied effectively in the context of traditional creative industries such as batik. This paves the way for further research into integrating technology with cultural heritage.

With these values, the research provides new insights into the relationship between RBV and AR in the context of batik marketing. It provides a valuable framework for developing business strategies and policies that support innovation and growth of creative industries in Indonesia and the world. To develop a research theory that focuses on the use of Augmented Reality (AR) on marketing performance, the following is a theoretical framework that can be used: Augmented Reality (AR) as an Innovative Marketing Tool, AR utilizes technology to present digital information or visual elements in a real-world context, improve user experience. The influence of AR on consumer engagement: AR can increase consumer engagement with products or brands through immersive and direct interactions. Enables consumers to view products in more detail and relevant context, facilitating purchasing decisions. The use of AR can increase the perception of a brand as innovative and modern in the eyes of consumers. AR can provide a competitive advantage that is difficult for competitors to imitate; differentiation from competitors differentiates brands in a crowded market.

Augmented reality impacts customer conversion and retention by providing engaging and informative experiences. By increasing consumer interaction and satisfaction, AR can increase long-term customer loyalty—cost efficiency in marketing strategies- reducing long-term promotional costs. Although the initial investment in AR development can be high, its long-term use can reduce promotional costs due to its effectiveness in attracting and retaining customers. AR can become an integral component of a broader digital marketing strategy, amplifying the impact and reach of marketing campaigns. This theory proposes that using AR in marketing can significantly improve marketing performance by increasing consumer engagement, strengthening brand image, increasing conversion and customer retention, and optimizing cost efficiency in the long term. By integrating AR into marketing strategies, companies can achieve sustainable competitive advantage and strengthen their position in the competitive market.

3. Method

This study employs a qualitative methodology with a case study approach to identify various aspects and categories from interview data, which are subsequently organized into different use cases using NVIVO 12. These use cases are detailed across several stages, specifically examining how the use of Augmented Reality (AR) in the marketing of Riau Malay Batik can be challenging for competitors to replicate (inimitable) and difficult to replace with other technologies (non-substitutable). This research adopts a specific approach to explore how optimizing competitive advantages through Augmented Reality Marketing can effectively enhance the marketing performance of Malay Batik in Riau, Indonesia.

The research focuses on small and medium enterprise entrepreneurs who have been in the Riau Malay Batik business for over three years in Riau Province, Indonesia. In-depth semi-structured interviews were conducted with 30 Riau Malay Batik industry participants in Riau Province. A total of 30 participants from 10 different business groups within the Riau Malay Batik industry were selected as primary respondents. These respondents included business owners and marketing managers within the industry.

In a more applicable context, this research uses a data triangulation approach to combine various methods and data sources to strengthen the validity and reliability of research findings. It is essential in research to ensure the reliability, validity, and accuracy of findings and provide a more holistic picture of the complex reality of the research subject (Abraham & Sundaram, 2019). This research uses various methods such as in-depth interviews, direct observation, and document analysis, which is the most appropriate approach to investigate the phenomenon under study.

Selecting samples and determining inclusion and exclusion criteria in research are crucial stages that influence the validity and generalisability of research results. The following explains this process: The first step is to define the population or group that is the focus of the research. In this research, the population includes business owners, marketing managers, or batik consumers. After the sampling method is selected, the sampling frame is developed. It involves creating a list of individuals or entities who might be research participants, such as a list of existing batik businesses in Riau, Indonesia. Selecting the actual sample from this research by determining the sample frame developed, the researcher selects the actual sample who will be invited or asked to participate in the research. Sampling can be done randomly or by considering specific characteristics such as business size, length of operation, or geographic location.

3.1 Inclusion and Exclusion Criteria

Inclusion Criteria:
These are the criteria used to decide who is eligible to be part of the research sample. Inclusion criteria must be clear and relevant to the research objectives. Examples of inclusion criteria for research on batik marketing in Riau could include:
 - Entrepreneurs or managers who have been active in the batik industry for at least three years.
 - Individuals or businesses located in the Riau region, Indonesia
 - People who have knowledge or experience in marketing batik products.

Exclusion Criteria:
Exclusion criteria are criteria used to exclude individuals or entities from the research sample. These criteria help ensure that the sample consists of relevant subjects and can provide valuable insights. Examples of exclusion criteria in Riau Malay batik marketing research in Indonesia might include:
 - Batik business that has only been operating for less than three years.
 - Individuals or businesses that are not located in the Riau region, Indonesia
 - People who do not have relevant knowledge or experience in the batik industry.

Criteria Justification:

Researchers explain in detail in the research report why the inclusion and exclusion criteria were chosen. This justification can be based on relevance to the research objectives, the desire to obtain a representative sample, or to control variables that could influence the research results.

By carrying out this process carefully, researchers can ensure that the sample selected is appropriate to the research objectives, maximize the relevance of the findings, and minimize bias that may arise in interpreting research results.

Data collection for this research utilized various methods such as individual and group interviews, data collection from multiple industries, and data triangulation. Direct interaction with business actors and consumers provided rich insights into their perceptions, attitudes, and preferences towards Malay Batik.

The data were analyzed using NVIVO 12, incorporating triangulation from various sources to verify the research findings. Interview data were transcribed to facilitate analysis and grouped into different use cases to demonstrate the uniqueness and success of AR utilization. In-depth semi-structured interviews were conducted with participants, and the audio or video recordings were subsequently transcribed into written text. The transcription process was crucial for the subsequent analysis of the interview content. Individual and group interviews were analyzed comprehensively to identify key themes, patterns, and emerging findings. The interview data were categorized into different use cases, showcasing the uniqueness and effectiveness of AR in Malay Batik marketing and exploring the underlying factors. These steps ensure the validity and reliability of the data obtained, providing valuable insights into how leveraging Augmented Reality (AR) Marketing can optimize competitive advantages.

4.   Results and Discussion
4.1   Results

The application of Augmented Reality (AR) technology in the batik industry has brought significant changes in marketing strategies to improve performance and achieve competitive advantage. In this context, this research examines how AR can be optimized to improve consumer experience, strengthen brand image, and promote the cultural value of batik. The Resource-Based View (RBV) approach focuses on how the company's unique resources and capabilities can be used to create sustainable added value through technological innovation.
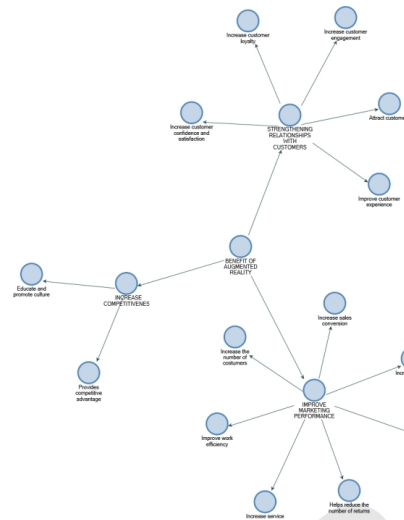
Figure 1. Word Cloud

Table 2. Word Cloud

Word	English translation	Count	Weight percentage
Customer	Customers	12	7.89
Media	Media	8	5.26
Social	Social	8	5.26
Competition	Competitive	7	4.61
Digital Marketing	Digital Marketing	6	3.95
	Total	**41**	

Based on the word cloud, six words appear most frequently in marketing themes before using augmented reality. Of these six words, the word customer is most frequently expressed by informants. It shows that customers are the main focus of informants when marketing batik products. Attracting customers is the main thing that needs to be done. Based on the word cloud, words such as social media and exhibition show the informants' ways of attracting customers to come and buy their products. However, these methods are still traditional. The word competition also shows that the informants are very concerned about competition in their batik industry.

Figure 1. Project Map Benefits of Augmented Reality Marketing

Table 1. Themes and Sub-Themes Benefits of Augmented Reality

Themes	Sub-Themes
Improve Marketing Performance	Improve work efficiency
	Helps reduce the number of returns
	Increase Sales
	Improving services
	Increase sales conversions
	Increase the number of customers
	Helps expand market reach
Increase Competitiveness	Value provides a competitive advantage
	Educate and promote culture
Strengthening Relationships with Customers	Improve customer experience
	Increase customer loyalty
	Increase customer engagement
	Increase customer confidence and satisfaction
	Attract customers

Source : Data Processing, NVIVO 12

Three themes and 15 sub-themes were identified, as seen in the table above. These three themes show the three main benefits informants feel when using augmented reality. The 15 sub-themes represent derived benefits from the main benefits of using augmented reality.

5.1. Improve Marketing Performance
5.1.1 Improve work efficiency

This theme describes the informants' views about the benefits of augmented technology, which can increase work efficiency. According to the informant, augmented reality can increase work efficiency in two ways, namely cost and time. One informant revealed that augmented reality could help reduce time and costs in creating prototypes: "*AR helps them in understanding new designs better and reduces the time and costs required to create prototypes* " (Mr. B). Another informant stated that the use of augmented reality is beneficial in the sales process: "Yes, the sales process becomes more efficient because customers can directly see the product virtually, reducing the time they spend considering a purchase." (Mrs. Sr)

5.1.2 Increase Sales

One indicator of the success of implementing augmented reality expressed by informants is an increase in sales: "*We measure success through increased sales*." (Mr. Budi). "Our sales have also increased due to a more interesting and satisfying shopping experience." (Mrs.Ra) Another informant revealed that this increase in sales reached a significant level: "Yes, we saw a significant increase in sales after implementing AR." (Mr. B).

5.1.3 Improving Services

According to the informant, augmented reality makes the services provided to customers more responsive: "*Additionally, AR also allows us to provide better and more responsive service, as we can quickly adapt and develop products based on customer feedback.*". (Mr. An). Apart from that, another informant revealed that augmented reality technology is used to increase the personal touch in services that cannot be obtained using traditional methods: "We use this technology as a tool to enhance, not replace, the personal touch in our services." (Mrs. Ra).

5.1.4 Increase sales conversions

The use of augmented reality can shorten the batik sales cycle. Products displayed virtually allow customers to decide to buy the products offered quickly. This certainly increases sales conversion: "*AR has shortened the sales cycle for our batik products by enabling customers to make purchasing decisions more quickly. With AR, customers can view and try products virtually before purchasing, reducing the time needed to consider and decide. This has increased our sales conversions and reduced the time it takes to close a sale.*" " (Mr. R)

5.1.5 Helps Reduce the number of returns

Using augmented reality, customers can view products virtually. Customers can try the product to find out whether it is suitable. According to the informant, returns of goods are reduced: "*AR features also help reduce the number of returns because customers can see and try products virtually before buying*" (Mrs. L). Several informants revealed that reducing returns also indicates the success of implementing augmented reality: "We measure success through...reducing the number of returns and complaints" (Mr.B). "We measure the success of AR implementation by several metrics, including….reduced product return rates" (Mr.R).

5.1.6 Helps expand market reach

The use of augmented reality not only attracts customers from Indonesia but can also attract customers from outside Indonesia. The informant felt the broad market reach of

augmented reality: "*AR is beneficial in expanding our market reach. We can reach customers worldwide by enabling them to see and try our products virtually. This has helped us to enter international markets more effectively and expand our customer base beyond the physical locality of our stores"* " (Mrs. Nur).

Another informant revealed that the exciting thing about using augmented reality is that international customers can see and feel the products as if they were present in a physical store: "*AR allows international customers to see and experience our products as if they were in our physical stores, which is very helpful in reaching the global market*" (Mr. An).

5.1.7 Increase the number of customers

Another indicator of the successful use of augmented reality is the increase in customers: "*We measure success through…..an increase in the number of new customers that come from word of mouth recommendations*". (Mr. Bu). Another informant revealed that the increase in the number of customers mainly came from millennial and Generation Z customers: "We see an increase in the number of customers from millennials and Generation Z who are more interested in technology and innovative shopping experiences." (Mrs. Rn).

Another informant stated that the increase in the number of customers occurred not only among the millennial generation and Generation Z but also among customers with different age backgrounds: "*We are seeing a significant increase in the number of customers from the younger generation, especially those aged between 20 to 35 years. AR technology appeals to them because they are more familiar with technology and looking for a different shopping experience. However, customers of all ages have also started enjoying this feature after being given sufficient guidance and explanation*" (Mrs. Ra).

5.2 Increase Competitiveness
5.2.1 Value provides a competitive advantage

One informant explained Competitive advantage in detail: "*AR provides a competitive advantage by offering a unique and interactive shopping experience that is difficult to find in other batik stores. This differentiates us from competitors and attracts the attention of more customers. Regarding marketing performance, AR allows us to attract and retain customers more effectively. Data obtained from customer interactions with AR technology helps us understand their preferences and behavior so we can design more targeted marketing campaigns. In addition, this technological innovation strengthens our brand image as a modern and innovative business, further increasing our attractiveness to consumers*" (Mrs. Ra). Based on the informants' expressions, competitive advantage can be seen from several indicators, such as unique shopping experiences and the technological innovation used. Another informant expressed the modern and interactive side of the marketing concept using AR as an indicator of competitive advantage: "AR gives us a competitive advantage by providing a more modern and interactive shopping experience to our customers." (Mr. R).

5.2.2 Educate and promote culture

Educating and promoting culture are two things that cannot be separated. For the informant, the use of augmented reality is not only aimed at improving marketing performance and attracting customers, but it also contains an educational element about cultural values as well as a means of cultural promotion: "*AR also makes it easier for us to educate customers about the cultural and historical values behind each batik motif… I believe AR will help increase sales and*

play an important role in preserving and promoting batik culture to the younger generation." "
(Mr. Ra).

Another informant believes that AR will not eliminate the traditional touch of Batik but will instead maintain and strengthen its authentic qualities and cultural values: "*Through AR, we display batik designs visually and include educational information about the meaning and history behind each motif. We work closely with local batik craftsmen to ensure that every product we offer maintains its traditional quality and authenticity*" (Mrs. Ratna). "We ensure that AR does not remove the traditional touch of batik by reinforcing traditional cultural and aesthetic values in every product we offer." (Mrs Nur).

5.3 Strengthening Relationships with Customers

5.3.1 Improve Customer Experience

Customer experience is one of the focuses of informants using augmented reality: "*AR impacts our marketing strategy by placing a greater focus on customer experience."* " (Mrs. Ratnawati). One informant said that one of the biggest benefits of using AR is improving the customer experience: "The biggest benefit of using AR is… improving the overall customer experience." (Mrs. Nur). Augmented reality gives customers new experiences they have never had before: "I see the huge potential of AR in providing new experiences to customers…in a way that has never been done before." (Mrs Dw).

5.3.2 Increase customer loyalty

A more personalized experience is possible when augmented reality markets batik products. This personal experience will later cause customers to be more loyal in buying the products offered: "*AR allows us to provide a more engaged and personalized experience to our customers. With AR, customers can explore our batik products in a way they have never done before. This experience….strengthens their emotional bond with our brand. As a result, we saw increased customer retention and loyalty to our batik brand*". (Mr. R).

Apart from a more personalized experience, the interactive side of using augmented reality and product quality are also factors that support customers returning to shop for the products offered: "*Customers who are satisfied with our interactive experience and product quality are more likely to return to shop again*(Mrs. Rn)

5.3.3 Increase customer confidence and satisfaction

Confidence to buy is one of the essential things augmented reality uses in marketing. Customers must first be convinced that the product being sold is indeed different. The virtual sales model makes customers more confident purchasing products: "*Customers are more confident and satisfied with their purchases because they can see product details virtually*" (Mrs. Dw). "They feel more comfortable and confident with their choice after trying batik virtually" (Mrs. Ln). "Customers are more interested and feel confident in buying after seeing the product virtually" (Mr.R)
Satisfaction is another variable after buyers feel confident about purchasing a product. Another informant revealed that satisfaction is one indicator of the success of using augmented reality: "We measure success through….the level of customer satisfaction..." (Mr.B)

5.3.4 Increase customer engagement

The informants revealed that virtual product marketing in augmented reality makes customers feel more involved in it: "Customers feel more involved and appreciated when they can try various batik motifs virtually" (Mrs.Rn). "They felt more connected and involved with our products, and the virtual exhibition helped them better understand the details and beauty of batik motifs" (Mrs. Dw). "We use AR as a key feature in our digital marketing campaigns. This attracts the attention of more people on social media and increases engagement with potential customers" (Mrs.Sr).

5.3.5 Attract customers

Interest is characterized by the customer's attention and interest in the product being sold. Most informants said that using augmented reality could attract customers ' attention to the products being sold: "*By showing how AR works, we can attract the attention of more customers and increase their interest in our products*" " (Mr. An). "We use AR as a key feature in our digital marketing campaigns. This attracts more people's attention on social media and increases engagement with potential customers" (Mrs. Sr). "We can attract the attention of more customers by offering innovative AR features, which not all of our competitors may have" (Mr.R)

Furthermore, if you look at the hierarchy chart displayed, informants tend to reveal that the benefits of augmented reality are more significant in strengthening customer relationships.
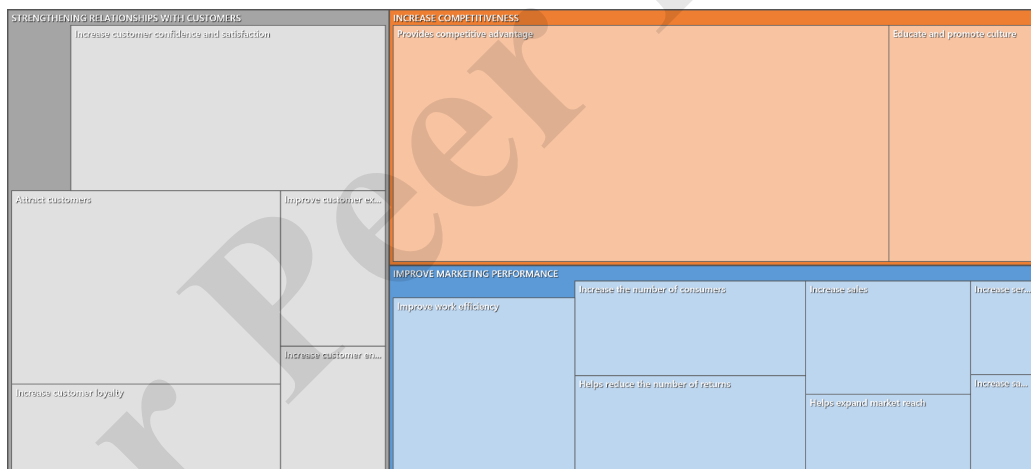

Figure 2. Diagram Hirarchy

For informants, the use of augmented reality in batik marketing first aims to strengthen their relationships with customers, after that increase competitiveness and then improve marketing performance.

6. Discussion

This research's findings revolve around three main themes: improving marketing performance, increasing competitiveness, and strengthening customer relationships. Augmented reality can increase work efficiency in two ways, namely cost and time. Augmented reality can increase operational efficiency by reducing the time required to design, modify, and test prototypes (Vilkina, & Klimovets, 2020; Walentek & Ziora, 2023). Digital models can be created and changed quickly without the need for actual physical materials at an early stage, meaning companies can reduce the use of raw materials and the time required for development. This aligns with the concept of reducing production costs and increasing productivity. Augmented reality is used to increase the personal touch in service that cannot be obtained using traditional methods so that consumers feel appreciated and strengthen relationships with consumers.

In this research, augmented reality (AR) in the batik business is connected to the RBV theory. AR technology is a unique resource that is difficult for competitors to imitate. By providing a virtual try-on feature, batik companies can offer consumers a different and more exciting shopping experience. Product visualization technology in AR allows consumers to see the details of batik motifs and textures. By providing a more engaging shopping experience and reducing the number of returns, companies can increase efficiency and customer satisfaction, ultimately strengthening competitive advantages that positively impact sales (Sung, 2021; Tan et al., 2022; Wieland et al., 2024). The use of Augmented Reality (AR) in the batik business can bring significant changes in the way batik is promoted, sold, and appreciated by consumers.

This research shows that customer experience is critical to building competitive advantage. The unique shopping experience provided by AR can increase customer engagement and satisfaction. AR allows customers to try products virtually, seeing how they would look or function in real life, improving purchasing decisions and customer loyalty. In the AR application, Virtual Try-On allows consumers to try various batik motifs and designs virtually before buying. They can see how batik will look when worn without having to try it on physically.

This study's findings align with research (Porter, 1985, 1990) that competitive advantage identifies two main types of strategies to achieve competitive advantage, namely differentiation and cost leadership. In the AR context, differentiation strategies are very relevant. Companies can differentiate themselves from competitors by offering unique and interactive AR shopping experiences. AR can make the shopping experience more engaging and personalize customer interactions with products, which is difficult for competitors to imitate. Our research results found that the benefits of using AR are that consumers get a more exciting shopping experience because they can see their appearance in the batik of their choice, increasing the possibility of purchasing. Reducing returns means that consumers can make better decisions by trying products virtually, reducing the likelihood of returns due to dissatisfaction.

Product visualization in AR technology can provide detailed visualization of batik motifs and textures. Consumers can see fine details and fabric quality better through AR displays. So, product details appear more straightforward because consumers can appreciate the quality and uniqueness of batik motifs. Then it generates consumer trust because they can see the product in more detail, thereby increasing consumer confidence in the quality of the product; this can strengthen relationships with consumers, which has an impact on increasing sales (Tan et al., 2022; Voicu et al., 2023).

The benefits of AR in the batik business are also education and product stories; batik producers can provide additional information about each batik motif. Consumers can scan batik cloth or product labels to get a story about the origin of the motif, the manufacturing process, and its cultural meaning. Increasing cultural values is another benefit of using AR in the batik business because consumers can understand and appreciate the cultural and historical values behind each batik motif. Furthermore, product differentiation is also available through in-depth information about the product to differentiate batik from other manufacturers.

Competitive advantage is obtained from resources and capabilities that are unique and difficult for competitors to imitate (Porter, 1985, 1990; Barney, 2007; Wernerfelt, 2013; Vilkina, 2020; Gabajová et al., 2021; Karuppiah et al., 2023). AR can be considered a valuable resource due to its ability to create unmatched experiences and modernize marketing concepts. A company's capability to implement and utilize AR effectively is critical to creating a competitive advantage. Interactive Catalog in AR will provide a unique experience for consumers. Consumers use interactive catalogs equipped with AR technology to scan images or catalog pages to see 3D versions of batik products. More interesting interactions: Interactive catalogs make choosing products more exciting and informative (Scholz & Smith, 2016; Gallardo et al., 2018; Du et al., 2022). Consumers can easily choose a product because they can see the product from various angles and get additional information quickly. They apply AR in promotional and branding campaigns, such as AR filters on social media that allow users to try on batik motifs virtually or participate in contests using batik-themed AR filters.

Increasing engagement with AR-based promotional campaigns can attract the attention of more consumers, especially the younger generation who are active on social media. Attractive promotions can help expand market reach and increase brand awareness. They use AR in physical stores to provide a more interactive shopping experience. Consumers can scan products in stores for additional information, usage tutorials, or related product recommendations. It is an interesting shopping experience; consumers get additional information and relevant recommendations when shopping at the store. More complete and interactive information can increase customer satisfaction.

This research also emphasizes that AR in the batik business can provide a more exciting and informative experience for consumers, increase sales, and help strengthen the cultural value and quality of batik. This is as stated (Darma et al., 2019): Exploring competitive advantage by optimizing local resources, including by utilizing AR technology, not only helps in marketing and sales but also in education and preserving batik cultural heritage. With the right adoption, AR can be a very effective tool in developing the batik business in this digital era.

The educational aspect and product story become a unique resource that provides additional information about batik motifs presented through AR, helping educate consumers about the cultural and historical values behind each motif. This enriches the customer experience and differentiates batik products from others, strengthening the company's position in the market. Likewise, interactive catalogs that use AR technology provide a unique and exciting way for consumers to interact with products. This experience can increase consumer interest and engagement, make it easier for them to choose products, and increase the likelihood of purchase.

The findings of this research indicate that the use of AR in batik marketing becomes a competitive advantage due to the unique combination of resources, such as technology, skills, and knowledge about batik culture. In-depth knowledge of batik motifs and their stories is a unique resource for batik companies for education and cultural promotion media. By using AR to educate consumers about batik culture, companies can increase consumer appreciation and

loyalty, strengthening profitable long-term relationships (Gallardo et al., 2018; Gabajová et al., 2021; Kowalczuk et al., 2021; Du et al., 2022).

Relationships with customers are getting stronger because using AR to enhance customer experiences shows the company's ability to utilize advanced technology to meet consumer needs. Positive and interactive experiences can increase customer satisfaction and loyalty, which is a valuable asset for the company. Loyalty programs powered by AR technology can offer a more personalized and engaging experience. High customer loyalty helps companies maintain a stable customer base and increases lifetime value. AR enables more active consumer interactions through social media campaigns or physical stores. High levels of engagement can create closer relationships between brands and consumers, encourage brand advocacy, and increase brand awareness.

The ability to provide more detailed and interactive information about products through AR increases transparency and consumer trust. High consumer trust contributes to customer satisfaction and reduces the risk of product returns. Creative marketing campaigns using AR can attract the attention of new consumers in innovative ways. Companies can increase market share and ensure continued growth by continuing to attract new customers and retain existing ones. By integrating AR into marketing strategies, batik companies can leverage their unique resources and capabilities to create sustainable competitive advantages. The use of AR not only helps promote and sell batik products but also increases the cultural value and quality of batik in the eyes of consumers. This approach is in line with RBV theory, which emphasizes the importance of managing unique resources and capabilities to achieve competitive advantage and improve marketing performance. This discussion illustrates how various themes and subthemes in improving marketing performance, increasing competitiveness, and strengthening customer relationships can be implemented based on relevant marketing and management theories.

7. Conclusion, Implications, Limitations, and Future Research

AR (Augmented Reality) is a powerful technology in modern marketing that can significantly improve various aspects discussed in this research. AR in marketing provides various advantages, including increasing marketing performance efficiency, reducing returns, increasing sales, increasing competitive advantage, and strengthening relationships with customers. While AR adoption has challenges, such as high initial costs and the need for consumer education, the benefits can be enormous in the long run. This research concludes that improving marketing performance, increasing competitiveness, and strengthening customer relationships are three main themes that are very important in modern business strategy. Using various marketing and management theories, we can understand how related subthemes interact and contribute to overall business success.

Increasing work efficiency, reducing the number of returns, increasing sales, providing better service, increasing sales conversion, increasing the number of customers, and increasing market expansion can be achieved through a structured strategy based on existing theory. In addition, competitive advantage, education, and cultural promotion, as well as improving customer experience, loyalty, engagement, trust, and customer satisfaction, also play an essential role in building profitable long-term customer relationships.

This research provides a theoretical contribution by connecting the Resource-Based View (RBV) theory with implementing Augmented Reality (AR) technology in batik marketing. This develops our understanding of how a company's unique resources and capabilities can be used to

create long-term competitive advantage through innovative technologies. By using a qualitative approach and case studies, this research provides in-depth insight into the experiences and perceptions of batik industry players regarding the application of AR in marketing. Using in-depth interview methods and data triangulation increases the validity and reliability of research findings.

The results of this research have important managerial implications for batik companies and other industries that want to adopt AR technology. This includes strategies to improve brand image, customer loyalty, and long-term promotional cost efficiency through the implementation of AR. This research provides practical guidance for practitioners in the batik industry or other sectors to utilize AR technology as an effective marketing tool. This can help them make strategic decisions regarding technology investment and product development.

Focusing on batik as Indonesia's cultural heritage, this research also has value in promoting and preserving local culture through technological innovation. Implementing AR can enrich customer experiences by deepening their understanding of the values and stories behind each batik motif. This research contributes to understanding how modern technology, such as AR, can be applied effectively in traditional creative industries such as batik. This paves the way for further research into integrating technology with cultural heritage. Overall, this research enriches the theoretical and methodological literature and provides valuable practical insights for managers and practitioners in the batik industry and other creative sectors while preserving and promoting local culture through innovative technology.

Limitations of this research are based on research findings based on marketing and management theories that may only be fully applicable to some industries or markets. The specific context of a particular industry or market may influence the relevance and effectiveness of a proposed strategy. Applying various strategies and theories in business practice can be complex and require significant resources. Not all companies have the capabilities or resources necessary to implement these changes. Rapid changes in market trends, technology, and consumer behavior can affect the theories' relevance. This research may only partially capture the latest dynamics of the market.

Further research could focus on applying these strategies in specific industries to understand how industry context influences the effectiveness of various theories and strategies. It is also essential to explore how the latest technological developments, such as artificial intelligence and big data analytics, can be used to improve marketing performance and customer relationships. Longitudinal studies that monitor the implementation of these strategies over a more extended period could provide deeper insight into the long-term impacts and sustainability of the proposed strategies. Additional research can be conducted to understand changes in consumer behavior influenced by evolving social and economic factors and how marketing strategies can be adapted to these changes.

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Thank you to the authors for an interesting study! The theoretical underpinning of the study is sufficient. For the empirical study the authors have chosen a qualitative research method. To improve the quality of the article, in the reviewer's opinion, the authors need to improve the methodology and better justify the sample, and compare the results of the study between different groups of research participants specified in paragraph 3.1. (page 7, lines 15-17).

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The paper is not well organized, and in fact poorly written. No clear research gap. Author(s) fails to justify why this research is required and the contribution are not adequate, The structure of the paper need revision. For example section 7 include implication, limitation, future research and conclusion, rather they should be split in at least 2-3 different sections. There are lot of grammar mistake, serious copyediting is required. Add recent LR to the paper.

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Enhancing Marketing Performance in Batik Malay Industry: Optimization Competitive Advantage by Leveraging Augmented Reality Marketing

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Abstract

This study aims to explore how augmented reality (AR) and a company's unique resources optimize competitive advantage to improve marketing performance using a qualitative approach with triangulated in-depth interviews. The findings of this study revolve around three main themes: improving marketing performance, improving competitiveness, and strengthening customer relationships. The results show that AR in this study provides unique added value that is different from competitors and strengthens deeper interactions between batik products and customers. The theoretical contribution of this study connects the Resource Based View (RBV) theory with the application of augmented reality to the marketing of small and creative traditional batik industries, connecting unique resources, namely the cultural value of batik products, to improve marketing performance through optimizing competitive advantages, thereby strengthening relationships with customers. Intangible assets such as customer relationships are optimized for competitiveness and marketing performance optimization. In addition, this study provides practical implications for practitioners in the batik industry to utilize AR as an effective marketing tool to assist in making strategic decisions regarding technology investment and product development to improve marketing performance through optimizing its resources for competitiveness

Keywords: Augmented Reality Marketing, Competitive Advantage, Performance, Customer Experience, Digital Marketing.

1. Introduction

Augmented Reality marketing (ARM) has a transformative impact, as marketing communication prioritizing technology has the potential to improve consumer experience and consumer responses to purchasing decisions (Reis & Melão, 2023; Gallardo et al., 2018; Bellalouna, 2021; Du et al., 2022). Researchers from America and Europe have conducted most previous studies, and they have found more studies on the influence of AR on customer experience and customer engagement (Tutak & Brodny, 2022; Gabriel et al., 2023; Scholz & Smith, 2016; Schultz & Kumar, 2024). There is a growing body of literature that recognise that

from previous research has revealed ARM's superior ability to enhance consumer experiences interactively (Gallardo et al., 2018; Bellalouna, 2021; Chen & Lin, 2022). Consumers can see and interact with products or services in Unity 3D simulations (Vilkina, 2020; Sung, 2021; Tutak & Brodny, 2022; Dwivedi et al., 2021). ARM integrates information or digital objects into consumer perceptions as new experiences in digital marketing about products or services (Scholz & Smith, 2016; Schultz & Kumar, 2024; Kraus et al., 2022; Gabriel et al., 2023).

In Indonesia, very few researchers are still exploring the use of Augmented Reality (AR) in marketing, There has been no documented application of AR for traditional creative products in the micro, small, and medium enterprise (MSME) sector because most researchers in Indonesia only explore the competitive advantages of local creative products without examining how AR can become a source of competitive advantage for companies (Darma et al., 2019). Additionally, other researchers tend to focus only on specific of consumer satisfaction factors influencing purchasing decisions through the use of mobile augmented reality (Liu & Napitupulu, 2020), AR application to promote traditional food (Weking, A. N., & Santoso, 2020) and AR to promote Indonesian tourism (Hidayat et al., 2023; Anderies et al., 2023) Seen globally more researchers are discussing AR in the education sector on students' competitive abilities in the education sector (Kusdiyanti et al., 2020; Saripudin, D., et al, 2022; Zapata-Paulini et al., 2023).

Augmented Reality marketing can help businesses differentiate their products from their competitors (Darma et al., 2019; Vilkina, 2020; Du et al., 2022). Features such as virtual try-ons, interactive storytelling, and virtual tours allow consumers to experience more immersive and engaging products. In addition, more profound education and information can be obtained because AR allows businesses to convey additional information about products more visually and interestingly. For example, in the marketing context of Riau Malay Batik, AR can be used to show motifs, cultural values, and history more comprehensively and impressively. Augmented Reality enhances consumer engagement, it can provide personalized and relevant experiences according to their preferences. Consumers can "try on" products. It means AR increasing customer trust and satisfaction. AR can optimize marketing processes by expanding market reach and reaching global audiences (Bellalouna, 2021; Gabajová et al., 2021; Karuppiah et al., 2023).

Augmented Reality, as technology, also allows for better tracking and analysis of consumer interactions, which can help improve future marketing strategies. The potential for the batik market in Indonesia and worldwide is significant and continues to grow. The following section explains the potential of the batik market based on the statistical data. According to data from the Central Statistics Agency (BPS), the export value of batik and batik products from Indonesia continues to increase. In 2019, Indonesian batik exports reached approximately USD 52.4 million. Even though it fell in 2020 owing to the COVID-19 pandemic, this sector showed signs of recovery and improvement in the following years. Batik is an indigenous cultural heritage site in Indonesia that was recognized by UNESCO as a humanitarian heritage site for oral and intangible culture in 2009. It increases Indonesian people's awareness and pride in batik, which impacts high demand within the country.

Indonesian Batik, including Riau Malay Batik, is exported to various countries, including Malaysia, Japan, the United States, Europe, and Australia. There is an increasing global awareness and appreciation of ethnic and sustainable products. Batik has its own added value in the hearts of global consumers, especially those who care about sustainability and uniqueness. As an environmentally friendly product with high cultural value. The batik market has bright prospects with government support and increasing awareness at home and abroad. Overall, AR

brings innovation to how products are marketed and strengthens business competitiveness by improving consumer experience, product differentiation, and overall marketing strategy efficiency, thus increasing marketing performance (Bernd, 2016, Rauschnabel et al., 2022).

This study aims to examine augmented reality marketing (ARM) digital marketing technology for Batik Melayu Riau's marketing performance by optimizing its competitive advantage. Through ARM technology, Riau Malay Batik products can be presented uniquely and attractively, allowing consumers to see the natural beauty of the product and, obtain additional information regarding the motif, unique design, and the rich cultural value and history of Riau Melayu Batik before they decide to buy. Augmented Reality (AR) has a significant value in improving business competitiveness and marketing performance. Customer experience allows businesses to create engagement and interactive experiences. Consumers can view products in real or virtual contexts, such as by testing products or viewing additional information directly in their environment. This study explores how an innovation technology augmented reality and company's unique resources by optimizing competitive advantages to enhance marketing performance. Understanding how a company's unique resources and capabilities can create long-term competitive advantages through innovative technology is essential. By implementing ARM technology, the marketing performance of Batik Melayu Riau can be improved, as seen in sales growth, increasing the number of customers, and increasing profits by optimizing its competitive advantages.

There is an urgent need to address the issue of how intangible resources in the RBV approach can be optimized, rather than just discussing the aspects of value, rare resources, imitable, and non-sustainable. The varied results from previous studies indicate that findings in this field are not always consistent or aligned. These differences in research outcomes may be due to variations in methods, samples, or research contexts, reflecting the complexity of understanding the studied phenomena. In previous studies, resource-based View (RBV) has been applied more to large companies based on high and modern technology (Sameera, 2018; Mong et al., 2021; Valaei et al., 2022). Previous researchers have highlighted how customer relationships are essential in forming sustainable competitive advantages from an RBV perspective (Barney, 2007; Barney et al., 2011). There has yet to be any previous research that explicitly reveals intangible resources other than human capital, brand reputation, and organizational culture (Barney, 2007; Barney et al., 2011) in other RBV approaches as essential resources to optimize the company's competitive advantage to improve marketing performance. However, there are still areas for improvement in previous research because it needs to consider the modern context, namely the role of new technologies such as AR in strengthening customer relationships. AR can improve customer interaction and experience in the digital era, which has yet to be fully explored in the existing literature.

However, it still needs to be improved in the traditional local creative industry, so this study bridges the gap in previous studies. This study explores how Augmented Reality consider in digital modern context can be applied effectively to the traditional local creative industry in the micro, small, and medium sectors by connecting the unique resources owned by the company, namely the cultural value of batik products, with AR technology to improve marketing performance through optimizing competitiveness. This study fills the gap in previous studies by combining competitive advantage with customer relationships can increase marketing performance because previous studies separate the relationship between competitive advantage and customer relationships also marketing performance (Wijaya et al., 2024; Habil et al., 2024; Balla, 2024). However, this study emphasize that Augmented Reality can improve marketing

performance by optimizing the company's competitive advantage and can strengthen customer relationships; this is a new approach to understanding RBV. It is means that AR technology in this study provides unique and different added value from competitors and strengthens deeper interactions between batik products and customers.

Thus, this study provides contributions as follows: *First,* An essential contribution in this study enriches the understanding of RBV more deeply with a new approach that optimizes intangible assets such as customer relationships to optimize competitiveness and marketing performance. Customer relationship is an intangible asset in this study, and it is optimized to increase competitiveness and subsequently influence the improvement of marketing performance of the Riau Melayu batik industry. This research shows that customer relationships are not just transactional interactions but are also valuable added value as intangible assets because they create a different and more profound customer shopping experience, increase customer engagement, and increase customer loyalty. So this is useful as a strategic step to strengthen the competitive position of the Riau Melayu batik industry in market competition and support improved marketing performance.

Furthermore, Second, This study emphasizes in the context of the modern digital era the importance of utilizing modern technology, namely Augmented Reality (AR), to enrich the customer experience for large companies and for creative micro, small, and medium enterprises of traditional Riau Malay batik. This integration is essential in more meaningful interactions to increase customer engagement and loyalty. *Third,* Strong customer relationships from AR innovations used in this study contribute to better marketing performance. AR, Riau Malay batik business, as a representative of micro, small, and medium industries, can implement an experience-based marketing strategy that strengthens customer relationships. Customers invest in the experience offered so that they are happy to recommend it to others. Collecting data and feedback on customer interactions is another benefit of using AR. companies allows to have data insights to customer preferences further improving marketing performance. *Fourth*, The practical contribution of this research offers practical guidance for MSMEs in traditional creative industries, such as Riau Malay Batik, on optimizing local culture's unique value by using modern AR technology in modern digital marketing to optimize competitiveness and customer relations.

2.   Literature Review

This study draws on the resource-based view (RBV), which highlights the strategic use of tangible and intangible resources to convert potential competitive advantages into sustainable, long-term gains (Wernerfelt, 1984; Barney, 1991; Cabrera-suárez et al., 1994; Barney, 2001; Barney et al., 2011; Fatoki, 2021). It asserts that a company's competitive edge and overall performance are rooted in the strength of its resources. However, there are varied perspectives on the RBV. For example, Wheelen et al., (2018); Mahdi & Nassar, (2021); Yang et al., (2022) argue that RBV should focus on a company's capabilities rather than just its resources, suggesting that companies must leverage their resources effectively to enhance performance—similarly, Korsakienė & Raišienė, 2022 and Reis & Melão, 2023 stress the primacy of capabilities over mere resources. Hence, we posit that early RBV advocates centered their theory on the competitive capabilities of firms, achievable through a synergistic brand of financial, technological, and human resources. Focus on a holistic combination of financial, technological, and human resources.

The resource-based view (RBV) theory can be explained by the Augmented Reality (AR) phenomenon in marketing, especially in the batik industry. The RBV emphasizes the importance of utilizing unique and difficult-to-imitate resources to create sustainable competitive advantages (Mardatillah et al., 2019). AR can be considered one such resource. Transform Potential into a long-term competitive advantage. According to RBV, companies must leverage unique resources to create sustainable competitive advantages (Kocak et al., 2017; Liao et al., 2017; Kumar et al., 2024). AR in batik marketing allows companies to provide customers with uniquely valuable and interactive shopping experience. For example, AR applications can allow customers to try batik motifs virtually, provide detailed visualization of batik motifs and textures, and provide additional information about the history and cultural meaning. Difficult to Imitate (inimitable) and Complex to Replace (non-substitutable).

Furthermore, inimitable resources that are difficult for competitors to imitate provide a solid competitive advantage. When implemented innovatively and distinctively, AR technology becomes difficult for competitors to imitate (Dwivedi et al., 2021; Du et al., 2022; Gabriel et al., 2023). For example, the interactive experience provided by an AR application specific to Riau Batik may only be easily replicated by other companies with significant investments in technology and development. Non-substitutable resources that are difficult to replace with other technologies are also important for competitive advantage. As a marketing technology, AR offers a unique way to interact with customers that cannot be easily replaced by other technologies such as conventional advertising or regular e-commerce.

Improved brand image and customer loyalty are the result of effective resource utilization. Augmented reality provide an interactive experiences, companies can enhance their brand image in an innovative. Customers who are satisfied with this experience are more likely to become loyal and return to shop again. AR can reduce long-term promotional costs by replacing the need for physical exhibitions and expensive advertising campaigns. AR applications can be used repeatedly for various promotional campaigns, thereby reducing saving long-term costs. AR technology requires expertise, financial investment, and human resource training. However, it provides great benefits to companies, namely a competitive advantage. Augmented reality allows customers to try various batik designs virtually and to view additional information about each motif is part of the RBV theory of unique resource utilization.

The promotional campaign uses AR filters on social media, allowing users to try batik motifs and share their experiences, improving brand image and customer loyalty according to the RBV theory. Batik product catalogs with AR technology allow customers to view products in 3D and get additional information, adding value to the shopping experience and making it difficult for competitors to imitate. This research uses resource-based view (RBV) theory in the context of Augmented Reality (AR) in the batik industry to show how innovative technology can be used as a unique resource to create sustainable competitive advantages. By implementing AR, batik companies can improve customer experience, brand image, and customer loyalty, as well as reduce long-term promotional costs by with RBV principles (Barney, 2007; Barney et al., 2011; Liao et al., 2017; Du et al., 2022; Grabowska & Saniuk, 2022).

2.1 Research Value

The research value in this research has several aspects :

First, it provides a theoretical contribution by connecting the Resource-Based View (RBV) theory with implementing of Augmented Reality (AR) technology in batik marketing. It

develops our understanding of how a company's unique resources and capabilities can be used to create a long-term competitive advantage through innovative technologies.

Second, Methodological contribution, using a qualitative approach and case studies, this research provides in-depth insight into the experiences and perceptions of batik industry players regarding the application of AR in marketing. The use of using in-depth interview methods and data triangulation increased the validity and reliability of the research findings.

Third, Managerial Implications: This study shows an essential important managerial implications for batik companies and other industries that want to adopt AR technology. This includes strategies to improve brand image, customer loyalty, and long-term promotional cost efficiency through the implementation of AR.

Fourth, Practical Implications: This study provides practical guidance for practitioners in the batik industry or other sectors to utilize AR technology as an effective marketing tool. This can help them make strategic decisions regarding technology investment and product development.

Fifth, cultural contributions, Augmented reality as marketing tool can promote malay riau batik as Indonesia's cultural heritage. It can create customer experiences and their engangement.

Sixth, Knowledge Development: This research contributes how AR as modern technology, can be applied effectively in the context of traditional creative industries such as batik. This paves the way for further research on integrating technology with cultural heritage. To develop a research theory that focuses on the use of Augmented Reality (AR) on marketing performance, the following is a theoretical framework that can be used: Augmented Reality (AR) as an Innovative Marketing Tool, AR utilizes technology to present digital information or visual elements in a real-world context, improving user experience.

AR creates consumer experience and increase their engagement through immersive and direct interactions. It enables consumers to view products in a more detailed and relevant context, thereby facilitating purchasing decisions. AR can provide a competitive advantage that is difficult for competitors to imitate; and differentiation from competitors differentiates brands in a crowded market.

Augmented reality impacts customer conversion and retention by providing engaging and informative experiences. By increasing consumer interaction and satisfaction, AR can increase long-term customer loyalty and —cost efficiency in marketing strategies, therby- reducing long-term promotional costs. Although the initial investment in AR development may be high, its long-term use can reduce promotional costs because of to its effectiveness in attracting and retaining customers.

3.   Method

This study employed a qualitative methodology with a case study approach to identify various aspects and categories from interview data, which were subsequently organized into different use cases using NVIVO 12. These use cases are detailed across several stages, specifically examining how the use of Augmented Reality (AR) in the marketing of Riau Malay Batik can be challenging for competitors to replicate (inimitable) and difficult to replace with other technologies (non-substitutable). This research adopts a specific approach to explore how optimizing competitive advantages through Augmented marketing can effectively enhance the marketing performance of Malay batiks in Riau, Indonesia.

This study focuses on small and medium enterprise entrepreneurs in the Riau Malay Batik business for over three years in Riau Province, Indonesia. In-depth semi-structured interviews were conducted with 30 Riau Malay Batik industry participants in Riau Province. A total of 30 participants from 10 different business groups within the Riau Malay Batik industry were selected as primary respondents. Respondents included business owners and marketing managers in the industry. Semi-structured in-depth interviews were conducted with 30 Riau Malay Batik industry players in Riau Province. Before we conducted the interview, we complied with the code of ethics regulations by not forcing information to conduct this interview activity. We ensured that they were willing to voluntarily carry out this interview activity. After the informants expressed their willingness, we continued this in-depth interview activity with 30 participants from 10 different business groups in the Riau Malay Batik industry selected as the main respondents. Semi-structured in-depth interviews were conducted with 30 Riau Malay Batik industry players in Riau Province. A total of 30 participants from 10 different business groups in the Riau Malay Batik industry were selected as the primary respondents. Respondents included business owners and marketing managers in the industry. We conducted these semi-structured, in-depth interviews with ten business groups with 30 informants for 20-30 minutes each. During the interview process, we actively listened and recorded, we carry out recording activities after obtaining approval from the informant. and occasionally, we confirmed and cross-checked answers that had doubtful meanings. For example, we re-question the understanding that Augmented Reality can create customer experience and engagement, which are still interpreted in reverse.

In a more applicable context, this study uses a data triangulation approach to combine various methods and data sources to strengthen the validity of the research findings. It is essential to ensure the reliability, validity, and accuracy of the findings and provide a more holistic picture of the complex reality of the research subject (Abraham & Sundaram, 2019). We uses various data collection, such as in-depth interviews, direct observation, and document analysis, which are the most appropriate approaches to investigate the phenomenon under study.

Regulation of the Minister of Research, Technology, and Higher Education of the Republic of Indonesia No. 69 of 2016 concerning the Code of Ethics for Research and Development (*Menteri Riset, Teknologi*, 2019)*:*

*   **Article 10** States that all research must adhere to ethical principles, including research with minimal risk. Consent from research subjects must be obtained, but the consent form can be adjusted to the level of risk of the research.*

*   The guidelines state that low-risk social and humanities research can use simplified consent. This usually includes research that does not disclose sensitive information and does not endanger the welfare of participants. Researchers must still obtain consent from participants, at least verbally or through simplified consent.*

*   This research falls into low-risk social and humanities research that can use simplified verbal consent because this research does not reveal sensitive information and does not endanger the welfare of participants. In this study participants provided verbal informed consent because, verbal consent was preferred in the participant's culture. Participants felt more comfortable and confident giving verbal consent after receiving a detailed explanation of the study. Verbal consent allowed them to ask questions and get clarification before giving consent. Detailed explanations of the study were given, and verbal consent was recorded with the consent of the participants. The verbal consent process was recorded using an audio recorder, and there were witnesses to ensure transparency of consent.*

Participants' willingness to participate in this study was obtained without coercion, and their involvement was to provide opinions on improving marketing performance in the Malay Batik industry through optimizing competitive advantages by utilizing Augmented Reality marketing. Participants were fully informed about the purpose of the study and agreed to participate voluntarily.

We select samples and determine inclusion and exclusion criteria are crucial stages that influence the validity and generalizability of the research results. The following explains this process: The first step is to define the population or group that is the focus of the research. In this study, the population included business owners, marketing managers, and batik consumers. After selecting the sampling method, we developed the sampling frame. This involves creating a list of individuals or entities who might be research participants, such as a list of existing batik businesses in Riau, Indonesia. Selecting the actual sample from this research by determining the sample frame developed, the researcher selects the actual sample that will be invited or asked to participate in the research. Sampling can be performed randomly or by considering specific characteristics such as business size, length of operation, or geographic location.

3.1 Inclusion and Exclusion Criteria

Inclusion Criteria:
In determining these criteria we decide which part of the research sample is in accordance with the requirements. The requirements of inclusion criteria for research on batik marketing in Riau include the following :
a. Entrepreneurs or managers who have knowledge and experience in the batik industry for at least three years.
b. Individuals or businessesman located in the Riau region of, Indonesia

Exclusion Criteria:
We were used to exclude individuals or entities from the research sample to ensure that the sample consists of relevant subjects and provide valuable insights. Examples of exclusion criteria in Riau Malay batik marketing research in Indonesia include the following:
a. Batik business has been operating for less than three years.
b. Individuals or businesses not located in the Riau Region of, Indonesia
c. People who do not have relevant knowledge or experience in the batik industry.

Criteria Justification:
Researchers explained in detail in the research report why the inclusion and exclusion criteria were chosen. This is done based on relevance to the research objectives, the desire to obtain a representative sample, or to control variables that could influence the research results.
We can ensure that the selected sample is appropriate to the research objectives, maximize the relevance of the findings, and minimize the bias that may arise when interpreting research results. We utilized various data collection for this research such as individual and group interviews, data collection from multiple industries, and data triangulation. Direct interaction with business actors and consumers provided rich insights into their perceptions, attitudes, and preferences towards Malay Batik.

Justification the sample in this study was determined by purposive sampling; this refers to the consideration of the relevance and relevance of participants to the research objectives, namely exploring Augmented Reality (AR) technology in marketing to improve marketing performance by optimizing resources available in the batik MSME sector. Inclusion criteria include batik entrepreneurs who have been operating for at least three years and have experience using or considering technological innovation in product marketing. Exclusion criteria include entrepreneurs with no plans or interest in digital innovation because this study focuses on the response to AR. The number of samples was set at 30 batik entrepreneurs, with ten groups selected based on variations in business scale (micro, small, medium), geographic location, and business models based on the characteristics of each motif. The participants of this study were divided into two large groups, namely group A consisting of Riau Malay batik entrepreneurs who actively utilize marketing technology innovations and group B consisting of Riau Malay batik entrepreneurs who passively utilize marketing technology innovations.

Determining this number of samples is considered sufficient for qualitative methods because qualitative research focuses more on data depth and understanding than statistical representation (Creswell, 2018). This sample determination can explain the nuances of differences in marketing strategies in achieving their marketing performance by optimizing existing resources and the challenges faced at each business scale. The results of this study are more relevant to improving understanding of the adoption of AR technology in the batik industry, especially traditional batik and other similar traditional products

The selection of this research sample is also based on the principle of data saturation in qualitative methods, meaning the point when information obtained from interviews or observations begins to show repetitive patterns and no longer produces new information (Creswell, 2018). The participants in this study were selected based on their active involvement in the Riau Malay batik industry and their openness to digital marketing technology innovation. However, as a limitation, we recognize that this sample size may limit the generalization of findings to MSMEs outside the sectors and regions studied.

VIVO 12 were used to analyze, triangulation used from various sources to verify the research findings. The interview data were transcribed to facilitate analysis and grouped into different use cases to demonstrate the uniqueness and success of AR utilization. We conducted in-depth semi-structured interviews with all participants. We used audio and video recordings were subsequently transcribed into written text. After this step we concern that the transcription process was crucial for the subsequent analysis of the interview content. Individual and group interviews were comprehensively analyzed to identify key themes, patterns, and emerging findings. The interview data were categorized into different use cases. We took these steps to ensure the validity and reliability of the data obtained then we got the results in information about Augmented Reality (AR) marketing that can optimize competitive advantage.

4. Results and Discussion
4.1 Results

The application of Augmented Reality (AR) technology in the batik industry has brought about significant changes in marketing strategies to improve performance and achieve competitive advantage. In this context, this study examines how AR can be optimized to improve consumer experience, strengthen brand image, and promote the cultural value of batik. The Resource-

Based View (RBV) focuses on how a company's unique resources and capabilities can be used to create sustainable added value through technological innovation.

Figure 1. Word Cloud

Based on figure 1 word cloud and table 1, translation word cloud, six words appeared most frequently in the marketing themes before using augmented reality. Of these six words, customer was most frequently expressed by informants. This shows that customers are the informants' main focus when marketing batik products. Attracting customers is the main task that needs to be performed. Based on the word cloud, social media and exhibition show the informants' ways of attracting customers to come and buy their products. However, these methods remain traditional. The word competition also shows that the informants are very concerned about competition in their batik industry.

Table 1. Translation Word Cloud

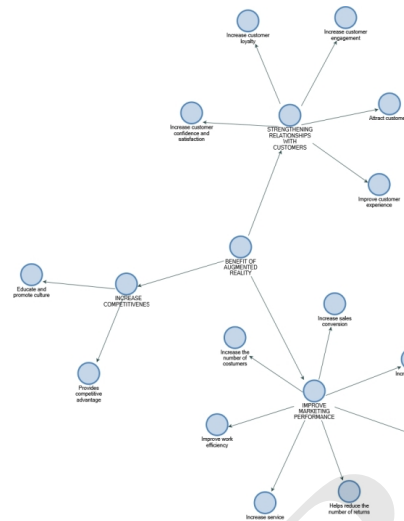| Word	English translation	Count	Weight percentage
Customer	Customers	12	7.89
Media	Media	8	5.26
Social	Social	8	5.26
Competition	Competitive	7	4.61
Digital Marketing	Digital Marketing	6	3.95
Total		**41**	

Figure 2. Project Map Benefits of Augmented Reality Marketing

Based on Figure 2 and Table 2, three themes and 15 sub-themes were identified, as shown in the table above. These three themes show the three main benefits that informants feel when using augmented reality. The 15 sub-themes represent the benefits derived from the main benefits of using augmented reality.

Table 2. Themes and Sub-Themes Benefits of Augmented Reality

Themes	Sub-Themes
Improve Marketing Performance	Improve work efficiency
	Helps reduce the number of returns
	Increase Sales
	Improving services
	Increase sales conversions
	Increase the number of customers
	Helps expand market reach
Increase Competitiveness	Value provides a competitive advantage
	Educate and promote culture
Strengthening Relationships with Customers	Improve customer experience
	Increase customer loyalty
	Increase customer engagement
	Increase customer confidence and satisfaction
	Attract customers

Source : Data Processing, NVIVO 12

5.1. Improve Marketing Performance

5.1.1 Improve work efficiency

This theme describes informants' views on the benefits of augmented technology, which can increase work efficiency. According to the participant, augmented reality can increase work efficiency in two ways: cost and time. One informant revealed that augmented reality could help reduce time and costs in creating prototypes: "*AR helps them in understanding new designs better and reduces the time and costs required to create prototypes* " (Mr. B). Another informant stated that the use of augmented reality is beneficial in the sales process: "Yes, the sales process becomes more efficient because customers can directly see the product virtually, reducing the time they spend considering a purchase." (Mrs. Sr)

5.1.2 Increase Sales

One indicator of the success of implementing augmented reality expressed by informants is an increase in sales: "*We measure success through increased sales*." (Mr. Budi). "Our sales have also increased due to a more interesting and satisfying shopping experience." (Mrs.Ra) Another informant revealed that this increase in sales reached a significant level: "Yes, we saw a significant increase in sales after implementing AR." (Mr. B).

5.1.3 Improving Services

According to the informant, augmented reality makes the services provided to customers more responsive: "*Additionally, AR also allows us to provide better and more responsive service, as we can quickly adapt and develop products based on customer feedback.*". (Mr. An). In addition, another informant revealed that augmented reality technology is used to increase personal touch in services that cannot be obtained using traditional methods: "We use this technology as a tool to enhance, not replace, the personal touch in our services." (Mrs. Ra).

5.1.4 Increase sales conversions

The use of augmented reality can reduce batik sales cycles. The products displayed virtually allow customers to decide to buy the products offered quickly. This certainly increases sales conversion: "*AR has shortened the sales cycle for our batik products by enabling customers to make purchasing decisions more quickly. With AR, customers can view and try products virtually before purchasing, reducing the time needed to consider and decide. This has increased our sales conversions and reduced the time it takes to close a sale.*" " (Mr. R)

5.1.5 Helps Reduce the number of returns

Customers can view products virtually using AR. Customers can try a product to determine whether its suitability. According to the informant, returns of goods are reduced: "*AR features also help reduce the number of returns because customers can see and try products virtually before buying*" (Mrs. L). Several informants revealed that reducing returns also indicates the success of implementing augmented reality: "We measure success through...reducing the number of returns and complaints" (Mr.B). "We measure the success of AR implementation by several metrics, including….Reduced product return rates" (Mr.R).

5.1.6 Helps expand market reach

The use of augmented reality not only attracts customers from Indonesia but can also attract customers from outside Indonesia. The informant felt the broad market reach of augmented reality: "*AR is beneficial for expanding our market reach. We can reach customers worldwide by enabling them to see and try products. This has helped us enter international markets more effectively and expand our customer base beyond the physical locality of our stores.*" " (Mrs. Nur).

Another informant revealed that the exciting thing about using augmented reality is that international customers can see and feel the products as if they were present in a physical store: "*AR allows international customers to see and experience our products as if they were in our physical stores, which is very helpful in reaching the global market*" (Mr. An).

5.1.7 Increase the number of customers

Another indicator of the successful use of augmented reality is the increase in customers: "*We measure success through.....an increase in the number of new customers that come from word of mouth recommendations*". (Mr. Bu). Another informant revealed that the increase in the number of customers mainly came from millennial and Generation Z customers,: " with an increase in the number of customers from millennials and Generation Z, who are more interested in technology and innovative shopping experiences." (Mrs. Rn).

Another informant stated that the increase in the number of customers occurred not only among the millennial generation and Generation Z but also among customers with different age backgrounds: "*We are seeing a significant increase in the number of customers from the younger generation, especially those aged between 20 to 35 years. AR technology appeals to them because they are more familiar with the technology and look for a different shopping experience. However, customers of all ages have also started enjoying this feature after being given sufficient guidance and explanation*'" (Mrs. Ra).

5.2 Increase Competitiveness
5.2.1 Value provides a competitive advantage

One participant explained competitive advantage in detail: "*AR provides a competitive advantage by offering a unique and interactive shopping experience that is difficult to find in other batik stores. This differentiates us from competitors and attracts the attention of more customers. In terms of marketing performance, AR allows us to attract and retain customers more effectively. Data obtained from customer interactions with AR technology helps us understand their preferences and behavior so we can design more targeted marketing campaigns. In addition, this technological innovation strengthens our brand image as a modern and innovative business, further increasing our attractiveness to consumers.*'" (Mrs. Ra). Based on participant' expressions, competitive advantage can be seen from several indicators, such as unique shopping experiences and technological innovation. Another informant expressed the modern and interactive side of the marketing concept using AR as an indicator of competitive advantage: "AR gives us a competitive advantage by providing a more modern and interactive shopping experience to our customers." (Mr. R).

5.2.2 Educate and promote culture

Education and the promotion of culture are two things that cannot be separated. For the informant, the use of augmented reality is not only aimed at improving marketing performance and attracting customers, but it also contains an educational element about cultural values as well as a means of cultural promotion: "*AR also makes it easier for us to educate customers about the cultural and historical values behind each batik motif… I believe AR will help increase sales and play an important role in preserving and promoting batik culture to the younger generation."* " (Mr. Ra).

Another informant believes that AR will not eliminate the traditional touch of Batik but will instead maintains and strengthens its authentic qualities and cultural values; "*Through AR, we display batik designs visually and include educational information about the meaning and history behind each motif. We work closely with local batik craftsmen to ensure that every product we offer maintains its traditional quality and authenticity*" (Mrs. Ratna). "We ensure that AR does not remove the traditional touch of batik by reinforcing traditional cultural and aesthetic values in every product we offer." (Mrs Nur).

5.3 Strengthening Relationships with Customers
5.3.1 Improve Customer Experience

Customer experience is one of the focuses of informants using augmented reality: "*AR impacts our marketing strategy by placing a greater focus on customer experience."* " (Mrs. Ratnawati). One informant said that one of the biggest benefits of using AR is improving the customer experience: "The biggest benefit of using AR is… improving the overall customer experience." (Mrs. Nur). Augmented reality gives customers new experiences they have never had before: "I see the huge potential of AR in providing new experiences to customers…in a way that has never been done before." (Mrs Dw).

5.3.2 Increase customer loyalty

A more personalized experience is possible when augmented reality markets batik products. This personal experience will later cause customers to be more loyal in buying the products offered: "*AR allows us to provide a more engaged and personalized experience to our customers. With AR, customers can explore our batik products in a way they have never done before. This experience….strengthens their emotional bond with our brand. As a result, we saw increased customer retention and loyalty to our batik brand*". (Mr. R).

Apart from a more personalized experience, the interactive side of using augmented reality and product quality are also factors that support customers returning to shop for the products offered: "*Customers who are satisfied with our interactive experience and product quality are more likely to return to shop again*(Mrs. Rn)

5.3.3 Increase customer confidence and satisfaction

Confidence to buy is one of the essential things augmented reality uses in marketing. Customers must first be convinced that the product being sold is indeed different. The virtual sales model makes customers more confident purchasing products: "*Customers are more confident and satisfied with their purchases because they can see product details virtually*" (Mrs. Dw). "They feel more comfortable and confident with their choice after trying batik virtually" (Mrs. Ln). "Customers are more interested and feel confident in buying after seeing the product virtually" (Mr.R)

Satisfaction is another variable after buyers feel confident about purchasing a product. Another informant revealed that satisfaction is one indicator of the success of using augmented reality: "We measure success through….the level of customer satisfaction..." (Mr.B)

5.3.4 Increase customer engagement
The informants revealed that virtual product marketing in augmented reality makes customers feel more involved in it: "Customers feel more involved and appreciated when they can try various batik motifs virtually" (Mrs.Rn). "They felt more connected and involved with our products, and the virtual exhibition helped them better understand the details and beauty of batik motifs" (Mrs. Dw). "We use AR as a key feature in our digital marketing campaigns. This attracts the attention of more people on social media and increases engagement with potential customers" (Mrs.Sr).

5.3.5 Attract customers
        Interest is characterized by the customer's attention and interest in the product being sold. Most informants said that using augmented reality could attract customers ' attention to the products being sold: "*By showing how AR works, we can attract the attention of more customers and increase their interest in our products*" " (Mr. An). "We use AR as a key feature in our digital marketing campaigns. This attracts more people's attention on social media and increases engagement with potential customers" (Mrs. Sr). "We can attract the attention of more customers by offering innovative AR features, which not all of our competitors may have" (Mr.R).

The participants of this study were divided into two main groups: group A, consisting of Riau Malay batik entrepreneurs who actively use marketing technology innovation, and Group B, consisting of Riau Malay batik entrepreneurs who passively use marketing technology innovation based on Table 3.

Table 3. Comparison Of Research Results Between Different Groups

Aspect	Group A	Group B
Approach	Open and active in using marketing technology innovation	Passive and tend to use conventional marketing methods because of limited resources.
Perception of marketing technology innovation such as AR	Interest and ready to adopt	Less Familiar
Competitive Focus	Innovation dan Technology	Culture and Product Quality

Source : Research processing

The results of the interviews in this study in group A stated that using digital marketing technology such as AR provides benefits to improve their marketing performance by optimizing competitive advantages. They can strengthen customer relationships by providing an exciting and different experience, a closer relationship with customers, and attracting new customers. Although Group B has used digital marketing technology, it tends to be passive and less familiar

Furthermore, if you look at the hierarchy chart displayed based on figure 3, informants tend to reveal that the benefits of augmented reality are more significant in strengthening customer relationships.
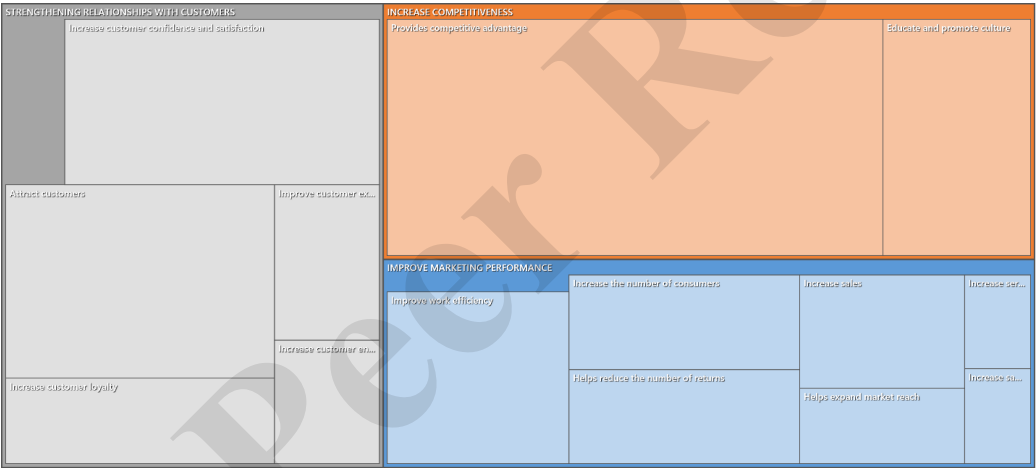

Figure 3. Diagram Hirarchy

For informants, the use of augmented reality in batik marketing first aims to strengthen their relationships with customers, after that increase competitiveness and then improve marketing performance.

6. Discussion

This research's findings revolve around three main themes: improving marketing performance, increasing competitiveness, and strengthening customer relationships. Augmented reality can increase work efficiency in two ways, namely cost and time. Augmented reality can increase operational efficiency by reducing the time required to design, modify, and test prototypes (Vilkina, & Klimovets, 2020; Walentek & Ziora, 2023). Digital models can be created and changed quickly without the need for actual physical materials at an early stage, meaning

companies can reduce the use of raw materials and the time required for development. This aligns with the concept of reducing production costs and increasing productivity. Augmented reality is used to increase the personal touch in service that cannot be obtained using traditional methods so that consumers feel appreciated and strengthen relationships with consumers.

This study introduces a pioneering approach to Resource-Based View (RBV) and the utilization of Augmented Reality (AR) technology in traditional creative industries like riau malay batik. We have managed to uncover significant gaps in existing theory and present a unique perspective. In previous studies, RBV has been predominantly applied to large companies with advanced technology. However, this study successfully answers the clear need for how the industry must adapt to the changing modern digital business environment and apply it to the traditional local creative industry. The success of this study exploring how Augmented Reality can be effectively applied to the traditional local creative industry in the micro, small, and medium sectors is a novelty from the results of this study that has not been previously found. Utilizing the unique resources of these companies, such as the cultural value of batik products, with AR technology, can improve marketing performance and competitiveness.

This study also fills the gap in previous research by combining competitive advantage with customer relations because previous studies separate the relationship between competitive advantage and customer relations. Augmented reality in this study emphasizes that in addition to improving marketing performance through optimizing the company's competitive advantage, it can also strengthen customer relationships, which is a new approach to understanding RBV. This means that AR technology in this study provides unique added value that differs from competitors' and strengthens deeper interactions between batik products and customers. The vital contribution of this study enriches the understanding of RBV deeper with a new approach that optimizes intangible assets such as customer relationships for optimization of competitiveness and marketing performance. Customer relationships are intangible assets in this study that are optimized to improve competitive ability and then influence the improvement of marketing performance of the Riau Melayu batik industry. This shows that customer relationships are transactional and can provide valuable added value as intangible assets. They can create different and in-depth customer shopping experiences and increase customer engagement and loyalty. So this is useful as a strategic step to strengthen the competitive position of the Riau Melayu batik industry in market competition and support improved marketing performance.

This study makes a significant contribution by deepening the Resource-Based View (RBV) understanding through a new perspective that focuses on optimizing intangible resources, especially customer relationships. This new perspective of Resource-Based View (RBV) focuses on improving the understanding of optimizing intangible resources by integrating AR technology in creating customer relationships through solid customer experience and engagement. The integration that occurs is more meaningful because the interaction that occurs can increase customer engagement and customer loyalty affects the marketing performance of Riau Malay Batik. In this research, augmented reality (AR) in the batik business is connected to the RBV theory. AR technology is a unique resource that is difficult for competitors to imitate. By providing a virtual try-on feature, batik companies can offer consumers a different and more exciting shopping experience. Product visualization technology in AR allows consumers to see the details of batik motifs and textures. By providing a more engaging shopping experience and reducing the number of returns, companies can increase efficiency and customer satisfaction, ultimately strengthening competitive advantages that positively impact sales (Sung, 2021; Tan et

al., 2022; Wieland et al., 2024). The use of Augmented Reality (AR) in the batik business can bring significant changes in the way batik is promoted, sold, and appreciated by consumers.

This research shows that customer experience is critical to building competitive advantage. AR allows customers to try products virtually, seeing how they look or function in real life, improving purchasing decisions and customer loyalty. Virtual Try-On allows consumers to try various batik motifs and designs virtually before buying in the AR application. They can see how batik will look when worn without having to try it on physically. This study's findings align with research (Porter, 1985, 1990) that competitive advantage identifies two main types of strategies to achieve competitive advantage: differentiation and cost leadership. However, previous research does not support the current modern situation where technological innovation is essential in improving marketing performance by optimizing competitive advantages with the uniqueness of its intangible resources. In the AR context, differentiation strategies are very relevant. AR can make the shopping experience more engaging and personalize customer interactions with products, which is difficult for competitors to imitate. Our research results found that the benefits of using AR are that consumers get a more exciting shopping experience because they can see their appearance in the batik of their choice, increasing the possibility of purchasing.

Product visualization in AR technology can provide detailed visualization of batik motifs and textures. Consumers can see fine details and fabric quality better through AR displays. So, product details appear more straightforward because consumers can appreciate the quality and uniqueness of batik motifs. Then it generates consumer trust because they can see the product in more detail, thereby increasing consumer confidence in the quality of the product; this can strengthen relationships with consumers, which has an impact on increasing sales (Tan et al., 2022; Voicu et al., 2023). The benefits of AR in the batik business are also education and product stories; batik producers can provide additional information about each batik motif. Consumers can scan batik cloth or product labels to get a story about the origin of the motif, the manufacturing process, and its cultural meaning. Increasing cultural values is another benefit of using AR in the batik business because consumers can understand and appreciate the cultural and historical values behind each batik motif. Furthermore, product differentiation is also available through in-depth information about the product to differentiate batik from other manufacturers.

Competitive advantage is obtained from resources and capabilities that are unique and difficult for competitors to imitate (Porter, 1985, 1990; Barney, 2007; Wernerfelt, 2013; Vilkina, 2020; Gabajová et al., 2021; Karuppiah et al., 2023). AR can be considered a valuable resource due to its ability to create unmatched experiences and modernize marketing concepts. A company's capability to implement and utilize AR effectively is critical to creating a competitive advantage. Interactive Catalog in AR will provide a unique experience for consumers. Consumers use interactive catalogs equipped with AR technology to scan images or catalog pages to see 3D versions of batik products. More interesting interactions: Interactive catalogs make choosing products more exciting and informative (Scholz & Smith, 2016; Gallardo et al., 2018; Du et al., 2022). Consumers can easily choose a product because they can see the product from various angles and get additional information quickly. They apply AR in promotional and branding campaigns, such as AR filters on social media that allow users to try on batik motifs virtually or participate in contests using batik-themed AR filters.

Increasing engagement with AR-based promotional campaigns can attract the attention of more consumers, especially the younger generation who are active on social media. Attractive promotions can help expand market reach and increase brand awareness. They use AR in

physical stores to provide a more interactive shopping experience. Consumers can scan products in stores for additional information, usage tutorials, or related product recommendations. It is an interesting shopping experience; consumers get additional information and relevant recommendations when shopping at the store. More complete and interactive information can increase customer satisfaction. This research also emphasizes that AR in the batik business can provide a more exciting and informative experience for consumers, increase sales, and help strengthen the cultural value and quality of batik. This is as stated (Darma et al., 2019): Exploring competitive advantage by optimizing local resources, including by utilizing AR technology, not only helps in marketing and sales but also in education and preserving batik cultural heritage. With the right adoption, AR can be a very effective tool in developing the batik business in this digital era.

The educational aspect and product story become a unique resource that provides additional information about batik motifs presented through AR, helping educate consumers about the cultural and historical values behind each motif. This enriches the customer experience and differentiates batik products from others, strengthening the company's position in the market. Likewise, interactive catalogs that use AR technology provide a unique and exciting way for consumers to interact with products. This experience can increase consumer interest and engagement, make it easier for them to choose products, and increase the likelihood of purchase.

The findings of this research indicate that the use of AR in batik marketing becomes a competitive advantage due to the unique combination of resources, such as technology, skills, and knowledge about batik culture. In-depth knowledge of batik motifs and their stories is a unique resource for batik companies for education and cultural promotion media. By using AR to educate consumers about batik culture, companies can increase consumer appreciation and loyalty, strengthening profitable long-term relationships (Gallardo et al., 2018; Gabajová et al., 2021; Kowalczuk et al., 2021; Du et al., 2022). Relationships with customers are getting stronger because using AR to enhance customer experiences shows the company's ability to utilize advanced technology to meet consumer needs. Positive and interactive experiences can increase customer satisfaction and loyalty, which is a valuable asset for the company. Loyalty programs powered by AR technology can offer a more personalized and engaging experience. High customer loyalty helps companies maintain a stable customer base and increases lifetime value. AR enables more active consumer interactions through social media campaigns or physical stores. High levels of engagement can create closer relationships between brands and consumers, encourage brand advocacy, and increase brand awareness.

The ability to provide more detailed and interactive information about products through AR increases transparency and consumer trust. High consumer trust contributes to customer satisfaction and reduces the risk of product returns. Creative marketing campaigns using AR can attract the attention of new consumers in innovative ways. Companies can increase market share and ensure continued growth by continuing to attract new customers and retain existing ones. By integrating AR into marketing strategies, batik companies can leverage their unique resources and capabilities to create sustainable competitive advantages. The use of AR not only helps promote and sell batik products but also increases the cultural value and quality of batik in the eyes of consumers. This approach is in line with RBV theory, which emphasizes the importance of managing unique resources and capabilities to achieve competitive advantage and improve marketing performance. This discussion illustrates how various themes and subthemes in improving marketing performance, increasing competitiveness, and strengthening customer relationships can be implemented based on relevant marketing and management theories.

7. Conclusion, Contribution, Implications, Limitations, and Future Research

Conclusion

The study's conclusions from the research findings revolve around three main themes: improving marketing performance, increasing competitiveness, and strengthening customer relationships. This study unveils a relationship between the Resource-Based View (RBV) theory and the application of Augmented Reality (AR) technology in marketing Riau Malay batik. What sets this study apart is its unique approach of integrating two concepts that were previously rarely studied together, namely RBV and AR technology, especially in the context of traditional creative industries such as batik. RBV, in this study, proves that a company's unique resources, such as the ability to implement innovative technologies like AR. In this study, RBV is strengh to show that a company's unique resources, such as the ability to adopt innovative technologies such as AR, can act as a key driver in creating sustainable competitive advantage. The use of AR not only strengthens interactions and enhances customer experiences, but also deepens emotional connections that support customer loyalty and attract new customers. This shows that AR functions as an intangible strategic asset and, in the context of RBV, is difficult for competitors to imitate, thereby strengthening the company's competitive position in the market. This finding provides new insights that technological innovation, such as AR, is not only a marketing tool but also an integral part of strategic resources that can change competition dynamics in traditional creative industries. Practically, the results of this study provide recommendations for Riau Malay batik industry players to adopt AR technology as an effective marketing strategy. Thus, companies can improve marketing performance and strengthen relationships with customers, which ultimately supports business growth and sustainability.

AR (Augmented Reality) is a powerful technology in modern marketing that can significantly improve various aspects discussed in this research. The findings of this study revolve around three main themes: improving marketing performance, improving competitiveness, and strengthening customer relationships. The results show that AR in this study provides unique added value that is different from competitors and strengthens deeper interactions between riau malay batik products and customers. AR in marketing provides various advantages, including increasing marketing performance efficiency, reducing returns, increasing sales, increasing competitive advantage, and strengthening relationships with customers. While AR adoption has challenges, such as high initial costs and the need for consumer education, the benefits can be enormous in the long run. This research concludes that improving marketing performance, increasing competitiveness, and strengthening customer relationships are three main themes that are very important in modern business strategy. Using various marketing and management theories, we can understand how related subthemes interact and contribute to overall business success.

Increasing work efficiency, reducing the number of returns, increasing sales, providing better service, increasing sales conversion, increasing the number of customers, and increasing market expansion can be achieved through a structured strategy based on existing theory. In addition, competitive advantage, education, and cultural promotion, as well as improving customer experience, loyalty, engagement, trust, and customer satisfaction, also play an essential role in building profitable long-term customer relationships.

Contribution

This research provides a theoretical contribution by connecting the Resource-Based View (RBV) theory with implementing Augmented Reality (AR) technology in riau malay batik marketing. This develops our understanding of how a company's unique resources and capabilities can be used to create long-term competitive advantage through innovative technologies. Augmented Reality in this study shows a strong relationship with customers, improving customer experience and engagement, increasing customer satisfaction and loyalty, and attracting new customers. Customer relationships are not just transactional interactions but also valuable added value, creating unique customer experiences and can even attract new customers as intangible assets, so this contributes strategically to strengthening the competitive position of the Riau Malay batik industry in the market competition and supporting improved marketing performance.

The following contribution emphasizes that modern AR technology in the digital era can enrich the customer experience for large companies and creative micro, small, and medium enterprises of traditional Riau Malay batik. This integration is essential in more meaningful interactions to increase customer engagement and loyalty. So, strong customer relationships from AR innovations used in this study contribute to better marketing performance. AR, the Riau Malay batik business, representing the micro, small, and medium industries, can implement an experience-based marketing strategy that strengthens customer relationships. Customers invest in the experience offered so that they are happy to recommend it to others.

Overall, this study provides significant theoretical contributions by connecting RBV and AR in the context of batik marketing and offering practical implications that can help traditional creative industries be more competitive in the digital era. The novelty of this study lies in the holistic approach that paving the way for further research that can explore the integration of other technologies in resource-based business strategies because combines the company's unique resources with innovative technologies.

Implication

The implications of this theory show that the company's unique value capability as the company's added value is not only tangible assets or technical skills but also includes the company's ability to adopt and implement new technological innovations, such as Augmented Reality (AR). By adopting AR technology, using the company's unique resources is increasingly optimal to increase competitiveness while building closer customer relationships so that marketing performance increases.

Managerial implications for batik companies and other industries interested in adopting AR technology. The practical contribution of this research offers practical guidance for MSMEs in traditional creative industries, such as Riau Malay Batik, on optimizing local culture's unique value by using modern AR technology in modern digital marketing to optimize competitiveness and customer relations. The practical contribution and implication of this study offers practical guidance for MSMEs in traditional creative industries, such as Riau Malay Batik, on optimizing the unique value of local culture by using modern AR technology in modern digital marketing to maximize competitiveness and customer relationships.

Limitation

Limitations of this research are based on research findings based on marketing and management theories that may only be fully applicable to some industries or markets. The

specific context of a particular industry or market may influence the relevance and effectiveness of a proposed strategy. Applying various strategies and theories in business practice can be complex and require significant resources. Not all companies have the capabilities or resources necessary to implement these changes. Rapid changes in market trends, technology, and consumer behavior can affect the theories' relevance. This research may only partially capture the latest dynamics of the market.

Future Research

Further research could focus on applying these strategies in specific industries to understand how industry context influences the effectiveness of various theories and strategies. It is also essential to explore how the latest technological developments, such as artificial intelligence and big data analytics, can be used to improve marketing performance and customer relationships. Longitudinal studies that monitor the implementation of these strategies over a more extended period could provide deeper insight into the long-term impacts and sustainability of the proposed strategies. Additional research can be conducted to understand changes in consumer behavior influenced by evolving social and economic factors and how marketing strategies can be adapted to these changes.

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Disclosure statement

No potential conflict of interest was reported by the author(s)

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Author's contribution

AM, LMA, & SY carried out the research, wrote and revised the article AM, AM & LMA conceptualised the central research idea and provided the theoretical framework. AM, LMA & SY designed the research, supervised research progress; AM, LMA anchored the review, AM & SY revisions and approved the article submission.

Data availability statement
The study did not involve any data sets and the articles collected were sourced from https://www.scopus.com/ home.uri, accessed on 2024 and https://scholar.google.com/ accessed on 2024.

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Enhancing Marketing Performance in Batik Malay Industry: Optimization Competitive Advantage by Leveraging Augmented Reality Marketing

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Abstract

This study aims to explore how augmented reality (AR) and a company's unique resources optimize competitive advantage to improve marketing performance using a qualitative approach with triangulated in-depth interviews. The findings of this study revolve around three main themes: improving marketing performance, improving competitiveness, and strengthening customer relationships. The results show that AR in this study provides unique added value that is different from competitors and strengthens deeper interactions between batik products and customers. The theoretical contribution of this study connects the Resource Based View (RBV) theory with the application of augmented reality to the marketing of small and creative traditional batik industries, connecting unique resources, namely the cultural value of batik products, to improve marketing performance through optimizing competitive advantages, thereby strengthening relationships with customers. Intangible assets such as customer relationships are optimized for competitiveness and marketing performance optimization. In addition, this study provides practical implications for practitioners in the batik industry to utilize AR as an effective marketing tool to assist in making strategic decisions regarding technology investment and product development to improve marketing performance through optimizing its resources for competitiveness

Keywords: Augmented Reality Marketing, Competitive Advantage, Performance, Customer Experience, Digital Marketing.

1. Introduction

Augmented Reality marketing (ARM) has a transformative impact, as marketing communication prioritizing technology has the potential to improve consumer experience and consumer responses to purchasing decisions (Reis & Melão, 2023; Gallardo et al., 2018; Bellalouna, 2021; Du et al., 2022). Researchers from America and Europe have conducted most previous studies, and they have found more studies on the influence of AR on customer experience and customer engagement (Tutak & Brodny, 2022; Gabriel et al., 2023; Scholz & Smith, 2016; Schultz & Kumar, 2024). There is a growing body of literature that recognise that

from previous research has revealed ARM's superior ability to enhance consumer experiences interactively (Gallardo et al., 2018; Bellalouna, 2021; Chen & Lin, 2022). Consumers can see and interact with products or services in Unity 3D simulations (Vilkina, 2020; Sung, 2021; Tutak & Brodny, 2022; Dwivedi et al., 2021). ARM integrates information or digital objects into consumer perceptions as new experiences in digital marketing about products or services (Scholz & Smith, 2016; Schultz & Kumar, 2024; Kraus et al., 2022; Gabriel et al., 2023).

In Indonesia, very few researchers are still exploring the use of Augmented Reality (AR) in marketing, There has been no documented application of AR for traditional creative products in the micro, small, and medium enterprise (MSME) sector because most researchers in Indonesia only explore the competitive advantages of local creative products without examining how AR can become a source of competitive advantage for companies (Darma et al., 2019). Additionally, other researchers tend to focus only on specific of consumer satisfaction factors influencing purchasing decisions through the use of mobile augmented reality (Liu & Napitupulu, 2020), AR application to promote traditional food (Weking, A. N., & Santoso, 2020) and AR to promote Indonesian tourism (Hidayat et al., 2023; Anderies et al., 2023) Seen globally more researchers are discussing AR in the education sector on students' competitive abilities in the education sector (Kusdiyanti et al., 2020; Saripudin, D., et al, 2022; Zapata-Paulini et al., 2023).

Augmented Reality marketing can help businesses differentiate their products from their competitors (Darma et al., 2019; Vilkina, 2020; Du et al., 2022). Features such as virtual try-ons, interactive storytelling, and virtual tours allow consumers to experience more immersive and engaging products. In addition, more profound education and information can be obtained because AR allows businesses to convey additional information about products more visually and interestingly. For example, in the marketing context of Riau Malay Batik, AR can be used to show motifs, cultural values, and history more comprehensively and impressively. Augmented Reality enhances consumer engagement, it can provide personalized and relevant experiences according to their preferences. Consumers can "try on" products. It means AR increasing customer trust and satisfaction. AR can optimize marketing processes by expanding market reach and reaching global audiences (Bellalouna, 2021; Gabajová et al., 2021; Karuppiah et al., 2023).

Augmented Reality, as technology, also allows for better tracking and analysis of consumer interactions, which can help improve future marketing strategies. The potential for the batik market in Indonesia and worldwide is significant and continues to grow. The following section explains the potential of the batik market based on the statistical data. According to data from the Central Statistics Agency (BPS), the export value of batik and batik products from Indonesia continues to increase. In 2019, Indonesian batik exports reached approximately USD 52.4 million. Even though it fell in 2020 owing to the COVID-19 pandemic, this sector showed signs of recovery and improvement in the following years. Batik is an indigenous cultural heritage site in Indonesia that was recognized by UNESCO as a humanitarian heritage site for oral and intangible culture in 2009. It increases Indonesian people's awareness and pride in batik, which impacts high demand within the country.

Indonesian Batik, including Riau Malay Batik, is exported to various countries, including Malaysia, Japan, the United States, Europe, and Australia. There is an increasing global awareness and appreciation of ethnic and sustainable products. Batik has its own added value in the hearts of global consumers, especially those who care about sustainability and uniqueness. As an environmentally friendly product with high cultural value. The batik market has bright prospects with government support and increasing awareness at home and abroad. Overall, AR

brings innovation to how products are marketed and strengthens business competitiveness by improving consumer experience, product differentiation, and overall marketing strategy efficiency, thus increasing marketing performance (Bernd, 2016, Rauschnabel et al., 2022).

This study aims to examine augmented reality marketing (ARM) digital marketing technology for Batik Melayu Riau's marketing performance by optimizing its competitive advantage. Through ARM technology, Riau Malay Batik products can be presented uniquely and attractively, allowing consumers to see the natural beauty of the product and, obtain additional information regarding the motif, unique design, and the rich cultural value and history of Riau Melayu Batik before they decide to buy. Augmented Reality (AR) has a significant value in improving business competitiveness and marketing performance. Customer experience allows businesses to create engagement and interactive experiences. Consumers can view products in real or virtual contexts, such as by testing products or viewing additional information directly in their environment. This study explores how an innovation technology augmented reality and company's unique resources by optimizing competitive advantages to enhance marketing performance. Understanding how a company's unique resources and capabilities can create long-term competitive advantages through innovative technology is essential. By implementing ARM technology, the marketing performance of Batik Melayu Riau can be improved, as seen in sales growth, increasing the number of customers, and increasing profits by optimizing its competitive advantages.

There is an urgent need to address the issue of how intangible resources in the RBV approach can be optimized, rather than just discussing the aspects of value, rare resources, imitable, and non-sustainable. The varied results from previous studies indicate that findings in this field are not always consistent or aligned. These differences in research outcomes may be due to variations in methods, samples, or research contexts, reflecting the complexity of understanding the studied phenomena. In previous studies, resource-based View (RBV) has been applied more to large companies based on high and modern technology (Sameera, 2018; Mong et al., 2021; Valaei et al., 2022). Previous researchers have highlighted how customer relationships are essential in forming sustainable competitive advantages from an RBV perspective (Barney, 2007; Barney et al., 2011). There has yet to be any previous research that explicitly reveals intangible resources other than human capital, brand reputation, and organizational culture (Barney, 2007; Barney et al., 2011) in other RBV approaches as essential resources to optimize the company's competitive advantage to improve marketing performance. However, there are still areas for improvement in previous research because it needs to consider the modern context, namely the role of new technologies such as AR in strengthening customer relationships. AR can improve customer interaction and experience in the digital era, which has yet to be fully explored in the existing literature.

However, it still needs to be improved in the traditional local creative industry, so this study bridges the gap in previous studies. This study explores how Augmented Reality consider in digital modern context can be applied effectively to the traditional local creative industry in the micro, small, and medium sectors by connecting the unique resources owned by the company, namely the cultural value of batik products, with AR technology to improve marketing performance through optimizing competitiveness. This study fills the gap in previous studies by combining competitive advantage with customer relationships can increase marketing performance because previous studies separate the relationship between competitive advantage and customer relationships also marketing performance (Wijaya et al., 2024; Habil et al., 2024; Balla, 2024). However, this study emphasize that Augmented Reality can improve marketing

performance by optimizing the company's competitive advantage and can strengthen customer relationships; this is a new approach to understanding RBV. It is means that AR technology in this study provides unique and different added value from competitors and strengthens deeper interactions between batik products and customers.

Thus, this study provides contributions as follows: *First,* An essential contribution in this study enriches the understanding of RBV more deeply with a new approach that optimizes intangible assets such as customer relationships to optimize competitiveness and marketing performance. Customer relationship is an intangible asset in this study, and it is optimized to increase competitiveness and subsequently influence the improvement of marketing performance of the Riau Melayu batik industry. This research shows that customer relationships are not just transactional interactions but are also valuable added value as intangible assets because they create a different and more profound customer shopping experience, increase customer engagement, and increase customer loyalty. So this is useful as a strategic step to strengthen the competitive position of the Riau Melayu batik industry in market competition and support improved marketing performance.

Furthermore, Second, This study emphasizes in the context of the modern digital era the importance of utilizing modern technology, namely Augmented Reality (AR), to enrich the customer experience for large companies and for creative micro, small, and medium enterprises of traditional Riau Malay batik. This integration is essential in more meaningful interactions to increase customer engagement and loyalty. *Third,* Strong customer relationships from AR innovations used in this study contribute to better marketing performance. AR, Riau Malay batik business, as a representative of micro, small, and medium industries, can implement an experience-based marketing strategy that strengthens customer relationships. Customers invest in the experience offered so that they are happy to recommend it to others. Collecting data and feedback on customer interactions is another benefit of using AR. companies allows to have data insights to customer preferences further improving marketing performance. *Fourth*, The practical contribution of this research offers practical guidance for MSMEs in traditional creative industries, such as Riau Malay Batik, on optimizing local culture's unique value by using modern AR technology in modern digital marketing to optimize competitiveness and customer relations.

2.   Literature Review

This study draws on the resource-based view (RBV), which highlights the strategic use of tangible and intangible resources to convert potential competitive advantages into sustainable, long-term gains (Wernerfelt, 1984; Barney, 1991; Cabrera-suárez et al., 1994; Barney, 2001; Barney et al., 2011; Fatoki, 2021). It asserts that a company's competitive edge and overall performance are rooted in the strength of its resources. However, there are varied perspectives on the RBV. For example, Wheelen et al., (2018); Mahdi & Nassar, (2021); Yang et al., (2022) argue that RBV should focus on a company's capabilities rather than just its resources, suggesting that companies must leverage their resources effectively to enhance performance— similarly, Korsakienė & Raišienė, 2022 and Reis & Melão, 2023 stress the primacy of capabilities over mere resources. Hence, we posit that early RBV advocates centered their theory on the competitive capabilities of firms, achievable through a synergistic brand of financial, technological, and human resources. Focus on a holistic combination of financial, technological, and human resources.

The resource-based view (RBV) theory can be explained by the Augmented Reality (AR) phenomenon in marketing, especially in the batik industry. The RBV emphasizes the importance of utilizing unique and difficult-to-imitate resources to create sustainable competitive advantages (Mardatillah et al., 2019). AR can be considered one such resource. Transform Potential into a long-term competitive advantage. According to RBV, companies must leverage unique resources to create sustainable competitive advantages (Kocak et al., 2017; Liao et al., 2017; Kumar et al., 2024). AR in batik marketing allows companies to provide customers with uniquely valuable and interactive shopping experience. For example, AR applications can allow customers to try batik motifs virtually, provide detailed visualization of batik motifs and textures, and provide additional information about the history and cultural meaning. Difficult to Imitate (inimitable) and Complex to Replace (non-substitutable).

Furthermore, inimitable resources that are difficult for competitors to imitate provide a solid competitive advantage. When implemented innovatively and distinctively, AR technology becomes difficult for competitors to imitate (Dwivedi et al., 2021; Du et al., 2022; Gabriel et al., 2023). For example, the interactive experience provided by an AR application specific to Riau Batik may only be easily replicated by other companies with significant investments in technology and development. Non-substitutable resources that are difficult to replace with other technologies are also important for competitive advantage. As a marketing technology, AR offers a unique way to interact with customers that cannot be easily replaced by other technologies such as conventional advertising or regular e-commerce.

Improved brand image and customer loyalty are the result of effective resource utilization. Augmented reality provide an interactive experiences, companies can enhance their brand image in an innovative. Customers who are satisfied with this experience are more likely to become loyal and return to shop again. AR can reduce long-term promotional costs by replacing the need for physical exhibitions and expensive advertising campaigns. AR applications can be used repeatedly for various promotional campaigns, thereby reducing saving long-term costs. AR technology requires expertise, financial investment, and human resource training. However, it provides great benefits to companies, namely a competitive advantage. Augmented reality allows customers to try various batik designs virtually and to view additional information about each motif is part of the RBV theory of unique resource utilization.

The promotional campaign uses AR filters on social media, allowing users to try batik motifs and share their experiences, improving brand image and customer loyalty according to the RBV theory. Batik product catalogs with AR technology allow customers to view products in 3D and get additional information, adding value to the shopping experience and making it difficult for competitors to imitate. This research uses resource-based view (RBV) theory in the context of Augmented Reality (AR) in the batik industry to show how innovative technology can be used as a unique resource to create sustainable competitive advantages. By implementing AR, batik companies can improve customer experience, brand image, and customer loyalty, as well as reduce long-term promotional costs by with RBV principles (Barney, 2007; Barney et al., 2011; Liao et al., 2017; Du et al., 2022; Grabowska & Saniuk, 2022).

2.1 Research Value

The research value in this research has several aspects :

First, it provides a theoretical contribution by connecting the Resource-Based View (RBV) theory with implementing of Augmented Reality (AR) technology in batik marketing. It

develops our understanding of how a company's unique resources and capabilities can be used to create a long-term competitive advantage through innovative technologies.

Second, Methodological contribution, using a qualitative approach and case studies, this research provides in-depth insight into the experiences and perceptions of batik industry players regarding the application of AR in marketing. The use of using in-depth interview methods and data triangulation increased the validity and reliability of the research findings.

Third, Managerial Implications: This study shows an essential important managerial implications for batik companies and other industries that want to adopt AR technology. This includes strategies to improve brand image, customer loyalty, and long-term promotional cost efficiency through the implementation of AR.

Fourth, Practical Implications: This study provides practical guidance for practitioners in the batik industry or other sectors to utilize AR technology as an effective marketing tool. This can help them make strategic decisions regarding technology investment and product development.

Fifth, cultural contributions, Augmented reality as marketing tool can promote malay riau batik as Indonesia's cultural heritage. It can create customer experiences and their engangement.

Sixth, Knowledge Development: This research contributes how AR as modern technology, can be applied effectively in the context of traditional creative industries such as batik. This paves the way for further research on integrating technology with cultural heritage. To develop a research theory that focuses on the use of Augmented Reality (AR) on marketing performance, the following is a theoretical framework that can be used: Augmented Reality (AR) as an Innovative Marketing Tool, AR utilizes technology to present digital information or visual elements in a real-world context, improving user experience.

AR creates consumer experience and increase their engagement through immersive and direct interactions. It enables consumers to view products in a more detailed and relevant context, thereby facilitating purchasing decisions. AR can provide a competitive advantage that is difficult for competitors to imitate; and differentiation from competitors differentiates brands in a crowded market.

Augmented reality impacts customer conversion and retention by providing engaging and informative experiences. By increasing consumer interaction and satisfaction, AR can increase long-term customer loyalty and —cost efficiency in marketing strategies, therby- reducing long-term promotional costs. Although the initial investment in AR development may be high, its long-term use can reduce promotional costs because of to its effectiveness in attracting and retaining customers.

3. Method

This study employed a qualitative methodology with a case study approach to identify various aspects and categories from interview data, which were subsequently organized into different use cases using NVIVO 12. These use cases are detailed across several stages, specifically examining how the use of Augmented Reality (AR) in the marketing of Riau Malay Batik can be challenging for competitors to replicate (inimitable) and difficult to replace with other technologies (non-substitutable). This research adopts a specific approach to explore how optimizing competitive advantages through Augmented marketing can effectively enhance the marketing performance of Malay batiks in Riau, Indonesia.

This study focuses on small and medium enterprise entrepreneurs in the Riau Malay Batik business for over three years in Riau Province, Indonesia. In-depth semi-structured interviews were conducted with 30 Riau Malay Batik industry participants in Riau Province. A total of 30 participants from 10 different business groups within the Riau Malay Batik industry were selected as primary respondents. Respondents included business owners and marketing managers in the industry. Semi-structured in-depth interviews were conducted with 30 Riau Malay Batik industry players in Riau Province. Before we conducted the interview, we complied with the code of ethics regulations by not forcing information to conduct this interview activity. We ensured that they were willing to voluntarily carry out this interview activity. After the informants expressed their willingness, we continued this in-depth interview activity with 30 participants from 10 different business groups in the Riau Malay Batik industry selected as the main respondents. Semi-structured in-depth interviews were conducted with 30 Riau Malay Batik industry players in Riau Province. A total of 30 participants from 10 different business groups in the Riau Malay Batik industry were selected as the primary respondents. Respondents included business owners and marketing managers in the industry. We conducted these semi-structured, in-depth interviews with ten business groups with 30 informants for 20-30 minutes each. During the interview process, we actively listened and recorded, we carry out recording activities after obtaining approval from the informant. and occasionally, we confirmed and cross-checked answers that had doubtful meanings. For example, we re-question the understanding that Augmented Reality can create customer experience and engagement, which are still interpreted in reverse.

In a more applicable context, this study uses a data triangulation approach to combine various methods and data sources to strengthen the validity of the research findings. It is essential to ensure the reliability, validity, and accuracy of the findings and provide a more holistic picture of the complex reality of the research subject (Abraham & Sundaram, 2019). We uses various data collection, such as in-depth interviews, direct observation, and document analysis, which are the most appropriate approaches to investigate the phenomenon under study.

Regulation of the Minister of Research, Technology, and Higher Education of the Republic of Indonesia No. 69 of 2016 concerning the Code of Ethics for Research and Development (*Menteri Riset, Teknologi*, 2019)*:*

*   **Article 10** States that all research must adhere to ethical principles, including research with minimal risk. Consent from research subjects must be obtained, but the consent form can be adjusted to the level of risk of the research.*

*   The guidelines state that low-risk social and humanities research can use simplified consent. This usually includes research that does not disclose sensitive information and does not endanger the welfare of participants. Researchers must still obtain consent from participants, at least verbally or through simplified consent.*

*   This research falls into low-risk social and humanities research that can use simplified verbal consent because this research does not reveal sensitive information and does not endanger the welfare of participants. In this study participants provided verbal informed consent because, verbal consent was preferred in the participant's culture. Participants felt more comfortable and confident giving verbal consent after receiving a detailed explanation of the study. Verbal consent allowed them to ask questions and get clarification before giving consent. Detailed explanations of the study were given, and verbal consent was recorded with the consent of the participants. The verbal consent process was recorded using an audio recorder, and there were witnesses to ensure transparency of consent.*

Participants' willingness to participate in this study was obtained without coercion, and their involvement was to provide opinions on improving marketing performance in the Malay Batik industry through optimizing competitive advantages by utilizing Augmented Reality marketing. Participants were fully informed about the purpose of the study and agreed to participate voluntarily.

We select samples and determine inclusion and exclusion criteria are crucial stages that influence the validity and generalizability of the research results. The following explains this process: The first step is to define the population or group that is the focus of the research. In this study, the population included business owners, marketing managers, and batik consumers. After selecting the sampling method, we developed the sampling frame. This involves creating a list of individuals or entities who might be research participants, such as a list of existing batik businesses in Riau, Indonesia. Selecting the actual sample from this research by determining the sample frame developed, the researcher selects the actual sample that will be invited or asked to participate in the research. Sampling can be performed randomly or by considering specific characteristics such as business size, length of operation, or geographic location.

3.1 Inclusion and Exclusion Criteria

Inclusion Criteria:
In determining these criteria we decide which part of the research sample is in accordance with the requirements. The requirements of inclusion criteria for research on batik marketing in Riau include the following :
 a. Entrepreneurs or managers who have knowledge and experience in the batik industry for at least three years.
 b. Individuals or businessesman located in the Riau region of, Indonesia

Exclusion Criteria:
We were used to exclude individuals or entities from the research sample to ensure that the sample consists of relevant subjects and provide valuable insights. Examples of exclusion criteria in Riau Malay batik marketing research in Indonesia include the following:
 a. Batik business has been operating for less than three years.
 b. Individuals or businesses not located in the Riau Region of, Indonesia
 c. People who do not have relevant knowledge or experience in the batik industry.

Criteria Justification:
Researchers explained in detail in the research report why the inclusion and exclusion criteria were chosen. This is done based on relevance to the research objectives, the desire to obtain a representative sample, or to control variables that could influence the research results.
We can ensure that the selected sample is appropriate to the research objectives, maximize the relevance of the findings, and minimize the bias that may arise when interpreting research results. We utilized various data collection for this research such as individual and group interviews, data collection from multiple industries, and data triangulation. Direct interaction with business actors and consumers provided rich insights into their perceptions, attitudes, and preferences towards Malay Batik.

Justification the sample in this study was determined by purposive sampling; this refers to the consideration of the relevance and relevance of participants to the research objectives, namely exploring Augmented Reality (AR) technology in marketing to improve marketing performance by optimizing resources available in the batik MSME sector. Inclusion criteria include batik entrepreneurs who have been operating for at least three years and have experience using or considering technological innovation in product marketing. Exclusion criteria include entrepreneurs with no plans or interest in digital innovation because this study focuses on the response to AR. The number of samples was set at 30 batik entrepreneurs, with ten groups selected based on variations in business scale (micro, small, medium), geographic location, and business models based on the characteristics of each motif. The participants of this study were divided into two large groups, namely group A consisting of Riau Malay batik entrepreneurs who actively utilize marketing technology innovations and group B consisting of Riau Malay batik entrepreneurs who passively utilize marketing technology innovations.

Determining this number of samples is considered sufficient for qualitative methods because qualitative research focuses more on data depth and understanding than statistical representation (Creswell, 2018). This sample determination can explain the nuances of differences in marketing strategies in achieving their marketing performance by optimizing existing resources and the challenges faced at each business scale. The results of this study are more relevant to improving understanding of the adoption of AR technology in the batik industry, especially traditional batik and other similar traditional products

The selection of this research sample is also based on the principle of data saturation in qualitative methods, meaning the point when information obtained from interviews or observations begins to show repetitive patterns and no longer produces new information (Creswell, 2018). The participants in this study were selected based on their active involvement in the Riau Malay batik industry and their openness to digital marketing technology innovation. However, as a limitation, we recognize that this sample size may limit the generalization of findings to MSMEs outside the sectors and regions studied.

VIVO 12 were used to analyze, triangulation used from various sources to verify the research findings. The interview data were transcribed to facilitate analysis and grouped into different use cases to demonstrate the uniqueness and success of AR utilization. We conducted in-depth semi-structured interviews with all participants. We used audio and video recordings were subsequently transcribed into written text. After this step we concern that the transcription process was crucial for the subsequent analysis of the interview content. Individual and group interviews were comprehensively analyzed to identify key themes, patterns, and emerging findings. The interview data were categorized into different use cases. We took these steps to ensure the validity and reliability of the data obtained then we got the results in information about Augmented Reality (AR) marketing that can optimize competitive advantage.

4. Results and Discussion
4.1 Results

The application of Augmented Reality (AR) technology in the batik industry has brought about significant changes in marketing strategies to improve performance and achieve competitive advantage. In this context, this study examines how AR can be optimized to improve consumer experience, strengthen brand image, and promote the cultural value of batik. The Resource-

Based View (RBV) focuses on how a company's unique resources and capabilities can be used to create sustainable added value through technological innovation.

Figure 1. Word Cloud

Based on figure 1 word cloud and table 1, translation word cloud, six words appeared most frequently in the marketing themes before using augmented reality. Of these six words, customer was most frequently expressed by informants. This shows that customers are the informants' main focus when marketing batik products. Attracting customers is the main task that needs to be performed. Based on the word cloud, social media and exhibition show the informants' ways of attracting customers to come and buy their products. However, these methods remain traditional. The word competition also shows that the informants are very concerned about competition in their batik industry.

Table 1. Translation Word Cloud

Diagram 1. Project Map Benefits of Augmented Reality Marketing

Based on diagram 1 and table 2, three themes and 15 sub-themes were identified, as shown in the table above. These three themes show the three main benefits that informants feel when using augmented reality. The 15 sub-themes represent the benefits derived from the main benefits of using augmented reality.

Table 2. Themes and Sub-Themes Benefits of Augmented Reality

5.1. Improve Marketing Performance
5.1.1 Improve work efficiency
This theme describes informants' views on the benefits of augmented technology, which can increase work efficiency. According to the participant, augmented reality can increase work efficiency in two ways: cost and time. One informant revealed that augmented reality could help reduce time and costs in creating prototypes: "*AR helps them in understanding new designs better and reduces the time and costs required to create prototypes* " (Mr. B). Another informant stated that the use of augmented reality is beneficial in the sales process: "Yes, the sales process becomes more efficient because customers can directly see the product virtually, reducing the time they spend considering a purchase." (Mrs. Sr)

5.1.2 Increase Sales

One indicator of the success of implementing augmented reality expressed by informants is an increase in sales: "*We measure success through increased sales.*" (Mr. Budi). "Our sales have also increased due to a more interesting and satisfying shopping experience." (Mrs.Ra) Another informant revealed that this increase in sales reached a significant level: "Yes, we saw a significant increase in sales after implementing AR." (Mr. B).

5.1.3 Improving Services

According to the informant, augmented reality makes the services provided to customers more responsive: "*Additionally, AR also allows us to provide better and more responsive service, as we can quickly adapt and develop products based on customer feedback.*". (Mr. An). In addition, another informant revealed that augmented reality technology is used to increase personal touch in services that cannot be obtained using traditional methods: "We use this technology as a tool to enhance, not replace, the personal touch in our services." (Mrs. Ra).

5.1.4 Increase sales conversions

The use of augmented reality can reduce batik sales cycles. The products displayed virtually allow customers to decide to buy the products offered quickly. This certainly increases sales conversion: "*AR has shortened the sales cycle for our batik products by enabling customers to make purchasing decisions more quickly. With AR, customers can view and try products virtually before purchasing, reducing the time needed to consider and decide. This has increased our sales conversions and reduced the time it takes to close a sale."* " (Mr. R)

5.1.5 Helps Reduce the number of returns

Customers can view products virtually using AR. Customers can try a product to determine whether its suitability. According to the informant, returns of goods are reduced: "*AR features also help reduce the number of returns because customers can see and try products virtually before buying*" (Mrs. L). Several informants revealed that reducing returns also indicates the success of implementing augmented reality: "We measure success through...reducing the number of returns and complaints" (Mr.B). "We measure the success of AR implementation by several metrics, including….Reduced product return rates" (Mr.R).

5.1.6 Helps expand market reach

The use of augmented reality not only attracts customers from Indonesia but can also attract customers from outside Indonesia. The informant felt the broad market reach of augmented reality: "*AR is beneficial for expanding our market reach. We can reach customers worldwide by enabling them to see and try products. This has helped us enter international markets more effectively and expand our customer base beyond the physical locality of our stores."* " (Mrs. Nur).

Another informant revealed that the exciting thing about using augmented reality is that international customers can see and feel the products as if they were present in a physical store: "*AR allows international customers to see and experience our products as if they were in our physical stores, which is very helpful in reaching the global market*" (Mr. An).

5.1.7 Increase the number of customers

Another indicator of the successful use of augmented reality is the increase in customers: "*We measure success through.....an increase in the number of new customers that come from word of mouth recommendations*". (Mr. Bu). Another informant revealed that the increase in the number of customers mainly came from millennial and Generation Z customers,: " with an increase in the number of customers from millennials and Generation Z, who are more interested in technology and innovative shopping experiences." (Mrs. Rn).

Another informant stated that the increase in the number of customers occurred not only among the millennial generation and Generation Z but also among customers with different age backgrounds: "*We are seeing a significant increase in the number of customers from the younger generation, especially those aged between 20 to 35 years. AR technology appeals to them because they are more familiar with the technology and look for a different shopping experience. However, customers of all ages have also started enjoying this feature after being given sufficient guidance and explanation*'" (Mrs. Ra).

5.2 Increase Competitiveness
5.2.1 Value provides a competitive advantage

One participant explained competitive advantage in detail: "*AR provides a competitive advantage by offering a unique and interactive shopping experience that is difficult to find in other batik stores. This differentiates us from competitors and attracts the attention of more customers. In terms of marketing performance, AR allows us to attract and retain customers more effectively. Data obtained from customer interactions with AR technology helps us understand their preferences and behavior so we can design more targeted marketing campaigns. In addition, this technological innovation strengthens our brand image as a modern and innovative business, further increasing our attractiveness to consumers.*'" (Mrs. Ra). Based on participant' expressions, competitive advantage can be seen from several indicators, such as unique shopping experiences and technological innovation. Another informant expressed the modern and interactive side of the marketing concept using AR as an indicator of competitive advantage: "AR gives us a competitive advantage by providing a more modern and interactive shopping experience to our customers." (Mr. R).

5.2.2 Educate and promote culture

Education and the promotion of culture are two things that cannot be separated. For the informant, the use of augmented reality is not only aimed at improving marketing performance and attracting customers, but it also contains an educational element about cultural values as well as a means of cultural promotion: "*AR also makes it easier for us to educate customers about the cultural and historical values behind each batik motif... I believe AR will help increase sales and play an important role in preserving and promoting batik culture to the younger generation." "* (Mr. Ra).

Another informant believes that AR will not eliminate the traditional touch of Batik but will instead maintains and strengthens its authentic qualities and cultural values; "*Through AR, we display batik designs visually and include educational information about the meaning and history behind each motif. We work closely with local batik craftsmen to ensure that every product we offer maintains its traditional quality and authenticity*" (Mrs. Ratna). "We ensure that AR does not remove the traditional touch of batik by reinforcing traditional cultural and aesthetic values in every product we offer." (Mrs Nur).

5.3 Strengthening Relationships with Customers

5.3.1 Improve Customer Experience

Customer experience is one of the focuses of informants using augmented reality: "*AR impacts our marketing strategy by placing a greater focus on customer experience.*" " (Mrs. Ratnawati). One informant said that one of the biggest benefits of using AR is improving the customer experience: "The biggest benefit of using AR is… improving the overall customer experience." (Mrs. Nur). Augmented reality gives customers new experiences they have never had before: "I see the huge potential of AR in providing new experiences to customers…in a way that has never been done before." (Mrs Dw).

5.3.2 Increase customer loyalty

A more personalized experience is possible when augmented reality markets batik products. This personal experience will later cause customers to be more loyal in buying the products offered: "*AR allows us to provide a more engaged and personalized experience to our customers. With AR, customers can explore our batik products in a way they have never done before. This experience….strengthens their emotional bond with our brand. As a result, we saw increased customer retention and loyalty to our batik brand*". (Mr. R).

Apart from a more personalized experience, the interactive side of using augmented reality and product quality are also factors that support customers returning to shop for the products offered: "*Customers who are satisfied with our interactive experience and product quality are more likely to return to shop again*(Mrs. Rn)

5.3.3 Increase customer confidence and satisfaction

Confidence to buy is one of the essential things augmented reality uses in marketing. Customers must first be convinced that the product being sold is indeed different. The virtual sales model makes customers more confident purchasing products: "*Customers are more confident and satisfied with their purchases because they can see product details virtually*" (Mrs. Dw). "They feel more comfortable and confident with their choice after trying batik virtually" (Mrs. Ln). "Customers are more interested and feel confident in buying after seeing the product virtually" (Mr.R)

Satisfaction is another variable after buyers feel confident about purchasing a product. Another informant revealed that satisfaction is one indicator of the success of using augmented reality: "We measure success through….the level of customer satisfaction..." (Mr.B)

5.3.4 Increase customer engagement

The informants revealed that virtual product marketing in augmented reality makes customers feel more involved in it: "Customers feel more involved and appreciated when they can try various batik motifs virtually" (Mrs.Rn). "They felt more connected and involved with our products, and the virtual exhibition helped them better understand the details and beauty of batik motifs" (Mrs. Dw). "We use AR as a key feature in our digital marketing campaigns. This attracts the attention of more people on social media and increases engagement with potential customers" (Mrs.Sr).

5.3.5 Attract customers

Interest is characterized by the customer's attention and interest in the product being sold. Most informants said that using augmented reality could attract customers ' attention to the

products being sold: "*By showing how AR works, we can attract the attention of more customers and increase their interest in our products*" " (Mr. An). "We use AR as a key feature in our digital marketing campaigns. This attracts more people's attention on social media and increases engagement with potential customers" (Mrs. Sr). "We can attract the attention of more customers by offering innovative AR features, which not all of our competitors may have" (Mr.R).

Furthermore, if you look at the hierarchy chart displayed based on diagram 3, informants tend to reveal that the benefits of augmented reality are more significant in strengthening customer relationships.

Diagram 2. Diagram Hirarchy

For informants, the use of augmented reality in batik marketing first aims to strengthen their relationships with customers, after that increase competitiveness and then improve marketing performance.

6. Discussion

This research's findings revolve around three main themes: improving marketing performance, increasing competitiveness, and strengthening customer relationships. Augmented reality can increase work efficiency in two ways, namely cost and time. Augmented reality can increase operational efficiency by reducing the time required to design, modify, and test prototypes (Vilkina, & Klimovets, 2020; Walentek & Ziora, 2023). Digital models can be created and changed quickly without the need for actual physical materials at an early stage, meaning companies can reduce the use of raw materials and the time required for development. This aligns with the concept of reducing production costs and increasing productivity. Augmented reality is used to increase the personal touch in service that cannot be obtained using traditional methods so that consumers feel appreciated and strengthen relationships with consumers.

This study introduces a pioneering approach to Resource-Based View (RBV) and the utilization of Augmented Reality (AR) technology in traditional creative industries like riau malay batik. We have managed to uncover significant gaps in existing theory and present a unique perspective. In previous studies, RBV has been predominantly applied to large companies with advanced technology. However, this study successfully answers the clear need for how the industry must adapt to the changing modern digital business environment and apply it to the traditional local creative industry. The success of this study exploring how Augmented Reality can be effectively applied to the traditional local creative industry in the micro, small, and medium sectors is a novelty from the results of this study that has not been previously found. Utilizing the unique resources of these companies, such as the cultural value of batik products, with AR technology, can improve marketing performance and competitiveness.

This study also fills the gap in previous research by combining competitive advantage with customer relations because previous studies separate the relationship between competitive advantage and customer relations. Augmented reality in this study emphasizes that in addition to improving marketing performance through optimizing the company's competitive advantage, it can also strengthen customer relationships, which is a new approach to understanding RBV. This means that AR technology in this study provides unique added value that differs from competitors' and strengthens deeper interactions between batik products and customers. The vital contribution of this study enriches the understanding of RBV deeper with a new approach that optimizes intangible assets such as customer relationships for optimization of competitiveness and marketing performance. Customer relationships are intangible assets in this study that are optimized to improve competitive ability and then influence the improvement of marketing performance of the Riau Melayu batik industry. This shows that customer relationships are transactional and can provide valuable added value as intangible assets. They can create different and in-depth customer shopping experiences and increase customer engagement and loyalty. So this is useful as a strategic step to strengthen the competitive position of the Riau Melayu batik industry in market competition and support improved marketing performance.

This study makes a significant contribution by deepening the Resource-Based View (RBV) understanding through a new perspective that focuses on optimizing intangible resources, especially customer relationships. This new perspective of Resource-Based View (RBV) focuses on improving the understanding of optimizing intangible resources by integrating AR technology in creating customer relationships through solid customer experience and engagement. The integration that occurs is more meaningful because the interaction that occurs can increase customer engagement and customer loyalty affects the marketing performance of Riau Malay

Batik. In this research, augmented reality (AR) in the batik business is connected to the RBV theory. AR technology is a unique resource that is difficult for competitors to imitate. By providing a virtual try-on feature, batik companies can offer consumers a different and more exciting shopping experience. Product visualization technology in AR allows consumers to see the details of batik motifs and textures. By providing a more engaging shopping experience and reducing the number of returns, companies can increase efficiency and customer satisfaction, ultimately strengthening competitive advantages that positively impact sales (Sung, 2021; Tan et al., 2022; Wieland et al., 2024). The use of Augmented Reality (AR) in the batik business can bring significant changes in the way batik is promoted, sold, and appreciated by consumers.

This research shows that customer experience is critical to building competitive advantage. AR allows customers to try products virtually, seeing how they look or function in real life, improving purchasing decisions and customer loyalty. Virtual Try-On allows consumers to try various batik motifs and designs virtually before buying in the AR application. They can see how batik will look when worn without having to try it on physically. This study's findings align with research (Porter, 1985, 1990) that competitive advantage identifies two main types of strategies to achieve competitive advantage: differentiation and cost leadership. However, previous research does not support the current modern situation where technological innovation is essential in improving marketing performance by optimizing competitive advantages with the uniqueness of its intangible resources. In the AR context, differentiation strategies are very relevant. AR can make the shopping experience more engaging and personalize customer interactions with products, which is difficult for competitors to imitate. Our research results found that the benefits of using AR are that consumers get a more exciting shopping experience because they can see their appearance in the batik of their choice, increasing the possibility of purchasing.

Product visualization in AR technology can provide detailed visualization of batik motifs and textures. Consumers can see fine details and fabric quality better through AR displays. So, product details appear more straightforward because consumers can appreciate the quality and uniqueness of batik motifs. Then it generates consumer trust because they can see the product in more detail, thereby increasing consumer confidence in the quality of the product; this can strengthen relationships with consumers, which has an impact on increasing sales (Tan et al., 2022; Voicu et al., 2023). The benefits of AR in the batik business are also education and product stories; batik producers can provide additional information about each batik motif. Consumers can scan batik cloth or product labels to get a story about the origin of the motif, the manufacturing process, and its cultural meaning. Increasing cultural values is another benefit of using AR in the batik business because consumers can understand and appreciate the cultural and historical values behind each batik motif. Furthermore, product differentiation is also available through in-depth information about the product to differentiate batik from other manufacturers.

Competitive advantage is obtained from resources and capabilities that are unique and difficult for competitors to imitate (Porter, 1985, 1990; Barney, 2007; Wernerfelt, 2013; Vilkina, 2020; Gabajová et al., 2021; Karuppiah et al., 2023). AR can be considered a valuable resource due to its ability to create unmatched experiences and modernize marketing concepts. A company's capability to implement and utilize AR effectively is critical to creating a competitive advantage. Interactive Catalog in AR will provide a unique experience for consumers. Consumers use interactive catalogs equipped with AR technology to scan images or catalog pages to see 3D versions of batik products. More interesting interactions: Interactive catalogs make choosing products more exciting and informative (Scholz & Smith, 2016; Gallardo et al.,

2018; Du et al., 2022). Consumers can easily choose a product because they can see the product from various angles and get additional information quickly. They apply AR in promotional and branding campaigns, such as AR filters on social media that allow users to try on batik motifs virtually or participate in contests using batik-themed AR filters.

Increasing engagement with AR-based promotional campaigns can attract the attention of more consumers, especially the younger generation who are active on social media. Attractive promotions can help expand market reach and increase brand awareness. They use AR in physical stores to provide a more interactive shopping experience. Consumers can scan products in stores for additional information, usage tutorials, or related product recommendations. It is an interesting shopping experience; consumers get additional information and relevant recommendations when shopping at the store. More complete and interactive information can increase customer satisfaction. This research also emphasizes that AR in the batik business can provide a more exciting and informative experience for consumers, increase sales, and help strengthen the cultural value and quality of batik. This is as stated (Darma et al., 2019): Exploring competitive advantage by optimizing local resources, including by utilizing AR technology, not only helps in marketing and sales but also in education and preserving batik cultural heritage. With the right adoption, AR can be a very effective tool in developing the batik business in this digital era.

The educational aspect and product story become a unique resource that provides additional information about batik motifs presented through AR, helping educate consumers about the cultural and historical values behind each motif. This enriches the customer experience and differentiates batik products from others, strengthening the company's position in the market. Likewise, interactive catalogs that use AR technology provide a unique and exciting way for consumers to interact with products. This experience can increase consumer interest and engagement, make it easier for them to choose products, and increase the likelihood of purchase.

The findings of this research indicate that the use of AR in batik marketing becomes a competitive advantage due to the unique combination of resources, such as technology, skills, and knowledge about batik culture. In-depth knowledge of batik motifs and their stories is a unique resource for batik companies for education and cultural promotion media. By using AR to educate consumers about batik culture, companies can increase consumer appreciation and loyalty, strengthening profitable long-term relationships (Gallardo et al., 2018; Gabajová et al., 2021; Kowalczuk et al., 2021; Du et al., 2022). Relationships with customers are getting stronger because using AR to enhance customer experiences shows the company's ability to utilize advanced technology to meet consumer needs. Positive and interactive experiences can increase customer satisfaction and loyalty, which is a valuable asset for the company. Loyalty programs powered by AR technology can offer a more personalized and engaging experience. High customer loyalty helps companies maintain a stable customer base and increases lifetime value. AR enables more active consumer interactions through social media campaigns or physical stores. High levels of engagement can create closer relationships between brands and consumers, encourage brand advocacy, and increase brand awareness.

The ability to provide more detailed and interactive information about products through AR increases transparency and consumer trust. High consumer trust contributes to customer satisfaction and reduces the risk of product returns. Creative marketing campaigns using AR can attract the attention of new consumers in innovative ways. Companies can increase market share and ensure continued growth by continuing to attract new customers and retain existing ones. By integrating AR into marketing strategies, batik companies can leverage their unique resources

and capabilities to create sustainable competitive advantages. The use of AR not only helps promote and sell batik products but also increases the cultural value and quality of batik in the eyes of consumers. This approach is in line with RBV theory, which emphasizes the importance of managing unique resources and capabilities to achieve competitive advantage and improve marketing performance. This discussion illustrates how various themes and subthemes in improving marketing performance, increasing competitiveness, and strengthening customer relationships can be implemented based on relevant marketing and management theories.

7. Conclusion, Contribution, Implications, Limitations, and Future Research

Conclusion

The study's conclusions from the research findings revolve around three main themes: improving marketing performance, increasing competitiveness, and strengthening customer relationships. This study unveils a relationship between the Resource-Based View (RBV) theory and the application of Augmented Reality (AR) technology in marketing Riau Malay batik. What sets this study apart is its unique approach of integrating two concepts that were previously rarely studied together, namely RBV and AR technology, especially in the context of traditional creative industries such as batik. RBV, in this study, proves that a company's unique resources, such as the ability to implement innovative technologies like AR. In this study, RBV is strengh to show that a company's unique resources, such as the ability to adopt innovative technologies such as AR, can act as a key driver in creating sustainable competitive advantage. The use of AR not only strengthens interactions and enhances customer experiences, but also deepens emotional connections that support customer loyalty and attract new customers. This shows that AR functions as an intangible strategic asset and, in the context of RBV, is difficult for competitors to imitate, thereby strengthening the company's competitive position in the market. This finding provides new insights that technological innovation, such as AR, is not only a marketing tool but also an integral part of strategic resources that can change competition dynamics in traditional creative industries. Practically, the results of this study provide recommendations for Riau Malay batik industry players to adopt AR technology as an effective marketing strategy. Thus, companies can improve marketing performance and strengthen relationships with customers, which ultimately supports business growth and sustainability.

AR (Augmented Reality) is a powerful technology in modern marketing that can significantly improve various aspects discussed in this research. The findings of this study revolve around three main themes: improving marketing performance, improving competitiveness, and strengthening customer relationships. The results show that AR in this study provides unique added value that is different from competitors and strengthens deeper interactions between riau malay batik products and customers. AR in marketing provides various advantages, including increasing marketing performance efficiency, reducing returns, increasing sales, increasing competitive advantage, and strengthening relationships with customers. While AR adoption has challenges, such as high initial costs and the need for consumer education, the benefits can be enormous in the long run. This research concludes that improving marketing performance, increasing competitiveness, and strengthening customer relationships are three main themes that are very important in modern business strategy. Using various marketing and management theories, we can understand how related subthemes interact and contribute to overall business success.

Increasing work efficiency, reducing the number of returns, increasing sales, providing better service, increasing sales conversion, increasing the number of customers, and increasing market expansion can be achieved through a structured strategy based on existing theory. In addition, competitive advantage, education, and cultural promotion, as well as improving customer experience, loyalty, engagement, trust, and customer satisfaction, also play an essential role in building profitable long-term customer relationships.

Contribution

This research provides a theoretical contribution by connecting the Resource-Based View (RBV) theory with implementing Augmented Reality (AR) technology in riau malay batik marketing. This develops our understanding of how a company's unique resources and capabilities can be used to create long-term competitive advantage through innovative technologies. Augmented Reality in this study shows a strong relationship with customers, improving customer experience and engagement, increasing customer satisfaction and loyalty, and attracting new customers. Customer relationships are not just transactional interactions but also valuable added value, creating unique customer experiences and can even attract new customers as intangible assets, so this contributes strategically to strengthening the competitive position of the Riau Malay batik industry in the market competition and supporting improved marketing performance.

The following contribution emphasizes that modern AR technology in the digital era can enrich the customer experience for large companies and creative micro, small, and medium enterprises of traditional Riau Malay batik. This integration is essential in more meaningful interactions to increase customer engagement and loyalty. So, strong customer relationships from AR innovations used in this study contribute to better marketing performance. AR, the Riau Malay batik business, representing the micro, small, and medium industries, can implement an experience-based marketing strategy that strengthens customer relationships. Customers invest in the experience offered so that they are happy to recommend it to others.

Overall, this study provides significant theoretical contributions by connecting RBV and AR in the context of batik marketing and offering practical implications that can help traditional creative industries be more competitive in the digital era. The novelty of this study lies in the holistic approach that paving the way for further research that can explore the integration of other technologies in resource-based business strategies because combines the company's unique resources with innovative technologies.

Implication

The implications of this theory show that the company's unique value capability as the company's added value is not only tangible assets or technical skills but also includes the company's ability to adopt and implement new technological innovations, such as Augmented Reality (AR). By adopting AR technology, using the company's unique resources is increasingly optimal to increase competitiveness while building closer customer relationships so that marketing performance increases.

Managerial implications for batik companies and other industries interested in adopting AR technology. The practical contribution of this research offers practical guidance for MSMEs in traditional creative industries, such as Riau Malay Batik, on optimizing local culture's unique value by using modern AR technology in modern digital marketing to optimize competitiveness and customer relations. The practical contribution and implication of this study offers practical

guidance for MSMEs in traditional creative industries, such as Riau Malay Batik, on optimizing the unique value of local culture by using modern AR technology in modern digital marketing to maximize competitiveness and customer relationships.

Limitation

Limitations of this research are based on research findings based on marketing and management theories that may only be fully applicable to some industries or markets. The specific context of a particular industry or market may influence the relevance and effectiveness of a proposed strategy. Applying various strategies and theories in business practice can be complex and require significant resources. Not all companies have the capabilities or resources necessary to implement these changes. Rapid changes in market trends, technology, and consumer behavior can affect the theories' relevance. This research may only partially capture the latest dynamics of the market.

Future Research

Further research could focus on applying these strategies in specific industries to understand how industry context influences the effectiveness of various theories and strategies. It is also essential to explore how the latest technological developments, such as artificial intelligence and big data analytics, can be used to improve marketing performance and customer relationships. Longitudinal studies that monitor the implementation of these strategies over a more extended period could provide deeper insight into the long-term impacts and sustainability of the proposed strategies. Additional research can be conducted to understand changes in consumer behavior influenced by evolving social and economic factors and how marketing strategies can be adapted to these changes.

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Disclosure statement
No potential conflict of interest was reported by the author(s)

Author's contribution

Data availability statement
This study did not involve any data collection, and the articles collected were sourced from https://www.scopus.com/home.uri, accessed in 2024, and https://scholar.google.com/, accessed in 2024. However, due to privacy and ethical constraints, the data used in this study are not publicly available. Still, they can be requested from the corresponding author under certain reasonable conditions and are not sensitive in nature, violating ethics and privacy.

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Table

Table 1. Translation Word Cloud

Word	English translation	Count	Weight percentage
Customer	Customers	12	7.89
Media	Media	8	5.26
Social	Social	8	5.26
Competition	Competitive	7	4.61
Digital	Digital	6	3.95
Marketing	Marketing		
	Total	**41**	

Source : Data Processing

Table 2. Themes and Sub-Themes Benefits of Augmented Reality

Themes	Sub-Themes
Improve Marketing Performance	Improve work efficiency
	Helps reduce the number of returns
	Increase Sales
	Improving services
	Increase sales conversions
	Increase the number of customers
	Helps expand market reach
Increase Competitiveness	Value provides a competitive advantage
	Educate and promote culture
Strengthening Relationships with Customers	Improve customer experience
	Increase customer loyalty
	Increase customer engagement
	Increase customer confidence and satisfaction
	Attract customers

Source : Data Processing, NVIVO 12

Table 3. Comparison Of Research Results Between Different Groups

Aspect	Group A	Group B
Approach	Open and active in using marketing technology innovation	Passive and tend to use conventional marketing methods because of limited resources.
Perception of marketing technology innovation such as AR	Interest and ready to adopt	Less Familiar
Competitive Focus	Innovation and Technology	Culture and Product Quality

Source : Research processing

Figure and Diagram

Figure 1. Word Cloud

Diagram 1. Project Map Benefits of Augmented Reality Marketing

Diagram 2. Diagram Hirarchy

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Enhancing Marketing Performance in Batik Malay Industry: Optimization Competitive Advantage by Leveraging Augmented Reality Marketing

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Abstract

This study aims to explore how augmented reality (AR) and a company's unique resources optimize competitive advantage to improve marketing performance using a qualitative approach with triangulated in-depth interviews. The findings of this study revolve around three main themes: improving marketing performance, improving competitiveness, and strengthening customer relationships. The results show that AR in this study provides unique added value that is different from competitors and strengthens deeper interactions between batik products and customers. The theoretical contribution of this study connects the Resource Based View (RBV) theory with the application of augmented reality to the marketing of small and creative traditional batik industries, connecting unique resources, namely the cultural value of batik products, to improve marketing performance through optimizing competitive advantages, thereby strengthening relationships with customers. Intangible assets such as customer relationships are optimized for competitiveness and marketing performance optimization. In addition, this study provides practical implications for practitioners in the batik industry to utilize AR as an effective marketing tool to assist in making strategic decisions regarding technology investment and product development to improve marketing performance through optimizing its resources for competitiveness

Keywords: Augmented Reality Marketing, Competitive Advantage, Performance, Customer Experience, Digital Marketing.

1. Introduction

Augmented Reality marketing (ARM) has a transformative impact, as marketing communication prioritizing technology has the potential to improve consumer experience and consumer responses to purchasing decisions (Reis & Melão, 2023; Gallardo et al., 2018; Bellalouna, 2021; Du et al., 2022). Researchers from America and Europe have conducted most previous studies, and they have found more studies on the influence of AR on customer experience and customer engagement (Tutak & Brodny, 2022; Gabriel et al., 2023; Scholz & Smith, 2016; Schultz & Kumar, 2024). There is a growing body of literature that recognise that

from previous research has revealed ARM's superior ability to enhance consumer experiences interactively (Gallardo et al., 2018; Bellalouna, 2021; Chen & Lin, 2022). Consumers can see and interact with products or services in Unity 3D simulations (Vilkina, 2020; Sung, 2021; Tutak & Brodny, 2022; Dwivedi et al., 2021). ARM integrates information or digital objects into consumer perceptions as new experiences in digital marketing about products or services (Scholz & Smith, 2016; Schultz & Kumar, 2024; Kraus et al., 2022; Gabriel et al., 2023).

In Indonesia, very few researchers are still exploring the use of Augmented Reality (AR) in marketing, There has been no documented application of AR for traditional creative products in the micro, small, and medium enterprise (MSME) sector because most researchers in Indonesia only explore the competitive advantages of local creative products without examining how AR can become a source of competitive advantage for companies (Darma et al., 2019). Additionally, other researchers tend to focus only on specific of consumer satisfaction factors influencing purchasing decisions through the use of mobile augmented reality (Liu & Napitupulu, 2020), AR application to promote traditional food (Weking, A. N., & Santoso, 2020) and AR to promote Indonesian tourism (Hidayat et al., 2023; Anderies et al., 2023) Seen globally more researchers are discussing AR in the education sector on students' competitive abilities in the education sector (Kusdiyanti et al., 2020; Saripudin, D., et al, 2022; Zapata-Paulini et al., 2023).

Augmented Reality marketing can help businesses differentiate their products from their competitors (Darma et al., 2019; Vilkina, 2020; Du et al., 2022). Features such as virtual try-ons, interactive storytelling, and virtual tours allow consumers to experience more immersive and engaging products. In addition, more profound education and information can be obtained because AR allows businesses to convey additional information about products more visually and interestingly. For example, in the marketing context of Riau Malay Batik, AR can be used to show motifs, cultural values, and history more comprehensively and impressively. Augmented Reality enhances consumer engagement, it can provide personalized and relevant experiences according to their preferences. Consumers can "try on" products. It means AR increasing customer trust and satisfaction. AR can optimize marketing processes by expanding market reach and reaching global audiences (Bellalouna, 2021; Gabajová et al., 2021; Karuppiah et al., 2023).

Augmented Reality, as technology, also allows for better tracking and analysis of consumer interactions, which can help improve future marketing strategies. The potential for the batik market in Indonesia and worldwide is significant and continues to grow. The following section explains the potential of the batik market based on the statistical data. According to data from the Central Statistics Agency (BPS), the export value of batik and batik products from Indonesia continues to increase. In 2019, Indonesian batik exports reached approximately USD 52.4 million. Even though it fell in 2020 owing to the COVID-19 pandemic, this sector showed signs of recovery and improvement in the following years. Batik is an indigenous cultural heritage site in Indonesia that was recognized by UNESCO as a humanitarian heritage site for oral and intangible culture in 2009. It increases Indonesian people's awareness and pride in batik, which impacts high demand within the country.

Indonesian Batik, including Riau Malay Batik, is exported to various countries, including Malaysia, Japan, the United States, Europe, and Australia. There is an increasing global awareness and appreciation of ethnic and sustainable products. Batik has its own added value in the hearts of global consumers, especially those who care about sustainability and uniqueness. As an environmentally friendly product with high cultural value. The batik market has bright prospects with government support and increasing awareness at home and abroad. Overall, AR

brings innovation to how products are marketed and strengthens business competitiveness by improving consumer experience, product differentiation, and overall marketing strategy efficiency, thus increasing marketing performance (Bernd, 2016, Rauschnabel et al., 2022).

This study aims to examine augmented reality marketing (ARM) digital marketing technology for Batik Melayu Riau's marketing performance by optimizing its competitive advantage. Through ARM technology, Riau Malay Batik products can be presented uniquely and attractively, allowing consumers to see the natural beauty of the product and, obtain additional information regarding the motif, unique design, and the rich cultural value and history of Riau Melayu Batik before they decide to buy. Augmented Reality (AR) has a significant value in improving business competitiveness and marketing performance. Customer experience allows businesses to create engagement and interactive experiences. Consumers can view products in real or virtual contexts, such as by testing products or viewing additional information directly in their environment. This study explores how an innovation technology augmented reality and company's unique resources by optimizing competitive advantages to enhance marketing performance. Understanding how a company's unique resources and capabilities can create long-term competitive advantages through innovative technology is essential. By implementing ARM technology, the marketing performance of Batik Melayu Riau can be improved, as seen in sales growth, increasing the number of customers, and increasing profits by optimizing its competitive advantages.

There is an urgent need to address the issue of how intangible resources in the RBV approach can be optimized, rather than just discussing the aspects of value, rare resources, imitable, and non-sustainable. The varied results from previous studies indicate that findings in this field are not always consistent or aligned. These differences in research outcomes may be due to variations in methods, samples, or research contexts, reflecting the complexity of understanding the studied phenomena. In previous studies, resource-based View (RBV) has been applied more to large companies based on high and modern technology (Sameera, 2018; Mong et al., 2021; Valaei et al., 2022). Previous researchers have highlighted how customer relationships are essential in forming sustainable competitive advantages from an RBV perspective (Barney, 2007; Barney et al., 2011). There has yet to be any previous research that explicitly reveals intangible resources other than human capital, brand reputation, and organizational culture (Barney, 2007; Barney et al., 2011) in other RBV approaches as essential resources to optimize the company's competitive advantage to improve marketing performance. However, there are still areas for improvement in previous research because it needs to consider the modern context, namely the role of new technologies such as AR in strengthening customer relationships. AR can improve customer interaction and experience in the digital era, which has yet to be fully explored in the existing literature.

However, it still needs to be improved in the traditional local creative industry, so this study bridges the gap in previous studies. This study explores how Augmented Reality consider in digital modern context can be applied effectively to the traditional local creative industry in the micro, small, and medium sectors by connecting the unique resources owned by the company, namely the cultural value of batik products, with AR technology to improve marketing performance through optimizing competitiveness. This study fills the gap in previous studies by combining competitive advantage with customer relationships can increase marketing performance because previous studies separate the relationship between competitive advantage and customer relationships also marketing performance (Wijaya et al., 2024; Habil et al., 2024; Balla, 2024). However, this study emphasize that Augmented Reality can improve marketing

performance by optimizing the company's competitive advantage and can strengthen customer relationships; this is a new approach to understanding RBV. It is means that AR technology in this study provides unique and different added value from competitors and strengthens deeper interactions between batik products and customers.

Thus, this study provides contributions as follows: *First,* An essential contribution in this study enriches the understanding of RBV more deeply with a new approach that optimizes intangible assets such as customer relationships to optimize competitiveness and marketing performance. Customer relationship is an intangible asset in this study, and it is optimized to increase competitiveness and subsequently influence the improvement of marketing performance of the Riau Melayu batik industry. This research shows that customer relationships are not just transactional interactions but are also valuable added value as intangible assets because they create a different and more profound customer shopping experience, increase customer engagement, and increase customer loyalty. So this is useful as a strategic step to strengthen the competitive position of the Riau Melayu batik industry in market competition and support improved marketing performance.

Furthermore, Second, This study emphasizes in the context of the modern digital era the importance of utilizing modern technology, namely Augmented Reality (AR), to enrich the customer experience for large companies and for creative micro, small, and medium enterprises of traditional Riau Malay batik. This integration is essential in more meaningful interactions to increase customer engagement and loyalty. *Third,* Strong customer relationships from AR innovations used in this study contribute to better marketing performance. AR, Riau Malay batik business, as a representative of micro, small, and medium industries, can implement an experience-based marketing strategy that strengthens customer relationships. Customers invest in the experience offered so that they are happy to recommend it to others. Collecting data and feedback on customer interactions is another benefit of using AR. companies allows to have data insights to customer preferences further improving marketing performance. *Fourth*, The practical contribution of this research offers practical guidance for MSMEs in traditional creative industries, such as Riau Malay Batik, on optimizing local culture's unique value by using modern AR technology in modern digital marketing to optimize competitiveness and customer relations.

2.   Literature Review

This study draws on the resource-based view (RBV), which highlights the strategic use of tangible and intangible resources to convert potential competitive advantages into sustainable, long-term gains (Wernerfelt, 1984; Barney, 1991; Cabrera-suárez et al., 1994; Barney, 2001; Barney et al., 2011; Fatoki, 2021). It asserts that a company's competitive edge and overall performance are rooted in the strength of its resources. However, there are varied perspectives on the RBV. For example, Wheelen et al., (2018); Mahdi & Nassar, (2021); Yang et al., (2022) argue that RBV should focus on a company's capabilities rather than just its resources, suggesting that companies must leverage their resources effectively to enhance performance—similarly, Korsakienė & Raišienė, 2022 and Reis & Melão, 2023 stress the primacy of capabilities over mere resources. Hence, we posit that early RBV advocates centered their theory on the competitive capabilities of firms, achievable through a synergistic brand of financial, technological, and human resources. Focus on a holistic combination of financial, technological, and human resources.

The resource-based view (RBV) theory can be explained by the Augmented Reality (AR) phenomenon in marketing, especially in the batik industry. The RBV emphasizes the importance of utilizing unique and difficult-to-imitate resources to create sustainable competitive advantages (Mardatillah et al., 2019). AR can be considered one such resource. Transform Potential into a long-term competitive advantage. According to RBV, companies must leverage unique resources to create sustainable competitive advantages (Kocak et al., 2017; Liao et al., 2017; Kumar et al., 2024). AR in batik marketing allows companies to provide customers with uniquely valuable and interactive shopping experience. For example, AR applications can allow customers to try batik motifs virtually, provide detailed visualization of batik motifs and textures, and provide additional information about the history and cultural meaning. Difficult to Imitate (inimitable) and Complex to Replace (non-substitutable).

Furthermore, inimitable resources that are difficult for competitors to imitate provide a solid competitive advantage. When implemented innovatively and distinctively, AR technology becomes difficult for competitors to imitate (Dwivedi et al., 2021; Du et al., 2022; Gabriel et al., 2023). For example, the interactive experience provided by an AR application specific to Riau Batik may only be easily replicated by other companies with significant investments in technology and development. Non-substitutable resources that are difficult to replace with other technologies are also important for competitive advantage. As a marketing technology, AR offers a unique way to interact with customers that cannot be easily replaced by other technologies such as conventional advertising or regular e-commerce.

Improved brand image and customer loyalty are the result of effective resource utilization. Augmented reality provide an interactive experiences, companies can enhance their brand image in an innovative. Customers who are satisfied with this experience are more likely to become loyal and return to shop again. AR can reduce long-term promotional costs by replacing the need for physical exhibitions and expensive advertising campaigns. AR applications can be used repeatedly for various promotional campaigns, thereby reducing saving long-term costs. AR technology requires expertise, financial investment, and human resource training. However, it provides great benefits to companies, namely a competitive advantage. Augmented reality allows customers to try various batik designs virtually and to view additional information about each motif is part of the RBV theory of unique resource utilization.

The promotional campaign uses AR filters on social media, allowing users to try batik motifs and share their experiences, improving brand image and customer loyalty according to the RBV theory. Batik product catalogs with AR technology allow customers to view products in 3D and get additional information, adding value to the shopping experience and making it difficult for competitors to imitate. This research uses resource-based view (RBV) theory in the context of Augmented Reality (AR) in the batik industry to show how innovative technology can be used as a unique resource to create sustainable competitive advantages. By implementing AR, batik companies can improve customer experience, brand image, and customer loyalty, as well as reduce long-term promotional costs by with RBV principles (Barney, 2007; Barney et al., 2011; Liao et al., 2017; Du et al., 2022; Grabowska & Saniuk, 2022).

2.1 Research Value

The research value in this research has several aspects :

First, it provides a theoretical contribution by connecting the Resource-Based View (RBV) theory with implementing of Augmented Reality (AR) technology in batik marketing. It

develops our understanding of how a company's unique resources and capabilities can be used to create a long-term competitive advantage through innovative technologies.

Second, Methodological contribution, using a qualitative approach and case studies, this research provides in-depth insight into the experiences and perceptions of batik industry players regarding the application of AR in marketing. The use of using in-depth interview methods and data triangulation increased the validity and reliability of the research findings.

Third, Managerial Implications: This study shows an essential important managerial implications for batik companies and other industries that want to adopt AR technology. This includes strategies to improve brand image, customer loyalty, and long-term promotional cost efficiency through the implementation of AR.

Fourth, Practical Implications: This study provides practical guidance for practitioners in the batik industry or other sectors to utilize AR technology as an effective marketing tool. This can help them make strategic decisions regarding technology investment and product development.

Fifth, cultural contributions, Augmented reality as marketing tool can promote malay riau batik as Indonesia's cultural heritage. It can create customer experiences and their engangement.

Sixth, Knowledge Development: This research contributes how AR as modern technology, can be applied effectively in the context of traditional creative industries such as batik. This paves the way for further research on integrating technology with cultural heritage. To develop a research theory that focuses on the use of Augmented Reality (AR) on marketing performance, the following is a theoretical framework that can be used: Augmented Reality (AR) as an Innovative Marketing Tool, AR utilizes technology to present digital information or visual elements in a real-world context, improving user experience.

AR creates consumer experience and increase their engagement through immersive and direct interactions. It enables consumers to view products in a more detailed and relevant context, thereby facilitating purchasing decisions. AR can provide a competitive advantage that is difficult for competitors to imitate; and differentiation from competitors differentiates brands in a crowded market.

Augmented reality impacts customer conversion and retention by providing engaging and informative experiences. By increasing consumer interaction and satisfaction, AR can increase long-term customer loyalty and —cost efficiency in marketing strategies, therby- reducing long-term promotional costs. Although the initial investment in AR development may be high, its long-term use can reduce promotional costs because of to its effectiveness in attracting and retaining customers.

3.   Method

This study employed a qualitative methodology with a case study approach to identify various aspects and categories from interview data, which were subsequently organized into different use cases using NVIVO 12. These use cases are detailed across several stages, specifically examining how the use of Augmented Reality (AR) in the marketing of Riau Malay Batik can be challenging for competitors to replicate (inimitable) and difficult to replace with other technologies (non-substitutable). This research adopts a specific approach to explore how optimizing competitive advantages through Augmented marketing can effectively enhance the marketing performance of Malay batiks in Riau, Indonesia.

This study focuses on small and medium enterprise entrepreneurs in the Riau Malay Batik business for over three years in Riau Province, Indonesia. In-depth semi-structured interviews were conducted with 30 Riau Malay Batik industry participants in Riau Province. A total of 30 participants from 10 different business groups within the Riau Malay Batik industry were selected as primary respondents. Respondents included business owners and marketing managers in the industry. Semi-structured in-depth interviews were conducted with 30 Riau Malay Batik industry players in Riau Province. Before we conducted the interview, we complied with the code of ethics regulations by not forcing information to conduct this interview activity. We ensured that they were willing to voluntarily carry out this interview activity. After the informants expressed their willingness, we continued this in-depth interview activity with 30 participants from 10 different business groups in the Riau Malay Batik industry selected as the main respondents. Semi-structured in-depth interviews were conducted with 30 Riau Malay Batik industry players in Riau Province. A total of 30 participants from 10 different business groups in the Riau Malay Batik industry were selected as the primary respondents. Respondents included business owners and marketing managers in the industry. We conducted these semi-structured, in-depth interviews with ten business groups with 30 informants for 20-30 minutes each. During the interview process, we actively listened and recorded, we carry out recording activities after obtaining approval from the informant. and occasionally, we confirmed and cross-checked answers that had doubtful meanings. For example, we re-question the understanding that Augmented Reality can create customer experience and engagement, which are still interpreted in reverse.

In a more applicable context, this study uses a data triangulation approach to combine various methods and data sources to strengthen the validity of the research findings. It is essential to ensure the reliability, validity, and accuracy of the findings and provide a more holistic picture of the complex reality of the research subject (Abraham & Sundaram, 2019). We uses various data collection, such as in-depth interviews, direct observation, and document analysis, which are the most appropriate approaches to investigate the phenomenon under study.

Regulation of the Minister of Research, Technology, and Higher Education of the Republic of Indonesia No. 69 of 2016 concerning the Code of Ethics for Research and Development (Menteri Riset, Teknologi, 2019):

__Article 10__ States that all research must adhere to ethical principles, including research with minimal risk. Consent from research subjects must be obtained, but the consent form can be adjusted to the level of risk of the research.

The guidelines state that low-risk social and humanities research can use simplified consent. This usually includes research that does not disclose sensitive information and does not endanger the welfare of participants. Researchers must still obtain consent from participants, at least verbally or through simplified consent.

This research falls into low-risk social and humanities research that can use simplified verbal consent because this research does not reveal sensitive information and does not endanger the welfare of participants. In this study participants provided verbal informed consent because, verbal consent was preferred in the participant's culture. Participants felt more comfortable and confident giving verbal consent after receiving a detailed explanation of the study. Verbal consent allowed them to ask questions and get clarification before giving consent. Detailed explanations of the study were given, and verbal consent was recorded with the consent of the participants. The verbal consent process was recorded using an audio recorder, and there were witnesses to ensure transparency of consent.

Participants' willingness to participate in this study was obtained without coercion, and their involvement was to provide opinions on improving marketing performance in the Malay Batik industry through optimizing competitive advantages by utilizing Augmented Reality marketing. Participants were fully informed about the purpose of the study and agreed to participate voluntarily.

We select samples and determine inclusion and exclusion criteria are crucial stages that influence the validity and generalizability of the research results. The following explains this process: The first step is to define the population or group that is the focus of the research. In this study, the population included business owners, marketing managers, and batik consumers. After selecting the sampling method, we developed the sampling frame. This involves creating a list of individuals or entities who might be research participants, such as a list of existing batik businesses in Riau, Indonesia. Selecting the actual sample from this research by determining the sample frame developed, the researcher selects the actual sample that will be invited or asked to participate in the research. Sampling can be performed randomly or by considering specific characteristics such as business size, length of operation, or geographic location.

3.1 Inclusion and Exclusion Criteria

Inclusion Criteria:
In determining these criteria we decide which part of the research sample is in accordance with the requirements. The requirements of inclusion criteria for research on batik marketing in Riau include the following :
 a. Entrepreneurs or managers who have knowledge and experience in the batik industry for at least three years.
 b. Individuals or businessesman located in the Riau region of, Indonesia

Exclusion Criteria:
We were used to exclude individuals or entities from the research sample to ensure that the sample consists of relevant subjects and provide valuable insights. Examples of exclusion criteria in Riau Malay batik marketing research in Indonesia include the following:
 a. Batik business has been operating for less than three years.
 b. Individuals or businesses not located in the Riau Region of, Indonesia
 c. People who do not have relevant knowledge or experience in the batik industry.

Criteria Justification:
Researchers explained in detail in the research report why the inclusion and exclusion criteria were chosen. This is done based on relevance to the research objectives, the desire to obtain a representative sample, or to control variables that could influence the research results.
We can ensure that the selected sample is appropriate to the research objectives, maximize the relevance of the findings, and minimize the bias that may arise when interpreting research results. We utilized various data collection for this research such as individual and group interviews, data collection from multiple industries, and data triangulation. Direct interaction with business actors and consumers provided rich insights into their perceptions, attitudes, and preferences towards Malay Batik.

Justification the sample in this study was determined by purposive sampling; this refers to the consideration of the relevance and relevance of participants to the research objectives, namely exploring Augmented Reality (AR) technology in marketing to improve marketing performance by optimizing resources available in the batik MSME sector. Inclusion criteria include batik entrepreneurs who have been operating for at least three years and have experience using or considering technological innovation in product marketing. Exclusion criteria include entrepreneurs with no plans or interest in digital innovation because this study focuses on the response to AR. The number of samples was set at 30 batik entrepreneurs, with ten groups selected based on variations in business scale (micro, small, medium), geographic location, and business models based on the characteristics of each motif. The participants of this study were divided into two large groups, namely group A consisting of Riau Malay batik entrepreneurs who actively utilize marketing technology innovations and group B consisting of Riau Malay batik entrepreneurs who passively utilize marketing technology innovations.

Determining this number of samples is considered sufficient for qualitative methods because qualitative research focuses more on data depth and understanding than statistical representation (Creswell, 2018). This sample determination can explain the nuances of differences in marketing strategies in achieving their marketing performance by optimizing existing resources and the challenges faced at each business scale. The results of this study are more relevant to improving understanding of the adoption of AR technology in the batik industry, especially traditional batik and other similar traditional products

The selection of this research sample is also based on the principle of data saturation in qualitative methods, meaning the point when information obtained from interviews or observations begins to show repetitive patterns and no longer produces new information (Creswell, 2018). The participants in this study were selected based on their active involvement in the Riau Malay batik industry and their openness to digital marketing technology innovation. However, as a limitation, we recognize that this sample size may limit the generalization of findings to MSMEs outside the sectors and regions studied.

VIVO 12 were used to analyze, triangulation used from various sources to verify the research findings. The interview data were transcribed to facilitate analysis and grouped into different use cases to demonstrate the uniqueness and success of AR utilization. We conducted in-depth semi-structured interviews with all participants. We used audio and video recordings were subsequently transcribed into written text. After this step we concern that the transcription process was crucial for the subsequent analysis of the interview content. Individual and group interviews were comprehensively analyzed to identify key themes, patterns, and emerging findings. The interview data were categorized into different use cases. We took these steps to ensure the validity and reliability of the data obtained then we got the results in information about Augmented Reality (AR) marketing that can optimize competitive advantage.

4. Results and Discussion
4.1 Results

The application of Augmented Reality (AR) technology in the batik industry has brought about significant changes in marketing strategies to improve performance and achieve competitive advantage. In this context, this study examines how AR can be optimized to improve consumer experience, strengthen brand image, and promote the cultural value of batik. The Resource-

Based View (RBV) focuses on how a company's unique resources and capabilities can be used to create sustainable added value through technological innovation.

Figure 1. Word Cloud

Based on figure 1 word cloud and table 1, translation word cloud, six words appeared most frequently in the marketing themes before using augmented reality. Of these six words, customer was most frequently expressed by informants. This shows that customers are the informants' main focus when marketing batik products. Attracting customers is the main task that needs to be performed. Based on the word cloud, social media and exhibition show the informants' ways of attracting customers to come and buy their products. However, these methods remain traditional. The word competition also shows that the informants are very concerned about competition in their batik industry.

Table 1. Translation Word Cloud

Diagram 1. Project Map Benefits of Augmented Reality Marketing

Based on diagram 1 and table 2, three themes and 15 sub-themes were identified, as shown in the table above. These three themes show the three main benefits that informants feel when using augmented reality. The 15 sub-themes represent the benefits derived from the main benefits of using augmented reality.

Table 2. Themes and Sub-Themes Benefits of Augmented Reality

5.1. Improve Marketing Performance
5.1.1 Improve work efficiency
     This theme describes informants' views on the benefits of augmented technology, which can increase work efficiency. According to the participant, augmented reality can increase work efficiency in two ways: cost and time. One informant revealed that augmented reality could help reduce time and costs in creating prototypes: "*AR helps them in understanding new designs better and reduces the time and costs required to create prototypes* " (Mr. B). Another informant stated that the use of augmented reality is beneficial in the sales process: "Yes, the sales process becomes more efficient because customers can directly see the product virtually, reducing the time they spend considering a purchase." (Mrs. Sr)

5.1.2 Increase Sales

One indicator of the success of implementing augmented reality expressed by informants is an increase in sales: "*We measure success through increased sales*." (Mr. Budi). "Our sales have also increased due to a more interesting and satisfying shopping experience." (Mrs.Ra) Another informant revealed that this increase in sales reached a significant level: "Yes, we saw a significant increase in sales after implementing AR." (Mr. B).

5.1.3 Improving Services

According to the informant, augmented reality makes the services provided to customers more responsive: "*Additionally, AR also allows us to provide better and more responsive service, as we can quickly adapt and develop products based on customer feedback.*". (Mr. An). In addition, another informant revealed that augmented reality technology is used to increase personal touch in services that cannot be obtained using traditional methods: "We use this technology as a tool to enhance, not replace, the personal touch in our services." (Mrs. Ra).

5.1.4 Increase sales conversions

The use of augmented reality can reduce batik sales cycles. The products displayed virtually allow customers to decide to buy the products offered quickly. This certainly increases sales conversion: "*AR has shortened the sales cycle for our batik products by enabling customers to make purchasing decisions more quickly. With AR, customers can view and try products virtually before purchasing, reducing the time needed to consider and decide. This has increased our sales conversions and reduced the time it takes to close a sale.*" " (Mr. R)

5.1.5 Helps Reduce the number of returns

Customers can view products virtually using AR. Customers can try a product to determine whether its suitability. According to the informant, returns of goods are reduced: "*AR features also help reduce the number of returns because customers can see and try products virtually before buying*" (Mrs. L). Several informants revealed that reducing returns also indicates the success of implementing augmented reality: "We measure success through...reducing the number of returns and complaints" (Mr.B). "We measure the success of AR implementation by several metrics, including….Reduced product return rates" (Mr.R).

5.1.6 Helps expand market reach

The use of augmented reality not only attracts customers from Indonesia but can also attract customers from outside Indonesia. The informant felt the broad market reach of augmented reality: "*AR is beneficial for expanding our market reach. We can reach customers worldwide by enabling them to see and try products. This has helped us enter international markets more effectively and expand our customer base beyond the physical locality of our stores.*" " (Mrs. Nur).

Another informant revealed that the exciting thing about using augmented reality is that international customers can see and feel the products as if they were present in a physical store: "*AR allows international customers to see and experience our products as if they were in our physical stores, which is very helpful in reaching the global market*" (Mr. An).

5.1.7 Increase the number of customers

Another indicator of the successful use of augmented reality is the increase in customers: "*We measure success through.....an increase in the number of new customers that come from word of mouth recommendations*". (Mr. Bu). Another informant revealed that the increase in the number of customers mainly came from millennial and Generation Z customers,: " with an increase in the number of customers from millennials and Generation Z, who are more interested in technology and innovative shopping experiences." (Mrs. Rn).

Another informant stated that the increase in the number of customers occurred not only among the millennial generation and Generation Z but also among customers with different age backgrounds: "*We are seeing a significant increase in the number of customers from the younger generation, especially those aged between 20 to 35 years. AR technology appeals to them because they are more familiar with the technology and look for a different shopping experience. However, customers of all ages have also started enjoying this feature after being given sufficient guidance and explanation*'" (Mrs. Ra).

5.2 Increase Competitiveness
5.2.1 Value provides a competitive advantage

One participant explained competitive advantage in detail: "*AR provides a competitive advantage by offering a unique and interactive shopping experience that is difficult to find in other batik stores. This differentiates us from competitors and attracts the attention of more customers. In terms of marketing performance, AR allows us to attract and retain customers more effectively. Data obtained from customer interactions with AR technology helps us understand their preferences and behavior so we can design more targeted marketing campaigns. In addition, this technological innovation strengthens our brand image as a modern and innovative business, further increasing our attractiveness to consumers.*'" (Mrs. Ra). Based on participant' expressions, competitive advantage can be seen from several indicators, such as unique shopping experiences and technological innovation. Another informant expressed the modern and interactive side of the marketing concept using AR as an indicator of competitive advantage: "AR gives us a competitive advantage by providing a more modern and interactive shopping experience to our customers." (Mr. R).

5.2.2 Educate and promote culture

Education and the promotion of culture are two things that cannot be separated. For the informant, the use of augmented reality is not only aimed at improving marketing performance and attracting customers, but it also contains an educational element about cultural values as well as a means of cultural promotion: "*AR also makes it easier for us to educate customers about the cultural and historical values behind each batik motif... I believe AR will help increase sales and play an important role in preserving and promoting batik culture to the younger generation."* " (Mr. Ra).

Another informant believes that AR will not eliminate the traditional touch of Batik but will instead maintains and strengthens its authentic qualities and cultural values; "*Through AR, we display batik designs visually and include educational information about the meaning and history behind each motif. We work closely with local batik craftsmen to ensure that every product we offer maintains its traditional quality and authenticity*" (Mrs. Ratna). "We ensure that AR does not remove the traditional touch of batik by reinforcing traditional cultural and aesthetic values in every product we offer." (Mrs Nur).

5.3 Strengthening Relationships with Customers

5.3.1 Improve Customer Experience

Customer experience is one of the focuses of informants using augmented reality: "*AR impacts our marketing strategy by placing a greater focus on customer experience.*" " (Mrs. Ratnawati). One informant said that one of the biggest benefits of using AR is improving the customer experience: "The biggest benefit of using AR is… improving the overall customer experience." (Mrs. Nur). Augmented reality gives customers new experiences they have never had before: "I see the huge potential of AR in providing new experiences to customers…in a way that has never been done before." (Mrs Dw).

5.3.2 Increase customer loyalty

A more personalized experience is possible when augmented reality markets batik products. This personal experience will later cause customers to be more loyal in buying the products offered: "*AR allows us to provide a more engaged and personalized experience to our customers. With AR, customers can explore our batik products in a way they have never done before. This experience….strengthens their emotional bond with our brand. As a result, we saw increased customer retention and loyalty to our batik brand*". (Mr. R).

Apart from a more personalized experience, the interactive side of using augmented reality and product quality are also factors that support customers returning to shop for the products offered: "*Customers who are satisfied with our interactive experience and product quality are more likely to return to shop again*(Mrs. Rn)

5.3.3 Increase customer confidence and satisfaction

Confidence to buy is one of the essential things augmented reality uses in marketing. Customers must first be convinced that the product being sold is indeed different. The virtual sales model makes customers more confident purchasing products: "*Customers are more confident and satisfied with their purchases because they can see product details virtually*" (Mrs. Dw). "They feel more comfortable and confident with their choice after trying batik virtually" (Mrs. Ln). "Customers are more interested and feel confident in buying after seeing the product virtually" (Mr.R)

Satisfaction is another variable after buyers feel confident about purchasing a product. Another informant revealed that satisfaction is one indicator of the success of using augmented reality: "We measure success through….the level of customer satisfaction..." (Mr.B)

5.3.4 Increase customer engagement

The informants revealed that virtual product marketing in augmented reality makes customers feel more involved in it: "Customers feel more involved and appreciated when they can try various batik motifs virtually" (Mrs.Rn). "They felt more connected and involved with our products, and the virtual exhibition helped them better understand the details and beauty of batik motifs" (Mrs. Dw). "We use AR as a key feature in our digital marketing campaigns. This attracts the attention of more people on social media and increases engagement with potential customers" (Mrs.Sr).

5.3.5 Attract customers

Interest is characterized by the customer's attention and interest in the product being sold. Most informants said that using augmented reality could attract customers ' attention to the

products being sold: "*By showing how AR works, we can attract the attention of more customers and increase their interest in our products*" " (Mr. An). "We use AR as a key feature in our digital marketing campaigns. This attracts more people's attention on social media and increases engagement with potential customers" (Mrs. Sr). "We can attract the attention of more customers by offering innovative AR features, which not all of our competitors may have" (Mr.R).

Furthermore, if you look at the hierarchy chart displayed based on diagram 3, informants tend to reveal that the benefits of augmented reality are more significant in strengthening customer relationships.

Diagram 2. Diagram Hirarchy

For informants, the use of augmented reality in batik marketing first aims to strengthen their relationships with customers, after that increase competitiveness and then improve marketing performance.

6. Discussion

This research's findings revolve around three main themes: improving marketing performance, increasing competitiveness, and strengthening customer relationships. Augmented reality can increase work efficiency in two ways, namely cost and time. Augmented reality can increase operational efficiency by reducing the time required to design, modify, and test prototypes (Vilkina, & Klimovets, 2020; Walentek & Ziora, 2023). Digital models can be created and changed quickly without the need for actual physical materials at an early stage, meaning companies can reduce the use of raw materials and the time required for development. This aligns with the concept of reducing production costs and increasing productivity. Augmented reality is used to increase the personal touch in service that cannot be obtained using traditional methods so that consumers feel appreciated and strengthen relationships with consumers.

This study introduces a pioneering approach to Resource-Based View (RBV) and the utilization of Augmented Reality (AR) technology in traditional creative industries like riau malay batik. We have managed to uncover significant gaps in existing theory and present a unique perspective. In previous studies, RBV has been predominantly applied to large companies with advanced technology. However, this study successfully answers the clear need for how the industry must adapt to the changing modern digital business environment and apply it to the traditional local creative industry. The success of this study exploring how Augmented Reality can be effectively applied to the traditional local creative industry in the micro, small, and medium sectors is a novelty from the results of this study that has not been previously found. Utilizing the unique resources of these companies, such as the cultural value of batik products, with AR technology, can improve marketing performance and competitiveness.

This study also fills the gap in previous research by combining competitive advantage with customer relations because previous studies separate the relationship between competitive advantage and customer relations. Augmented reality in this study emphasizes that in addition to improving marketing performance through optimizing the company's competitive advantage, it can also strengthen customer relationships, which is a new approach to understanding RBV. This means that AR technology in this study provides unique added value that differs from competitors' and strengthens deeper interactions between batik products and customers. The vital contribution of this study enriches the understanding of RBV deeper with a new approach that optimizes intangible assets such as customer relationships for optimization of competitiveness and marketing performance. Customer relationships are intangible assets in this study that are optimized to improve competitive ability and then influence the improvement of marketing performance of the Riau Melayu batik industry. This shows that customer relationships are transactional and can provide valuable added value as intangible assets. They can create different and in-depth customer shopping experiences and increase customer engagement and loyalty. So this is useful as a strategic step to strengthen the competitive position of the Riau Melayu batik industry in market competition and support improved marketing performance.

This study makes a significant contribution by deepening the Resource-Based View (RBV) understanding through a new perspective that focuses on optimizing intangible resources, especially customer relationships. This new perspective of Resource-Based View (RBV) focuses on improving the understanding of optimizing intangible resources by integrating AR technology in creating customer relationships through solid customer experience and engagement. The integration that occurs is more meaningful because the interaction that occurs can increase customer engagement and customer loyalty affects the marketing performance of Riau Malay

Batik. In this research, augmented reality (AR) in the batik business is connected to the RBV theory. AR technology is a unique resource that is difficult for competitors to imitate. By providing a virtual try-on feature, batik companies can offer consumers a different and more exciting shopping experience. Product visualization technology in AR allows consumers to see the details of batik motifs and textures. By providing a more engaging shopping experience and reducing the number of returns, companies can increase efficiency and customer satisfaction, ultimately strengthening competitive advantages that positively impact sales (Sung, 2021; Tan et al., 2022; Wieland et al., 2024). The use of Augmented Reality (AR) in the batik business can bring significant changes in the way batik is promoted, sold, and appreciated by consumers.

This research shows that customer experience is critical to building competitive advantage. AR allows customers to try products virtually, seeing how they look or function in real life, improving purchasing decisions and customer loyalty. Virtual Try-On allows consumers to try various batik motifs and designs virtually before buying in the AR application. They can see how batik will look when worn without having to try it on physically. This study's findings align with research (Porter, 1985, 1990) that competitive advantage identifies two main types of strategies to achieve competitive advantage: differentiation and cost leadership. However, previous research does not support the current modern situation where technological innovation is essential in improving marketing performance by optimizing competitive advantages with the uniqueness of its intangible resources. In the AR context, differentiation strategies are very relevant. AR can make the shopping experience more engaging and personalize customer interactions with products, which is difficult for competitors to imitate. Our research results found that the benefits of using AR are that consumers get a more exciting shopping experience because they can see their appearance in the batik of their choice, increasing the possibility of purchasing.

Product visualization in AR technology can provide detailed visualization of batik motifs and textures. Consumers can see fine details and fabric quality better through AR displays. So, product details appear more straightforward because consumers can appreciate the quality and uniqueness of batik motifs. Then it generates consumer trust because they can see the product in more detail, thereby increasing consumer confidence in the quality of the product; this can strengthen relationships with consumers, which has an impact on increasing sales (Tan et al., 2022; Voicu et al., 2023). The benefits of AR in the batik business are also education and product stories; batik producers can provide additional information about each batik motif. Consumers can scan batik cloth or product labels to get a story about the origin of the motif, the manufacturing process, and its cultural meaning. Increasing cultural values is another benefit of using AR in the batik business because consumers can understand and appreciate the cultural and historical values behind each batik motif. Furthermore, product differentiation is also available through in-depth information about the product to differentiate batik from other manufacturers.

Competitive advantage is obtained from resources and capabilities that are unique and difficult for competitors to imitate (Porter, 1985, 1990; Barney, 2007; Wernerfelt, 2013; Vilkina, 2020; Gabajová et al., 2021; Karuppiah et al., 2023). AR can be considered a valuable resource due to its ability to create unmatched experiences and modernize marketing concepts. A company's capability to implement and utilize AR effectively is critical to creating a competitive advantage. Interactive Catalog in AR will provide a unique experience for consumers. Consumers use interactive catalogs equipped with AR technology to scan images or catalog pages to see 3D versions of batik products. More interesting interactions: Interactive catalogs make choosing products more exciting and informative (Scholz & Smith, 2016; Gallardo et al.,

2018; Du et al., 2022). Consumers can easily choose a product because they can see the product from various angles and get additional information quickly. They apply AR in promotional and branding campaigns, such as AR filters on social media that allow users to try on batik motifs virtually or participate in contests using batik-themed AR filters.

Increasing engagement with AR-based promotional campaigns can attract the attention of more consumers, especially the younger generation who are active on social media. Attractive promotions can help expand market reach and increase brand awareness. They use AR in physical stores to provide a more interactive shopping experience. Consumers can scan products in stores for additional information, usage tutorials, or related product recommendations. It is an interesting shopping experience; consumers get additional information and relevant recommendations when shopping at the store. More complete and interactive information can increase customer satisfaction. This research also emphasizes that AR in the batik business can provide a more exciting and informative experience for consumers, increase sales, and help strengthen the cultural value and quality of batik. This is as stated (Darma et al., 2019): Exploring competitive advantage by optimizing local resources, including by utilizing AR technology, not only helps in marketing and sales but also in education and preserving batik cultural heritage. With the right adoption, AR can be a very effective tool in developing the batik business in this digital era.

The educational aspect and product story become a unique resource that provides additional information about batik motifs presented through AR, helping educate consumers about the cultural and historical values behind each motif. This enriches the customer experience and differentiates batik products from others, strengthening the company's position in the market. Likewise, interactive catalogs that use AR technology provide a unique and exciting way for consumers to interact with products. This experience can increase consumer interest and engagement, make it easier for them to choose products, and increase the likelihood of purchase.

The findings of this research indicate that the use of AR in batik marketing becomes a competitive advantage due to the unique combination of resources, such as technology, skills, and knowledge about batik culture. In-depth knowledge of batik motifs and their stories is a unique resource for batik companies for education and cultural promotion media. By using AR to educate consumers about batik culture, companies can increase consumer appreciation and loyalty, strengthening profitable long-term relationships (Gallardo et al., 2018; Gabajová et al., 2021; Kowalczuk et al., 2021; Du et al., 2022). Relationships with customers are getting stronger because using AR to enhance customer experiences shows the company's ability to utilize advanced technology to meet consumer needs. Positive and interactive experiences can increase customer satisfaction and loyalty, which is a valuable asset for the company. Loyalty programs powered by AR technology can offer a more personalized and engaging experience. High customer loyalty helps companies maintain a stable customer base and increases lifetime value. AR enables more active consumer interactions through social media campaigns or physical stores. High levels of engagement can create closer relationships between brands and consumers, encourage brand advocacy, and increase brand awareness.

The ability to provide more detailed and interactive information about products through AR increases transparency and consumer trust. High consumer trust contributes to customer satisfaction and reduces the risk of product returns. Creative marketing campaigns using AR can attract the attention of new consumers in innovative ways. Companies can increase market share and ensure continued growth by continuing to attract new customers and retain existing ones. By integrating AR into marketing strategies, batik companies can leverage their unique resources

and capabilities to create sustainable competitive advantages. The use of AR not only helps promote and sell batik products but also increases the cultural value and quality of batik in the eyes of consumers. This approach is in line with RBV theory, which emphasizes the importance of managing unique resources and capabilities to achieve competitive advantage and improve marketing performance. This discussion illustrates how various themes and subthemes in improving marketing performance, increasing competitiveness, and strengthening customer relationships can be implemented based on relevant marketing and management theories.

7. Conclusion, Contribution, Implications, Limitations, and Future Research

Conclusion

The study's conclusions from the research findings revolve around three main themes: improving marketing performance, increasing competitiveness, and strengthening customer relationships. This study unveils a relationship between the Resource-Based View (RBV) theory and the application of Augmented Reality (AR) technology in marketing Riau Malay batik. What sets this study apart is its unique approach of integrating two concepts that were previously rarely studied together, namely RBV and AR technology, especially in the context of traditional creative industries such as batik. RBV, in this study, proves that a company's unique resources, such as the ability to implement innovative technologies like AR. In this study, RBV is strengh to show that a company's unique resources, such as the ability to adopt innovative technologies such as AR, can act as a key driver in creating sustainable competitive advantage. The use of AR not only strengthens interactions and enhances customer experiences, but also deepens emotional connections that support customer loyalty and attract new customers. This shows that AR functions as an intangible strategic asset and, in the context of RBV, is difficult for competitors to imitate, thereby strengthening the company's competitive position in the market. This finding provides new insights that technological innovation, such as AR, is not only a marketing tool but also an integral part of strategic resources that can change competition dynamics in traditional creative industries. Practically, the results of this study provide recommendations for Riau Malay batik industry players to adopt AR technology as an effective marketing strategy. Thus, companies can improve marketing performance and strengthen relationships with customers, which ultimately supports business growth and sustainability.

AR (Augmented Reality) is a powerful technology in modern marketing that can significantly improve various aspects discussed in this research. The findings of this study revolve around three main themes: improving marketing performance, improving competitiveness, and strengthening customer relationships. The results show that AR in this study provides unique added value that is different from competitors and strengthens deeper interactions between riau malay batik products and customers. AR in marketing provides various advantages, including increasing marketing performance efficiency, reducing returns, increasing sales, increasing competitive advantage, and strengthening relationships with customers. While AR adoption has challenges, such as high initial costs and the need for consumer education, the benefits can be enormous in the long run. This research concludes that improving marketing performance, increasing competitiveness, and strengthening customer relationships are three main themes that are very important in modern business strategy. Using various marketing and management theories, we can understand how related subthemes interact and contribute to overall business success.

Increasing work efficiency, reducing the number of returns, increasing sales, providing better service, increasing sales conversion, increasing the number of customers, and increasing market expansion can be achieved through a structured strategy based on existing theory. In addition, competitive advantage, education, and cultural promotion, as well as improving customer experience, loyalty, engagement, trust, and customer satisfaction, also play an essential role in building profitable long-term customer relationships.

Contribution

This research provides a theoretical contribution by connecting the Resource-Based View (RBV) theory with implementing Augmented Reality (AR) technology in riau malay batik marketing. This develops our understanding of how a company's unique resources and capabilities can be used to create long-term competitive advantage through innovative technologies. Augmented Reality in this study shows a strong relationship with customers, improving customer experience and engagement, increasing customer satisfaction and loyalty, and attracting new customers. Customer relationships are not just transactional interactions but also valuable added value, creating unique customer experiences and can even attract new customers as intangible assets, so this contributes strategically to strengthening the competitive position of the Riau Malay batik industry in the market competition and supporting improved marketing performance.

The following contribution emphasizes that modern AR technology in the digital era can enrich the customer experience for large companies and creative micro, small, and medium enterprises of traditional Riau Malay batik. This integration is essential in more meaningful interactions to increase customer engagement and loyalty. So, strong customer relationships from AR innovations used in this study contribute to better marketing performance. AR, the Riau Malay batik business, representing the micro, small, and medium industries, can implement an experience-based marketing strategy that strengthens customer relationships. Customers invest in the experience offered so that they are happy to recommend it to others.

Overall, this study provides significant theoretical contributions by connecting RBV and AR in the context of batik marketing and offering practical implications that can help traditional creative industries be more competitive in the digital era. The novelty of this study lies in the holistic approach that paving the way for further research that can explore the integration of other technologies in resource-based business strategies because combines the company's unique resources with innovative technologies.

Implication

The implications of this theory show that the company's unique value capability as the company's added value is not only tangible assets or technical skills but also includes the company's ability to adopt and implement new technological innovations, such as Augmented Reality (AR). By adopting AR technology, using the company's unique resources is increasingly optimal to increase competitiveness while building closer customer relationships so that marketing performance increases.

Managerial implications for batik companies and other industries interested in adopting AR technology. The practical contribution of this research offers practical guidance for MSMEs in traditional creative industries, such as Riau Malay Batik, on optimizing local culture's unique value by using modern AR technology in modern digital marketing to optimize competitiveness and customer relations. The practical contribution and implication of this study offers practical

guidance for MSMEs in traditional creative industries, such as Riau Malay Batik, on optimizing the unique value of local culture by using modern AR technology in modern digital marketing to maximize competitiveness and customer relationships.

Limitation

Limitations of this research are based on research findings based on marketing and management theories that may only be fully applicable to some industries or markets. The specific context of a particular industry or market may influence the relevance and effectiveness of a proposed strategy. Applying various strategies and theories in business practice can be complex and require significant resources. Not all companies have the capabilities or resources necessary to implement these changes. Rapid changes in market trends, technology, and consumer behavior can affect the theories' relevance. This research may only partially capture the latest dynamics of the market.

Future Research

Further research could focus on applying these strategies in specific industries to understand how industry context influences the effectiveness of various theories and strategies. It is also essential to explore how the latest technological developments, such as artificial intelligence and big data analytics, can be used to improve marketing performance and customer relationships. Longitudinal studies that monitor the implementation of these strategies over a more extended period could provide deeper insight into the long-term impacts and sustainability of the proposed strategies. Additional research can be conducted to understand changes in consumer behavior influenced by evolving social and economic factors and how marketing strategies can be adapted to these changes.

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Disclosure statement
No potential conflict of interest was reported by the author(s)

Author's contribution

AM, LMA, & SY carried out the research, wrote and revised the article AM, AM & LMA conceptualised the central research idea and provided the theoretical framework. AM, LMA & SY designed the research, supervised research progress; AM, LMA anchored the review, AM & SY revisions and approved the article submission. All authors have approved the final manuscript.

Data availability statement
This study did not involve any data collection, and the articles collected were sourced from https://www.scopus.com/home.uri, accessed in 2024, and https://scholar.google.com/, accessed in 2024. However, due to privacy and ethical constraints, the data used in this study are not publicly available. Still, they can be requested from the corresponding author under certain reasonable conditions and are not sensitive in nature, violating ethics and privacy.

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Table

Table 1. Translation Word Cloud

Word	English translation	Count	Weight percentage
Customer	Customers	12	7.89
Media	Media	8	5.26
Social	Social	8	5.26
Competition	Competitive	7	4.61
Digital	Digital	6	3.95
Marketing	Marketing		
	Total	**41**	

Source : Data Processing

Table 2. Themes and Sub-Themes Benefits of Augmented Reality

Themes	Sub-Themes
Improve Marketing Performance	Improve work efficiency
	Helps reduce the number of returns
	Increase Sales
	Improving services
	Increase sales conversions
	Increase the number of customers
	Helps expand market reach
Increase Competitiveness	Value provides a competitive advantage
	Educate and promote culture
Strengthening Relationships with Customers	Improve customer experience
	Increase customer loyalty
	Increase customer engagement
	Increase customer confidence and satisfaction
	Attract customers

Source : Data Processing, NVIVO 12

Table 3. Comparison Of Research Results Between Different Groups

Aspect	Group A	Group B
Approach	Open and active in using marketing technology innovation	Passive and tend to use conventional marketing methods because of limited resources.
Perception of marketing technology innovation such as AR	Interest and ready to adopt	Less Familiar
Competitive Focus	Innovation and Technology	Culture and Product Quality

Source : Research processing

Figure and Diagram

Figure 1. Word Cloud

Diagram 1. Project Map Benefits of Augmented Reality Marketing

Diagram 2. Diagram Hirarchy

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Enhancing marketing performance in batik Malay industry: optimization competitive advantage by leveraging augmented reality marketing

Annisa Mardatillah, Lilis Marina Angraini and Sri Yuliani

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MARKETING | RESEARCH ARTICLE

Enhancing marketing performance in batik Malay industry: optimization competitive advantage by leveraging augmented reality marketing

Annisa Mardatillah (iD), Lilis Marina Angraini (iD) and Sri Yuliani (iD)

Universitas Islam Riau, Pekanbaru, Indonesia

Q15

Q1

ABSTRACT

This study aims to explore how augmented reality (AR) and a company's unique resources optimize competitive advantage to improve marketing performance using a qualitative approach with triangulated in-depth interviews. The findings of this study revolve around three main themes: improving marketing performance, improving competitiveness, and strengthening customer relationships. The results show that AR in this study provides unique added value that is different from competitors and strengthens deeper interactions between batik products and customers. The theoretical contribution of this study connects the Resource Based View (RBV) theory with the application of augmented reality to the marketing of small and creative traditional batik industries, connecting unique resources, namely the cultural value of batik products, to improve marketing performance through optimizing competitive advantages, thereby strengthening relationships with customers. Intangible assets such as customer relationships are optimized for competitiveness and marketing performance optimization. In addition, this study provides practical implications for practitioners in the batik industry to utilize AR as an effective marketing tool to assist in making strategic decisions regarding technology investment and product development to improve marketing performance through optimizing its resources for competitiveness.

Q2

1. Introduction

Q3

Augmented Reality marketing (ARM) has a transformative impact, as marketing communication prioritizing technology has the potential to improve consumer experience and consumer responses to purchasing decisions (Gallardo et al., 2018; Bellalouna, 2021; Du et al., 2022; Reis & Melão, 2023). Researchers from America and Europe have conducted most previous studies, and they have found more studies on the influence of AR on customer experience and customer engagement (Scholz & Smith, 2016; Tutak & Brodny, 2022; Gabriel et al., 2023; Schultz & Kumar, 2024). There is a growing body of literature that recognizes that previous research has revealed ARM's superior ability to enhance consumer experiences interactively (Gallardo et al., 2018; Bellalouna, 2021; Chen & Lin, 2022). Consumers can see and interact with products or services in Unity 3D simulations (Vilkina, 2020; Dwivedi et al., 2021; Sung, 2021; Tutak & Brodny, 2022). ARM integrates information or digital objects into consumer perceptions as new experiences in digital marketing about products or services (Scholz & Smith, 2016; Kraus et al., 2022; Gabriel et al., 2023; Schultz & Kumar, 2024).

Q4

In Indonesia, very few researchers are still exploring the use of Augmented Reality (AR) in marketing, There has been no documented application of AR for traditional creative products in the micro, small, and medium enterprise (MSME) sector because most researchers in Indonesia only explore the competitive advantages of local creative products without examining how AR can become a source of competitive advantage for companies (Darma et al., 2019). Additionally, other researchers tend to focus only on

specific consumer satisfaction factors influencing purchasing decisions through the use of mobile augmented reality (Liu & Napitupulu, 2020), AR application to promote traditional food (Weking et al., 2020) and AR to promote Indonesian tourism (Anderies et al., 2023; Hidayat et al., 2023) Seen globally more researchers are discussing AR in the education sector on students' competitive abilities in the education sector (Kusdiyanti et al., 2020; Saripudin et al., 2022; Zapata-Paulini et al., 2023).

Augmented Reality marketing can help businesses differentiate their products from their competitors (Darma et al., 2019; Vilkina, 2020; Du et al., 2022) . Features such as virtual try-ons, interactive storytelling, and virtual tours allow consumers to experience more immersive and engaging products. In addition, more profound education and information can be obtained because AR allows businesses to convey additional information about products more visually and interestingly. For example, in the marketing context of Riau Malay Batik, AR can be used to show motifs, cultural values, and history more comprehensively and impressively. Augmented Reality enhances consumer engagement, it can provide personalized and relevant experiences according to their preferences. Consumers can "try on" products. It means AR increasing customer trust and satisfaction. AR can optimize marketing processes by expanding market reach and reaching global audiences (Bellalouna, 2021; Gabajová et al., 2021; Karuppiah et al., 2023).

Augmented Reality, as technology, also allows for better tracking and analysis of consumer interactions, which can help improve future marketing strategies. The potential for the batik market in Indonesia and worldwide is significant and continues to grow. The following section explains the potential of the batik market based on the statistical data. According to data from the Central Statistics Agency (BPS), the export value of batik and batik products from Indonesia continues to increase. In 2019, Indonesian batik exports reached approximately USD 52.4 million. Even though it fell in 2020 owing to the COVID-19 pandemic, this sector showed signs of recovery and improvement in the following years. Batik is an indigenous cultural heritage site in Indonesia that was recognized by UNESCO as a humanitarian heritage site for oral and intangible culture in 2009. It increases Indonesian people's awareness and pride in batik, which impacts high demand within the country.

Indonesian Batik, including Riau Malay Batik, is exported to various countries, including Malaysia, Japan, the United States, Europe, and Australia. There is an increasing global awareness and appreciation of ethnic and sustainable products. Batik has its own added value in the hearts of global consumers, especially those who care about sustainability and uniqueness. As an environmentally friendly product with high cultural value. The batik market has bright prospects with government support and increasing awareness at home and abroad. Overall, AR brings innovation to how products are marketed and strengthens business competitiveness by improving consumer experience, product differentiation, and overall marketing strategy efficiency, thus increasing marketing performance (Bernd et al., 2016; Rauschnabel et al., 2022).

This study aims to examine augmented reality marketing (ARM) digital marketing technology for Batik Melayu Riau's marketing performance by optimizing its competitive advantage. Through ARM technology, Riau Malay Batik products can be presented uniquely and attractively, allowing consumers to see the natural beauty of the product and, obtain additional information regarding the motif, unique design, and the rich cultural value and history of Riau Melayu Batik before they decide to buy. Augmented Reality (AR) has a significant value in improving business competitiveness and marketing performance. Customer experience allows businesses to create engagement and interactive experiences. Consumers can view products in real or virtual contexts, such as by testing products or viewing additional information directly in their environment. This study explores how an innovative technology augmented reality and a company's unique resources by optimizing competitive advantages to enhance marketing performance. Understanding how a company's unique resources and capabilities can create long-term competitive advantages through innovative technology is essential. By implementing ARM technology, the marketing performance of Batik Melayu Riau can be improved, as seen in sales growth, increasing the number of customers, and increasing profits by optimizing its competitive advantages.

There is an urgent need to address the issue of how intangible resources in the RBV approach can be optimized, rather than just discussing the aspects of value, rare resources, imitable, and non-sustainable. The varied results from previous studies indicate that findings in this field are not always consistent or aligned. These differences in research outcomes may be due to variations in methods, samples, or research contexts, reflecting the complexity of understanding the studied phenomena. In previous

studies, resource-based View (RBV) has been applied more to large companies based on high and modern technology (Sameera, 2018; Mong et al., 2021; Valaei et al., 2022). Previous researchers have highlighted how customer relationships are essential in forming sustainable competitive advantages from an RBV perspective (Barney, 2007; Barney et al., 2011). There has yet to be any previous research that explicitly reveals intangible resources other than human capital, brand reputation, and organizational culture (Barney, 2007; Barney et al., 2011) in other RBV approaches as essential resources to optimize the company's competitive advantage to improve marketing performance. However, there are still areas for improvement in previous research because it needs to consider the modern context, namely the role of new technologies such as AR in strengthening customer relationships. AR can improve customer interaction and experience in the digital era, which has yet to be fully explored in the existing literature.

However, it still needs to be improved in the traditional local creative industry, so this study bridges the gap in previous studies. This study explores how Augmented Reality considered in a digital modern context can be applied effectively to the traditional local creative industry in the micro, small, and medium sectors by connecting the unique resources owned by the company, namely the cultural value of batik products, with AR technology to improve marketing performance through optimizing competitiveness. This study fills the gap in previous studies by combining competitive advantage with customer relationships can increase marketing performance because previous studies separate the relationship between competitive advantage and customer relationships also marketing performance (Balla, 2024; Habil et al., 2024; Wijaya et al., 2024). However, this study emphasizes that Augmented Reality can improve marketing performance by optimizing the company's competitive advantage and can strengthen customer relationships; this is a new approach to understanding RBV. It means that AR technology in this study provides unique and different added value from competitors and strengthens deeper interactions between batik products and customers.

Thus, this study provides contributions as follows: First, An essential contribution in this study enriches the understanding of RBV more deeply with a new approach that optimizes intangible assets such as customer relationships to optimize competitiveness and marketing performance. Customer relationship is an intangible asset in this study, and it is optimized to increase competitiveness and subsequently influence the improvement of marketing performance of the Riau Melayu batik industry. This research shows that customer relationships are not just transactional interactions but are also valuable added value as intangible assets because they create a different and more profound customer shopping experience, increase customer engagement, and increase customer loyalty. So this is useful as a strategic step to strengthen the competitive position of the Riau Melayu batik industry in market competition and support improved marketing performance.

Furthermore, Second, This study emphasizes in the context of the modern digital era the importance of utilizing modern technology, namely Augmented Reality (AR), to enrich the customer experience for large companies and for creative micro, small, and medium enterprises of traditional Riau Malay batik. This integration is essential in more meaningful interactions to increase customer engagement and loyalty. Third, Strong customer relationships from AR innovations used in this study contribute to better marketing performance. AR, Riau Malay batik business, as a representative of micro, small, and medium industries, can implement an experience-based marketing strategy that strengthens customer relationships. Customers invest in the experience offered so that they are happy to recommend it to others. Collecting data and feedback on customer interactions is another benefit of using AR. Companies are allowed to have data insights into customer preferences further improving marketing performance. Fourth, The practical contribution of this research offers practical guidance for MSMEs in traditional creative industries, such as Riau Malay Batik, on optimizing local culture's unique value by using modern AR technology in modern digital marketing to optimize competitiveness and customer relations.

2. Literature review

This study draws on the resource-based view (RBV), which highlights the strategic use of tangible and intangible resources to convert potential competitive advantages into sustainable, long-term gains (Wernerfelt, 1984; Barney, 1991; Cabrera-Suárez et al., 1994; Barney, 2001; Barney et al., 2011; Fatoki, 2021). It asserts that a company's competitive edge and overall performance are rooted in the strength

of its resources. However, there are varied perspectives on the RBV. For example, Wheelen et al. (2018), Mahdi and Nassar (2021), and Yang et al. (2022) argue that RBV should focus on a company's capabilities rather than just its resources, suggesting that companies must leverage their resources effectively to enhance performance—similarly, Korsakienė & Raišienė (2022) and Reis & Melão (2023) stress the primacy of capabilities over mere resources. Hence, we posit that early RBV advocates centered their theory on the competitive capabilities of firms, achievable through a synergistic brand of financial, technological, and human resources. Focus on a holistic combination of financial, technological, and human resources.

The resource-based view (RBV) theory can be explained by the Augmented Reality (AR) phenomenon in marketing, especially in the batik industry. The RBV emphasizes the importance of utilizing unique and difficult-to-imitate resources to create sustainable competitive advantages (Mardatillah et al., 2019). AR can be considered one such resource. Transform Potential into a long-term competitive advantage. According to RBV, companies must leverage unique resources to create sustainable competitive advantages (Kocak et al., 2017; Liao et al., 2017; Kumar et al., 2024). AR in batik marketing allows companies to provide customers with a uniquely valuable and interactive shopping experience. For example, AR applications can allow customers to try batik motifs virtually, provide detailed visualization of batik motifs and textures, and provide additional information about the history and cultural meaning. Difficult to Imitate (inimitable) and Complex to Replace (non-substitutable).

Furthermore, inimitable resources that are difficult for competitors to imitate provide a solid competitive advantage. When implemented innovatively and distinctively, AR technology becomes difficult for competitors to imitate (Dwivedi et al., 2021; Du et al., 2022; Gabriel et al., 2023). For example, the interactive experience provided by an AR application specific to Riau Batik may only be easily replicated by other companies with significant investments in technology and development. Non-substitutable resources that are difficult to replace with other technologies are also important for competitive advantage. As a marketing technology, AR offers a unique way to interact with customers that cannot be easily replaced by other technologies such as conventional advertising or regular e-commerce.

Improved brand image and customer loyalty are the result of effective resource utilization. Augmented reality provides an interactive experience, companies can enhance their brand image in an innovative. Customers who are satisfied with this experience are more likely to become loyal and return to shop again. AR can reduce long-term promotional costs by replacing the need for physical exhibitions and expensive advertising campaigns. AR applications can be used repeatedly for various promotional campaigns, thereby reducing saving long-term costs. AR technology requires expertise, financial investment, and human resource training. However, it provides great benefits to companies, namely a competitive advantage. Augmented reality allows customers to try various batik designs virtually and to view additional information about each motif is part of the RBV theory of unique resource utilization.

The promotional campaign uses AR filters on social media, allowing users to try batik motifs and share their experiences, improving brand image and customer loyalty according to the RBV theory. Batik product catalogs with AR technology allow customers to view products in 3D and get additional information, adding value to the shopping experience and making it difficult for competitors to imitate. This research uses the resource based view (RBV) theory in the context of Augmented Reality (AR) in the batik industry to show how innovative technology can be used as a unique resource to create sustainable competitive advantages. By implementing AR, batik companies can improve customer experience, brand image, and customer loyalty, as well as reduce long-term promotional costs with RBV principles (Barney, 2007; Barney et al., 2011; Liao et al., 2017; Du et al., 2022; Grabowska & Saniuk, 2022).

2.1. Research value

The research value in this research has several aspects:

First, it provides a theoretical contribution by connecting the Resource-Based View (RBV) theory with the implementing of Augmented Reality (AR) technology in batik marketing. It develops our understanding of how a company's unique resources and capabilities can be used to create a long-term competitive advantage through innovative technologies.

Second, Methodological contribution, using a qualitative approach and case studies, this research provides in-depth insight into the experiences and perceptions of batik industry players regarding the application of AR in marketing. The use of in-depth interview methods and data triangulation increased the validity and reliability of the research findings.

Third, Managerial Implications: This study shows essential important managerial implications for batik companies and other industries that want to adopt AR technology. This includes strategies to improve brand image, customer loyalty, and long-term promotional cost efficiency through the implementation of AR.

Fourth, Practical Implications: This study provides practical guidance for practitioners in the batik industry or other sectors to utilize AR technology as an effective marketing tool. This can help them make strategic decisions regarding technology investment and product development.

Fifth, cultural contributions: Augmented reality as a marketing tool can promote Malay Riau Batik as Indonesia's cultural heritage. It can create customer experiences and engagement.

Sixth, Knowledge Development: This research contributes to how AR as modern technology, can be applied effectively in the context of traditional creative industries such as batik. This paves the way for further research on integrating technology with cultural heritage. To develop a research theory that focuses on the use of Augmented Reality (AR) on marketing performance, the following is a theoretical framework that can be used: Augmented Reality (AR) as an Innovative Marketing Tool, AR utilizes technology to present digital information or visual elements in a real-world context, improving user experience.

AR creates consumer experience and increases their engagement through immersive and direct interactions. It enables consumers to view products in a more detailed and relevant context, thereby facilitating purchasing decisions. AR can provide a competitive advantage that is difficult for competitors to imitate, and differentiation from competitors differentiates brands in a crowded market.

Augmented reality impacts customer conversion and retention by providing engaging and informative experiences. By increasing consumer interaction and satisfaction, AR can increase long-term customer loyalty and—cost efficiency in marketing strategies, thereby- reducing long-term promotional costs. Although the initial investment in AR development may be high, its long-term use can reduce promotional costs because of its effectiveness in attracting and retaining customers.

3. Method

This study employed a qualitative methodology with a case study approach to identify various aspects and categories from interview data, which were subsequently organized into different use cases using NVIVO 12. These use cases are detailed across several stages, specifically examining how the use of Augmented Reality (AR) in the marketing of Riau Malay Batik can be challenging for competitors to replicate (inimitable) and difficult to replace with other technologies (non-substitutable). This research adopts a specific approach to explore how optimizing competitive advantages through augmented marketing can effectively enhance the marketing performance of Malay Batiks in Riau, Indonesia.

This study focuses on small and medium enterprise entrepreneurs in the Riau Malay Batik business for over three years in Riau Province, Indonesia. In-depth semi-structured interviews were conducted with 30 Riau Malay Batik industry participants in Riau Province. A total of 30 participants from 10 different business groups within the Riau Malay Batik industry were selected as primary respondents. Respondents included business owners and marketing managers in the industry. Semi-structured in-depth interviews were conducted with 30 Riau Malay Batik industry players in Riau Province. Before we conducted the interview, we complied with the code of ethics regulations by not forcing information to conduct this interview activity. We ensured that they were willing to voluntarily carry out this interview activity. After the informants expressed their willingness, we continued this in-depth interview activity with 30 participants from 10 different business groups in the Riau Malay Batik industry selected as the main respondents. Semi-structured in-depth interviews were conducted with 30 Riau Malay Batik industry players in Riau Province. A total of 30 participants from 10 different business groups in the Riau Malay Batik industry were selected as the primary respondents. Respondents included business owners and marketing managers in the industry. We conducted these semi-structured, in-depth interviews with ten business groups with 30 informants for 20–30 minutes each. During the interview process, we actively listened and

recorded, we carried out recording activities after obtaining approval from the informant. And occasionally, we confirmed and cross-checked answers that had doubtful meanings. For example, we re-question the understanding that Augmented Reality can create customer experience and engagement, which are still interpreted in reverse.

In a more applicable context, this study uses a data triangulation approach to combine various methods and data sources to strengthen the validity of the research findings. It is essential to ensure the reliability, validity, and accuracy of the findings and provide a more holistic picture of the complex reality of the research subject (Abraham & Sundaram, 2019). We use various data collection, such as in-depth interviews, direct observation, and document analysis, which are the most appropriate approaches to investigate the phenomenon under study.

Regulation of the Minister of Research, Technology, and Higher Education of the Republic of Indonesia No. 69 of 2016 concerning the Code of Ethics for Research and Development (Menteri & Teknologi, 2019):

Article 10 States that all research must adhere to ethical principles, including research with minimal risk. Consent from research subjects must be obtained, but the consent form can be adjusted to the level of risk of the research.

The guidelines state that low-risk social and humanities research can use simplified consent. This usually includes research that does not disclose sensitive information and does not endanger the welfare of participants. Researchers must still obtain consent from participants, at least verbally or through simplified consent.

This research falls into low-risk social and humanities research that can use simplified verbal consent because this research does not reveal sensitive information and does not endanger the welfare of participants. In this study, participants provided verbal informed consent because verbal consent was preferred in the participant's culture. Participants felt more comfortable and confident giving verbal consent after receiving a detailed explanation of the study. Verbal consent allowed them to ask questions and get clarification before giving consent. Detailed explanations of the study were given, and verbal consent was recorded with the consent of the participants. The verbal consent process was recorded using an audio recorder, and there were witnesses to ensure transparency of consent.

Participants' willingness to participate in this study was obtained without coercion, and their involvement was to provide opinions on improving marketing performance in the Malay Batik industry through optimizing competitive advantages by utilizing Augmented Reality marketing. Participants were fully informed about the purpose of the study and agreed to participate voluntarily.

We select samples and determine inclusion and exclusion criteria are crucial stages that influence the validity and generalizability of the research results. The following explains this process: The first step is to define the population or group that is the focus of the research. In this study, the population included business owners, marketing managers, and batik consumers. After selecting the sampling method, we developed the sampling frame. This involves creating a list of individuals or entities who might be research participants, such as a list of existing batik businesses in Riau, Indonesia. Selecting the actual sample from this research by determining the sample frame developed, the researcher selects the actual sample that will be invited or asked to participate in the research. Sampling can be performed randomly or by considering specific characteristics such as business size, length of operation, or geographic location.

3.1. Inclusion and exclusion criteria

Inclusion Criteria:

In determining these criteria we decide which part of the research sample is in accordance with the requirements. The requirements of inclusion criteria for research on batik marketing in Riau include the following:

a. Entrepreneurs or managers who have knowledge and experience in the batik industry for at least three years.
b. Individuals or businessman located in the Riau region of, Indonesia

314   Exclusion Criteria:
315   We were used to exclude individuals or entities from the research sample to ensure that the sample
316   consisted of relevant subjects and provided valuable insights. Examples of exclusion criteria in Riau Malay
317   batik marketing research in Indonesia include the following:

319
320   a.   Batik business has been operating for less than three years.
321   b.   Individuals or businesses not located in the Riau Region of, Indonesia
322   c.   People who do not have relevant knowledge or experience in the batik industry.

324   Criteria Justification:
325   Researchers explained in detail in the research report why the inclusion and exclusion criteria were
326   chosen. This is done based on relevance to the research objectives, the desire to obtain a representative
327   sample, or to control variables that could influence the research results.
328   We can ensure that the selected sample is appropriate to the research objectives, maximize the rele-
329   vance of the findings, and minimize the bias that may arise when interpreting research results. We uti-
330   lized various data collection for this research such as individual and group interviews, data collection
331   from multiple industries, and data triangulation. Direct interaction with business actors and consumers
332   provided rich insights into their perceptions, attitudes, and preferences towards Malay Batik.
333   Justification the sample in this study was determined by purposive sampling; this refers to the con-
334   sideration of the relevance and relevance of participants to the research objectives, namely exploring
335   Augmented Reality (AR) technology in marketing to improve marketing performance by optimizing
336   resources available in the batik MSME sector. Inclusion criteria include batik entrepreneurs who have
337   been operating for at least three years and have experience using or considering technological innova-
338   tion in product marketing. Exclusion criteria include entrepreneurs with no plans or interest in digital
339   innovation because this study focuses on the response to AR. The number of samples was set at 30 batik
340   entrepreneurs, with ten groups selected based on variations in business scale (micro, small, medium),
341   geographic location, and business models based on the characteristics of each motif. The participants of
342   this study were divided into two large groups, namely group A consisting of Riau Malay batik entrepre-
343   neurs who actively utilize marketing technology innovations and group B consisting of Riau Malay batik
344   entrepreneurs who passively utilize marketing technology innovations.
345   Determining this number of samples is considered sufficient for qualitative methods because qualita-
346   tive research focuses more on data depth and understanding than statistical representation (Creswell &
347   David Creswell, 2018). This sample determination can explain the nuances of differences in marketing
348   strategies in achieving their marketing performance by optimizing existing resources and the challenges
349   faced at each business scale. The results of this study are more relevant to improving understanding of
350   the adoption of AR technology in the batik industry, especially traditional batik and other similar tradi-
351   tional products.
352   The selection of this research sample is also based on the principle of data saturation in qualitative
353   methods, meaning the point when information obtained from interviews or observations begins to show
354   repetitive patterns and no longer produces new information (Creswell & David Creswell, 2018). The par-
355   ticipants in this study were selected based on their active involvement in the Riau Malay batik industry
356   and their openness to digital marketing technology innovation. However, as a limitation, we recognize
357   that this sample size may limit the generalization of findings to MSMEs outside the sectors and regions
358   studied.
359   VIVO 12 was used to analyze, and triangulation was used from various sources to verify the research
360   findings. The interview data were transcribed to facilitate analysis and grouped into different use cases
361   to demonstrate the uniqueness and success of AR utilization. We conducted in-depth semi-structured
362   interviews with all participants. We used audio and video recordings that were subsequently transcribed
363   into written text. After this step, we were concerned that the transcription process was crucial for the
364   subsequent analysis of the interview content. Individual and group interviews were comprehensively
365   analyzed to identify key themes, patterns, and emerging findings. The interview data were categorized
366   into different use cases. We took these steps to ensure the validity and reliability of the data obtained

Figure 1. Word cloud.

then we got the results in information about Augmented Reality (AR) marketing that can optimize competitive advantage.

4. Results and discussion

4.1. Results

The application of Augmented Reality (AR) technology in the batik industry has brought about significant changes in marketing strategies to improve performance and achieve competitive advantage. In this context, this study examines how AR can be optimized to improve consumer experience, strengthen brand image, and promote the cultural value of batik. The Resource-Based View (RBV) focuses on how a company's unique resources and capabilities can be used to create sustainable added value through technological innovation.

Based on Figure 1 word cloud and Table 1, translation word cloud, six words appeared most frequently in the marketing themes before using augmented reality. Of these six words, the customer was most frequently expressed by informants. This shows that customers are the informants' main focus when marketing batik products. Attracting customers is the main task that needs to be performed. Based on the word cloud, social media and exhibitions show the informants' ways of attracting customers to come and buy their products. However, these methods remain traditional. The word competition also shows that the informants are very concerned about competition in their batik industry.

Based on Diagram 1 and Table 2, three themes and 15 sub-themes were identified, as shown in the table above. These three themes show the three main benefits that informants feel when using

Table 1. Translation word cloud.

Word	English translation	Count	Weight percentage
Customer	Customers	12	7.89
Media	Media	8	5.26
Social	Social	8	5.26
Competition	Competitive	7	4.61
Digital Marketing	Digital Marketing	6	3.95
	Total	41	

Source: Data processing.

Diagram 1. Project map benefits of augmented reality marketing.

augmented reality. The 15 sub-themes represent the benefits derived from the main benefits of using augmented reality.

5. Improve marketing performance

5.1. Improve work efficiency

This theme describes informants' views on the benefits of augmented technology, which can increase work efficiency. According to the participant, augmented reality can increase work efficiency in two ways:

Table 2. Themes and sub-themes benefits of augmented reality.

Themes	Sub-themes
Improve marketing performance	Improve work efficiency
	Helps reduce the number of returns
	Increase sales
	Improving services
	Increase sales conversions
	Increase the number of customers
	Helps expand market reach
Increase competitiveness	Value provides a competitive advantage
	Educate and promote culture
Strengthening relationships with customers	Improve customer experience
	Increase customer loyalty
	Increase customer engagement
	Increase customer confidence and satisfaction
	Attract customers

Source: Data processing, NVIVO 12.

cost and time. One informant revealed that augmented reality could help reduce time and costs in creating prototypes: "*AR helps them in understanding new designs better and reduces the time and costs required to create prototypes* " (Mr. B). Another informant stated that the use of augmented reality is beneficial in the sales process: "Yes, the sales process becomes more efficient because customers can directly see the product virtually, reducing the time they spend considering a purchase." (Mrs. Sr)

5.2. Increase sales

One indicator of the success of implementing augmented reality expressed by informants is an increase in sales: "*We measure success through increased sales*." (Mr. Budi). "Our sales have also increased due to a more interesting and satisfying shopping experience." (Mrs. Ra) Another informant revealed that this increase in sales reached a significant level: "Yes, we saw a significant increase in sales after implementing AR." (Mr. B).

5.3. Improving services

According to the informant, augmented reality makes the services provided to customers more responsive: "*Additionally, AR also allows us to provide better and more responsive service, as we can quickly adapt and develop products based on customer feedback.*" (Mr. An). In addition, another informant revealed that augmented reality technology is used to increase personal touch in services that cannot be obtained using traditional methods: "We use this technology as a tool to enhance, not replace, the personal touch in our services." (Mrs. Ra).

5.4. Increase sales conversions

The use of augmented reality can reduce batik sales cycles. The products displayed virtually allow customers to decide to buy the products offered quickly. This certainly increases sales conversion: "*AR has shortened the sales cycle for our batik products by enabling customers to make purchasing decisions more quickly. With AR, customers can view and try products virtually before purchasing, reducing the time needed to consider and decide. This has increased our sales conversions and reduced the time it takes to close a sale.*" (Mr. R)

5.5. Helps reduce the number of returns

Customers can view products virtually using AR. Customers can try a product to determine its suitability. According to the informant, returns of goods are reduced: "*AR features also help reduce the number of returns because customers can see and try products virtually before buying*" (Mrs. L). Several informants revealed that reducing returns also indicates the success of implementing augmented reality: "We

measure success through…reducing the number of returns and complaints" (Mr. B). "We measure the success of AR implementation by several metrics, including….Reduced product return rates" (Mr. R).

5.6. Helps expand market reach

The use of augmented reality not only attracts customers from Indonesia but can also attract customers from outside Indonesia. The informant felt the broad market reach of augmented reality: "*AR is beneficial for expanding our market reach. We can reach customers worldwide by enabling them to see and try products. This has helped us enter international markets more effectively and expand our customer base beyond the physical locality of our stores.*" (Mrs. Nur).

Another informant revealed that the exciting thing about using augmented reality is that international customers can see and feel the products as if they were present in a physical store: "*AR allows international customers to see and experience our products as if they were in our physical stores, which is very helpful in reaching the global market*" (Mr. An).

5.7. Increase the number of customers

Another indicator of the successful use of augmented reality is the increase in customers: "*We measure success through….an increase in the number of new customers that come from word of mouth recommendations*". (Mr. Bu). Another informant revealed that the increase in the number of customers mainly came from millennial and Generation Z customers, "*with an increase in the number of customers from millennials and Generation Z, who are more interested in technology and innovative shopping experiences.*" (Mrs. Rn).

Another informant stated that the increase in the number of customers occurred not only among the millennial generation and Generation Z but also among customers with different age backgrounds: "*We are seeing a significant increase in the number of customers from the younger generation, especially those aged between 20 and 35 years. AR technology appeals to them because they are more familiar with the technology and look for a different shopping experience. However, customers of all ages have also started enjoying this feature after being given sufficient guidance and explanation*" (Mrs. Ra).

5.8. Increase competitiveness

5.8.1. Value provides a competitive advantage

One participant explained competitive advantage in detail: "*AR provides a competitive advantage by offering a unique and interactive shopping experience that is difficult to find in other batik stores. This differentiates us from competitors and attracts the attention of more customers. In terms of marketing performance, AR allows us to attract and retain customers more effectively. Data obtained from customer interactions with AR technology helps us understand their preferences and behavior so we can design more targeted marketing campaigns. In addition, this technological innovation strengthens our brand image as a modern and innovative business, further increasing our attractiveness to consumers.*" (Mrs. Ra). Based on participants' expressions, competitive advantage can be seen from several indicators, such as unique shopping experiences and technological innovation. Another informant expressed the modern and interactive side of the marketing concept using AR as an indicator of competitive advantage: "AR gives us a competitive advantage by providing a more modern and interactive shopping experience to our customers." (Mr. R).

5.8.2. Educate and promote culture

Education and the promotion of culture are two things that cannot be separated. For the informant, the use of augmented reality is not only aimed at improving marketing performance and attracting customers, but it also contains an educational element about cultural values as well as a means of cultural promotion: "*AR also makes it easier for us to educate customers about the cultural and historical values behind each batik motif… I believe AR will help increase sales and play an important role in preserving and promoting batik culture to the younger generation.*" " (Mr. Ra).

Another informant believes that AR will not eliminate the traditional touch of Batik but will instead maintain and strengthen its authentic qualities and cultural values; "*Through AR, we display batik designs visually and include educational information about the meaning and history behind each motif. We work closely with local batik craftsmen to ensure that every product we offer maintains its traditional quality and authenticity*" (Mrs. Ratna). "We ensure that AR does not remove the traditional touch of batik by reinforcing traditional cultural and aesthetic values in every product we offer." (Mrs. Nur).

5.9. Strengthening relationships with customers

5.9.1. Improve customer experience

Customer experience is one of the focuses of informants using augmented reality: "*AR impacts our marketing strategy by placing a greater focus on customer experience.*" (Mrs. Ratnawati). One informant said that one of the biggest benefits of using AR is improving the customer experience: "The biggest benefit of using AR is… improving the overall customer experience." (Mrs. Nur). Augmented reality gives customers new experiences they have never had before: "I see the huge potential of AR in providing new experiences to customers…in a way that has never been done before." (Mrs. Dw).

5.9.2. Increase customer loyalty

A more personalized experience is possible when augmented reality markets batik products. This personal experience will later cause customers to be more loyal in buying the products offered: "*AR allows us to provide a more engaged and personalized experience to our customers. With AR, customers can explore our batik products in a way they have never done before. This experience….strengthens their emotional bond with our brand. As a result, we saw increased customer retention and loyalty to our batik brand*". (Mr. R).

Apart from a more personalized experience, the interactive side of using augmented reality and product quality are also factors that support customers returning to shop for the products offered: "*Customers who are satisfied with our interactive experience and product quality are more likely to return to shop again.*" (Mrs. Rn)

5.9.3. Increase customer confidence and satisfaction

Confidence to buy is one of the essential things augmented reality uses in marketing. Customers must first be convinced that the product being sold is indeed different. The virtual sales model makes customers more confident in purchasing products: "*Customers are more confident and satisfied with their purchases because they can see product details virtually*" (Mrs. Dw). "They feel more comfortable and confident with their choice after trying batik virtually" (Mrs. Ln). "Customers are more interested and feel confident in buying after seeing the product virtually" (Mr. R)

Satisfaction is another variable after buyers feel confident about purchasing a product. Another informant revealed that satisfaction is one indicator of the success of using augmented reality: "We measure success through….the level of customer satisfaction…" (Mr. B)

5.9.4. Increase customer engagement

The informants revealed that virtual product marketing in augmented reality makes customers feel more involved in it: "Customers feel more involved and appreciated when they can try various batik motifs virtually" (Mrs. Rn). "They felt more connected and involved with our products, and the virtual exhibition helped them better understand the details and beauty of batik motifs" (Mrs. Dw). "We use AR as a key feature in our digital marketing campaigns. This attracts the attention of more people on social media and increases engagement with potential customers" (Mrs. Sr).

5.9.5. Attract customers

Interest is characterized by the customer's attention and interest in the product being sold. Most informants said that using augmented reality could attract customers attention to the products being sold:

Table 3. Comparison of research results between different groups.

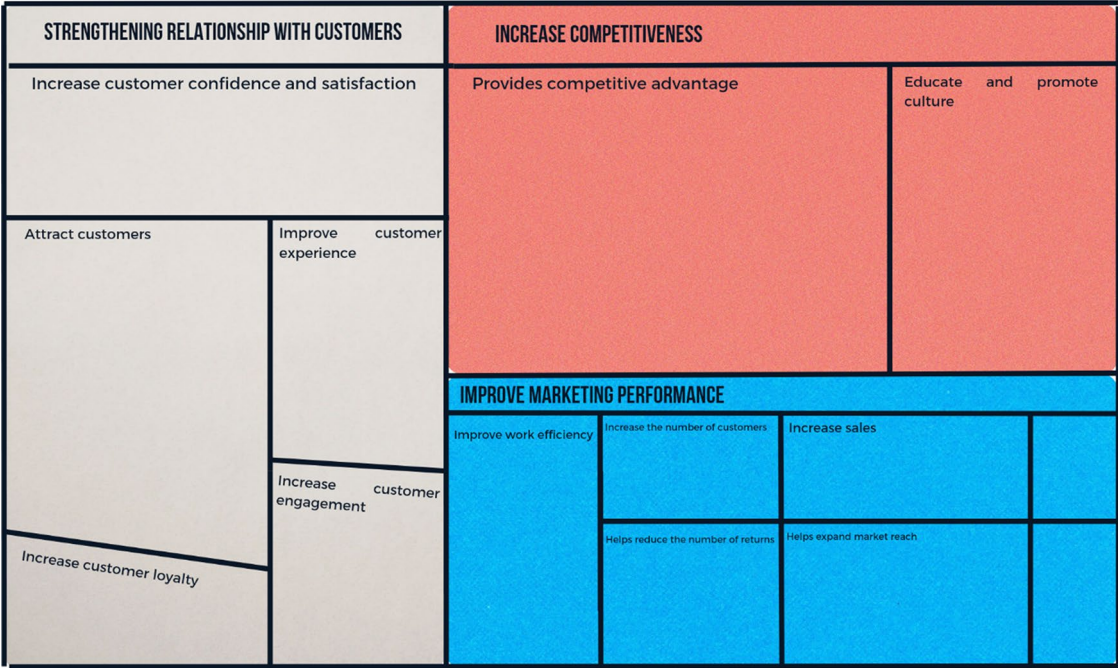| Aspect	Group A	Group B
Approach	Open and active in using marketing technology innovation	Passive and tend to use conventional marketing methods because of limited resources.
Perception of marketing technology innovation such as AR	Interest and ready to adopt	Less familiar
Competitive focus	Innovation and technology	Culture and product quality

Source: Research processing.

Diagram 2. Diagram hierarchy.

"*By showing how AR works, we can attract the attention of more customers and increase their interest in our products*" (Mr. An) . "We use AR as a key feature in our digital marketing campaigns. This attracts more people's attention on social media and increases engagement with potential customers" (Mrs. Sr). "We can attract the attention of more customers by offering innovative AR features, which not all of our competitors may have" (Mr. R).

The participants of this study were divided into two main groups: group A, consisting of Riau Malay batik entrepreneurs who actively use marketing technology innovation, and Group B, consisting of Riau Malay batik entrepreneurs who passively use marketing technology innovation based on Table 3.

The results of the interviews in this study in group A stated that using digital marketing technology such as AR provides benefits to improve their marketing performance by optimizing competitive advantages. They can strengthen customer relationships by providing an exciting and different experience, a closer relationship with customers, and attracting new customers. Although Group B has used digital marketing technology, it tends to be passive and less familiar due to the limited human resources who are experts in operating digital marketing technology such as AR. They still use conventional marketing methods by focusing on the strength of their strong products with cultural value.

The analysis shows that Group A tends to be more active and open to using digital marketing technology innovation approaches. At the same time, Group B is more passive in adopting technologies such as Augmented Reality (AR). The results indicate differences in how the two groups respond to new technologies. The technology impacts their competitive strategies in improving marketing performance by optimizing competitive advantages. This comparison gives benefits to strengthen the finding that technology adoption in marketing has significant variations depending on industry players' backgrounds and business orientations.

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Furthermore, if you look at the hierarchy chart displayed based on Diagram 2, informants tend to reveal that the benefits of augmented reality are more significant in strengthening customer relationships.

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For informants, the use of augmented reality in batik marketing first aims to strengthen their relationships with customers, after that increase competitiveness, and then improve marketing performance.

6. Discussion

This research's findings revolve around three main themes: improving marketing performance, increasing competitiveness, and strengthening customer relationships. Augmented reality can increase work efficiency in two ways, namely cost and time. Augmented reality can increase operational efficiency by reducing the time required to design, modify, and test prototypes (Vilkina & Klimovets, 2020; Walentek & Ziora, 2023). Digital models can be created and changed quickly without the need for actual physical materials at an early stage, meaning companies can reduce the use of raw materials and the time required for development. This aligns with the concept of reducing production costs and increasing productivity. Augmented reality is used to increase the personal touch in service that cannot be obtained using traditional methods so that consumers feel appreciated and strengthen relationships with consumers.

This study introduces a pioneering approach to Resource-Based View (RBV) and the utilization of Augmented Reality (AR) technology in traditional creative industries like Riau Malay Batik. We have managed to uncover significant gaps in existing theory and present a unique perspective. In previous studies, RBV has been predominantly applied to large companies with advanced technology. However, this study successfully answers the clear need for how the industry must adapt to the changing modern digital business environment and apply it to the traditional local creative industry. The success of this study exploring how Augmented Reality can be effectively applied to the traditional local creative industry in the micro, small, and medium sectors is a novelty from the results of this study that has not been previously found. Utilizing the unique resources of these companies, such as the cultural value of batik products, with AR technology, can improve marketing performance and competitiveness.

This study also fills the gap in previous research by combining competitive advantage with customer relations because previous studies separate the relationship between competitive advantage and customer relations. Augmented reality in this study emphasizes that in addition to improving marketing performance through optimizing the company's competitive advantage, it can also strengthen customer relationships, which is a new approach to understanding RBV. This means that AR technology in this study provides unique added value that differs from competitors' and strengthens deeper interactions between batik products and customers. The vital contribution of this study enriches the understanding of RBV deeper with a new approach that optimizes intangible assets such as customer relationships for optimization of competitiveness and marketing performance. Customer relationships are intangible assets in this study that are optimized to improve competitive ability and then influence the improvement of marketing performance of the Riau Melayu batik industry. This shows that customer relationships are transactional and can provide valuable added value as intangible assets. They can create different and in-depth customer shopping experiences and increase customer engagement and loyalty. So this is useful as a strategic step to strengthen the competitive position of the Riau Melayu batik industry in market competition and support improved marketing performance.

This study makes a significant contribution by deepening the Resource-Based View (RBV) understanding through a new perspective that focuses on optimizing intangible resources, especially customer relationships. This new perspective of Resource-Based View (RBV) focuses on improving the understanding of optimizing intangible resources by integrating AR technology in creating customer relationships through solid customer experience and engagement. The integration that occurs is more meaningful because the interaction that occurs can increase customer engagement and customer loyalty affects the marketing performance of Riau Malay Batik. In this research, augmented reality (AR) in the batik business is connected to the RBV theory. AR technology is a unique resource that is difficult for competitors to imitate. By providing a virtual try-on feature, batik companies can offer consumers a different and more exciting shopping experience. Product visualization technology in AR allows consumers to see the details

of batik motifs and textures. By providing a more engaging shopping experience and reducing the number of returns, companies can increase efficiency and customer satisfaction, ultimately strengthening competitive advantages that positively impact sales (Sung, 2021; Tan et al., 2022; Wieland et al., 2024). The use of Augmented Reality (AR) in the batik business can bring significant changes in the way batik is promoted, sold, and appreciated by consumers.

This research shows that customer experience is critical to building competitive advantage. AR allows customers to try products virtually, seeing how they look or function in real life, improving purchasing decisions and customer loyalty. Virtual Try-On allows consumers to try various batik motifs and designs virtually before buying in the AR application. They can see how batik will look when worn without having to try it on physically. This study's findings align with research (Porter, 1985, 1990) that competitive advantage identifies two main types of strategies to achieve competitive advantage: differentiation and cost leadership. However, previous research does not support the current modern situation where technological innovation is essential in improving marketing performance by optimizing competitive advantages with the uniqueness of its intangible resources. In the AR context, differentiation strategies are very relevant. AR can make the shopping experience more engaging and personalize customer interactions with products, which is difficult for competitors to imitate. Our research results found that the benefits of using AR are that consumers get a more exciting shopping experience because they can see their appearance in the batik of their choice, increasing the possibility of purchasing.

Product visualization in AR technology can provide detailed visualization of batik motifs and textures. Consumers can see fine details and fabric quality better through AR displays. So, product details appear more straightforward because consumers can appreciate the quality and uniqueness of batik motifs. Then it generates consumer trust because they can see the product in more detail, thereby increasing consumer confidence in the quality of the product; this can strengthen relationships with consumers, which has an impact on increasing sales (Tan et al., 2022; Voicu et al., 2023). The benefits of AR in the batik business are also education and product stories; batik producers can provide additional information about each batik motif. Consumers can scan batik cloth or product labels to get a story about the origin of the motif, the manufacturing process, and its cultural meaning. Increasing cultural values is another benefit of using AR in the batik business because consumers can understand and appreciate the cultural and historical values behind each batik motif. Furthermore, product differentiation is also available through in-depth information about the product to differentiate batik from other manufacturers.

Competitive advantage is obtained from resources and capabilities that are unique and difficult for competitors to imitate (Porter, 1985, 1990; Barney, 2007; Wernerfelt, 2013; Vilkina, 2020; Gabajová et al., 2021; Karuppiah et al., 2023). AR can be considered a valuable resource due to its ability to create unmatched experiences and modernize marketing concepts. A company's capability to implement and utilize AR effectively is critical to creating a competitive advantage. Interactive Catalog in AR will provide a unique experience for consumers. Consumers use interactive catalogs equipped with AR technology to scan images or catalog pages to see 3D versions of batik products. More interesting interactions: Interactive catalogs make choosing products more exciting and informative (Scholz & Smith, 2016; Gallardo et al., 2018; Du et al., 2022). Consumers can easily choose a product because they can see the product from various angles and get additional information quickly. They apply AR in promotional and branding campaigns, such as AR filters on social media that allow users to try on batik motifs virtually or participate in contests using batik-themed AR filters.

Increasing engagement with AR-based promotional campaigns can attract the attention of more consumers, especially the younger generation who are active on social media. Attractive promotions can help expand market reach and increase brand awareness. They use AR in physical stores to provide a more interactive shopping experience. Consumers can scan products in stores for additional information, usage tutorials, or related product recommendations. It is an interesting shopping experience; consumers get additional information and relevant recommendations when shopping at the store. More complete and interactive information can increase customer satisfaction. This research also emphasizes that AR in the batik business can provide a more exciting and informative experience for consumers, increase sales, and help strengthen the cultural value and quality of batik. This is as stated (Darma et al., 2019): Exploring competitive advantage by optimizing local resources, including by utilizing AR technology, not only

helps in marketing and sales but also in education and preserving batik cultural heritage. With the right adoption, AR can be a very effective tool in developing the batik business in this digital era.

The educational aspect and product story become a unique resource that provides additional information about batik motifs presented through AR, helping educate consumers about the cultural and historical values behind each motif. This enriches the customer experience and differentiates batik products from others, strengthening the company's position in the market. Likewise, interactive catalogs that use AR technology provide a unique and exciting way for consumers to interact with products. This experience can increase consumer interest and engagement, make it easier for them to choose products, and increase the likelihood of purchase.

The findings of this research indicate that the use of AR in batik marketing becomes a competitive advantage due to the unique combination of resources, such as technology, skills, and knowledge about batik culture. In-depth knowledge of batik motifs and their stories is a unique resource for batik companies for education and cultural promotion media. By using AR to educate consumers about batik culture, companies can increase consumer appreciation and loyalty, strengthening profitable long-term relationships (Gallardo et al., 2018; Gabajová et al., 2021; Kowalczuk et al., 2021; Du et al., 2022). Relationships with customers are getting stronger because using AR to enhance customer experiences shows the company's ability to utilize advanced technology to meet consumer needs. Positive and interactive experiences can increase customer satisfaction and loyalty, which is a valuable asset for the company. Loyalty programs powered by AR technology can offer a more personalized and engaging experience. High customer loyalty helps companies maintain a stable customer base and increases lifetime value. AR enables more active consumer interactions through social media campaigns or physical stores. High levels of engagement can create closer relationships between brands and consumers, encourage brand advocacy, and increase brand awareness.

The ability to provide more detailed and interactive information about products through AR increases transparency and consumer trust. High consumer trust contributes to customer satisfaction and reduces the risk of product returns. Creative marketing campaigns using AR can attract the attention of new consumers in innovative ways. Companies can increase market share and ensure continued growth by continuing to attract new customers and retain existing ones. By integrating AR into marketing strategies, batik companies can leverage their unique resources and capabilities to create sustainable competitive advantages. The use of AR not only helps promote and sell batik products but also increases the cultural value and quality of batik in the eyes of consumers. This approach is in line with RBV theory, which emphasizes the importance of managing unique resources and capabilities to achieve competitive advantage and improve marketing performance. This discussion illustrates how various themes and subthemes in improving marketing performance, increasing competitiveness, and strengthening customer relationships can be implemented based on relevant marketing and management theories.

7. Conclusion, contribution, implications, limitations, and future research

7.1. Conclusion

The study's conclusions from the research findings revolve around three main themes: improving marketing performance, increasing competitiveness, and strengthening customer relationships. This study unveils a relationship between the Resource-Based View (RBV) theory and the application of Augmented Reality (AR) technology in marketing Riau Malay batik. What sets this study apart is its unique approach of integrating two concepts that were previously rarely studied together, namely RBV and AR technology, especially in the context of traditional creative industries such as batik. RBV, in this study, proves that a company's unique resources, such as the ability to implement innovative technologies like AR. In this study, RBV is strength to show that a company's unique resources, such as the ability to adopt innovative technologies such as AR, can act as a key driver in creating sustainable competitive advantage. The use of AR not only strengthens interactions and enhances customer experiences, but also deepens emotional connections that support customer loyalty and attract new customers. This shows that AR functions as an intangible strategic asset and, in the context of RBV, is difficult for competitors to imitate, thereby strengthening the company's competitive position in the market. This finding provides new insights that

844 technological innovation, such as AR, is not only a marketing tool but also an integral part of strategic
845 resources that can change competition dynamics in traditional creative industries. Practically, the results
846 of this study provide recommendations for Riau Malay batik industry players to adopt AR technology as
847 an effective marketing strategy. Thus, companies can improve marketing performance and strengthen
848 relationships with customers, which ultimately supports business growth and sustainability.

849 AR (Augmented Reality) is a powerful technology in modern marketing that can significantly improve
850 various aspects discussed in this research. The findings of this study revolve around three main themes:
851 improving marketing performance, improving competitiveness, and strengthening customer relation-
852 ships. The results show that AR in this study provides unique added value that is different from compet-
853 itors and strengthens deeper interactions between Riau Malay Batik products and customers. AR in
854 marketing provides various advantages, including increasing marketing performance efficiency, reducing
855 returns, increasing sales, increasing competitive advantage, and strengthening relationships with custom-
856 ers. While AR adoption has challenges, such as high initial costs and the need for consumer education,
857 the benefits can be enormous in the long run. This research concludes that improving marketing perfor-
858 mance, increasing competitiveness, and strengthening customer relationships are three main themes that
859 are very important in modern business strategy. Using various marketing and management theories, we
860 can understand how related subthemes interact and contribute to overall business success.

861 Increasing work efficiency, reducing the number of returns, increasing sales, providing better service,
862 increasing sales conversion, increasing the number of customers, and increasing market expansion can be
863 achieved through a structured strategy based on existing theory. In addition, competitive advantage, edu-
864 cation, and cultural promotion, as well as improving customer experience, loyalty, engagement, trust, and
865 customer satisfaction, also play an essential role in building profitable long-term customer relationships.

866
867 ### 7.2. Contribution
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869 This research provides a theoretical contribution by connecting the Resource-Based View (RBV) theory with
870 implementing Augmented Reality (AR) technology in Riau Malay Batik marketing. This develops our under-
871 standing of how a company's unique resources and capabilities can be used to create long-term competi-
872 tive advantage through innovative technologies. Augmented Reality in this study shows a strong relationship
873 with customers, improving customer experience and engagement, increasing customer satisfaction and
874 loyalty, and attracting new customers. Customer relationships are not just transactional interactions but
875 also valuable added value, creating unique customer experiences and can even attract new customers as
876 intangible assets, so this contributes strategically to strengthening the competitive position of the Riau
877 Malay batik industry in the market competition and supporting improved marketing performance.

878 The following contribution emphasizes that modern AR technology in the digital era can enrich the
879 customer experience for large companies and creative micro, small, and medium enterprises of traditional
880 Riau Malay batik. This integration is essential in more meaningful interactions to increase customer engage-
881 ment and loyalty. So, strong customer relationships from AR innovations used in this study contribute to
882 better marketing performance. AR, the Riau Malay batik business, representing the micro, small, and
883 medium industries, can implement an experience-based marketing strategy that strengthens customer rela-
884 tionships. Customers invest in the experience offered so that they are happy to recommend it to others.

885 Overall, this study provides significant theoretical contributions by connecting RBV and AR in the
886 context of batik marketing and offering practical implications that can help traditional creative industries
887 be more competitive in the digital era. The novelty of this study lies in the holistic approach that paving
888 the way for further research that can explore the integration of other technologies in resource-based
889 business strategies because combines the company's unique resources with innovative technologies.

890
891 ### 7.3. Implication
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893 The implications of this theory show that the company's unique value capability as the company's added
894 value is not only tangible assets or technical skills but also includes the company's ability to adopt and
895 implement new technological innovations, such as Augmented Reality (AR). By adopting AR technology,
896 using the company's unique resources is increasingly optimal to increase competitiveness while building
closer customer relationships so that marketing performance increases.

Managerial implications for batik companies and other industries interested in adopting AR technology. The practical contribution of this research offers practical guidance for MSMEs in traditional creative industries, such as Riau Malay Batik, on optimizing local culture's unique value by using modern AR technology in modern digital marketing to optimize competitiveness and customer relations. The practical contribution and implication of this study offer practical guidance for MSMEs in traditional creative industries, such as Riau Malay Batik, on optimizing the unique value of local culture by using modern AR technology in modern digital marketing to maximize competitiveness and customer relationships.

7.4. Limitation

Limitations of this research are based on research findings based on marketing and management theories that may only be fully applicable to some industries or markets. The specific context of a particular industry or market may influence the relevance and effectiveness of a proposed strategy. Applying various strategies and theories in business practice can be complex and require significant resources. Not all companies have the capabilities or resources necessary to implement these changes. Rapid changes in market trends, technology, and consumer behavior can affect the theories' relevance. This research may only partially capture the latest dynamics of the market.

7.5. Future research

Further research could focus on applying these strategies in specific industries to understand how industry context influences the effectiveness of various theories and strategies. It is also essential to explore how the latest technological developments, such as artificial intelligence and big data analytics, can be used to improve marketing performance and customer relationships. Longitudinal studies that monitor the implementation of these strategies over a more extended period could provide deeper insight into the long-term impacts and sustainability of the proposed strategies. Additional research can be conducted to understand changes in consumer behavior influenced by evolving social and economic factors and how marketing strategies can be adapted to these changes.

Disclosure statement

No potential conflict of interest was reported by the author(s)

Author contributions

AM, LMA, and SY carried out the research, wrote and revised the article. AM, AM and LMA conceptualized the central research idea and provided the theoretical framework. AM, LMA and SY designed the research, supervised research progress. AM and LMA anchored the review. AM and SY revisions and approved the article submission. All authors have approved the final manuscript.

Funding

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Data availability statement

This study did not involve any data collection, and the articles collected were sourced from https://www.scopus.com/home.uri, accessed in 2024, and https://scholar.google.com/, accessed in 2024. However, due to privacy and ethical constraints, the data used in this study are not publicly available. Still, they can be requested from the corresponding author under certain reasonable conditions and are not sensitive in nature, violating ethics and privacy.

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Enhancing Marketing Performance in Batik Malay Industry: Optimization Competitive Advantage by Leveraging Augmented Reality Marketing

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Abstract

This study aims to explore how augmented reality (AR) and a company's unique resources optimize competitive advantage to improve marketing performance using a qualitative approach with triangulated in-depth interviews. The findings of this study revolve around three main themes: improving marketing performance, improving competitiveness, and strengthening customer relationships. The results show that AR in this study provides unique added value that is different from competitors and strengthens deeper interactions between batik products and customers. The theoretical contribution of this study connects the Resource Based View (RBV) theory with the application of augmented reality to the marketing of small and creative traditional batik industries, connecting unique resources, namely the cultural value of batik products, to improve marketing performance through optimizing competitive advantages, thereby strengthening relationships with customers. Intangible assets such as customer relationships are optimized for competitiveness and marketing performance optimization. In addition, this study provides practical implications for practitioners in the batik industry to utilize AR as an effective marketing tool to assist in making strategic decisions regarding technology investment and product development to improve marketing performance through optimizing its resources for competitiveness

Keywords: Augmented Reality Marketing, Competitive Advantage, Performance, Customer Experience, Digital Marketing.

1. Introduction

Augmented Reality marketing (ARM) has a transformative impact, as marketing communication prioritizing technology has the potential to improve consumer experience and consumer responses to purchasing decisions (Reis & Melão, 2023; Gallardo et al., 2018; Bellalouna, 2021; Du et al., 2022). Researchers from America and Europe have conducted most previous studies, and they have found more studies on the influence of AR on customer experience and customer engagement (Tutak & Brodny, 2022; Gabriel et al., 2023; Scholz & Smith, 2016; Schultz & Kumar, 2024). There is a growing body of literature that recognise that

from previous research has revealed ARM's superior ability to enhance consumer experiences interactively (Gallardo et al., 2018; Bellalouna, 2021; Chen & Lin, 2022). Consumers can see and interact with products or services in Unity 3D simulations (Vilkina, 2020; Sung, 2021; Tutak & Brodny, 2022; Dwivedi et al., 2021). ARM integrates information or digital objects into consumer perceptions as new experiences in digital marketing about products or services (Scholz & Smith, 2016; Schultz & Kumar, 2024; Kraus et al., 2022; Gabriel et al., 2023).

In Indonesia, very few researchers are still exploring the use of Augmented Reality (AR) in marketing, There has been no documented application of AR for traditional creative products in the micro, small, and medium enterprise (MSME) sector because most researchers in Indonesia only explore the competitive advantages of local creative products without examining how AR can become a source of competitive advantage for companies (Darma et al., 2019). Additionally, other researchers tend to focus only on specific of consumer satisfaction factors influencing purchasing decisions through the use of mobile augmented reality (Liu & Napitupulu, 2020), AR application to promote traditional food (Weking, A. N., & Santoso, 2020) and AR to promote Indonesian tourism (Hidayat et al., 2023; Anderies et al., 2023) Seen globally more researchers are discussing AR in the education sector on students' competitive abilities in the education sector (Kusdiyanti et al., 2020; Saripudin, D., et al, 2022; Zapata-Paulini et al., 2023).

Augmented Reality marketing can help businesses differentiate their products from their competitors (Darma et al., 2019; Vilkina, 2020; Du et al., 2022). Features such as virtual try-ons, interactive storytelling, and virtual tours allow consumers to experience more immersive and engaging products. In addition, more profound education and information can be obtained because AR allows businesses to convey additional information about products more visually and interestingly. For example, in the marketing context of Riau Malay Batik, AR can be used to show motifs, cultural values, and history more comprehensively and impressively. Augmented Reality enhances consumer engagement, it can provide personalized and relevant experiences according to their preferences. Consumers can "try on" products. It means AR increasing customer trust and satisfaction. AR can optimize marketing processes by expanding market reach and reaching global audiences (Bellalouna, 2021; Gabajová et al., 2021; Karuppiah et al., 2023).

Augmented Reality, as technology, also allows for better tracking and analysis of consumer interactions, which can help improve future marketing strategies. The potential for the batik market in Indonesia and worldwide is significant and continues to grow. The following section explains the potential of the batik market based on the statistical data. According to data from the Central Statistics Agency (BPS), the export value of batik and batik products from Indonesia continues to increase. In 2019, Indonesian batik exports reached approximately USD 52.4 million. Even though it fell in 2020 owing to the COVID-19 pandemic, this sector showed signs of recovery and improvement in the following years. Batik is an indigenous cultural heritage site in Indonesia that was recognized by UNESCO as a humanitarian heritage site for oral and intangible culture in 2009. It increases Indonesian people's awareness and pride in batik, which impacts high demand within the country.

Indonesian Batik, including Riau Malay Batik, is exported to various countries, including Malaysia, Japan, the United States, Europe, and Australia. There is an increasing global awareness and appreciation of ethnic and sustainable products. Batik has its own added value in the hearts of global consumers, especially those who care about sustainability and uniqueness. As an environmentally friendly product with high cultural value. The batik market has bright prospects with government support and increasing awareness at home and abroad. Overall, AR

brings innovation to how products are marketed and strengthens business competitiveness by improving consumer experience, product differentiation, and overall marketing strategy efficiency, thus increasing marketing performance (Bernd, 2016, Rauschnabel et al., 2022).

This study aims to examine augmented reality marketing (ARM) digital marketing technology for Batik Melayu Riau's marketing performance by optimizing its competitive advantage. Through ARM technology, Riau Malay Batik products can be presented uniquely and attractively, allowing consumers to see the natural beauty of the product and, obtain additional information regarding the motif, unique design, and the rich cultural value and history of Riau Melayu Batik before they decide to buy. Augmented Reality (AR) has a significant value in improving business competitiveness and marketing performance. Customer experience allows businesses to create engagement and interactive experiences. Consumers can view products in real or virtual contexts, such as by testing products or viewing additional information directly in their environment. This study explores how an innovation technology augmented reality and company's unique resources by optimizing competitive advantages to enhance marketing performance. Understanding how a company's unique resources and capabilities can create long-term competitive advantages through innovative technology is essential. By implementing ARM technology, the marketing performance of Batik Melayu Riau can be improved, as seen in sales growth, increasing the number of customers, and increasing profits by optimizing its competitive advantages.

There is an urgent need to address the issue of how intangible resources in the RBV approach can be optimized, rather than just discussing the aspects of value, rare resources, imitable, and non-sustainable. The varied results from previous studies indicate that findings in this field are not always consistent or aligned. These differences in research outcomes may be due to variations in methods, samples, or research contexts, reflecting the complexity of understanding the studied phenomena. In previous studies, resource-based View (RBV) has been applied more to large companies based on high and modern technology (Sameera, 2018; Mong et al., 2021; Valaei et al., 2022). Previous researchers have highlighted how customer relationships are essential in forming sustainable competitive advantages from an RBV perspective (Barney, 2007; Barney et al., 2011). There has yet to be any previous research that explicitly reveals intangible resources other than human capital, brand reputation, and organizational culture (Barney, 2007; Barney et al., 2011) in other RBV approaches as essential resources to optimize the company's competitive advantage to improve marketing performance. However, there are still areas for improvement in previous research because it needs to consider the modern context, namely the role of new technologies such as AR in strengthening customer relationships. AR can improve customer interaction and experience in the digital era, which has yet to be fully explored in the existing literature.

However, it still needs to be improved in the traditional local creative industry, so this study bridges the gap in previous studies. This study explores how Augmented Reality consider in digital modern context can be applied effectively to the traditional local creative industry in the micro, small, and medium sectors by connecting the unique resources owned by the company, namely the cultural value of batik products, with AR technology to improve marketing performance through optimizing competitiveness. This study fills the gap in previous studies by combining competitive advantage with customer relationships can increase marketing performance because previous studies separate the relationship between competitive advantage and customer relationships also marketing performance (Wijaya et al., 2024; Habil et al., 2024; Balla, 2024). However, this study emphasize that Augmented Reality can improve marketing

performance by optimizing the company's competitive advantage and can strengthen customer relationships; this is a new approach to understanding RBV. It is means that AR technology in this study provides unique and different added value from competitors and strengthens deeper interactions between batik products and customers.

Thus, this study provides contributions as follows: *First,* An essential contribution in this study enriches the understanding of RBV more deeply with a new approach that optimizes intangible assets such as customer relationships to optimize competitiveness and marketing performance. Customer relationship is an intangible asset in this study, and it is optimized to increase competitiveness and subsequently influence the improvement of marketing performance of the Riau Melayu batik industry. This research shows that customer relationships are not just transactional interactions but are also valuable added value as intangible assets because they create a different and more profound customer shopping experience, increase customer engagement, and increase customer loyalty. So this is useful as a strategic step to strengthen the competitive position of the Riau Melayu batik industry in market competition and support improved marketing performance.

Furthermore, Second, This study emphasizes in the context of the modern digital era the importance of utilizing modern technology, namely Augmented Reality (AR), to enrich the customer experience for large companies and for creative micro, small, and medium enterprises of traditional Riau Malay batik. This integration is essential in more meaningful interactions to increase customer engagement and loyalty. *Third,* Strong customer relationships from AR innovations used in this study contribute to better marketing performance. AR, Riau Malay batik business, as a representative of micro, small, and medium industries, can implement an experience-based marketing strategy that strengthens customer relationships. Customers invest in the experience offered so that they are happy to recommend it to others. Collecting data and feedback on customer interactions is another benefit of using AR. companies allows to have data insights to customer preferences further improving marketing performance. *Fourth*, The practical contribution of this research offers practical guidance for MSMEs in traditional creative industries, such as Riau Malay Batik, on optimizing local culture's unique value by using modern AR technology in modern digital marketing to optimize competitiveness and customer relations.

2.   Literature Review

This study draws on the resource-based view (RBV), which highlights the strategic use of tangible and intangible resources to convert potential competitive advantages into sustainable, long-term gains (Wernerfelt, 1984; Barney, 1991; Cabrera-suárez et al., 1994; Barney, 2001; Barney et al., 2011; Fatoki, 2021). It asserts that a company's competitive edge and overall performance are rooted in the strength of its resources. However, there are varied perspectives on the RBV. For example, Wheelen et al., (2018); Mahdi & Nassar, (2021); Yang et al., (2022) argue that RBV should focus on a company's capabilities rather than just its resources, suggesting that companies must leverage their resources effectively to enhance performance—similarly, Korsakienė & Raišienė, 2022 and Reis & Melão, 2023 stress the primacy of capabilities over mere resources. Hence, we posit that early RBV advocates centered their theory on the competitive capabilities of firms, achievable through a synergistic brand of financial, technological, and human resources. Focus on a holistic combination of financial, technological, and human resources.

The resource-based view (RBV) theory can be explained by the Augmented Reality (AR) phenomenon in marketing, especially in the batik industry. The RBV emphasizes the importance of utilizing unique and difficult-to-imitate resources to create sustainable competitive advantages (Mardatillah et al., 2019). AR can be considered one such resource. Transform Potential into a long-term competitive advantage. According to RBV, companies must leverage unique resources to create sustainable competitive advantages (Kocak et al., 2017; Liao et al., 2017; Kumar et al., 2024). AR in batik marketing allows companies to provide customers with uniquely valuable and interactive shopping experience. For example, AR applications can allow customers to try batik motifs virtually, provide detailed visualization of batik motifs and textures, and provide additional information about the history and cultural meaning. Difficult to Imitate (inimitable) and Complex to Replace (non-substitutable).

Furthermore, inimitable resources that are difficult for competitors to imitate provide a solid competitive advantage. When implemented innovatively and distinctively, AR technology becomes difficult for competitors to imitate (Dwivedi et al., 2021; Du et al., 2022; Gabriel et al., 2023). For example, the interactive experience provided by an AR application specific to Riau Batik may only be easily replicated by other companies with significant investments in technology and development. Non-substitutable resources that are difficult to replace with other technologies are also important for competitive advantage. As a marketing technology, AR offers a unique way to interact with customers that cannot be easily replaced by other technologies such as conventional advertising or regular e-commerce.

Improved brand image and customer loyalty are the result of effective resource utilization. Augmented reality provide an interactive experiences, companies can enhance their brand image in an innovative. Customers who are satisfied with this experience are more likely to become loyal and return to shop again. AR can reduce long-term promotional costs by replacing the need for physical exhibitions and expensive advertising campaigns. AR applications can be used repeatedly for various promotional campaigns, thereby reducing saving long-term costs. AR technology requires expertise, financial investment, and human resource training. However, it provides great benefits to companies, namely a competitive advantage. Augmented reality allows customers to try various batik designs virtually and to view additional information about each motif is part of the RBV theory of unique resource utilization.

The promotional campaign uses AR filters on social media, allowing users to try batik motifs and share their experiences, improving brand image and customer loyalty according to the RBV theory. Batik product catalogs with AR technology allow customers to view products in 3D and get additional information, adding value to the shopping experience and making it difficult for competitors to imitate. This research uses resource-based view (RBV) theory in the context of Augmented Reality (AR) in the batik industry to show how innovative technology can be used as a unique resource to create sustainable competitive advantages. By implementing AR, batik companies can improve customer experience, brand image, and customer loyalty, as well as reduce long-term promotional costs by with RBV principles (Barney, 2007; Barney et al., 2011; Liao et al., 2017; Du et al., 2022; Grabowska & Saniuk, 2022).

2.1 Research Value

The research value in this research has several aspects :

First, it provides a theoretical contribution by connecting the Resource-Based View (RBV) theory with implementing of Augmented Reality (AR) technology in batik marketing. It

develops our understanding of how a company's unique resources and capabilities can be used to create a long-term competitive advantage through innovative technologies.

Second, Methodological contribution, using a qualitative approach and case studies, this research provides in-depth insight into the experiences and perceptions of batik industry players regarding the application of AR in marketing. The use of using in-depth interview methods and data triangulation increased the validity and reliability of the research findings.

Third, Managerial Implications: This study shows an essential important managerial implications for batik companies and other industries that want to adopt AR technology. This includes strategies to improve brand image, customer loyalty, and long-term promotional cost efficiency through the implementation of AR.

Fourth, Practical Implications: This study provides practical guidance for practitioners in the batik industry or other sectors to utilize AR technology as an effective marketing tool. This can help them make strategic decisions regarding technology investment and product development.

Fifth, cultural contributions, Augmented reality as marketing tool can promote malay riau batik as Indonesia's cultural heritage. It can create customer experiences and their engangement.

Sixth, Knowledge Development: This research contributes how AR as modern technology, can be applied effectively in the context of traditional creative industries such as batik. This paves the way for further research on integrating technology with cultural heritage. To develop a research theory that focuses on the use of Augmented Reality (AR) on marketing performance, the following is a theoretical framework that can be used: Augmented Reality (AR) as an Innovative Marketing Tool, AR utilizes technology to present digital information or visual elements in a real-world context, improving user experience.

AR creates consumer experience and increase their engagement through immersive and direct interactions. It enables consumers to view products in a more detailed and relevant context, thereby facilitating purchasing decisions. AR can provide a competitive advantage that is difficult for competitors to imitate; and differentiation from competitors differentiates brands in a crowded market.

Augmented reality impacts customer conversion and retention by providing engaging and informative experiences. By increasing consumer interaction and satisfaction, AR can increase long-term customer loyalty and —cost efficiency in marketing strategies, therby- reducing long-term promotional costs. Although the initial investment in AR development may be high, its long-term use can reduce promotional costs because of to its effectiveness in attracting and retaining customers.

3. Method

This study employed a qualitative methodology with a case study approach to identify various aspects and categories from interview data, which were subsequently organized into different use cases using NVIVO 12. These use cases are detailed across several stages, specifically examining how the use of Augmented Reality (AR) in the marketing of Riau Malay Batik can be challenging for competitors to replicate (inimitable) and difficult to replace with other technologies (non-substitutable). This research adopts a specific approach to explore how optimizing competitive advantages through Augmented marketing can effectively enhance the marketing performance of Malay batiks in Riau, Indonesia.

This study focuses on small and medium enterprise entrepreneurs in the Riau Malay Batik business for over three years in Riau Province, Indonesia. In-depth semi-structured interviews were conducted with 30 Riau Malay Batik industry participants in Riau Province. A total of 30 participants from 10 different business groups within the Riau Malay Batik industry were selected as primary respondents. Respondents included business owners and marketing managers in the industry. Semi-structured in-depth interviews were conducted with 30 Riau Malay Batik industry players in Riau Province. Before we conducted the interview, we complied with the code of ethics regulations by not forcing information to conduct this interview activity. We ensured that they were willing to voluntarily carry out this interview activity. After the informants expressed their willingness, we continued this in-depth interview activity with 30 participants from 10 different business groups in the Riau Malay Batik industry selected as the main respondents. Semi-structured in-depth interviews were conducted with 30 Riau Malay Batik industry players in Riau Province. A total of 30 participants from 10 different business groups in the Riau Malay Batik industry were selected as the primary respondents. Respondents included business owners and marketing managers in the industry. We conducted these semi-structured, in-depth interviews with ten business groups with 30 informants for 20-30 minutes each. During the interview process, we actively listened and recorded, we carry out recording activities after obtaining approval from the informant. and occasionally, we confirmed and cross-checked answers that had doubtful meanings. For example, we re-question the understanding that Augmented Reality can create customer experience and engagement, which are still interpreted in reverse.

In a more applicable context, this study uses a data triangulation approach to combine various methods and data sources to strengthen the validity of the research findings. It is essential to ensure the reliability, validity, and accuracy of the findings and provide a more holistic picture of the complex reality of the research subject (Abraham & Sundaram, 2019). We uses various data collection, such as in-depth interviews, direct observation, and document analysis, which are the most appropriate approaches to investigate the phenomenon under study.

Regulation of the Minister of Research, Technology, and Higher Education of the Republic of Indonesia No. 69 of 2016 concerning the Code of Ethics for Research and Development (Menteri Riset, Teknologi, 2019):

*   **Article 10** States that all research must adhere to ethical principles, including research with minimal risk. Consent from research subjects must be obtained, but the consent form can be adjusted to the level of risk of the research.*

*   The guidelines state that low-risk social and humanities research can use simplified consent. This usually includes research that does not disclose sensitive information and does not endanger the welfare of participants. Researchers must still obtain consent from participants, at least verbally or through simplified consent.*

*   This research falls into low-risk social and humanities research that can use simplified verbal consent because this research does not reveal sensitive information and does not endanger the welfare of participants. In this study participants provided verbal informed consent because, verbal consent was preferred in the participant's culture. Participants felt more comfortable and confident giving verbal consent after receiving a detailed explanation of the study. Verbal consent allowed them to ask questions and get clarification before giving consent. Detailed explanations of the study were given, and verbal consent was recorded with the consent of the participants. The verbal consent process was recorded using an audio recorder, and there were witnesses to ensure transparency of consent.*

Participants' willingness to participate in this study was obtained without coercion, and their involvement was to provide opinions on improving marketing performance in the Malay Batik industry through optimizing competitive advantages by utilizing Augmented Reality marketing. Participants were fully informed about the purpose of the study and agreed to participate voluntarily.

We select samples and determine inclusion and exclusion criteria are crucial stages that influence the validity and generalizability of the research results. The following explains this process: The first step is to define the population or group that is the focus of the research. In this study, the population included business owners, marketing managers, and batik consumers. After selecting the sampling method, we developed the sampling frame. This involves creating a list of individuals or entities who might be research participants, such as a list of existing batik businesses in Riau, Indonesia. Selecting the actual sample from this research by determining the sample frame developed, the researcher selects the actual sample that will be invited or asked to participate in the research. Sampling can be performed randomly or by considering specific characteristics such as business size, length of operation, or geographic location.

3.1 Inclusion and Exclusion Criteria

Inclusion Criteria:
In determining these criteria we decide which part of the research sample is in accordance with the requirements. The requirements of inclusion criteria for research on batik marketing in Riau include the following :
  a. Entrepreneurs or managers who have knowledge and experience in the batik industry for at least three years.
  b. Individuals or businessesman located in the Riau region of, Indonesia

Exclusion Criteria:
We were used to exclude individuals or entities from the research sample to ensure that the sample consists of relevant subjects and provide valuable insights. Examples of exclusion criteria in Riau Malay batik marketing research in Indonesia include the following:
  a. Batik business has been operating for less than three years.
  b. Individuals or businesses not located in the Riau Region of, Indonesia
  c. People who do not have relevant knowledge or experience in the batik industry.

Criteria Justification:
Researchers explained in detail in the research report why the inclusion and exclusion criteria were chosen. This is done based on relevance to the research objectives, the desire to obtain a representative sample, or to control variables that could influence the research results.
We can ensure that the selected sample is appropriate to the research objectives, maximize the relevance of the findings, and minimize the bias that may arise when interpreting research results. We utilized various data collection for this research such as individual and group interviews, data collection from multiple industries, and data triangulation. Direct interaction with business actors and consumers provided rich insights into their perceptions, attitudes, and preferences towards Malay Batik.

Justification the sample in this study was determined by purposive sampling; this refers to the consideration of the relevance and relevance of participants to the research objectives, namely exploring Augmented Reality (AR) technology in marketing to improve marketing performance by optimizing resources available in the batik MSME sector. Inclusion criteria include batik entrepreneurs who have been operating for at least three years and have experience using or considering technological innovation in product marketing. Exclusion criteria include entrepreneurs with no plans or interest in digital innovation because this study focuses on the response to AR. The number of samples was set at 30 batik entrepreneurs, with ten groups selected based on variations in business scale (micro, small, medium), geographic location, and business models based on the characteristics of each motif. The participants of this study were divided into two large groups, namely group A consisting of Riau Malay batik entrepreneurs who actively utilize marketing technology innovations and group B consisting of Riau Malay batik entrepreneurs who passively utilize marketing technology innovations.

Determining this number of samples is considered sufficient for qualitative methods because qualitative research focuses more on data depth and understanding than statistical representation (Creswell, 2018). This sample determination can explain the nuances of differences in marketing strategies in achieving their marketing performance by optimizing existing resources and the challenges faced at each business scale. The results of this study are more relevant to improving understanding of the adoption of AR technology in the batik industry, especially traditional batik and other similar traditional products

The selection of this research sample is also based on the principle of data saturation in qualitative methods, meaning the point when information obtained from interviews or observations begins to show repetitive patterns and no longer produces new information (Creswell, 2018). The participants in this study were selected based on their active involvement in the Riau Malay batik industry and their openness to digital marketing technology innovation. However, as a limitation, we recognize that this sample size may limit the generalization of findings to MSMEs outside the sectors and regions studied.

VIVO 12 were used to analyze, triangulation used from various sources to verify the research findings. The interview data were transcribed to facilitate analysis and grouped into different use cases to demonstrate the uniqueness and success of AR utilization. We conducted in-depth semi-structured interviews with all participants. We used audio and video recordings were subsequently transcribed into written text. After this step we concern that the transcription process was crucial for the subsequent analysis of the interview content. Individual and group interviews were comprehensively analyzed to identify key themes, patterns, and emerging findings. The interview data were categorized into different use cases. We took these steps to ensure the validity and reliability of the data obtained then we got the results in information about Augmented Reality (AR) marketing that can optimize competitive advantage.

4. Results and Discussion
4.1 Results

The application of Augmented Reality (AR) technology in the batik industry has brought about significant changes in marketing strategies to improve performance and achieve competitive advantage. In this context, this study examines how AR can be optimized to improve consumer experience, strengthen brand image, and promote the cultural value of batik. The Resource-

Based View (RBV) focuses on how a company's unique resources and capabilities can be used to create sustainable added value through technological innovation.

Figure 1. Word Cloud

Based on figure 1 word cloud and table 1, translation word cloud, six words appeared most frequently in the marketing themes before using augmented reality. Of these six words, customer was most frequently expressed by informants. This shows that customers are the informants' main focus when marketing batik products. Attracting customers is the main task that needs to be performed. Based on the word cloud, social media and exhibition show the informants' ways of attracting customers to come and buy their products. However, these methods remain traditional. The word competition also shows that the informants are very concerned about competition in their batik industry.

Table 1. Translation Word Cloud

Diagram 1. Project Map Benefits of Augmented Reality Marketing

Based on diagram 1 and table 2, three themes and 15 sub-themes were identified, as shown in the table above. These three themes show the three main benefits that informants feel when using augmented reality. The 15 sub-themes represent the benefits derived from the main benefits of using augmented reality.

Table 2. Themes and Sub-Themes Benefits of Augmented Reality

5.1. Improve Marketing Performance
5.1.1 Improve work efficiency
This theme describes informants' views on the benefits of augmented technology, which can increase work efficiency. According to the participant, augmented reality can increase work efficiency in two ways: cost and time. One informant revealed that augmented reality could help reduce time and costs in creating prototypes: "*AR helps them in understanding new designs better and reduces the time and costs required to create prototypes* " (Mr. B). Another informant stated that the use of augmented reality is beneficial in the sales process: "Yes, the sales process becomes more efficient because customers can directly see the product virtually, reducing the time they spend considering a purchase." (Mrs. Sr)

5.1.2 Increase Sales

One indicator of the success of implementing augmented reality expressed by informants is an increase in sales: "*We measure success through increased sales*." (Mr. Budi). "Our sales have also increased due to a more interesting and satisfying shopping experience." (Mrs.Ra) Another informant revealed that this increase in sales reached a significant level: "Yes, we saw a significant increase in sales after implementing AR." (Mr. B).

5.1.3 Improving Services

According to the informant, augmented reality makes the services provided to customers more responsive: "*Additionally, AR also allows us to provide better and more responsive service, as we can quickly adapt and develop products based on customer feedback.*". (Mr. An). In addition, another informant revealed that augmented reality technology is used to increase personal touch in services that cannot be obtained using traditional methods: "We use this technology as a tool to enhance, not replace, the personal touch in our services." (Mrs. Ra).

5.1.4 Increase sales conversions

The use of augmented reality can reduce batik sales cycles. The products displayed virtually allow customers to decide to buy the products offered quickly. This certainly increases sales conversion: "*AR has shortened the sales cycle for our batik products by enabling customers to make purchasing decisions more quickly. With AR, customers can view and try products virtually before purchasing, reducing the time needed to consider and decide. This has increased our sales conversions and reduced the time it takes to close a sale.*" " (Mr. R)

5.1.5 Helps Reduce the number of returns

Customers can view products virtually using AR. Customers can try a product to determine whether its suitability. According to the informant, returns of goods are reduced: "*AR features also help reduce the number of returns because customers can see and try products virtually before buying*" (Mrs. L). Several informants revealed that reducing returns also indicates the success of implementing augmented reality: "We measure success through...reducing the number of returns and complaints" (Mr.B). "We measure the success of AR implementation by several metrics, including….Reduced product return rates" (Mr.R).

5.1.6 Helps expand market reach

The use of augmented reality not only attracts customers from Indonesia but can also attract customers from outside Indonesia. The informant felt the broad market reach of augmented reality: "*AR is beneficial for expanding our market reach. We can reach customers worldwide by enabling them to see and try products. This has helped us enter international markets more effectively and expand our customer base beyond the physical locality of our stores.*" " (Mrs. Nur).

Another informant revealed that the exciting thing about using augmented reality is that international customers can see and feel the products as if they were present in a physical store: "*AR allows international customers to see and experience our products as if they were in our physical stores, which is very helpful in reaching the global market*" (Mr. An).

5.1.7 Increase the number of customers

Another indicator of the successful use of augmented reality is the increase in customers: "*We measure success through.....an increase in the number of new customers that come from word of mouth recommendations*". (Mr. Bu). Another informant revealed that the increase in the number of customers mainly came from millennial and Generation Z customers,: " with an increase in the number of customers from millennials and Generation Z, who are more interested in technology and innovative shopping experiences." (Mrs. Rn).

Another informant stated that the increase in the number of customers occurred not only among the millennial generation and Generation Z but also among customers with different age backgrounds: "*We are seeing a significant increase in the number of customers from the younger generation, especially those aged between 20 to 35 years. AR technology appeals to them because they are more familiar with the technology and look for a different shopping experience. However, customers of all ages have also started enjoying this feature after being given sufficient guidance and explanation*" (Mrs. Ra).

5.2 Increase Competitiveness
5.2.1 Value provides a competitive advantage

One participant explained competitive advantage in detail: "*AR provides a competitive advantage by offering a unique and interactive shopping experience that is difficult to find in other batik stores. This differentiates us from competitors and attracts the attention of more customers. In terms of marketing performance, AR allows us to attract and retain customers more effectively. Data obtained from customer interactions with AR technology helps us understand their preferences and behavior so we can design more targeted marketing campaigns. In addition, this technological innovation strengthens our brand image as a modern and innovative business, further increasing our attractiveness to consumers.*" (Mrs. Ra). Based on participant' expressions, competitive advantage can be seen from several indicators, such as unique shopping experiences and technological innovation. Another informant expressed the modern and interactive side of the marketing concept using AR as an indicator of competitive advantage: "AR gives us a competitive advantage by providing a more modern and interactive shopping experience to our customers." (Mr. R).

5.2.2 Educate and promote culture

Education and the promotion of culture are two things that cannot be separated. For the informant, the use of augmented reality is not only aimed at improving marketing performance and attracting customers, but it also contains an educational element about cultural values as well as a means of cultural promotion: "*AR also makes it easier for us to educate customers about the cultural and historical values behind each batik motif... I believe AR will help increase sales and play an important role in preserving and promoting batik culture to the younger generation.*" (Mr. Ra).

Another informant believes that AR will not eliminate the traditional touch of Batik but will instead maintains and strengthens its authentic qualities and cultural values; "*Through AR, we display batik designs visually and include educational information about the meaning and history behind each motif. We work closely with local batik craftsmen to ensure that every product we offer maintains its traditional quality and authenticity*" (Mrs. Ratna). "We ensure that AR does not remove the traditional touch of batik by reinforcing traditional cultural and aesthetic values in every product we offer." (Mrs Nur).

5.3 Strengthening Relationships with Customers

5.3.1 Improve Customer Experience

Customer experience is one of the focuses of informants using augmented reality: "*AR impacts our marketing strategy by placing a greater focus on customer experience.*" " (Mrs. Ratnawati). One informant said that one of the biggest benefits of using AR is improving the customer experience: "The biggest benefit of using AR is… improving the overall customer experience." (Mrs. Nur). Augmented reality gives customers new experiences they have never had before: "I see the huge potential of AR in providing new experiences to customers…in a way that has never been done before." (Mrs Dw).

5.3.2 Increase customer loyalty

A more personalized experience is possible when augmented reality markets batik products. This personal experience will later cause customers to be more loyal in buying the products offered: "*AR allows us to provide a more engaged and personalized experience to our customers. With AR, customers can explore our batik products in a way they have never done before. This experience....strengthens their emotional bond with our brand. As a result, we saw increased customer retention and loyalty to our batik brand*". (Mr. R).

Apart from a more personalized experience, the interactive side of using augmented reality and product quality are also factors that support customers returning to shop for the products offered: "*Customers who are satisfied with our interactive experience and product quality are more likely to return to shop again*(Mrs. Rn)

5.3.3 Increase customer confidence and satisfaction

Confidence to buy is one of the essential things augmented reality uses in marketing. Customers must first be convinced that the product being sold is indeed different. The virtual sales model makes customers more confident purchasing products: "*Customers are more confident and satisfied with their purchases because they can see product details virtually*" (Mrs. Dw). "They feel more comfortable and confident with their choice after trying batik virtually" (Mrs. Ln). "Customers are more interested and feel confident in buying after seeing the product virtually" (Mr.R)

Satisfaction is another variable after buyers feel confident about purchasing a product. Another informant revealed that satisfaction is one indicator of the success of using augmented reality: "We measure success through….the level of customer satisfaction..." (Mr.B)

5.3.4 Increase customer engagement

The informants revealed that virtual product marketing in augmented reality makes customers feel more involved in it: "Customers feel more involved and appreciated when they can try various batik motifs virtually" (Mrs.Rn). "They felt more connected and involved with our products, and the virtual exhibition helped them better understand the details and beauty of batik motifs" (Mrs. Dw). "We use AR as a key feature in our digital marketing campaigns. This attracts the attention of more people on social media and increases engagement with potential customers" (Mrs.Sr).

5.3.5 Attract customers

Interest is characterized by the customer's attention and interest in the product being sold. Most informants said that using augmented reality could attract customers ' attention to the

products being sold: "*By showing how AR works, we can attract the attention of more customers and increase their interest in our products"* " (Mr. An). "We use AR as a key feature in our digital marketing campaigns. This attracts more people's attention on social media and increases engagement with potential customers" (Mrs. Sr). "We can attract the attention of more customers by offering innovative AR features, which not all of our competitors may have" (Mr.R).

Furthermore, if you look at the hierarchy chart displayed based on diagram 3, informants tend to reveal that the benefits of augmented reality are more significant in strengthening customer relationships.

Diagram 2. Diagram Hirarchy

For informants, the use of augmented reality in batik marketing first aims to strengthen their relationships with customers, after that increase competitiveness and then improve marketing performance.

6. Discussion

This research's findings revolve around three main themes: improving marketing performance, increasing competitiveness, and strengthening customer relationships. Augmented reality can increase work efficiency in two ways, namely cost and time. Augmented reality can increase operational efficiency by reducing the time required to design, modify, and test prototypes (Vilkina, & Klimovets, 2020; Walentek & Ziora, 2023). Digital models can be created and changed quickly without the need for actual physical materials at an early stage, meaning companies can reduce the use of raw materials and the time required for development. This aligns with the concept of reducing production costs and increasing productivity. Augmented reality is used to increase the personal touch in service that cannot be obtained using traditional methods so that consumers feel appreciated and strengthen relationships with consumers.

This study introduces a pioneering approach to Resource-Based View (RBV) and the utilization of Augmented Reality (AR) technology in traditional creative industries like riau malay batik. We have managed to uncover significant gaps in existing theory and present a unique perspective. In previous studies, RBV has been predominantly applied to large companies with advanced technology. However, this study successfully answers the clear need for how the industry must adapt to the changing modern digital business environment and apply it to the traditional local creative industry. The success of this study exploring how Augmented Reality can be effectively applied to the traditional local creative industry in the micro, small, and medium sectors is a novelty from the results of this study that has not been previously found. Utilizing the unique resources of these companies, such as the cultural value of batik products, with AR technology, can improve marketing performance and competitiveness.

This study also fills the gap in previous research by combining competitive advantage with customer relations because previous studies separate the relationship between competitive advantage and customer relations. Augmented reality in this study emphasizes that in addition to improving marketing performance through optimizing the company's competitive advantage, it can also strengthen customer relationships, which is a new approach to understanding RBV. This means that AR technology in this study provides unique added value that differs from competitors' and strengthens deeper interactions between batik products and customers. The vital contribution of this study enriches the understanding of RBV deeper with a new approach that optimizes intangible assets such as customer relationships for optimization of competitiveness and marketing performance. Customer relationships are intangible assets in this study that are optimized to improve competitive ability and then influence the improvement of marketing performance of the Riau Melayu batik industry. This shows that customer relationships are transactional and can provide valuable added value as intangible assets. They can create different and in-depth customer shopping experiences and increase customer engagement and loyalty. So this is useful as a strategic step to strengthen the competitive position of the Riau Melayu batik industry in market competition and support improved marketing performance.

This study makes a significant contribution by deepening the Resource-Based View (RBV) understanding through a new perspective that focuses on optimizing intangible resources, especially customer relationships. This new perspective of Resource-Based View (RBV) focuses on improving the understanding of optimizing intangible resources by integrating AR technology in creating customer relationships through solid customer experience and engagement. The integration that occurs is more meaningful because the interaction that occurs can increase customer engagement and customer loyalty affects the marketing performance of Riau Malay

Batik. In this research, augmented reality (AR) in the batik business is connected to the RBV theory. AR technology is a unique resource that is difficult for competitors to imitate. By providing a virtual try-on feature, batik companies can offer consumers a different and more exciting shopping experience. Product visualization technology in AR allows consumers to see the details of batik motifs and textures. By providing a more engaging shopping experience and reducing the number of returns, companies can increase efficiency and customer satisfaction, ultimately strengthening competitive advantages that positively impact sales (Sung, 2021; Tan et al., 2022; Wieland et al., 2024). The use of Augmented Reality (AR) in the batik business can bring significant changes in the way batik is promoted, sold, and appreciated by consumers.

This research shows that customer experience is critical to building competitive advantage. AR allows customers to try products virtually, seeing how they look or function in real life, improving purchasing decisions and customer loyalty. Virtual Try-On allows consumers to try various batik motifs and designs virtually before buying in the AR application. They can see how batik will look when worn without having to try it on physically. This study's findings align with research (Porter, 1985, 1990) that competitive advantage identifies two main types of strategies to achieve competitive advantage: differentiation and cost leadership. However, previous research does not support the current modern situation where technological innovation is essential in improving marketing performance by optimizing competitive advantages with the uniqueness of its intangible resources. In the AR context, differentiation strategies are very relevant. AR can make the shopping experience more engaging and personalize customer interactions with products, which is difficult for competitors to imitate. Our research results found that the benefits of using AR are that consumers get a more exciting shopping experience because they can see their appearance in the batik of their choice, increasing the possibility of purchasing.

Product visualization in AR technology can provide detailed visualization of batik motifs and textures. Consumers can see fine details and fabric quality better through AR displays. So, product details appear more straightforward because consumers can appreciate the quality and uniqueness of batik motifs. Then it generates consumer trust because they can see the product in more detail, thereby increasing consumer confidence in the quality of the product; this can strengthen relationships with consumers, which has an impact on increasing sales (Tan et al., 2022; Voicu et al., 2023). The benefits of AR in the batik business are also education and product stories; batik producers can provide additional information about each batik motif. Consumers can scan batik cloth or product labels to get a story about the origin of the motif, the manufacturing process, and its cultural meaning. Increasing cultural values is another benefit of using AR in the batik business because consumers can understand and appreciate the cultural and historical values behind each batik motif. Furthermore, product differentiation is also available through in-depth information about the product to differentiate batik from other manufacturers.

Competitive advantage is obtained from resources and capabilities that are unique and difficult for competitors to imitate (Porter, 1985, 1990; Barney, 2007; Wernerfelt, 2013; Vilkina, 2020; Gabajová et al., 2021; Karuppiah et al., 2023). AR can be considered a valuable resource due to its ability to create unmatched experiences and modernize marketing concepts. A company's capability to implement and utilize AR effectively is critical to creating a competitive advantage. Interactive Catalog in AR will provide a unique experience for consumers. Consumers use interactive catalogs equipped with AR technology to scan images or catalog pages to see 3D versions of batik products. More interesting interactions: Interactive catalogs make choosing products more exciting and informative (Scholz & Smith, 2016; Gallardo et al.,

2018; Du et al., 2022). Consumers can easily choose a product because they can see the product from various angles and get additional information quickly. They apply AR in promotional and branding campaigns, such as AR filters on social media that allow users to try on batik motifs virtually or participate in contests using batik-themed AR filters.

Increasing engagement with AR-based promotional campaigns can attract the attention of more consumers, especially the younger generation who are active on social media. Attractive promotions can help expand market reach and increase brand awareness. They use AR in physical stores to provide a more interactive shopping experience. Consumers can scan products in stores for additional information, usage tutorials, or related product recommendations. It is an interesting shopping experience; consumers get additional information and relevant recommendations when shopping at the store. More complete and interactive information can increase customer satisfaction. This research also emphasizes that AR in the batik business can provide a more exciting and informative experience for consumers, increase sales, and help strengthen the cultural value and quality of batik. This is as stated (Darma et al., 2019): Exploring competitive advantage by optimizing local resources, including by utilizing AR technology, not only helps in marketing and sales but also in education and preserving batik cultural heritage. With the right adoption, AR can be a very effective tool in developing the batik business in this digital era.

The educational aspect and product story become a unique resource that provides additional information about batik motifs presented through AR, helping educate consumers about the cultural and historical values behind each motif. This enriches the customer experience and differentiates batik products from others, strengthening the company's position in the market. Likewise, interactive catalogs that use AR technology provide a unique and exciting way for consumers to interact with products. This experience can increase consumer interest and engagement, make it easier for them to choose products, and increase the likelihood of purchase.

The findings of this research indicate that the use of AR in batik marketing becomes a competitive advantage due to the unique combination of resources, such as technology, skills, and knowledge about batik culture. In-depth knowledge of batik motifs and their stories is a unique resource for batik companies for education and cultural promotion media. By using AR to educate consumers about batik culture, companies can increase consumer appreciation and loyalty, strengthening profitable long-term relationships (Gallardo et al., 2018; Gabajová et al., 2021; Kowalczuk et al., 2021; Du et al., 2022). Relationships with customers are getting stronger because using AR to enhance customer experiences shows the company's ability to utilize advanced technology to meet consumer needs. Positive and interactive experiences can increase customer satisfaction and loyalty, which is a valuable asset for the company. Loyalty programs powered by AR technology can offer a more personalized and engaging experience. High customer loyalty helps companies maintain a stable customer base and increases lifetime value. AR enables more active consumer interactions through social media campaigns or physical stores. High levels of engagement can create closer relationships between brands and consumers, encourage brand advocacy, and increase brand awareness.

The ability to provide more detailed and interactive information about products through AR increases transparency and consumer trust. High consumer trust contributes to customer satisfaction and reduces the risk of product returns. Creative marketing campaigns using AR can attract the attention of new consumers in innovative ways. Companies can increase market share and ensure continued growth by continuing to attract new customers and retain existing ones. By integrating AR into marketing strategies, batik companies can leverage their unique resources

and capabilities to create sustainable competitive advantages. The use of AR not only helps promote and sell batik products but also increases the cultural value and quality of batik in the eyes of consumers. This approach is in line with RBV theory, which emphasizes the importance of managing unique resources and capabilities to achieve competitive advantage and improve marketing performance. This discussion illustrates how various themes and subthemes in improving marketing performance, increasing competitiveness, and strengthening customer relationships can be implemented based on relevant marketing and management theories.

7. Conclusion, Contribution, Implications, Limitations, and Future Research

Conclusion

The study's conclusions from the research findings revolve around three main themes: improving marketing performance, increasing competitiveness, and strengthening customer relationships. This study unveils a relationship between the Resource-Based View (RBV) theory and the application of Augmented Reality (AR) technology in marketing Riau Malay batik. What sets this study apart is its unique approach of integrating two concepts that were previously rarely studied together, namely RBV and AR technology, especially in the context of traditional creative industries such as batik. RBV, in this study, proves that a company's unique resources, such as the ability to implement innovative technologies like AR. In this study, RBV is strengh to show that a company's unique resources, such as the ability to adopt innovative technologies such as AR, can act as a key driver in creating sustainable competitive advantage. The use of AR not only strengthens interactions and enhances customer experiences, but also deepens emotional connections that support customer loyalty and attract new customers. This shows that AR functions as an intangible strategic asset and, in the context of RBV, is difficult for competitors to imitate, thereby strengthening the company's competitive position in the market. This finding provides new insights that technological innovation, such as AR, is not only a marketing tool but also an integral part of strategic resources that can change competition dynamics in traditional creative industries. Practically, the results of this study provide recommendations for Riau Malay batik industry players to adopt AR technology as an effective marketing strategy. Thus, companies can improve marketing performance and strengthen relationships with customers, which ultimately supports business growth and sustainability.

AR (Augmented Reality) is a powerful technology in modern marketing that can significantly improve various aspects discussed in this research. The findings of this study revolve around three main themes: improving marketing performance, improving competitiveness, and strengthening customer relationships. The results show that AR in this study provides unique added value that is different from competitors and strengthens deeper interactions between riau malay batik products and customers. AR in marketing provides various advantages, including increasing marketing performance efficiency, reducing returns, increasing sales, increasing competitive advantage, and strengthening relationships with customers. While AR adoption has challenges, such as high initial costs and the need for consumer education, the benefits can be enormous in the long run. This research concludes that improving marketing performance, increasing competitiveness, and strengthening customer relationships are three main themes that are very important in modern business strategy. Using various marketing and management theories, we can understand how related subthemes interact and contribute to overall business success.

Increasing work efficiency, reducing the number of returns, increasing sales, providing better service, increasing sales conversion, increasing the number of customers, and increasing market expansion can be achieved through a structured strategy based on existing theory. In addition, competitive advantage, education, and cultural promotion, as well as improving customer experience, loyalty, engagement, trust, and customer satisfaction, also play an essential role in building profitable long-term customer relationships.

Contribution

This research provides a theoretical contribution by connecting the Resource-Based View (RBV) theory with implementing Augmented Reality (AR) technology in riau malay batik marketing. This develops our understanding of how a company's unique resources and capabilities can be used to create long-term competitive advantage through innovative technologies. Augmented Reality in this study shows a strong relationship with customers, improving customer experience and engagement, increasing customer satisfaction and loyalty, and attracting new customers. Customer relationships are not just transactional interactions but also valuable added value, creating unique customer experiences and can even attract new customers as intangible assets, so this contributes strategically to strengthening the competitive position of the Riau Malay batik industry in the market competition and supporting improved marketing performance.

The following contribution emphasizes that modern AR technology in the digital era can enrich the customer experience for large companies and creative micro, small, and medium enterprises of traditional Riau Malay batik. This integration is essential in more meaningful interactions to increase customer engagement and loyalty. So, strong customer relationships from AR innovations used in this study contribute to better marketing performance. AR, the Riau Malay batik business, representing the micro, small, and medium industries, can implement an experience-based marketing strategy that strengthens customer relationships. Customers invest in the experience offered so that they are happy to recommend it to others.

Overall, this study provides significant theoretical contributions by connecting RBV and AR in the context of batik marketing and offering practical implications that can help traditional creative industries be more competitive in the digital era. The novelty of this study lies in the holistic approach that paving the way for further research that can explore the integration of other technologies in resource-based business strategies because combines the company's unique resources with innovative technologies.

Implication

The implications of this theory show that the company's unique value capability as the company's added value is not only tangible assets or technical skills but also includes the company's ability to adopt and implement new technological innovations, such as Augmented Reality (AR). By adopting AR technology, using the company's unique resources is increasingly optimal to increase competitiveness while building closer customer relationships so that marketing performance increases.

Managerial implications for batik companies and other industries interested in adopting AR technology. The practical contribution of this research offers practical guidance for MSMEs in traditional creative industries, such as Riau Malay Batik, on optimizing local culture's unique value by using modern AR technology in modern digital marketing to optimize competitiveness and customer relations. The practical contribution and implication of this study offers practical

guidance for MSMEs in traditional creative industries, such as Riau Malay Batik, on optimizing the unique value of local culture by using modern AR technology in modern digital marketing to maximize competitiveness and customer relationships.

Limitation

Limitations of this research are based on research findings based on marketing and management theories that may only be fully applicable to some industries or markets. The specific context of a particular industry or market may influence the relevance and effectiveness of a proposed strategy. Applying various strategies and theories in business practice can be complex and require significant resources. Not all companies have the capabilities or resources necessary to implement these changes. Rapid changes in market trends, technology, and consumer behavior can affect the theories' relevance. This research may only partially capture the latest dynamics of the market.

Future Research

Further research could focus on applying these strategies in specific industries to understand how industry context influences the effectiveness of various theories and strategies. It is also essential to explore how the latest technological developments, such as artificial intelligence and big data analytics, can be used to improve marketing performance and customer relationships. Longitudinal studies that monitor the implementation of these strategies over a more extended period could provide deeper insight into the long-term impacts and sustainability of the proposed strategies. Additional research can be conducted to understand changes in consumer behavior influenced by evolving social and economic factors and how marketing strategies can be adapted to these changes.

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Disclosure statement

No potential conflict of interest was reported by the author(s)

Author's contribution

AM, LMA, & SY carried out the research, wrote and revised the article AM, AM & LMA conceptualised the central research idea and provided the theoretical framework. AM, LMA & SY designed the research, supervised research progress; AM, LMA anchored the review, AM & SY revisions and approved the article submission. All authors have approved the final manuscript.

Data availability statement

This study did not involve any data collection, and the articles collected were sourced from https://www.scopus.com/home.uri, accessed in 2024, and https://scholar.google.com/, accessed in 2024. However, due to privacy and ethical constraints, the data used in this study are not publicly available. Still, they can be requested from the corresponding author under certain reasonable conditions and are not sensitive in nature, violating ethics and privacy.

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Table

Table 1. Translation Word Cloud

Word	English translation	Count	Weight percentage
Customer	Customers	12	7.89
Media	Media	8	5.26
Social	Social	8	5.26
Competition	Competitive	7	4.61
Digital	Digital	6	3.95
Marketing	Marketing		
	Total	**41**	

Source : Data Processing

Table 2. Themes and Sub-Themes Benefits of Augmented Reality

Themes	Sub-Themes
Improve Marketing Performance	Improve work efficiency
	Helps reduce the number of returns
	Increase Sales
	Improving services
	Increase sales conversions
	Increase the number of customers
	Helps expand market reach
Increase Competitiveness	Value provides a competitive advantage
	Educate and promote culture
Strengthening Relationships with Customers	Improve customer experience
	Increase customer loyalty
	Increase customer engagement
	Increase customer confidence and satisfaction
	Attract customers

Source : Data Processing, NVIVO 12

Table 3. Comparison Of Research Results Between Different Groups

Aspect	Group A	Group B
Approach	Open and active in using marketing technology innovation	Passive and tend to use conventional marketing methods because of limited resources.
Perception of marketing technology innovation such as AR	Interest and ready to adopt	Less Familiar
Competitive Focus	Innovation and Technology	Culture and Product Quality

Source : Research processing

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Page 28 of 30

Figure and Diagram

Figure 1. Word Cloud

Diagram 1. Project Map Benefits of Augmented Reality Marketing

Diagram 2. Diagram Hirarchy

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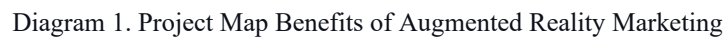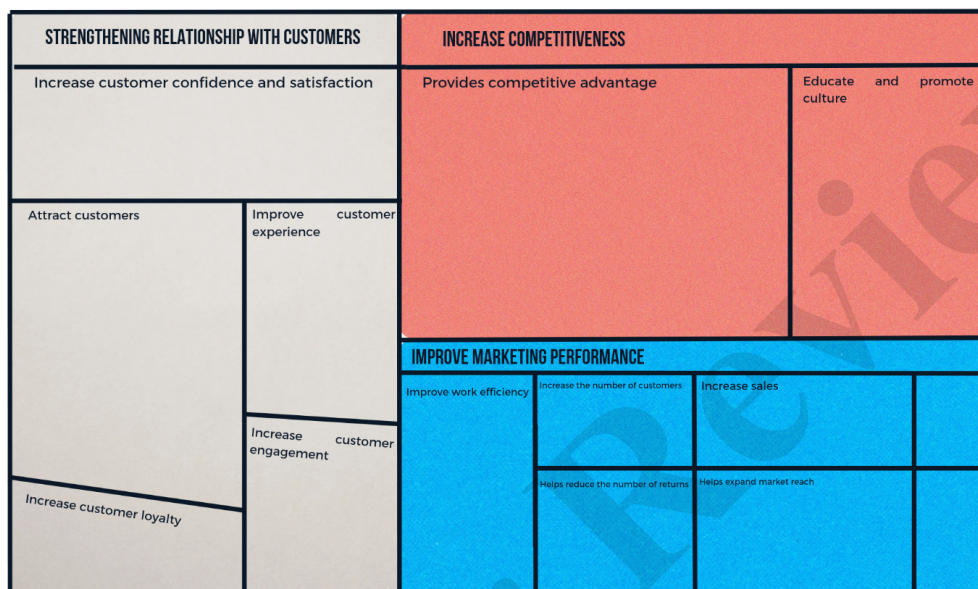
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Enhancing marketing performance in batik Malay industry: optimization competitive advantage by leveraging augmented reality marketing

Annisa Mardatillah, Lilis Marina Angraini and Sri Yuliani

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Q14 Please provide the complete details for the "Vilkina & Klimovets, 2020" references list entry.

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MARKETING | RESEARCH ARTICLE

Enhancing marketing performance in batik Malay industry: optimization competitive advantage by leveraging augmented reality marketing

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Q15

Q1

ABSTRACT

This study aims to explore how augmented reality (AR) and a company's unique resources optimize competitive advantage to improve marketing performance using a qualitative approach with triangulated in-depth interviews. The findings of this study revolve around three main themes: improving marketing performance, improving competitiveness, and strengthening customer relationships. The results show that AR in this study provides unique added value that is different from competitors and strengthens deeper interactions between batik products and customers. The theoretical contribution of this study connects the Resource Based View (RBV) theory with the application of augmented reality to the marketing of small and creative traditional batik industries, connecting unique resources, namely the cultural value of batik products, to improve marketing performance through optimizing competitive advantages, thereby strengthening relationships with customers. Intangible assets such as customer relationships are optimized for competitiveness and marketing performance optimization. In addition, this study provides practical implications for practitioners in the batik industry to utilize AR as an effective marketing tool to assist in making strategic decisions regarding technology investment and product development to improve marketing performance through optimizing its resources for competitiveness.

Q2

1. Introduction

Q3

Augmented Reality marketing (ARM) has a transformative impact, as marketing communication prioritizing technology has the potential to improve consumer experience and consumer responses to purchasing decisions (Gallardo et al., 2018; Bellalouna, 2021; Du et al., 2022; Reis & Melão, 2023). Researchers from America and Europe have conducted most previous studies, and they have found more studies on the influence of AR on customer experience and customer engagement (Scholz & Smith, 2016; Tutak & Brodny, 2022; Gabriel et al., 2023; Schultz & Kumar, 2024). There is a growing body of literature that recognizes that previous research has revealed ARM's superior ability to enhance consumer experiences interactively (Gallardo et al., 2018; Bellalouna, 2021; Chen & Lin, 2022). Consumers can see and interact with products or services in Unity 3D simulations (Vilkina, 2020; Dwivedi et al., 2021; Sung, 2021; Tutak & Brodny, 2022). ARM integrates information or digital objects into consumer perceptions as new experiences in digital marketing about products or services (Scholz & Smith, 2016; Kraus et al., 2022; Gabriel et al., 2023; Schultz & Kumar, 2024).

Q4

In Indonesia, very few researchers are still exploring the use of Augmented Reality (AR) in marketing, There has been no documented application of AR for traditional creative products in the micro, small, and medium enterprise (MSME) sector because most researchers in Indonesia only explore the competitive advantages of local creative products without examining how AR can become a source of competitive advantage for companies (Darma et al., 2019). Additionally, other researchers tend to focus only on

specific consumer satisfaction factors influencing purchasing decisions through the use of mobile augmented reality (Liu & Napitupulu, 2020), AR application to promote traditional food (Weking et al., 2020) and AR to promote Indonesian tourism (Anderies et al., 2023; Hidayat et al., 2023) Seen globally more researchers are discussing AR in the education sector on students' competitive abilities in the education sector (Kusdiyanti et al., 2020; Saripudin et al., 2022; Zapata-Paulini et al., 2023).

Augmented Reality marketing can help businesses differentiate their products from their competitors (Darma et al., 2019; Vilkina, 2020; Du et al., 2022) . Features such as virtual try-ons, interactive storytelling, and virtual tours allow consumers to experience more immersive and engaging products. In addition, more profound education and information can be obtained because AR allows businesses to convey additional information about products more visually and interestingly. For example, in the marketing context of Riau Malay Batik, AR can be used to show motifs, cultural values, and history more comprehensively and impressively. Augmented Reality enhances consumer engagement, it can provide personalized and relevant experiences according to their preferences. Consumers can "try on" products. It means AR increasing customer trust and satisfaction. AR can optimize marketing processes by expanding market reach and reaching global audiences (Bellalouna, 2021; Gabajová et al., 2021; Karuppiah et al., 2023).

Augmented Reality, as technology, also allows for better tracking and analysis of consumer interactions, which can help improve future marketing strategies. The potential for the batik market in Indonesia and worldwide is significant and continues to grow. The following section explains the potential of the batik market based on the statistical data. According to data from the Central Statistics Agency (BPS), the export value of batik and batik products from Indonesia continues to increase. In 2019, Indonesian batik exports reached approximately USD 52.4 million. Even though it fell in 2020 owing to the COVID-19 pandemic, this sector showed signs of recovery and improvement in the following years. Batik is an indigenous cultural heritage site in Indonesia that was recognized by UNESCO as a humanitarian heritage site for oral and intangible culture in 2009. It increases Indonesian people's awareness and pride in batik, which impacts high demand within the country.

Indonesian Batik, including Riau Malay Batik, is exported to various countries, including Malaysia, Japan, the United States, Europe, and Australia. There is an increasing global awareness and appreciation of ethnic and sustainable products. Batik has its own added value in the hearts of global consumers, especially those who care about sustainability and uniqueness. As an environmentally friendly product with high cultural value. The batik market has bright prospects with government support and increasing awareness at home and abroad. Overall, AR brings innovation to how products are marketed and strengthens business competitiveness by improving consumer experience, product differentiation, and overall marketing strategy efficiency, thus increasing marketing performance (Bernd et al., 2016; Rauschnabel et al., 2022).

This study aims to examine augmented reality marketing (ARM) digital marketing technology for Batik Melayu Riau's marketing performance by optimizing its competitive advantage. Through ARM technology, Riau Malay Batik products can be presented uniquely and attractively, allowing consumers to see the natural beauty of the product and, obtain additional information regarding the motif, unique design, and the rich cultural value and history of Riau Melayu Batik before they decide to buy. Augmented Reality (AR) has a significant value in improving business competitiveness and marketing performance. Customer experience allows businesses to create engagement and interactive experiences. Consumers can view products in real or virtual contexts, such as by testing products or viewing additional information directly in their environment. This study explores how an innovative technology augmented reality and a company's unique resources by optimizing competitive advantages to enhance marketing performance. Understanding how a company's unique resources and capabilities can create long-term competitive advantages through innovative technology is essential. By implementing ARM technology, the marketing performance of Batik Melayu Riau can be improved, as seen in sales growth, increasing the number of customers, and increasing profits by optimizing its competitive advantages.

There is an urgent need to address the issue of how intangible resources in the RBV approach can be optimized, rather than just discussing the aspects of value, rare resources, imitable, and non-sustainable. The varied results from previous studies indicate that findings in this field are not always consistent or aligned. These differences in research outcomes may be due to variations in methods, samples, or research contexts, reflecting the complexity of understanding the studied phenomena. In previous

studies, resource-based View (RBV) has been applied more to large companies based on high and modern technology (Sameera, 2018; Mong et al., 2021; Valaei et al., 2022). Previous researchers have highlighted how customer relationships are essential in forming sustainable competitive advantages from an RBV perspective (Barney, 2007; Barney et al., 2011). There has yet to be any previous research that explicitly reveals intangible resources other than human capital, brand reputation, and organizational culture (Barney, 2007; Barney et al., 2011) in other RBV approaches as essential resources to optimize the company's competitive advantage to improve marketing performance. However, there are still areas for improvement in previous research because it needs to consider the modern context, namely the role of new technologies such as AR in strengthening customer relationships. AR can improve customer interaction and experience in the digital era, which has yet to be fully explored in the existing literature.

However, it still needs to be improved in the traditional local creative industry, so this study bridges the gap in previous studies. This study explores how Augmented Reality considered in a digital modern context can be applied effectively to the traditional local creative industry in the micro, small, and medium sectors by connecting the unique resources owned by the company, namely the cultural value of batik products, with AR technology to improve marketing performance through optimizing competitiveness. This study fills the gap in previous studies by combining competitive advantage with customer relationships can increase marketing performance because previous studies separate the relationship between competitive advantage and customer relationships also marketing performance (Balla, 2024; Habil et al., 2024; Wijaya et al., 2024). However, this study emphasizes that Augmented Reality can improve marketing performance by optimizing the company's competitive advantage and can strengthen customer relationships; this is a new approach to understanding RBV. It means that AR technology in this study provides unique and different added value from competitors and strengthens deeper interactions between batik products and customers.

Thus, this study provides contributions as follows: First, An essential contribution in this study enriches the understanding of RBV more deeply with a new approach that optimizes intangible assets such as customer relationships to optimize competitiveness and marketing performance. Customer relationship is an intangible asset in this study, and it is optimized to increase competitiveness and subsequently influence the improvement of marketing performance of the Riau Melayu batik industry. This research shows that customer relationships are not just transactional interactions but are also valuable added value as intangible assets because they create a different and more profound customer shopping experience, increase customer engagement, and increase customer loyalty. So this is useful as a strategic step to strengthen the competitive position of the Riau Melayu batik industry in market competition and support improved marketing performance.

Furthermore, Second, This study emphasizes in the context of the modern digital era the importance of utilizing modern technology, namely Augmented Reality (AR), to enrich the customer experience for large companies and for creative micro, small, and medium enterprises of traditional Riau Malay batik. This integration is essential in more meaningful interactions to increase customer engagement and loyalty. Third, Strong customer relationships from AR innovations used in this study contribute to better marketing performance. AR, Riau Malay batik business, as a representative of micro, small, and medium industries, can implement an experience-based marketing strategy that strengthens customer relationships. Customers invest in the experience offered so that they are happy to recommend it to others. Collecting data and feedback on customer interactions is another benefit of using AR. Companies are allowed to have data insights into customer preferences further improving marketing performance. Fourth, The practical contribution of this research offers practical guidance for MSMEs in traditional creative industries, such as Riau Malay Batik, on optimizing local culture's unique value by using modern AR technology in modern digital marketing to optimize competitiveness and customer relations.

2. Literature review

This study draws on the resource-based view (RBV), which highlights the strategic use of tangible and intangible resources to convert potential competitive advantages into sustainable, long-term gains (Wernerfelt, 1984; Barney, 1991; Cabrera-Suárez et al., 1994; Barney, 2001; Barney et al., 2011; Fatoki, 2021). It asserts that a company's competitive edge and overall performance are rooted in the strength

of its resources. However, there are varied perspectives on the RBV. For example, Wheelen et al. (2018), Mahdi and Nassar (2021), and Yang et al. (2022) argue that RBV should focus on a company's capabilities rather than just its resources, suggesting that companies must leverage their resources effectively to enhance performance—similarly, Korsakienė & Raišienė (2022) and Reis & Melão (2023) stress the primacy of capabilities over mere resources. Hence, we posit that early RBV advocates centered their theory on the competitive capabilities of firms, achievable through a synergistic brand of financial, technological, and human resources. Focus on a holistic combination of financial, technological, and human resources.

The resource-based view (RBV) theory can be explained by the Augmented Reality (AR) phenomenon in marketing, especially in the batik industry. The RBV emphasizes the importance of utilizing unique and difficult-to-imitate resources to create sustainable competitive advantages (Mardatillah et al., 2019). AR can be considered one such resource. Transform Potential into a long-term competitive advantage. According to RBV, companies must leverage unique resources to create sustainable competitive advantages (Kocak et al., 2017; Liao et al., 2017; Kumar et al., 2024). AR in batik marketing allows companies to provide customers with a uniquely valuable and interactive shopping experience. For example, AR applications can allow customers to try batik motifs virtually, provide detailed visualization of batik motifs and textures, and provide additional information about the history and cultural meaning. Difficult to Imitate (inimitable) and Complex to Replace (non-substitutable).

Furthermore, inimitable resources that are difficult for competitors to imitate provide a solid competitive advantage. When implemented innovatively and distinctively, AR technology becomes difficult for competitors to imitate (Dwivedi et al., 2021; Du et al., 2022; Gabriel et al., 2023). For example, the interactive experience provided by an AR application specific to Riau Batik may only be easily replicated by other companies with significant investments in technology and development. Non-substitutable resources that are difficult to replace with other technologies are also important for competitive advantage. As a marketing technology, AR offers a unique way to interact with customers that cannot be easily replaced by other technologies such as conventional advertising or regular e-commerce.

Improved brand image and customer loyalty are the result of effective resource utilization. Augmented reality provides an interactive experience, companies can enhance their brand image in an innovative. Customers who are satisfied with this experience are more likely to become loyal and return to shop again. AR can reduce long-term promotional costs by replacing the need for physical exhibitions and expensive advertising campaigns. AR applications can be used repeatedly for various promotional campaigns, thereby reducing saving long-term costs. AR technology requires expertise, financial investment, and human resource training. However, it provides great benefits to companies, namely a competitive advantage. Augmented reality allows customers to try various batik designs virtually and to view additional information about each motif is part of the RBV theory of unique resource utilization.

The promotional campaign uses AR filters on social media, allowing users to try batik motifs and share their experiences, improving brand image and customer loyalty according to the RBV theory. Batik product catalogs with AR technology allow customers to view products in 3D and get additional information, adding value to the shopping experience and making it difficult for competitors to imitate. This research uses the resource based view (RBV) theory in the context of Augmented Reality (AR) in the batik industry to show how innovative technology can be used as a unique resource to create sustainable competitive advantages. By implementing AR, batik companies can improve customer experience, brand image, and customer loyalty, as well as reduce long-term promotional costs with RBV principles (Barney, 2007; Barney et al., 2011; Liao et al., 2017; Du et al., 2022; Grabowska & Saniuk, 2022).

2.1. Research value

The research value in this research has several aspects:

First, it provides a theoretical contribution by connecting the Resource-Based View (RBV) theory with the implementing of Augmented Reality (AR) technology in batik marketing. It develops our understanding of how a company's unique resources and capabilities can be used to create a long-term competitive advantage through innovative technologies.

208 Second, Methodological contribution, using a qualitative approach and case studies, this research pro-
209 vides in-depth insight into the experiences and perceptions of batik industry players regarding the appli-
210 cation of AR in marketing. The use of in-depth interview methods and data triangulation increased the
211 validity and reliability of the research findings.
212 Third, Managerial Implications: This study shows essential important managerial implications for batik
213 companies and other industries that want to adopt AR technology. This includes strategies to improve
214 brand image, customer loyalty, and long-term promotional cost efficiency through the implementa-
215 tion of AR.
216 Fourth, Practical Implications: This study provides practical guidance for practitioners in the batik
217 industry or other sectors to utilize AR technology as an effective marketing tool. This can help them
218 make strategic decisions regarding technology investment and product development.
219 Fifth, cultural contributions: Augmented reality as a marketing tool can promote Malay Riau Batik as
220 Indonesia's cultural heritage. It can create customer experiences and engagement.
221 Sixth, Knowledge Development: This research contributes to how AR as modern technology, can be
222 applied effectively in the context of traditional creative industries such as batik. This paves the way for
223 further research on integrating technology with cultural heritage. To develop a research theory that
224 focuses on the use of Augmented Reality (AR) on marketing performance, the following is a theoretical
225 framework that can be used: Augmented Reality (AR) as an Innovative Marketing Tool, AR utilizes tech-
226 nology to present digital information or visual elements in a real-world context, improving user experience.
227 AR creates consumer experience and increases their engagement through immersive and direct inter-
228 actions. It enables consumers to view products in a more detailed and relevant context, thereby facili-
229 tating purchasing decisions. AR can provide a competitive advantage that is difficult for competitors to
230 imitate, and differentiation from competitors differentiates brands in a crowded market.
231 Augmented reality impacts customer conversion and retention by providing engaging and informative
232 experiences. By increasing consumer interaction and satisfaction, AR can increase long-term customer
233 loyalty and—cost efficiency in marketing strategies, thereby- reducing long-term promotional costs.
234 Although the initial investment in AR development may be high, its long-term use can reduce promo-
235 tional costs because of its effectiveness in attracting and retaining customers.

3. Method

239 This study employed a qualitative methodology with a case study approach to identify various aspects
240 and categories from interview data, which were subsequently organized into different use cases using
241 NVIVO 12. These use cases are detailed across several stages, specifically examining how the use of
242 Augmented Reality (AR) in the marketing of Riau Malay Batik can be challenging for competitors to rep-
243 licate (inimitable) and difficult to replace with other technologies (non-substitutable). This research adopts
244 a specific approach to explore how optimizing competitive advantages through augmented marketing
245 can effectively enhance the marketing performance of Malay Batiks in Riau, Indonesia.
246 This study focuses on small and medium enterprise entrepreneurs in the Riau Malay Batik business for
247 over three years in Riau Province, Indonesia. In-depth semi-structured interviews were conducted with
248 30 Riau Malay Batik industry participants in Riau Province. A total of 30 participants from 10 different
249 business groups within the Riau Malay Batik industry were selected as primary respondents. Respondents
250 included business owners and marketing managers in the industry. Semi-structured in-depth interviews
251 were conducted with 30 Riau Malay Batik industry players in Riau Province. Before we conducted the
252 interview, we complied with the code of ethics regulations by not forcing information to conduct this
253 interview activity. We ensured that they were willing to voluntarily carry out this interview activity. After
254 the informants expressed their willingness, we continued this in-depth interview activity with 30 partic-
255 ipants from 10 different business groups in the Riau Malay Batik industry selected as the main respon-
256 dents. Semi-structured in-depth interviews were conducted with 30 Riau Malay Batik industry players in
257 Riau Province. A total of 30 participants from 10 different business groups in the Riau Malay Batik indus-
258 try were selected as the primary respondents. Respondents included business owners and marketing
259 managers in the industry. We conducted these semi-structured, in-depth interviews with ten business
260 groups with 30 informants for 20–30 minutes each. During the interview process, we actively listened and

recorded, we carried out recording activities after obtaining approval from the informant. And occasionally, we confirmed and cross-checked answers that had doubtful meanings. For example, we re-question the understanding that Augmented Reality can create customer experience and engagement, which are still interpreted in reverse.

In a more applicable context, this study uses a data triangulation approach to combine various methods and data sources to strengthen the validity of the research findings. It is essential to ensure the reliability, validity, and accuracy of the findings and provide a more holistic picture of the complex reality of the research subject (Abraham & Sundaram, 2019). We use various data collection, such as in-depth interviews, direct observation, and document analysis, which are the most appropriate approaches to investigate the phenomenon under study.

Regulation of the Minister of Research, Technology, and Higher Education of the Republic of Indonesia No. 69 of 2016 concerning the Code of Ethics for Research and Development (Menteri & Teknologi, 2019):

Article 10 States that all research must adhere to ethical principles, including research with minimal risk. Consent from research subjects must be obtained, but the consent form can be adjusted to the level of risk of the research.

The guidelines state that low-risk social and humanities research can use simplified consent. This usually includes research that does not disclose sensitive information and does not endanger the welfare of participants. Researchers must still obtain consent from participants, at least verbally or through simplified consent.

This research falls into low-risk social and humanities research that can use simplified verbal consent because this research does not reveal sensitive information and does not endanger the welfare of participants. In this study, participants provided verbal informed consent because verbal consent was preferred in the participant's culture. Participants felt more comfortable and confident giving verbal consent after receiving a detailed explanation of the study. Verbal consent allowed them to ask questions and get clarification before giving consent. Detailed explanations of the study were given, and verbal consent was recorded with the consent of the participants. The verbal consent process was recorded using an audio recorder, and there were witnesses to ensure transparency of consent.

Participants' willingness to participate in this study was obtained without coercion, and their involvement was to provide opinions on improving marketing performance in the Malay Batik industry through optimizing competitive advantages by utilizing Augmented Reality marketing. Participants were fully informed about the purpose of the study and agreed to participate voluntarily.

We select samples and determine inclusion and exclusion criteria are crucial stages that influence the validity and generalizability of the research results. The following explains this process: The first step is to define the population or group that is the focus of the research. In this study, the population included business owners, marketing managers, and batik consumers. After selecting the sampling method, we developed the sampling frame. This involves creating a list of individuals or entities who might be research participants, such as a list of existing batik businesses in Riau, Indonesia. Selecting the actual sample from this research by determining the sample frame developed, the researcher selects the actual sample that will be invited or asked to participate in the research. Sampling can be performed randomly or by considering specific characteristics such as business size, length of operation, or geographic location.

3.1. Inclusion and exclusion criteria

Inclusion Criteria:

In determining these criteria we decide which part of the research sample is in accordance with the requirements. The requirements of inclusion criteria for research on batik marketing in Riau include the following:

a. Entrepreneurs or managers who have knowledge and experience in the batik industry for at least three years.
b. Individuals or businessman located in the Riau region of, Indonesia

Exclusion Criteria:

We were used to exclude individuals or entities from the research sample to ensure that the sample consisted of relevant subjects and provided valuable insights. Examples of exclusion criteria in Riau Malay batik marketing research in Indonesia include the following:

a. Batik business has been operating for less than three years.
b. Individuals or businesses not located in the Riau Region of, Indonesia
c. People who do not have relevant knowledge or experience in the batik industry.

Criteria Justification:

Researchers explained in detail in the research report why the inclusion and exclusion criteria were chosen. This is done based on relevance to the research objectives, the desire to obtain a representative sample, or to control variables that could influence the research results.

We can ensure that the selected sample is appropriate to the research objectives, maximize the relevance of the findings, and minimize the bias that may arise when interpreting research results. We utilized various data collection for this research such as individual and group interviews, data collection from multiple industries, and data triangulation. Direct interaction with business actors and consumers provided rich insights into their perceptions, attitudes, and preferences towards Malay Batik.

Justification the sample in this study was determined by purposive sampling; this refers to the consideration of the relevance and relevance of participants to the research objectives, namely exploring Augmented Reality (AR) technology in marketing to improve marketing performance by optimizing resources available in the batik MSME sector. Inclusion criteria include batik entrepreneurs who have been operating for at least three years and have experience using or considering technological innovation in product marketing. Exclusion criteria include entrepreneurs with no plans or interest in digital innovation because this study focuses on the response to AR. The number of samples was set at 30 batik entrepreneurs, with ten groups selected based on variations in business scale (micro, small, medium), geographic location, and business models based on the characteristics of each motif. The participants of this study were divided into two large groups, namely group A consisting of Riau Malay batik entrepreneurs who actively utilize marketing technology innovations and group B consisting of Riau Malay batik entrepreneurs who passively utilize marketing technology innovations.

Determining this number of samples is considered sufficient for qualitative methods because qualitative research focuses more on data depth and understanding than statistical representation (Creswell & David Creswell, 2018). This sample determination can explain the nuances of differences in marketing strategies in achieving their marketing performance by optimizing existing resources and the challenges faced at each business scale. The results of this study are more relevant to improving understanding of the adoption of AR technology in the batik industry, especially traditional batik and other similar traditional products.

The selection of this research sample is also based on the principle of data saturation in qualitative methods, meaning the point when information obtained from interviews or observations begins to show repetitive patterns and no longer produces new information (Creswell & David Creswell, 2018). The participants in this study were selected based on their active involvement in the Riau Malay batik industry and their openness to digital marketing technology innovation. However, as a limitation, we recognize that this sample size may limit the generalization of findings to MSMEs outside the sectors and regions studied.

VIVO 12 was used to analyze, and triangulation was used from various sources to verify the research findings. The interview data were transcribed to facilitate analysis and grouped into different use cases to demonstrate the uniqueness and success of AR utilization. We conducted in-depth semi-structured interviews with all participants. We used audio and video recordings that were subsequently transcribed into written text. After this step, we were concerned that the transcription process was crucial for the subsequent analysis of the interview content. Individual and group interviews were comprehensively analyzed to identify key themes, patterns, and emerging findings. The interview data were categorized into different use cases. We took these steps to ensure the validity and reliability of the data obtained

Figure 1. Word cloud.

then we got the results in information about Augmented Reality (AR) marketing that can optimize competitive advantage.

4. Results and discussion

4.1. Results

The application of Augmented Reality (AR) technology in the batik industry has brought about significant changes in marketing strategies to improve performance and achieve competitive advantage. In this context, this study examines how AR can be optimized to improve consumer experience, strengthen brand image, and promote the cultural value of batik. The Resource-Based View (RBV) focuses on how a company's unique resources and capabilities can be used to create sustainable added value through technological innovation.
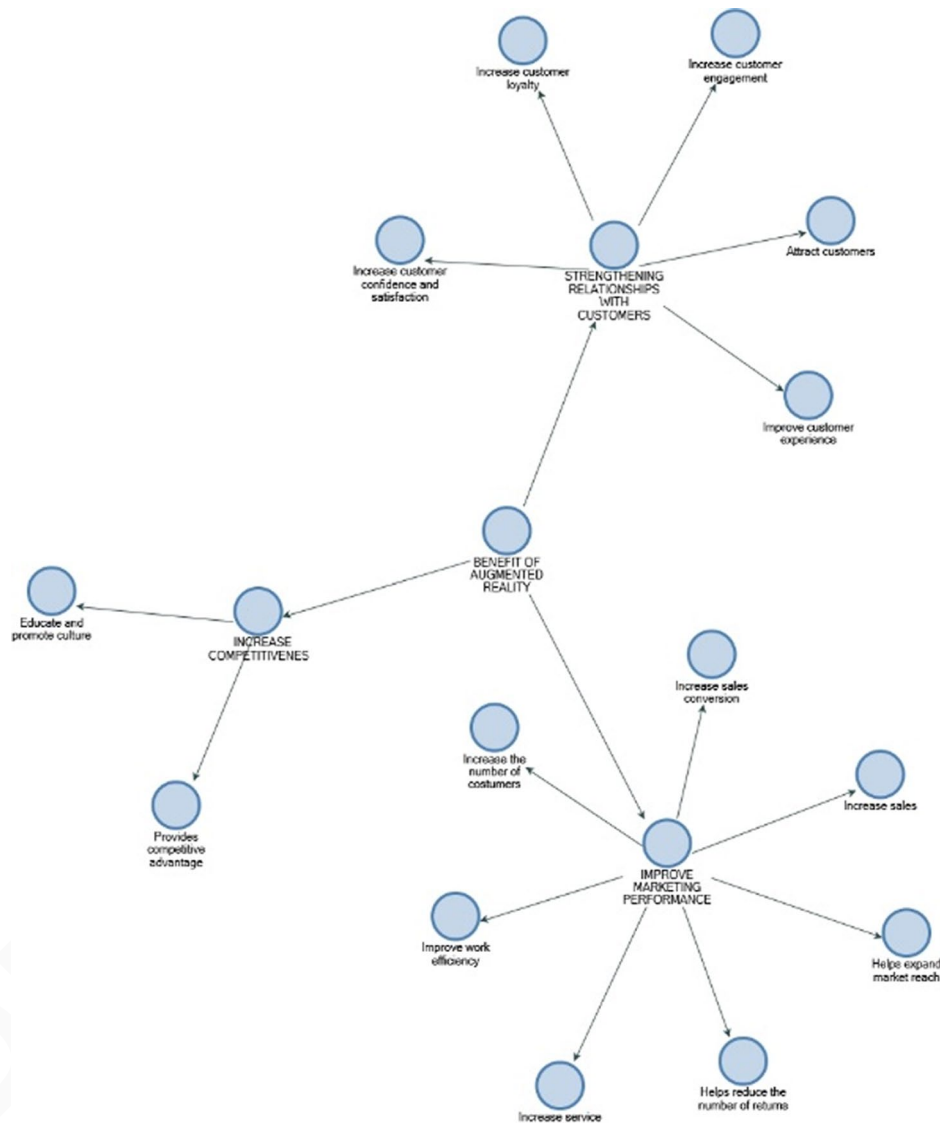
Based on Figure 1 word cloud and Table 1, translation word cloud, six words appeared most frequently in the marketing themes before using augmented reality. Of these six words, the customer was most frequently expressed by informants. This shows that customers are the informants' main focus when marketing batik products. Attracting customers is the main task that needs to be performed. Based on the word cloud, social media and exhibitions show the informants' ways of attracting customers to come and buy their products. However, these methods remain traditional. The word competition also shows that the informants are very concerned about competition in their batik industry.

Based on Diagram 1 and Table 2, three themes and 15 sub-themes were identified, as shown in the table above. These three themes show the three main benefits that informants feel when using

Table 1. Translation word cloud.

Word	English translation	Count	Weight percentage
Customer	Customers	12	7.89
Media	Media	8	5.26
Social	Social	8	5.26
Competition	Competitive	7	4.61
Digital Marketing	Digital Marketing	6	3.95
	Total	41	

Source: Data processing.

Diagram 1. Project map benefits of augmented reality marketing.

augmented reality. The 15 sub-themes represent the benefits derived from the main benefits of using augmented reality.

5. Improve marketing performance

5.1. Improve work efficiency

This theme describes informants' views on the benefits of augmented technology, which can increase work efficiency. According to the participant, augmented reality can increase work efficiency in two ways:

Table 2. Themes and sub-themes benefits of augmented reality.

Themes	Sub-themes
Improve marketing performance	Improve work efficiency
	Helps reduce the number of returns
	Increase sales
	Improving services
	Increase sales conversions
	Increase the number of customers
	Helps expand market reach
Increase competitiveness	Value provides a competitive advantage
	Educate and promote culture
Strengthening relationships with customers	Improve customer experience
	Increase customer loyalty
	Increase customer engagement
	Increase customer confidence and satisfaction
	Attract customers

Source: Data processing, NVIVO 12.

cost and time. One informant revealed that augmented reality could help reduce time and costs in creating prototypes: "*AR helps them in understanding new designs better and reduces the time and costs required to create prototypes* " (Mr. B). Another informant stated that the use of augmented reality is beneficial in the sales process: "Yes, the sales process becomes more efficient because customers can directly see the product virtually, reducing the time they spend considering a purchase." (Mrs. Sr)

5.2. Increase sales

One indicator of the success of implementing augmented reality expressed by informants is an increase in sales: "*We measure success through increased sales*." (Mr. Budi). "Our sales have also increased due to a more interesting and satisfying shopping experience." (Mrs. Ra) Another informant revealed that this increase in sales reached a significant level: "Yes, we saw a significant increase in sales after implementing AR." (Mr. B).

5.3. Improving services

According to the informant, augmented reality makes the services provided to customers more responsive: "*Additionally, AR also allows us to provide better and more responsive service, as we can quickly adapt and develop products based on customer feedback.*" (Mr. An). In addition, another informant revealed that augmented reality technology is used to increase personal touch in services that cannot be obtained using traditional methods: "We use this technology as a tool to enhance, not replace, the personal touch in our services." (Mrs. Ra).

5.4. Increase sales conversions

The use of augmented reality can reduce batik sales cycles. The products displayed virtually allow customers to decide to buy the products offered quickly. This certainly increases sales conversion: "*AR has shortened the sales cycle for our batik products by enabling customers to make purchasing decisions more quickly. With AR, customers can view and try products virtually before purchasing, reducing the time needed to consider and decide. This has increased our sales conversions and reduced the time it takes to close a sale.*" (Mr. R)

5.5. Helps reduce the number of returns

Customers can view products virtually using AR. Customers can try a product to determine its suitability. According to the informant, returns of goods are reduced: "*AR features also help reduce the number of returns because customers can see and try products virtually before buying*" (Mrs. L). Several informants revealed that reducing returns also indicates the success of implementing augmented reality: "We

measure success through…reducing the number of returns and complaints" (Mr. B). "We measure the success of AR implementation by several metrics, including….Reduced product return rates" (Mr. R).

5.6. Helps expand market reach

The use of augmented reality not only attracts customers from Indonesia but can also attract customers from outside Indonesia. The informant felt the broad market reach of augmented reality: "*AR is beneficial for expanding our market reach. We can reach customers worldwide by enabling them to see and try products. This has helped us enter international markets more effectively and expand our customer base beyond the physical locality of our stores.*" (Mrs. Nur).

Another informant revealed that the exciting thing about using augmented reality is that international customers can see and feel the products as if they were present in a physical store: "*AR allows international customers to see and experience our products as if they were in our physical stores, which is very helpful in reaching the global market*" (Mr. An).

5.7. Increase the number of customers

Another indicator of the successful use of augmented reality is the increase in customers: "*We measure success through….an increase in the number of new customers that come from word of mouth recommendations*". (Mr. Bu). Another informant revealed that the increase in the number of customers mainly came from millennial and Generation Z customers, "*with an increase in the number of customers from millennials and Generation Z, who are more interested in technology and innovative shopping experiences.*" (Mrs. Rn).

Another informant stated that the increase in the number of customers occurred not only among the millennial generation and Generation Z but also among customers with different age backgrounds: "*We are seeing a significant increase in the number of customers from the younger generation, especially those aged between 20 and 35 years. AR technology appeals to them because they are more familiar with the technology and look for a different shopping experience. However, customers of all ages have also started enjoying this feature after being given sufficient guidance and explanation*" (Mrs. Ra).

5.8. Increase competitiveness

5.8.1. Value provides a competitive advantage
One participant explained competitive advantage in detail: "*AR provides a competitive advantage by offering a unique and interactive shopping experience that is difficult to find in other batik stores. This differentiates us from competitors and attracts the attention of more customers. In terms of marketing performance, AR allows us to attract and retain customers more effectively. Data obtained from customer interactions with AR technology helps us understand their preferences and behavior so we can design more targeted marketing campaigns. In addition, this technological innovation strengthens our brand image as a modern and innovative business, further increasing our attractiveness to consumers.*" (Mrs. Ra). Based on participants' expressions, competitive advantage can be seen from several indicators, such as unique shopping experiences and technological innovation. Another informant expressed the modern and interactive side of the marketing concept using AR as an indicator of competitive advantage: "AR gives us a competitive advantage by providing a more modern and interactive shopping experience to our customers." (Mr. R).

5.8.2. Educate and promote culture
Education and the promotion of culture are two things that cannot be separated. For the informant, the use of augmented reality is not only aimed at improving marketing performance and attracting customers, but it also contains an educational element about cultural values as well as a means of cultural promotion: "*AR also makes it easier for us to educate customers about the cultural and historical values behind each batik motif… I believe AR will help increase sales and play an important role in preserving and promoting batik culture to the younger generation.*" " (Mr. Ra).

Another informant believes that AR will not eliminate the traditional touch of Batik but will instead maintain and strengthen its authentic qualities and cultural values; "*Through AR, we display batik designs visually and include educational information about the meaning and history behind each motif. We work closely with local batik craftsmen to ensure that every product we offer maintains its traditional quality and authenticity*" (Mrs. Ratna). "We ensure that AR does not remove the traditional touch of batik by reinforcing traditional cultural and aesthetic values in every product we offer." (Mrs. Nur).

5.9. Strengthening relationships with customers

5.9.1. Improve customer experience

Customer experience is one of the focuses of informants using augmented reality: "*AR impacts our marketing strategy by placing a greater focus on customer experience.*" (Mrs. Ratnawati). One informant said that one of the biggest benefits of using AR is improving the customer experience: "The biggest benefit of using AR is… improving the overall customer experience." (Mrs. Nur). Augmented reality gives customers new experiences they have never had before: "I see the huge potential of AR in providing new experiences to customers…in a way that has never been done before." (Mrs. Dw).

5.9.2. Increase customer loyalty

A more personalized experience is possible when augmented reality markets batik products. This personal experience will later cause customers to be more loyal in buying the products offered: "*AR allows us to provide a more engaged and personalized experience to our customers. With AR, customers can explore our batik products in a way they have never done before. This experience….strengthens their emotional bond with our brand. As a result, we saw increased customer retention and loyalty to our batik brand*". (Mr. R).

Apart from a more personalized experience, the interactive side of using augmented reality and product quality are also factors that support customers returning to shop for the products offered: "*Customers who are satisfied with our interactive experience and product quality are more likely to return to shop again.*" (Mrs. Rn)

5.9.3. Increase customer confidence and satisfaction

Confidence to buy is one of the essential things augmented reality uses in marketing. Customers must first be convinced that the product being sold is indeed different. The virtual sales model makes customers more confident in purchasing products: "*Customers are more confident and satisfied with their purchases because they can see product details virtually*" (Mrs. Dw). "They feel more comfortable and confident with their choice after trying batik virtually" (Mrs. Ln). "Customers are more interested and feel confident in buying after seeing the product virtually" (Mr. R)

Satisfaction is another variable after buyers feel confident about purchasing a product. Another informant revealed that satisfaction is one indicator of the success of using augmented reality: "We measure success through….the level of customer satisfaction…" (Mr. B)

5.9.4. Increase customer engagement

The informants revealed that virtual product marketing in augmented reality makes customers feel more involved in it: "Customers feel more involved and appreciated when they can try various batik motifs virtually" (Mrs. Rn). "They felt more connected and involved with our products, and the virtual exhibition helped them better understand the details and beauty of batik motifs" (Mrs. Dw). "We use AR as a key feature in our digital marketing campaigns. This attracts the attention of more people on social media and increases engagement with potential customers" (Mrs. Sr).

5.9.5. Attract customers

Interest is characterized by the customer's attention and interest in the product being sold. Most informants said that using augmented reality could attract customers attention to the products being sold:

Table 3. Comparison of research results between different groups.

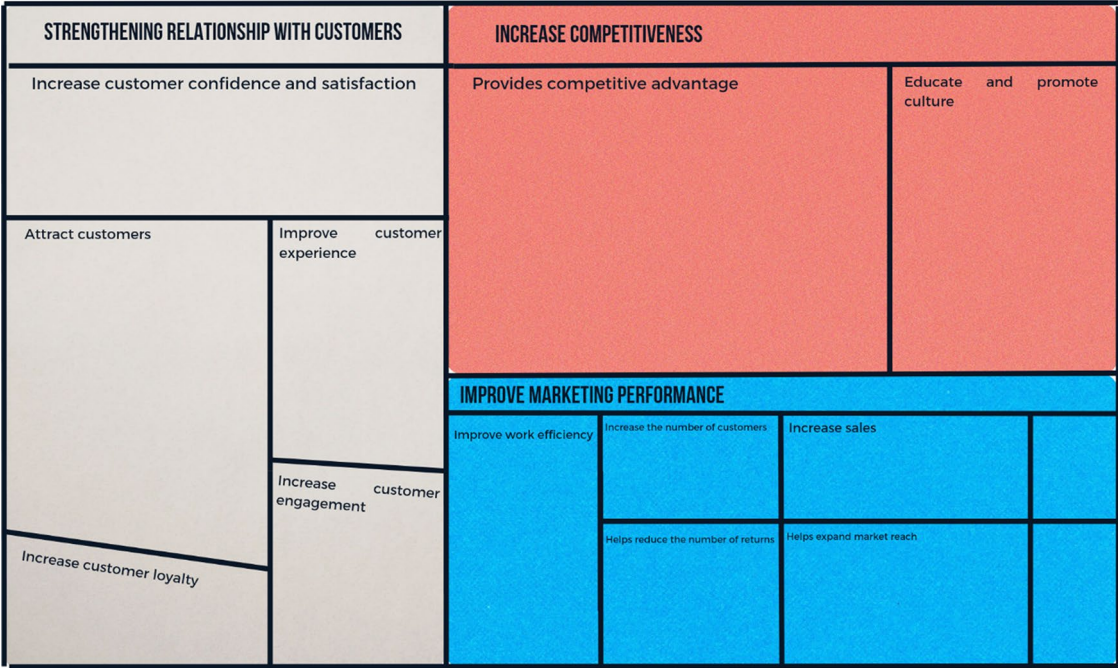| Aspect	Group A	Group B
Approach	Open and active in using marketing technology innovation	Passive and tend to use conventional marketing methods because of limited resources.
Perception of marketing technology innovation such as AR	Interest and ready to adopt	Less familiar
Competitive focus	Innovation and technology	Culture and product quality

Source: Research processing.

Diagram 2. Diagram hierarchy.

"*By showing how AR works, we can attract the attention of more customers and increase their interest in our products*" (Mr. An) . "We use AR as a key feature in our digital marketing campaigns. This attracts more people's attention on social media and increases engagement with potential customers" (Mrs. Sr). "We can attract the attention of more customers by offering innovative AR features, which not all of our competitors may have" (Mr. R).

The participants of this study were divided into two main groups: group A, consisting of Riau Malay batik entrepreneurs who actively use marketing technology innovation, and Group B, consisting of Riau Malay batik entrepreneurs who passively use marketing technology innovation based on Table 3.

The results of the interviews in this study in group A stated that using digital marketing technology such as AR provides benefits to improve their marketing performance by optimizing competitive advantages. They can strengthen customer relationships by providing an exciting and different experience, a closer relationship with customers, and attracting new customers. Although Group B has used digital marketing technology, it tends to be passive and less familiar due to the limited human resources who are experts in operating digital marketing technology such as AR. They still use conventional marketing methods by focusing on the strength of their strong products with cultural value.

The analysis shows that Group A tends to be more active and open to using digital marketing technology innovation approaches. At the same time, Group B is more passive in adopting technologies such as Augmented Reality (AR). The results indicate differences in how the two groups respond to new technologies. The technology impacts their competitive strategies in improving marketing performance by optimizing competitive advantages. This comparison gives benefits to strengthen the finding that technology adoption in marketing has significant variations depending on industry players' backgrounds and business orientations.

Furthermore, if you look at the hierarchy chart displayed based on Diagram 2, informants tend to reveal that the benefits of augmented reality are more significant in strengthening customer relationships.

For informants, the use of augmented reality in batik marketing first aims to strengthen their relationships with customers, after that increase competitiveness, and then improve marketing performance.

6. Discussion

This research's findings revolve around three main themes: improving marketing performance, increasing competitiveness, and strengthening customer relationships. Augmented reality can increase work efficiency in two ways, namely cost and time. Augmented reality can increase operational efficiency by reducing the time required to design, modify, and test prototypes (Vilkina & Klimovets, 2020; Walentek & Ziora, 2023). Digital models can be created and changed quickly without the need for actual physical materials at an early stage, meaning companies can reduce the use of raw materials and the time required for development. This aligns with the concept of reducing production costs and increasing productivity. Augmented reality is used to increase the personal touch in service that cannot be obtained using traditional methods so that consumers feel appreciated and strengthen relationships with consumers.

This study introduces a pioneering approach to Resource-Based View (RBV) and the utilization of Augmented Reality (AR) technology in traditional creative industries like Riau Malay Batik. We have managed to uncover significant gaps in existing theory and present a unique perspective. In previous studies, RBV has been predominantly applied to large companies with advanced technology. However, this study successfully answers the clear need for how the industry must adapt to the changing modern digital business environment and apply it to the traditional local creative industry. The success of this study exploring how Augmented Reality can be effectively applied to the traditional local creative industry in the micro, small, and medium sectors is a novelty from the results of this study that has not been previously found. Utilizing the unique resources of these companies, such as the cultural value of batik products, with AR technology, can improve marketing performance and competitiveness.

This study also fills the gap in previous research by combining competitive advantage with customer relations because previous studies separate the relationship between competitive advantage and customer relations. Augmented reality in this study emphasizes that in addition to improving marketing performance through optimizing the company's competitive advantage, it can also strengthen customer relationships, which is a new approach to understanding RBV. This means that AR technology in this study provides unique added value that differs from competitors' and strengthens deeper interactions between batik products and customers. The vital contribution of this study enriches the understanding of RBV deeper with a new approach that optimizes intangible assets such as customer relationships for optimization of competitiveness and marketing performance. Customer relationships are intangible assets in this study that are optimized to improve competitive ability and then influence the improvement of marketing performance of the Riau Melayu batik industry. This shows that customer relationships are transactional and can provide valuable added value as intangible assets. They can create different and in-depth customer shopping experiences and increase customer engagement and loyalty. So this is useful as a strategic step to strengthen the competitive position of the Riau Melayu batik industry in market competition and support improved marketing performance.

This study makes a significant contribution by deepening the Resource-Based View (RBV) understanding through a new perspective that focuses on optimizing intangible resources, especially customer relationships. This new perspective of Resource-Based View (RBV) focuses on improving the understanding of optimizing intangible resources by integrating AR technology in creating customer relationships through solid customer experience and engagement. The integration that occurs is more meaningful because the interaction that occurs can increase customer engagement and customer loyalty affects the marketing performance of Riau Malay Batik. In this research, augmented reality (AR) in the batik business is connected to the RBV theory. AR technology is a unique resource that is difficult for competitors to imitate. By providing a virtual try-on feature, batik companies can offer consumers a different and more exciting shopping experience. Product visualization technology in AR allows consumers to see the details

of batik motifs and textures. By providing a more engaging shopping experience and reducing the number of returns, companies can increase efficiency and customer satisfaction, ultimately strengthening competitive advantages that positively impact sales (Sung, 2021; Tan et al., 2022; Wieland et al., 2024). The use of Augmented Reality (AR) in the batik business can bring significant changes in the way batik is promoted, sold, and appreciated by consumers.

This research shows that customer experience is critical to building competitive advantage. AR allows customers to try products virtually, seeing how they look or function in real life, improving purchasing decisions and customer loyalty. Virtual Try-On allows consumers to try various batik motifs and designs virtually before buying in the AR application. They can see how batik will look when worn without having to try it on physically. This study's findings align with research (Porter, 1985, 1990) that competitive advantage identifies two main types of strategies to achieve competitive advantage: differentiation and cost leadership. However, previous research does not support the current modern situation where technological innovation is essential in improving marketing performance by optimizing competitive advantages with the uniqueness of its intangible resources. In the AR context, differentiation strategies are very relevant. AR can make the shopping experience more engaging and personalize customer interactions with products, which is difficult for competitors to imitate. Our research results found that the benefits of using AR are that consumers get a more exciting shopping experience because they can see their appearance in the batik of their choice, increasing the possibility of purchasing.

Product visualization in AR technology can provide detailed visualization of batik motifs and textures. Consumers can see fine details and fabric quality better through AR displays. So, product details appear more straightforward because consumers can appreciate the quality and uniqueness of batik motifs. Then it generates consumer trust because they can see the product in more detail, thereby increasing consumer confidence in the quality of the product; this can strengthen relationships with consumers, which has an impact on increasing sales (Tan et al., 2022; Voicu et al., 2023). The benefits of AR in the batik business are also education and product stories; batik producers can provide additional information about each batik motif. Consumers can scan batik cloth or product labels to get a story about the origin of the motif, the manufacturing process, and its cultural meaning. Increasing cultural values is another benefit of using AR in the batik business because consumers can understand and appreciate the cultural and historical values behind each batik motif. Furthermore, product differentiation is also available through in-depth information about the product to differentiate batik from other manufacturers.

Competitive advantage is obtained from resources and capabilities that are unique and difficult for competitors to imitate (Porter, 1985, 1990; Barney, 2007; Wernerfelt, 2013; Vilkina, 2020; Gabajová et al., 2021; Karuppiah et al., 2023). AR can be considered a valuable resource due to its ability to create unmatched experiences and modernize marketing concepts. A company's capability to implement and utilize AR effectively is critical to creating a competitive advantage. Interactive Catalog in AR will provide a unique experience for consumers. Consumers use interactive catalogs equipped with AR technology to scan images or catalog pages to see 3D versions of batik products. More interesting interactions: Interactive catalogs make choosing products more exciting and informative (Scholz & Smith, 2016; Gallardo et al., 2018; Du et al., 2022). Consumers can easily choose a product because they can see the product from various angles and get additional information quickly. They apply AR in promotional and branding campaigns, such as AR filters on social media that allow users to try on batik motifs virtually or participate in contests using batik-themed AR filters.

Increasing engagement with AR-based promotional campaigns can attract the attention of more consumers, especially the younger generation who are active on social media. Attractive promotions can help expand market reach and increase brand awareness. They use AR in physical stores to provide a more interactive shopping experience. Consumers can scan products in stores for additional information, usage tutorials, or related product recommendations. It is an interesting shopping experience; consumers get additional information and relevant recommendations when shopping at the store. More complete and interactive information can increase customer satisfaction. This research also emphasizes that AR in the batik business can provide a more exciting and informative experience for consumers, increase sales, and help strengthen the cultural value and quality of batik. This is as stated (Darma et al., 2019): Exploring competitive advantage by optimizing local resources, including by utilizing AR technology, not only

helps in marketing and sales but also in education and preserving batik cultural heritage. With the right adoption, AR can be a very effective tool in developing the batik business in this digital era.

The educational aspect and product story become a unique resource that provides additional information about batik motifs presented through AR, helping educate consumers about the cultural and historical values behind each motif. This enriches the customer experience and differentiates batik products from others, strengthening the company's position in the market. Likewise, interactive catalogs that use AR technology provide a unique and exciting way for consumers to interact with products. This experience can increase consumer interest and engagement, make it easier for them to choose products, and increase the likelihood of purchase.

The findings of this research indicate that the use of AR in batik marketing becomes a competitive advantage due to the unique combination of resources, such as technology, skills, and knowledge about batik culture. In-depth knowledge of batik motifs and their stories is a unique resource for batik companies for education and cultural promotion media. By using AR to educate consumers about batik culture, companies can increase consumer appreciation and loyalty, strengthening profitable long-term relationships (Gallardo et al., 2018; Gabajová et al., 2021; Kowalczuk et al., 2021; Du et al., 2022). Relationships with customers are getting stronger because using AR to enhance customer experiences shows the company's ability to utilize advanced technology to meet consumer needs. Positive and interactive experiences can increase customer satisfaction and loyalty, which is a valuable asset for the company. Loyalty programs powered by AR technology can offer a more personalized and engaging experience. High customer loyalty helps companies maintain a stable customer base and increases lifetime value. AR enables more active consumer interactions through social media campaigns or physical stores. High levels of engagement can create closer relationships between brands and consumers, encourage brand advocacy, and increase brand awareness.

The ability to provide more detailed and interactive information about products through AR increases transparency and consumer trust. High consumer trust contributes to customer satisfaction and reduces the risk of product returns. Creative marketing campaigns using AR can attract the attention of new consumers in innovative ways. Companies can increase market share and ensure continued growth by continuing to attract new customers and retain existing ones. By integrating AR into marketing strategies, batik companies can leverage their unique resources and capabilities to create sustainable competitive advantages. The use of AR not only helps promote and sell batik products but also increases the cultural value and quality of batik in the eyes of consumers. This approach is in line with RBV theory, which emphasizes the importance of managing unique resources and capabilities to achieve competitive advantage and improve marketing performance. This discussion illustrates how various themes and sub-themes in improving marketing performance, increasing competitiveness, and strengthening customer relationships can be implemented based on relevant marketing and management theories.

7. Conclusion, contribution, implications, limitations, and future research

7.1. Conclusion

The study's conclusions from the research findings revolve around three main themes: improving marketing performance, increasing competitiveness, and strengthening customer relationships. This study unveils a relationship between the Resource-Based View (RBV) theory and the application of Augmented Reality (AR) technology in marketing Riau Malay batik. What sets this study apart is its unique approach of integrating two concepts that were previously rarely studied together, namely RBV and AR technology, especially in the context of traditional creative industries such as batik. RBV, in this study, proves that a company's unique resources, such as the ability to implement innovative technologies like AR. In this study, RBV is strength to show that a company's unique resources, such as the ability to adopt innovative technologies such as AR, can act as a key driver in creating sustainable competitive advantage. The use of AR not only strengthens interactions and enhances customer experiences, but also deepens emotional connections that support customer loyalty and attract new customers. This shows that AR functions as an intangible strategic asset and, in the context of RBV, is difficult for competitors to imitate, thereby strengthening the company's competitive position in the market. This finding provides new insights that

844 technological innovation, such as AR, is not only a marketing tool but also an integral part of strategic
845 resources that can change competition dynamics in traditional creative industries. Practically, the results
846 of this study provide recommendations for Riau Malay batik industry players to adopt AR technology as
847 an effective marketing strategy. Thus, companies can improve marketing performance and strengthen
848 relationships with customers, which ultimately supports business growth and sustainability.

849 AR (Augmented Reality) is a powerful technology in modern marketing that can significantly improve
850 various aspects discussed in this research. The findings of this study revolve around three main themes:
851 improving marketing performance, improving competitiveness, and strengthening customer relation-
852 ships. The results show that AR in this study provides unique added value that is different from compet-
853 itors and strengthens deeper interactions between Riau Malay Batik products and customers. AR in
854 marketing provides various advantages, including increasing marketing performance efficiency, reducing
855 returns, increasing sales, increasing competitive advantage, and strengthening relationships with custom-
856 ers. While AR adoption has challenges, such as high initial costs and the need for consumer education,
857 the benefits can be enormous in the long run. This research concludes that improving marketing perfor-
858 mance, increasing competitiveness, and strengthening customer relationships are three main themes that
859 are very important in modern business strategy. Using various marketing and management theories, we
860 can understand how related subthemes interact and contribute to overall business success.

861 Increasing work efficiency, reducing the number of returns, increasing sales, providing better service,
862 increasing sales conversion, increasing the number of customers, and increasing market expansion can be
863 achieved through a structured strategy based on existing theory. In addition, competitive advantage, edu-
864 cation, and cultural promotion, as well as improving customer experience, loyalty, engagement, trust, and
865 customer satisfaction, also play an essential role in building profitable long-term customer relationships.

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7.2. Contribution

869 This research provides a theoretical contribution by connecting the Resource-Based View (RBV) theory with
870 implementing Augmented Reality (AR) technology in Riau Malay Batik marketing. This develops our under-
871 standing of how a company's unique resources and capabilities can be used to create long-term competi-
872 tive advantage through innovative technologies. Augmented Reality in this study shows a strong relationship
873 with customers, improving customer experience and engagement, increasing customer satisfaction and
874 loyalty, and attracting new customers. Customer relationships are not just transactional interactions but
875 also valuable added value, creating unique customer experiences and can even attract new customers as
876 intangible assets, so this contributes strategically to strengthening the competitive position of the Riau
877 Malay batik industry in the market competition and supporting improved marketing performance.

878 The following contribution emphasizes that modern AR technology in the digital era can enrich the
879 customer experience for large companies and creative micro, small, and medium enterprises of traditional
880 Riau Malay batik. This integration is essential in more meaningful interactions to increase customer engage-
881 ment and loyalty. So, strong customer relationships from AR innovations used in this study contribute to
882 better marketing performance. AR, the Riau Malay batik business, representing the micro, small, and
883 medium industries, can implement an experience-based marketing strategy that strengthens customer rela-
884 tionships. Customers invest in the experience offered so that they are happy to recommend it to others.

885 Overall, this study provides significant theoretical contributions by connecting RBV and AR in the
886 context of batik marketing and offering practical implications that can help traditional creative industries
887 be more competitive in the digital era. The novelty of this study lies in the holistic approach that paving
888 the way for further research that can explore the integration of other technologies in resource-based
889 business strategies because combines the company's unique resources with innovative technologies.

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7.3. Implication

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893 The implications of this theory show that the company's unique value capability as the company's added
894 value is not only tangible assets or technical skills but also includes the company's ability to adopt and
895 implement new technological innovations, such as Augmented Reality (AR). By adopting AR technology,
896 using the company's unique resources is increasingly optimal to increase competitiveness while building
closer customer relationships so that marketing performance increases.

Managerial implications for batik companies and other industries interested in adopting AR technology. The practical contribution of this research offers practical guidance for MSMEs in traditional creative industries, such as Riau Malay Batik, on optimizing local culture's unique value by using modern AR technology in modern digital marketing to optimize competitiveness and customer relations. The practical contribution and implication of this study offer practical guidance for MSMEs in traditional creative industries, such as Riau Malay Batik, on optimizing the unique value of local culture by using modern AR technology in modern digital marketing to maximize competitiveness and customer relationships.

7.4. Limitation

Limitations of this research are based on research findings based on marketing and management theories that may only be fully applicable to some industries or markets. The specific context of a particular industry or market may influence the relevance and effectiveness of a proposed strategy. Applying various strategies and theories in business practice can be complex and require significant resources. Not all companies have the capabilities or resources necessary to implement these changes. Rapid changes in market trends, technology, and consumer behavior can affect the theories' relevance. This research may only partially capture the latest dynamics of the market.

7.5. Future research

Further research could focus on applying these strategies in specific industries to understand how industry context influences the effectiveness of various theories and strategies. It is also essential to explore how the latest technological developments, such as artificial intelligence and big data analytics, can be used to improve marketing performance and customer relationships. Longitudinal studies that monitor the implementation of these strategies over a more extended period could provide deeper insight into the long-term impacts and sustainability of the proposed strategies. Additional research can be conducted to understand changes in consumer behavior influenced by evolving social and economic factors and how marketing strategies can be adapted to these changes.

Disclosure statement

Author contributions

AM, LMA, and SY carried out the research, wrote and revised the article. AM, AM and LMA conceptualized the central research idea and provided the theoretical framework. AM, LMA and SY designed the research, supervised research progress. AM and LMA anchored the review. AM and SY revisions and approved the article submission. All authors have approved the final manuscript.

Funding

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Data availability statement

This study did not involve any data collection, and the articles collected were sourced from https://www.scopus.com/home.uri, accessed in 2024, and https://scholar.google.com/, accessed in 2024. However, due to privacy and ethical constraints, the data used in this study are not publicly available. Still, they can be requested from the corresponding author under certain reasonable conditions and are not sensitive in nature, violating ethics and privacy.

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