

# Marketing Strategy of Red Brick Manufacturers in Facing Great Competition from Alternative Products: Resource-Based View (RBV) Approach

Abdul Razak Noval, Muhammad Adam, Syafruddin Chan

Master of Management Program, Faculty of Economics and Business, Syiah Kuala University

DOI: <https://doi.org/10.51584/IJRIAS.2023.81220>

Received: 05 December 2023; Revised: 09 December 2023; Accepted: 25 December 2023; Published: 16 January 2024

## ABSTRACT

This research investigates the challenges faced by the red brick industry, with a focus on competition from alternatives such as Hebel. Using the Resource-Based View (RBV) approach, this analysis analyzes marketing strategy, the impact of internal resources, and responses to market demand. This research aims to examine the competitive advantage of each brick factory that is the respondent in this research, identify competitive advantages and the influence of internal resources, and provide marketing strategy recommendations. The research approach used is qualitative, with a purposive sampling technique. Data collection methods used Focus Group Discussions and In-depth Interviews. Data analysis using SWOT and RBV-VRIO. The results of the SWOT analysis related to the M. Yunus brick company require internal improvements. Meanwhile, Tajir Assawani must overcome external challenges and utilize internal strengths. Zulfadhli has an advantageous position so it requires an aggressive strategy with product innovation. The results of the RBV and VRIO analysis of the brick companies M. Yunus and Tajir Assawani, these two companies have a temporary competitive advantage with a focus on creating the inimitability component. Meanwhile, Zulfadhli has an unused competitive advantage, with a focus on improving organizational aspects for factors VR and I in VRIO

**Keywords:** SWOT Analysis, Resource-Based View, VRIO, and Competitive Advantage

## INTRODUCTION

The construction industry is the backbone of economic sectors throughout the world, and within it, the brick industry occupies an irreplaceable central role. Red brick, as a classic construction material, is not only considered a building element but also has a significant impact on shaping the surrounding environment. Although simple in appearance, red brick plays an important role in the construction of homes, commercial buildings, and overall industrial sustainability (Aliabdo, AA, Abd-Elmoaty, AEM, & Hassan, HH (2014).

The history of red brick spans thousands of years, from its use in the construction of the Egyptian pyramids to its application in the magnificent palaces of Europe. Currently, the brick industry includes businesses with production and sales reaching billions of bricks every year. However, along with this development, the red brick industry is facing real challenges, such as ecological changes and global competition, especially from alternative products such as Hebel (Kavyaa, S. 2019). The main problems faced by the red brick industry are the main focus of this research. This is reinforced by respondents' statements on preliminary research when asked "What factors influence your choice between traditional Redbrick and alternative materials such as Hebel for construction projects?" Then the answer is "Hebel is lighter and easier to install

than Redbrick, which can save time and labor costs during construction”

How can red brick manufacturers overcome fierce competition from alternative products such as Hebel? (Srivastava, R.K., Fahey, L., & Christensen, H.K. 2001). These questions lead to an exploration of marketing strategies, the impact of internal resources, and responses to changes in market demands (Kavyaa, S. 2019).

The main objective of the research is to understand in depth the marketing strategies implemented by red brick producers in facing intense competition from Hebel, using the Resource-Based View (RBV) approach. Thus, this research aims to identify competitive advantages, analyze the marketing strategies used, measure the influence of internal resources, provide marketing strategy recommendations, and evaluate the impact of changes in market demands.

This research makes an important contribution to our understanding of how RBV can be applied to address complex challenges in the construction industry. The results are expected to help red brick producers develop more effective marketing strategies, understand their competitive advantages, and adapt to changes in dynamic market demands (Barney, JB 1991). Thus, this research not only provides rich insights regarding the red brick industry, but also has a positive impact in helping this industry to understand and overcome the complex challenges it faces (Benzaghta, MA, Elwalda, A., Mousa, MM, Erkan, I., & Rahman, M. (2021).

## LITERATURE REVIEW

### 2.1. A Glance at the Brick Industry

The brick industry has deep roots in the history of human civilization, playing a crucial role in cultures from Ancient Egypt to Babylonia Aliabdo, AA, Abd-Elmoaty, AEM, & Hassan, HH (2014). Originally made from clay, red brick has gone through significant development, from firing methods to the Industrial Revolution of the 18th and 19th centuries. This development enabled the mass production of red bricks to support the construction of industrial and residential buildings.

Technology continues to play an important role in red brick production, changing the raw materials used to become more varied, including concrete and ceramics. Despite facing competition from modern construction materials, the use of red brick remains relevant and has evolved. However, environmental challenges related to combustion have become the focus of innovation to create more efficient and environmentally friendly production. Islam, K.; Motoshita, M.; Murakami, S (2023).

- **Market Size and Growth Trends**

The brick industry has a large global market size, indicating consistent and high demand from various construction markets across the world. On a global scale, red brick remains the main choice for various construction projects, including housing, commercial buildings, and infrastructure (Bastian, A., & Shallyana, H. (2021, December). A close relationship between the market size of the brick industry and construction reflects the dependence of the growth of the red brick industry on the growth of construction in various countries. Economic conditions and design trends can influence the demand for red brick, indicating the flexibility and sustainability of this material (Srivastava, R.K., Fahey, L., & Christensen, HK (2001).

The growth trend of the brick industry is influenced by factors such as global economic conditions, developments in construction technology, and changes in market needs. Growth in the construction industry is the main driver of demand for red bricks, while innovations in design can influence market preferences. In the era of sustainability, energy and material efficiency are the focus. Red brick, with its durability and low maintenance, is a suitable choice. However, alternative products such as Hebel which are considered more

environmentally friendly create challenges and encourage brick manufacturers to innovate (Barney, JB (1991). Alternative products such as Hebel, with the advantages of energy efficiency and lower environmental impact, introduce new dynamics in industrial competition construction. This competition spurs red brick producers to innovate, respond to market preferences, and consider sustainability elements in their production (Kavyaa, S. 2019; Krismariyanto, D., Witjaksana, B., & Tjendani, HT 2022)

### An Introduction to Hebel and His Competing Successors

According to Krismariyanto, D., Witjaksana, B., & Tjendani, HT 2022) Hebel, as an alternative product in the construction industry, has created significant competition with conventional red bricks. Some of the characteristics and advantages of Hebel include light material composition, high strength, efficient thermal insulation, energy efficiency, ease of processing, fire resistance, and lower environmental impact. Competitive prices are also one of Hebel’s advantages. This product has the potential to become a strong competitor because of its quality as an environmentally friendly and efficient alternative (Kavyaa, S. (2019; Tintara, IDGW, & Respati, NN (2020).

### SWOT Analysis

SWOT analysis (Strengths, Weaknesses, Opportunities, Threats) is a strategic planning method used to evaluate strengths, weaknesses, opportunities, and threats related to a project or business situation. This analysis helps organizations or individuals to understand internal and external factors that can influence the success or failure of an initiative Benzaghta, MA, Elwalda, A., Mousa, MM, Erkan, I., & Rahman, M. (2021).

Strengths: are positive internal factors that provide advantages or advantages compared to others. This could include strong resources, special skills, or valuable assets. Weaknesses: are internal factors that can become obstacles or limitations. This includes areas where the organization or individual may lack competence or have weaknesses. Opportunities: External factors that can be utilized to achieve goals. Opportunities can come in the form of market trends, regulatory changes, or technological developments. Meanwhile, threats are external factors that can hinder or threaten success. Threats can come from competition, market changes, or environmental factors.

SWOT analysis assists in strategic decision-making by enabling organizations to identify critical areas of concern and exploit existing opportunities, while addressing or mitigating challenges that may be faced Ferreira, E.P., Gruber, C., Merino, EAD, Merino, GSAD, & Vergara, L.G.L. (2019).



Figure 1. RBV-VRIO analysis

Resource-Based View (RBV) and VRIO (Value, Rarity, Inimitability, Organization) are two strategic concepts that are often used in strategic management to analyze the company's potential resources and capabilities (Rahmatullah, F., Wijyantini, B., & Wibowo, YG (2023). RBV, in essence, emphasizes that a company's internal resources can be the basis of a sustainable competitive advantage. In principle, RBV seeks to identify and manage resources that contribute to competitive advantage. This involves an in-depth analysis of the resources and capabilities of companies to determine whether they can create a competitive advantage that can be maintained (Madhani, PM (2010). On the other hand, VRIO is a framework used in RBV to evaluate four key characteristics of a resource or capability: Value, Rarity, Inimitability, and Organization This approach helps assess the extent to which a resource or capability can provide a competitive advantage. By assessing added value, rarity, replicability, and organizational capabilities, VRIO helps identify the true strength of the resource (Murcia, NN, Ferreira, FA, & Ferreira, JJ (2022).

Thus, RBV provides a general approach to internal resource analysis, while VRIO provides a more specific and focused framework for evaluating the potential competitive advantage of resources and capabilities. By combining the two, companies can better understand and exploit the potential competitive advantages that may be contained in company resources (Murcia, NN, Ferreira, FA, & Ferreira, JJ (2022).

## 2.5. Previous research

References to previous research on similar topics provide the theoretical basis and necessary understanding. Research conducted by Murcia, NN, Ferreira, FA, & Ferreira, JJ (2022), states that it discusses the role of VRIO in assessing a company's competitiveness. Strategic management, popularized since the 1960s, has become an important tool for understanding success factors in organizational environments. However, questions remain, especially regarding the analysis of quantitative and qualitative decision criteria. This research aims to improve strategic management by creating a measurable VRIO framework using multi-criteria decision analysis (MCDA). The proposed model, combined with the Choquet integral, is applied in a real-life scenario, demonstrating an innovative business improvement process. This study discusses the perceived benefits and limitations of this integrated methodology.

Although there is criticism of the RBV-VRIO approach as stated by Sanchez, R. (2008). The author criticizes the Resource-Based View (RBV) theory popularized by Barney in two parts. In Part I, the critique is based on the principles of the philosophy of science and scientific method. Seven conceptual deficiencies and logic problems were identified, including problems with Barney's conceptualization of "strategically valuable resources" and the VRIO framework. Problems such as the Value Puzzle, the Tautology Problem, and the Absence of a Causality Chain highlight weaknesses in identifying strategically valuable resources. The Uniqueness Dilemma, Cognitive Impossibility Dilemma, and Asymmetry in Assumptions about Resource Factor Markets demonstrate the inability of the VRIO framework to support sustainable competitive advantage. The core proposition of Resource-based Reviews has been criticized for giving rise to the Problem of Epistemological Impossibility, which limits the use of scientific methods in Resource-based Review research. The overall argument is that these shortcomings render the RBV theoretically barren and incapable of contributing systematically to the development of strategy theory. For this reason, he proposed a concept from a competency perspective regarding strategy to be an important solution to overcome the weaknesses identified in the RBV. The competency perspective is presented as a more conceptually adequate basis for representing the nature of firms in scientific studies of their interactions and competitive outcomes.

Meanwhile, Rahmatullah, F., Wijyantini, B., & Wibowo, YG (2023) use the RBV-VRIO concept to determine a company's competitive advantage through the Resource-Based View (RBV) theory approach with a focus on understanding resource potential and capabilities. The VRIO analysis method is used to assess the four important attributes of resources and capabilities, namely Valuable, Rare, Inimitable, and Organized. The results of research at UD. Tiga Putra shows that this company has 10 resources and capabilities at the Sustainable Competitive Advantage level, 1 resource at the Competitive Disadvantage

level, 1 at the Competitive Parity level, and 6 at the Temporary Competitive Advantage level. Competitive advantage can be gained and maintained through a unique combination of resources and capabilities. The recommendation for companies is to maintain excellence at the Sustainable Competitive Advantage level and focus on resources at the Competitive Parity, Temporary Competitive, and Unused Competitive Advantage levels to develop into a Sustainable Competitive Advantage.

## RESEARCH METHODOLOGY

### Research Design

Research Design In this thesis, a qualitative approach is used to understand the marketing strategies of red brick manufacturers in facing competition, especially with alternative products such as Hebel. This approach was chosen because it is exploratory, suitable for the complex context of the construction industry, allows for qualitative data collection, and supports in-depth interpretation (Fossey, E., Harvey, C., McDermott, F., & Davidson, L. 2002).

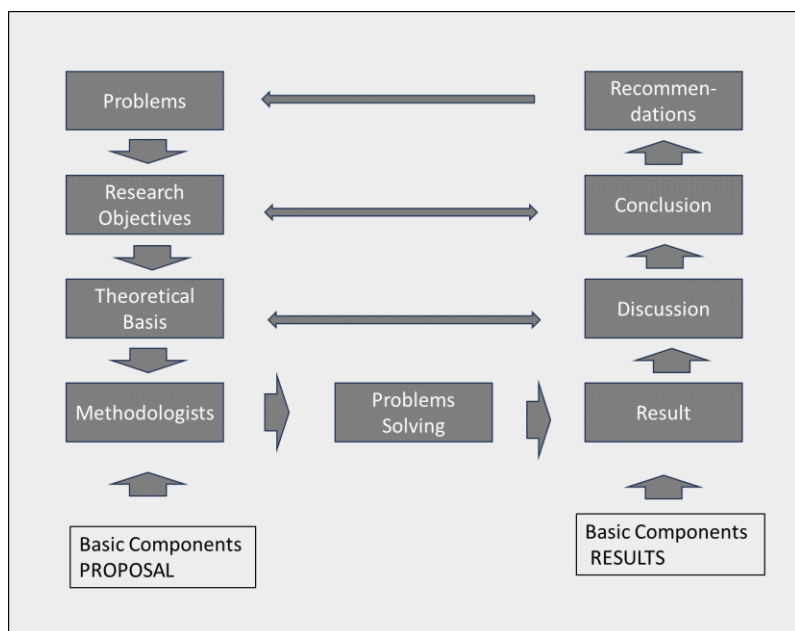


Figure 2. Qualitative Research Design.

Data Collection The sampling method used was purposive sampling, with criteria based on company size, experience, and success in facing Hebel competition. In-depth interviews will involve red brick manufacturers, marketing managers, and other stakeholders. The interview development process takes into account guidelines, identification of themes and variables, scheduling, cross-checking, validation, and ethical considerations (Fossey, E., Harvey, C., McDermott, F., & Davidson, L. 2002).

### Data Analysis

Data Analysis Qualitative data analysis uses the thematic analysis method. The stages include interview transcription, understanding the data, coding, identifying themes, developing an analytical framework, in-depth analysis, in-depth understanding, and verification.

### SWOT

Through SWOT analysis (Strengths, Weaknesses, Opportunities, Threats), manufacturers can identify strengths, weaknesses, opportunities, and threats that influence the company's success. Strengths such as product quality, production capacity, and brand image must be strengthened, while weaknesses such as



production costs and dependence on raw materials must be overcome. Opportunities such as construction growth and sustainability must be exploited, while threats from alternative product competition must be faced (Helms, MM, & Nixon, J. 2010).



Figure 3. Four SWOT Quadrants

**RBV-VRIO**

V	R	I	O	
VALUABLE	RARE	INIMITABLE	ORGANIZED	
NO				COMPETITIVE DISADVANTAGE
YES	NO			COMPETITIVE PARITY
YES	YES	NO		TEMPORARY COMPETITIVE ADVANTAGE
YES	YES	YES	NO	UNUSED COMPETITIVE ADVANTAGE
YES	YES	YES	YES	SUSTAINABLE COMPETITIVE ADVANTAGE

Figure 4. VRIO

Resource-Based View (RBV) and VRIO (Value, Rarity, Inimitability, Organization) are two strategic frameworks that are often used in strategic management to analyze the resources and capabilities of a company (Ngowi, AB 2001).

The main concept of RBV is to focus on the idea that a company’s internal resources can be a source of sustainable competitive advantage. The goal is to identify and manage resources that contribute to competitive advantage. The approach used involves an in-depth analysis of a company’s resources and capabilities to determine whether they can create a sustainable competitive advantage (Islam, K.; Motoshita, M.; Murakami, S 2023). Meanwhile, the main concept of VRIO is a framework used in RBV to evaluate the

four characteristics of resources or capabilities: Value, Rarity, Inimitability, and Organization. The goal is to assess the extent to which a resource or capability can provide a competitive advantage.

The approach used is Value: Does the resource provide added value? Rarity: How rare or rare is the resource? Inimitability: To what extent can the resource be imitated by competitors? Organization: The extent to which the company can manage and organize these resources. So, RBV uses an internal resource analysis approach, while VRIO provides a more specific framework for assessing whether these resources can provide a competitive advantage. The combination of these two concepts helps companies understand the potential competitive advantage that can be generated from the resources and capabilities they have (Srivastava, RK, Fahey, L., & Christensen, HK 2001).

## RESEARCH RESULTS

### SWOT Analysis

In conducting a SWOT Analysis, the first step is to establish assessment criteria for the Strengths, Weaknesses, Opportunities, and Threats factors. Then, based on interviews and expert views, weighting is carried out for each of these factors. Through intensive interviews with key informants, ratings were given on a scale of 1-10 for each factor. Next, the weight and rating are multiplied to produce internal (IFAS) and external (EFAS) values. These two values become coordinates on the Cartesian four-quadrant graph, which will be explained further in the next section. This process helps in visualizing the position of the company or project on the SWOT matrix for strategic decision-making.

Table 4.1 SWOT Analysis of M. Yunus Factory

SWOT Factors of M. Yunus Factory	Weight	Ratings	Weight x Rating	IFAS Scores
<b>Strength</b>				-0.24
1. Abundant availability of raw materials	0.2	8	1.6	
2. Relatively low production costs	0.18	7	1.26	
3. Good product quality	0.18	9	1.62	
4. Wide market share	0.14	6	0.84	
5. Environmentally friendly products	0.08	6	0.48	
6. Affordability	0.08	8	0.64	
7. Have a skilled workforce	0.14	8	1.12	
	1		7.56	
<b>Weakness</b>				
1. Production technology is still traditional	0.2	6	1.2	
2. Lack of promotion and marketing	0.18	8	1.44	
3. There is no product standardization yet	0.22	8	1.76	
4. Competition is getting tougher	0.2	8	1.6	
5. Limited capital availability	0.2	9	1.8	
	1		7.8	
<b>SWOT Factors</b>	<b>Weight</b>	<b>Ratings</b>	<b>Weight x Rating</b>	<b>EFAS scores</b>
<b>Opportunities</b>				0.45
1. Increasing demand for bricks in Aceh Besar	0.35	6	2.1	

2. The government supports the development of the brick industry	0.2	8	1.6	
3. Export bricks outside Aceh Besar	0.25	8	2	
4. Development of innovative brick products	0.2	5	1	
	1	27	6.7	
<b>Threats</b>				
1. Climate change which causes extreme weather	0.25	6	1.5	
2. Increase in raw material prices	0.25	7	1.75	
3. Unsupportive government policies	0.2	6	1.2	
4. Competition from alternative brick products	0.3	6	1.8	
	1	25	6.25	

Table 4.2 SWOT Analysis of the Tajir Assawani Factory

SWOT Factors of Tajir Assawani Factory	Weight	Ratings	Weight x Rating	IFAS
<b>Strength</b>				0.14
1. Abundant availability of raw materials	0.2	8	1.6	
2. Relatively low production costs	0.18	6	1.08	
3. Good product quality	0.18	8	1.44	
4. Wide market share	0.14	8	1.12	
5. Environmentally friendly products	0.08	8	0.64	
6. Affordability	0.08	7	0.56	
7. Have a skilled workforce	0.14	8	1.12	
	1		7.56	
<b>Weakness</b>				
1. Production technology is still traditional	0.2	8	1.6	
2. Lack of promotion and marketing	0.18	6	1.08	
3. There is no product standardization yet	0.22	7	1.54	
4. Competition is getting tougher	0.2	8	1.6	
5. Limited capital availability	0.2	8	1.6	
	1		7.42	
<b>SWOT Factors</b>	<b>Weight</b>	<b>Ratings</b>	<b>Weight x Rating</b>	<b>EFAS</b>
<b>Opportunities</b>				-0.45
1. Increasing demand for bricks in Aceh Besar	0.35	6	2.1	
2. The government supports the development of the brick industry	0.2	8	1.6	
3. Export bricks outside Aceh Besar	0.25	9	2.25	
4. Development of innovative brick products	0.2	5	1	
	1	28	6.95	
<b>Threats</b>				
1. Climate change which causes extreme weather	0.25	8	2	
2. Increase in raw material prices	0.25	8	2	
3. Unsupportive government policies	0.2	8	1.6	
4. Competition from alternative brick products	0.3	6	1.8	



SWOT Factors of Tajir Assawani Factory	Weight	Ratings	Weight x Rating	IFAS
	1	30	7.4	

Table 4.3 SWOT Analysis of Zulfadhly Factory

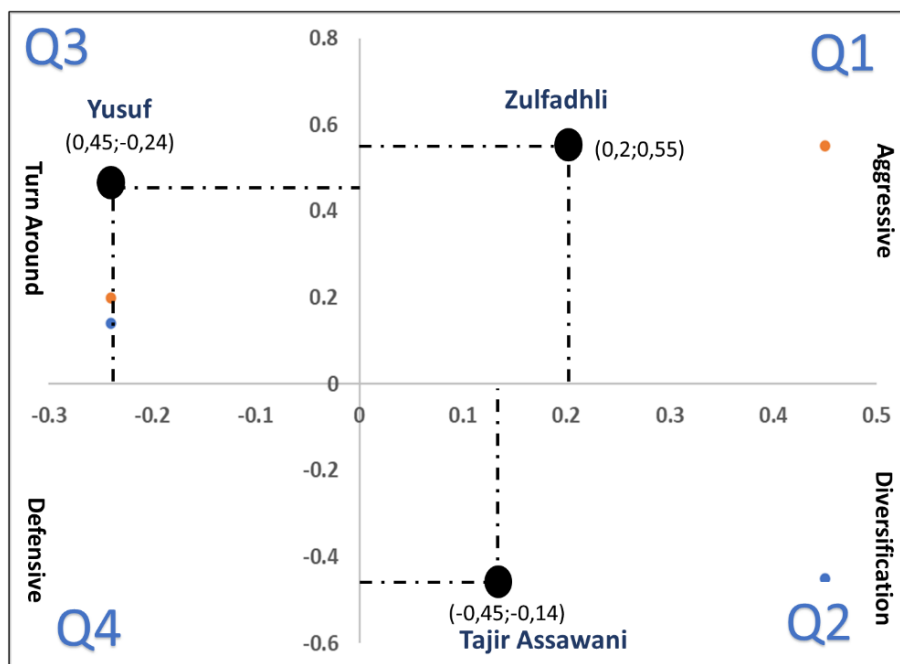
SWOT Factors of Zulfadhli Factory	Weight	Ratings	Weight x Rating	IFAS
<b>Strength</b>				
1. Abundant availability of raw materials	0.2	8	1.6	0.2
2. Relatively low production costs	0.18	7	1.26	
3. Good product quality	0.18	8	1.44	
4. Wide market share	0.14	8	1.12	
5. Environmentally friendly products	0.08	7	0.56	
6. Affordability	0.08	7	0.56	
7. Have a skilled workforce	0.14	9	1.26	
	1		7.8	
<b>Weakness</b>				
1. Production technology is still traditional	0.2	8	1.6	0.2
2. Lack of promotion and marketing	0.18	7	1.26	
3. There is no product standardization yet	0.22	7	1.54	
4. Competition is getting tougher	0.2	8	1.6	
5. Limited capital availability	0.2	8	1.6	
	1		7.6	
<b>SWOT Factors</b>	<b>Weight</b>	<b>Ratings</b>	<b>Weight x Rating</b>	<b>EFAS</b>
<b>Opportunities</b>				
1. Increasing demand for bricks in Aceh Besar	0.35	8	2.8	0.55
2. The government supports the development of the brick industry	0.2	8	1.6	
3. Export bricks outside Aceh Besar	0.25	8	2	
4. Development of innovative brick products	0.2	5	1	
	1	29	7.4	
<b>Threats</b>				
1. Climate change which causes extreme weather	0.25	8	2	0.55
2. Increase in raw material prices	0.25	7	1.75	
3. Unsupportive government policies	0.2	8	1.6	
4. Competition from alternative brick products	0.3	5	1.5	
	1	28	6.85	

Table 4.4 Summary of SWOT Analysis of 3 brick factories:

No	Brick Factory	EFAS scores	IFAS Scores
1	M. Yunus	0.45	-0.24
2	Tajir Assawani	-0.45	0.14
3	Zulfadhli	0.55	0.2

The following is a brief analysis of the SWOT analysis calculation results including the EFAS and IFAS

scores for the M. Yunus, Tajir Assawani, and Zulfadhli brick factories. M. Yunus has significant strengths based on EFAS but has several internal weaknesses reflected in a negative IFAS score. Special attention is needed to overcome internal weaknesses. Tajir Assawani faces some external challenges under EFAS but has internal strengths reflected in a positive IFAS score. Focusing on internal strengthening can help



overcome external challenges. Meanwhile, Zulfadhli has advantages both in terms of external (EFAS) and internal (IFAS) factors. This shows that this company has the potential to face external challenges and capitalize on its internal strengths. Based on the findings above, it can be concluded that M. Yunus needs to focus on internal improvements, Tajir Assawani needs to overcome external challenges, and Zulfadhli has an advantageous position with a combination of internal strengths and supporting external factors.

Figure 5. Cartesian Quadrant of Brick Factory

The M. Yusuf Brick Factory, located in Quadrant 3, faces large market opportunities but with some internal obstacles. In a situation similar to the question mark on the BCG Matrix, the company's strategy focuses on minimizing internal problems to seize good market opportunities. The Turn Around strategy is used to review production technology to increase efficiency and overcome weaknesses in exploiting large opportunities. This factory needs to evaluate production practices to find more efficient ways to maintain the advantages of low production costs good product quality and product innovation. The Tajir Assawani Brick Factory, located in Quadrant 2, faces various threats but still has internal strength. The strategy implemented is to use this strength to take advantage of long-term opportunities through product and market diversification strategies. Focusing on environmentally friendly products, affordable prices, product diversification, and increased promotions are considered appropriate strategic steps to overcome increasingly fierce competition and take advantage of growing market opportunities. Zulfadhli Brick Factory, located in Quadrant 1, faces a very favorable situation with opportunities and strengths that can be exploited. The strategy implemented is to support aggressive growth policies. The focus of this company's strategy is product innovation and market expansion. By leveraging its strengths, Zulfadhli Brick Factory can compete actively in the growing market by adopting aggressive strategies and continuously innovating.

From the analysis above, it can be concluded that M. Yusuf needs internal improvements, Tajir Assawani must overcome external challenges while utilizing internal strengths, and Zulfadhli has an advantageous position by adopting aggressive strategies and product innovation.

## Resource-Based View and VRIO

Resource-Based View (RBV) is a view of a company’s success by utilizing its internal resources, both tangible and intangible. RBV emphasizes the different (heterogeneous) and immobile (immobile) resources. In the RBV, the main message is “Use what you’ve got, if it’s unique and hard to imitate, you’ll be successful in the long run.”

VRIO (Value, Rarity, Inimitability, Organization) is a tool that is closely related to RBV and is used as an application of RBV principles. VRIO assesses whether a resource or capability provides added value, is rare, difficult to imitate, and is organized effectively. This can be considered a structured RBV practice. VRIO addresses key questions: Does the resource add value? How rare are these resources? To what extent are these resources difficult to imitate? And, is the company well organized to manage these resources? By using VRIO as a guide, companies can identify their competitive strengths and weaknesses, in line with RBV principles. The combination of RBV and VRIO helps a company understand and exploit the potential competitive advantage its resources and capabilities may have.

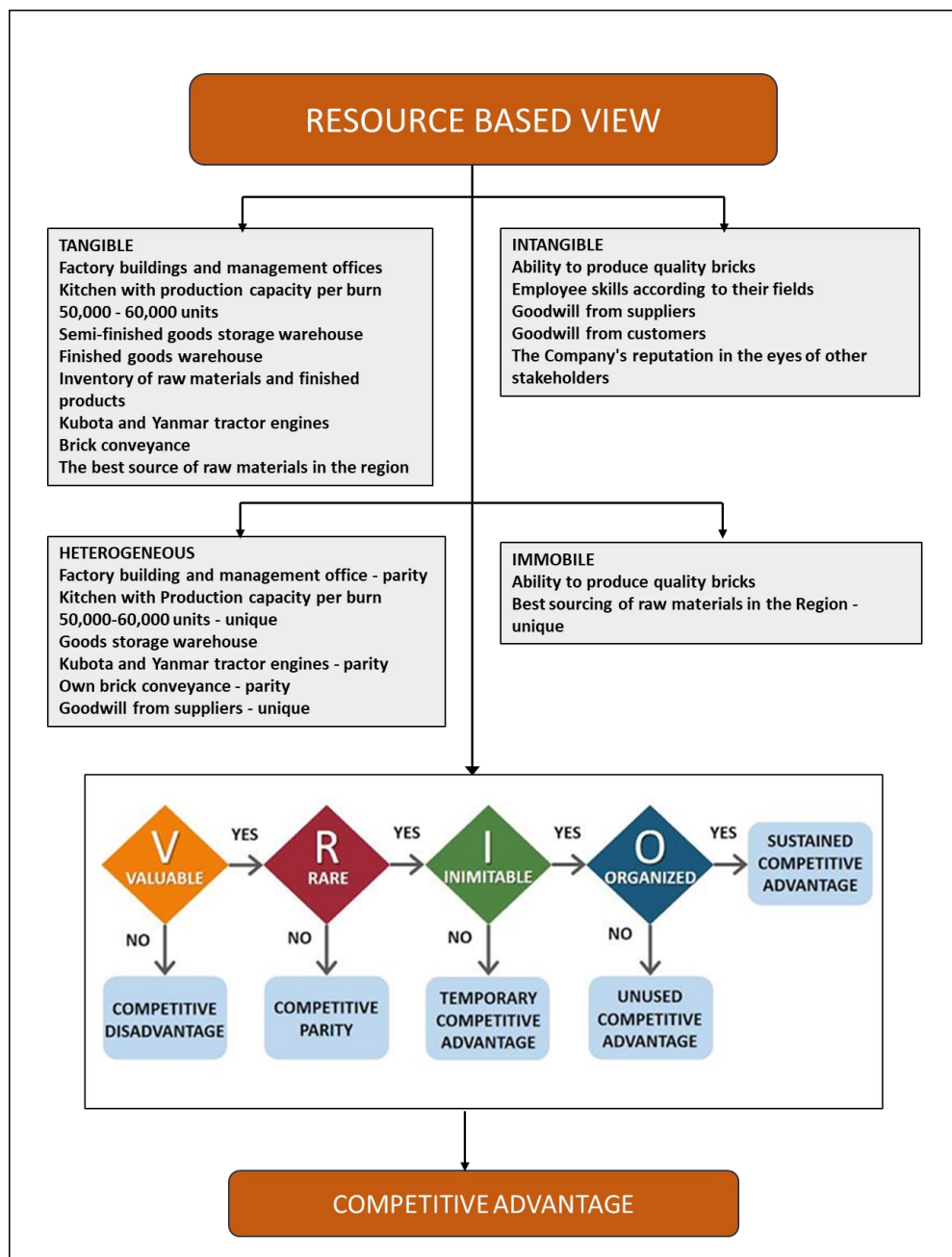


Figure 6. RBV and VRIO

From the results of the analysis carried out using technical data on resources available at each brick factory studied, the following results were obtained:

No	Brick Factory	Level of Competitiveness	Strategy
1	M. Yunus	Temporary Competitive Advantage	Focus on improving inimitability
2	Tajir A	Temporary Competitive Advantage	Focus on improving inimitability
3	Zulfadhli	Unused Competitive Advantage	Focus on improving the organization of VRI

Value, rarity, inimitability, and organization (VRIO) is a framework used to identify resources that can create competitive advantage. This analysis was carried out at three factories, M. Yunus, Tajir Assawani, and Zulfadhli.

- Yunus has a temporary competitive advantage with factors such as land lease period, production capacity, and experienced human resources. Despite its value and rarity, difficulties in replicability and organizational aspects make it unlikely to be rivaled in the long term.
- Tajir Assawani also has temporary advantages with value and rarity but faces obstacles in replicability and organizational aspects. These challenges can reduce advantages over time.
- Zulfadhli shows more positive results with high value, rarity, and replicability. Despite organizational challenges, this factory has potential competitive advantages that have not yet been fully exploited.

The strategy recommendation involves increasing replicability for M. Yunus and Tajir Assawani, while Zulfadhli needs to focus on improving the organization to optimize its unused advantages.

### Research Implications

- **SWOT**

The M. Yusuf Brick Factory, located in Quadrant 3 (Question Mark – BCG Matrix), faces a demanding strategic position. With a strategic focus on minimizing internal problems to seize large market opportunities, companies need to adopt a turnaround approach. In this context, the strategy involves reviewing production technology to improve operational efficiency. Strategic recommendations for the M. Yusuf Brick Factory involve concrete steps to improve production efficiency. A thorough evaluation of the technology used in brick production can open up opportunities to adopt innovations that can increase productivity. Additionally, implementing more efficient management practices, such as more structured production planning, stricter quality management, and regular coordination meetings, can help overcome internal problems. A focus on improving employee skills and investing in relevant technology also needs to be considered to ensure that human resources and technology support the required production efficiencies.

The Tajir Assawani Brick Factory, which is in Quadrant 2, needs to direct its strategy towards product diversification and increased promotion. Product diversification can include identifying market opportunities that match the factory’s core competency and developing new product lines that can meet growing market demand. Increased promotions, including more aggressive marketing campaigns and collaboration with building materials stores, will help expand distribution and increase brand visibility. Strategic recommendations for the Tajir Assawani Brick Factory include the development of targeted and effective marketing strategies. Building a strong brand image by emphasizing the benefits of environmentally friendly products and affordability will be key. Additionally, factories need to continuously monitor market trends and respond quickly to changes. Developing a competitive pricing strategy and increasing production efficiency will support competitiveness in facing threats and exploiting market

opportunities.

Zulfadhli Brick Factory, located in Quadrant 1 (Star – BCG Matrix), has an advantageous strategic position. Aggressive strategies with aggressive growth, focus on product innovation and market expansion are steps that can be taken. Strategic recommendations for Zulfadhli Brick Factory include developing a focused growth strategy. Product innovation needs to be the main focus, with resource allocation for research and development of product innovation. Market expansion outside Aceh Besar can provide access to a wider market. It is also important to maintain production excellence by increasing production flexibility and ensuring the availability of resources and capabilities that support aggressive growth.

### • RBV-VRIO

The results of the technical analysis of brick factories, namely M. Yunus, Tajir Assawani, and Zulfadhli, provide an in-depth understanding of the level of competitiveness and strategies that can be implemented. At the M. Yunus factory, even though it has temporary advantages with factors such as land lease period, production capacity, and experienced human resources, there are obstacles in terms of ease of imitation and organizational aspects. Therefore, there needs to be a focus on increasing inimitability, namely making these elements difficult for competitors to imitate, so that these advantages can be maintained in the long term. At the Tajir Assawani factory, temporary advantages also lie in value and rarity. However, obstacles arise in the ease of imitation and organizational aspects. The strategic recommendation for Tajir Assawani is to focus efforts on increasing inimitability, similar to M. Yunus. In this way, the plant can overcome these obstacles and maintain its competitive advantage over time. Zulfadhli, on the other hand, shows more positive results with high value, rarity, and replicability. Despite organizational challenges, this factory has potential competitive advantages that have not yet been fully exploited. Therefore, the strategic recommendation for Zulfadhli is to focus on improving the organization. By improving and optimizing organizational aspects, this factory can outperform competitors and maximize unused potential advantages. For the M. Yunus and Tajir Assawani factories, strategies need to be aimed at increasing inimitability, which could involve investing in new technology, developing specialized skills, or protecting intellectual property rights. Meanwhile, the Zulfadhli factory needs to adjust its strategy to focus on organizational improvements. This may involve internal restructuring, employee training, or implementing a more efficient management system.

Each factory needs to have a unique approach tailored to its context. In addition, strategy implementation must be iterative and continuously evaluated to remain relevant to changes in the business environment. Each factory needs to monitor industry developments, identify new opportunities, and respond quickly to market changes. Long-term strategic success will depend on flexibility, adaptability, and the ability to continuously innovate.

This research is in line with that conducted by Zhang, W., & Xu, J. (2022). This study provides a comprehensive overview of the competitive dynamics between traditional steel and advanced materials such as aluminum, carbon fiber and composites in the automotive industry. The authors analyze the performance attributes, cost considerations, and environmental impacts of these materials, and discuss their implications for the competitive landscape of the automotive industry. Ultimately there is a trend to replace traditional steel with advanced materials such as aluminum, carbon fiber, and composites in the automotive industry.

The essence of this research is also in line with the government policy of Indonesia, specifically Regulation (PP) Number 22 of 2021 concerning the Implementation of Environmental Protection and Management. This regulation establishes a legal framework for holistic environmental protection and management. The use of Hebel is considered more environmentally friendly than Redbrick, prompting Redbrick entrepreneurs to consider the possibility of mitigating business risks associated with this environmental aspect.



## LIMITATION OF THE STUDY

1. **Expand Sample Size:** While the research provides valuable insights into the challenges faced by red brick companies, the study's generalizability may be limited by the relatively small sample size. To enhance the robustness of the findings and capture a more comprehensive understanding of the industry dynamics, future research should consider expanding the sample size. Including a broader spectrum of red brick companies, encompassing diverse regions, market sizes, and production capacities, would contribute to a more representative and nuanced analysis.
2. **Longitudinal Study:** The current study provides a snapshot of the challenges and competitive dynamics within the red brick industry. However, a limitation lies in the static nature of the analysis, which does not account for temporal changes and adaptations over time. To address this limitation, a suggested improvement is to conduct a longitudinal study. By tracking changes in marketing strategies and the impact of internal resources over an extended period, researchers can gain deeper insights into the evolving nature of the industry. This longitudinal approach would provide a more dynamic perspective, allowing for a nuanced understanding of how competitive advantages and challenges unfold and transform within the red brick sector.

## CONCLUSION

1. The conclusions of the SWOT analysis and RBV-VRIO framework for three brick factories, M. Yusuf, Tajir Assawani, and Zulfadhli, provide strategic direction that can help them face market dynamics and achieve competitive advantage. In the context of SWOT, each factory has different challenges and opportunities, which leads to strategic recommendations that suit their respective strategic positions. The M. Yusuf Brick Factory, located in Quadrant 3 (Question Mark – BCG Matrix), needs to adopt a turnaround strategy with a focus on increasing production technology innovation. Strategic recommendations for M. Yusuf involve concrete steps to increase production efficiency, through technology evaluation and implementation of more efficient management practices. The Tajir Assawani Brick Factory, located in Quadrant 2, requires a product diversification strategy and increased promotion to overcome threats and take advantage of market opportunities. Strategic recommendations for Tajir Assawani include developing targeted and effective marketing strategies, with a focus on brand image, competitive prices, and production efficiency. Zulfadhli Brick Factory, which is in Quadrant 1 (Star – BCG Matrix), can maintain its strategic position through an aggressive growth strategy, focus on product innovation and market expansion. Strategic recommendations for Zulfadhli include developing a focused growth strategy, involving product innovation and geographic expansion.
2. In the RBV-VRIO analysis, each factory needs to strengthen elements that can create competitive advantages. M. Yunus and Tajir Assawani need to increase inimitability, while Zulfadhli needs to focus on improving the organization. Strategic recommendations for M. Yunus and Tajir Assawani involve investing in new technology and developing specialized skills, while Zulfadhli needs to prioritize internal restructuring and implementing a more efficient management system.

## REFERENCE

1. Aliabdo, AA, Abd-Elmoaty, AEM, & Hassan, H.H. (2014). Utilization of crushed clay bricks in the concrete industry. *Alexandria Engineering Journal*, 53(1), 151-168.
2. Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99-120.
3. Bastian, A., & Shallyana, H. (2021, December). An Analysis of Marketing Strategy by Using Internal Factors Analysis Summary (IFAS) and External Factors Analysis Summary (EFAS) for Evaluation Effort at Klinik Sinar Medika Plosoklaten. In *The 3rd Joint International Conference* (Vol. 3, No. 1, pp. 458-465).

4. Beamish, P. W., & Chakravarty, D. (2021). Using the resource-based view in multinational enterprise research. *Journal of Management*, 47(7), 1861-1877.
5. Benzaghta, M.A., Elwalda, A., Mousa, M.M., Erkan, I., & Rahman, M. (2021). SWOT analysis applications: An integrative literature review. *Journal of Global Business Insights*, 6(1), 55-73.
6. Ferreira, E.P., Gruber, C., Merino, EAD, Merino, GSAD, & Vergara, LGL (2019). Strategic management in the meat processing industry: an application of SWOT Analysis in storage and shipping stages. *Gestão & Produção*, 26, e3147.
7. Fossey, E., Harvey, C., McDermott, F., & Davidson, L. (2002). Understanding and evaluating qualitative research. *Australian & New Zealand journal of psychiatry*, 36(6), 717-732.
8. Grant, R. M. (1991). The resource-based theory of competitive advantage: Implications for strategy formulation. *California Management Review*, 33(3), 114-135.
9. Helms, M. M., & Nixon, J. (2010). Exploring SWOT analysis—where are we now? A review of academic research from the last decade. *Journal of strategy and management*, 3(3), 215-251.
10. <https://hebel.com.au/wp-content/themes/hebel/assets/product-guide/files/assets/common/downloads/publication.pdf>. Download 12 October 2023
11. Islam, K.; Motoshita, M.; Murakami, S (2023). Environmental Sustainability of Bricks in an Emerging Economy: Current Environmental Hotspots and Mitigation Potentials for the Future. *Sustainability* 2023, 15, 5228. <https://doi.org/10.3390/su15065228>
12. Kavyaa, S. (2019) A Review on Replacement of Bricks by Hebel Blocks. *International Journal of Research in Engineering, Science and Management* Volume-2, Issue-12, December-2019
13. Kothari, C.R. (2004). *Research methodology: Methods and techniques*. New Age International.
14. Krismariyanto, D., Witjaksana, B., & Tjendani, HT (2022) Analysis Of The Value Of Engineering Cost And Time Of Replacement Of Red Brick With Light Brick On Project Building Construction Of Blood Transfusion Unit In Pasuruan.
15. Madhani, P. M. (2010). Resource based view (RBV) of competitive advantage: an overview. *Resource based view: concepts and practices*, Pankaj Madhani, ed, 3-22.
16. Murcia, N.N., Ferreira, F.A., & Ferreira, J.J. (2022). Enhancing strategic management using a “quantified VRIO”: Adding value with the MCDA approach. *Technological Forecasting and Social Change*, 174, 121251.
17. Ngowi, AB (2001). Creating competitive advantage by using environment-friendly building processes. *Building and Environment*, 36(3), 291-298.
18. O. Nyumba, T., Wilson, K., Derrick, C. J., & Mukherjee, N. (2018). The use of focus group discussion methodology: Insights from two decades of application in conservation. *Methods in Ecology and evolution*, 9(1), 20-32.
19. Ombiro, R. O. (2018). Factors influencing the use of interlocking red bricks technology in housing projects: A case of Isiolo County, Kenya (Doctoral dissertation, University of Nairobi).
20. Porter, M.E. (2008). The five competitive forces that shape strategy. *Harvard Business Review*, 86(1), 78-93.
21. Rahmatullah, F., Wijyantini, B., & Wibowo, YG (2023). RBV (Resources-Based View) Analysis to Determine Company Competitive Advantage at UD. *Three Sons. Journal of Economics, Assets, and Evaluation*, 1(1), 1-17.
22. Sanchez, R. (2008). A scientific critique of the resource-based view (RBV) in strategy theory, with competency-based remedies for the RBV’s conceptual deficiencies and logic problems. In *A focused issue on fundamental issues in competence theory development* (Vol. 4, pp. 3-78). Emerald Group Publishing Limited.
23. Srivastava, R. K., Fahey, L., & Christensen, H. K. (2001). The resource-based view and marketing: The role of market-based assets in gaining competitive advantage. *Journal of management*, 27(6), 777-802.
24. The Economist. (2021). Brick by brick: The construction industry is booming. Retrieved from [URL].
25. Tintara, IDGW, & Respati, NN (2020). The effect of product differentiation, service differentiation, and image differentiation on competitive advantage. *Am. J. Humanite. Soc. Sci. Res*, 4, 316-321.

26. Varadarajan, R. (2020). Customer information resources advantage, marketing strategy and business performance: A market resources based view. *Industrial Marketing Management*, 89, 89-97.
27. Vora-Sittha, P., & Chinprateep, A. (2021). Readiness of the ASEAN community for the 4th industrial revolution. *Asian Social Science*, 17(2), 1-31.
28. Zhang, W., & Xu, J. (2022). Advanced lightweight materials for Automobiles: A review. *Materials & Design*, 110994.