

Strategic Marketing Drivers of Air Conditioner Marketing Performance: Role of Competitive Advantage and Technological Turbulence

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Abstract

Purpose: This study examines how strategic marketing drivers influence perceived marketing performance in the air conditioner industry and highlights the roles of competitive advantage and technological turbulence in an emerging-market context.

Methodology: This study used a quantitative explanatory approach and analyzed data from 398 air conditioner consumers in Medan City, Indonesia, using SmartPLS.

Results: Product differentiation significantly strengthens competitive advantage, while pricing strategies significantly improve perceived marketing performance. Perceived marketing capabilities also enhance competitive advantage. In contrast, electronic word-of-mouth, brand reputation, competitive advantage, and technological turbulence do not significantly influence perceived marketing performance, indicating that consumers prioritize functional product attributes and value-for-money considerations over reputational and environmental factors.

Conclusions: The findings indicate that, in the air conditioner market in emerging urban settings, firms that emphasize product uniqueness and value-based pricing achieve superior perceived marketing performance, while reputational, e-WOM-related, and turbulence-related factors play more selective and context-dependent roles.

Limitations: This study focuses on Medan City and perceived marketing performance, which narrows the generalizability of the findings to other regions, segments, and industries.

Contributions: This study advances the strategic marketing literature by presenting an integrated model that identifies which strategic marketing drivers most effectively build competitive advantage and perceived marketing performance and by demonstrating when widely cited drivers exert weaker direct effects.

Keywords: *Air Conditioning Market, Competitive Advantage, Electronic Word-of-Mouth, Marketing Capability, Pricing Strategy*

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1. Introduction

The global air conditioning market has significantly expanded over the past decade owing to urbanization, rising temperatures, and an emerging middle class in developing nations. The demand for tropical regions prioritizing thermal comfort has increased, influenced by advancements in energy-efficient technologies and targeted marketing strategies (Scoccimarro et al., 2023). Competition in the HVAC sector is intensifying as companies focus on their brand reputation and pricing strategies. We anticipate significant growth in air conditioning demand in Southeast Asia, especially Indonesia, as

urban household adoption and comfort-focused lifestyle changes take hold ([Karkour, Ihara, Kuwayama, Yamaguchi, & Itsubo, 2021](#)). Competitive dynamics, technology, and consumer perceptions of value influence product marketing effectiveness.

The dynamics of the Indonesian air conditioning market vary regionally, driven by factors such as population size, economic conditions and climate. Metropolitan areas, especially Medan, North Sumatra's economic center, show significant growth in air conditioner purchases, linked to rising incomes and urbanization ([Surahmana, Hartono, Setyowati, & Jurizat, 2022](#)). The influx of diverse brands has intensified marketing competition, compelling companies to enhance their differentiation and brand recognition ([Nguyen, Nguyen, Suseno, & Quang, 2020](#)).

Understanding the factors influencing perceived marketing performance in this competitive landscape is essential for both academic insights and practical applications. Digitalization, technological progress, and changing consumer behavior have significantly impacted the global home appliance market, forcing companies to adjust their marketing strategies to remain competitive ([Liang & Gao, 2020](#)). Urbanization, rising household incomes, and heightened consumer concerns regarding comfort and energy efficiency are driving the demand for Air Conditioners (ACs) in countries such as Indonesia. A growing number of AC brands, both domestic and international, are pressuring businesses to find ways to differentiate themselves strategically ([Michael E. Porter, 2021](#); [Zhao, Peng, & Li, 2023](#)).

Studies have found that electronic Word-of-Mouth (e-WOM) significantly impacts how people view and decide on purchases, especially in markets for important products such as air conditioners. Consumers increasingly use e-WOM and other online information to make better buying choices ([Aravindan et al., 2023](#); [Dash & Bhattacharjee, 2024](#)). At the same time, brand reputation is an asset that boosts credibility, helps a brand stay strong in the market, and builds consumer trust and perceived value. Brand reputation is an important intangible asset that enhances credibility and long-term market positioning, thereby strengthening consumer trust and perceptions of value ([Li & Sun, 2022](#); [Tong, Li, Feng, & Zhang, 2020](#)).

Recent studies [Izgi and Kavacik \(2024\)](#); [Thangam and Chavadi \(2023\)](#) Scientific research on digital marketing and brand competitiveness, indicate that internal strategic drivers, such as perceived marketing capabilities, product differentiation, and pricing strategy, significantly impact a company's competitive positioning and performance. Firms must constantly reorganize their resources to maintain a competitive advantage in uncertain contexts, especially with the rapid technological turbulence in the AC industry, such as smart IoT integration and inverter system improvements.

Despite substantial scholarly attention to electronic Word-of-Mouth (e-WOM), brand reputation, pricing strategy, and marketing capabilities, most studies still analyze these drivers in isolation or focus mainly on their direct effects on purchase intention, sales, or overall firm performance, providing limited insight into their joint influence on competitive advantage and marketing outcomes in consumer durable markets ([Ismagilova, Slade, Rana, & Dwivedi, 2020](#); [Izgi & Kavacik, 2024](#); [Razem & Sunikka-Blank, 2022](#)).

In addition, research on long-lasting, high-involvement products in emerging economies such as Indonesia tends to emphasize transactional metrics rather than perceived marketing performance and rarely incorporates technological turbulence as a mediating mechanism that conditions how firms convert strategic marketing resources into sustainable advantage and performance ([Alghamdi & Agag, 2024](#); [Sulaiman et.al, 2024](#)). To address these gaps, this study develops an integrated framework that combines the resource-based view, market-based view, and dynamic capability theory to explain how e-WOM, brand reputation, perceived marketing capabilities, product differentiation, and pricing strategy jointly shape competitive advantage, which in turn is expected to enhance perceived marketing performance in the air conditioner industry under varying levels of technological turbulence.

2. Literature Review and Hypotheses Development

2.1 Resource-Based View and Dynamic Capability Perspective

The Resource-Based View (RBV) is the theoretical foundation of this study. According to the RBV, a company's competitive advantage comes from its VRIN resources and capabilities, which are valuable, rare, inimitable, and non-substitutable. According to results [Morgan and Feng \(2024\)](#), marketing capabilities are strategic resources that help a company outperform its competitors in terms of value creation. Dynamic Capability Theory, which builds on the RBV, highlights how an organization may adapt to a changing environment by integrating, building, and reconfiguring competencies ([Barney, 2021](#)). One of the most important factors in remaining competitive in the air-conditioning sector is the capacity to react to changing technology demands and energy efficiency standards. Thus, this study positions strategic marketing drivers as dynamic resources that drive marketing performance and provide competitive advantage.

2.2 Perceived Marketing Capabilities

Perceived marketing capabilities include pricing, product development, channel management, marketing communication, and planning. Research by [Morgan and Feng \(2024\)](#); [Sriwidadi et al. \(2021\)](#) supports the marketing capability theory, which suggests that companies with superior market trend detection and resource allocation can gain a competitive advantage. Firms that excel in product development and channel integration are more likely to differentiate themselves and achieve cost savings in industries such as AC manufacturing, which are constantly evolving owing to technological advances.

H₁: Perceived marketing capabilities positively influence competitive advantage

H₂: Perceived marketing capabilities positively influence perceived marketing performance

2.3 Product Differentiation

Competitive strategy revolves around product differentiation, which is evaluated based on product uniqueness, feature variability, product quality, design distinctiveness, and technological superiority. Differentiation, according to [Michael E. Porter \(2008\)](#) is a key tactic for attaining top performance ([Dagnino, Picone, & Ferrigno, 2021](#); [Wati, Jesslyn, & Septiany, 2025](#)). Inverter technology, smart connectivity, and environmentally friendly refrigerants are ways to stand out in the air-conditioning sector. These factors boost perceived value and market position.

H₃: Product differentiation positively influences the competitive advantage

H₄: Product differentiation positively influences perceived marketing performance

2.4 Pricing Strategy

Competitive, fair, and dynamic pricing, discounting, and value-based pricing are all components of pricing strategy. Businesses can better meet their customers' expectations by using strategic pricing ([Kotler, Keller, & Chernev, 2022](#)). When aligned with product quality, value-based pricing can provide both cost and differentiation advantages ([Gunawan, Adam, Zahara, & Palawa, 2025](#); [Morgan & Feng, 2024](#)). Perceived fairness significantly enhances competitive positioning in price-sensitive emerging markets.

H₅: Pricing strategy positively influences the competitive advantage

H₆: Pricing Strategy positively influences perceived marketing performance

2.5 Electronic Word of Mouth

Intensity, credibility, quality, valence, and adoption are the five dimensions that make up electronic word-of-mouth (e-WOM), which refers to the regularity and impact of consumer communications online ([Gunawan et al., 2025](#)). The impact of trustworthy, high-quality electronic word-of-mouth on consumers' perceptions of value and subsequent purchasing decisions has been well documented in empirical research ([Filieri, Acikgoz, & Du, 2023](#)). Product superiority and customer preference advantages can be strengthened by leveraging favorable, widely adopted online reviews in the air conditioner ([Dash & Bhattacharjee](#)) market. This is because consumers in this industry evaluate technical durability and energy efficiency of the products.

H₇: e-WOM positively influences competitive advantage

H₈: e-WOM positively influences perceived marketing performance

2.6 Brand Reputation

The public's perception of a brand encompasses factors such as credibility, perceived quality, image prestige, reliability, and corporate responsibility. Brand reputation is an important intangible asset. The Resource-Based View holds that intangible assets, such as a company's reputation, are difficult to copy and can give it a long-term edge over competitors ([Barney, 2021](#)). According to empirical results, brand credibility and perceived quality improve market position and distinction ([Morgan & Feng, 2024](#)). Reducing perceived risk and enhancing value superiority are two outcomes of a strong market reputation for an AC brand.

H₉: Brand reputation positively influences competitive advantage

H₁₀: Brand reputation positively influences perceived marketing performance

2.7 Competitive Advantage

Superiority in value, product, market position, customer preference, differentiation advantage, and cost-price advantage are all components of competitive advantage. Both Porter and Barney state that, in the long run, companies that maintain competitive advantages outperform their rivals ([Barney, 2021](#); [Michael E. Porter, 2008](#); [Michael E. Porter, 2021](#)). Morgan and Feng listed product brand popularity, demand growth, sales success, product competitiveness, market satisfaction, and consumer loyalty as marketing performance indicators that represent a firm's strategic success ([Morgan & Feng, 2024](#)).

H₁₁: Competitive advantage positively influences the perceived marketing performance

2.8 Moderating Role of Technological Turbulence

According to [Jaworski and Kohli \(1993\)](#) assert that technological turbulence signifies environmental dynamism and can be measured by analyzing factors such as the velocity of technological change, congruence with technological values, intensity of innovation, the influence of technology on product development, and the complexity of technology ([Alghamdi & Agag, 2024](#); [Sulaiman, Asad, Awain, Asif, & Shanfari, 2024](#)). To maintain a competitive advantage in today's high-tech, turbulent business climate, Dynamic Capability Theory holds that companies need to adapt ([Teece, 2025](#)). There is a greater demand for strategic alignment in the air-conditioning sector owing to increased competition and rapid innovation in smart technologies and inverter systems.

H₁₂: Technological turbulence positively moderates the relationship between competitive advantage and perceived marketing performance

2.9 Mediating Role of Competitive Advantage

According to the Resource-Based View, a company must first turn its resources into a competitive advantage ([Barney, 2021](#)). Research by [Morgan and Feng \(2024\)](#) provide empirical evidence that competitive advantage mediates the relationship between strategic competencies and business performance. Consequently, elements such as electronic Word-of-Mouth (e-WOM), brand reputation, marketing competencies, distinctiveness, and pricing are anticipated to have an indirect impact on marketing success through a competitive advantage.

H₁₃: Competitive advantage mediates the relationship between perceived marketing capability and perceived marketing performance

H₁₄: Competitive advantage mediates the relationship between product differentiation and perceived marketing performance

H₁₅: Competitive advantage mediates the relationship between pricing strategies and perceived marketing performance

H₁₆: Competitive advantage mediates the relationship between e-WOM and perceived marketing performance

H₁₇: Competitive advantage mediates the relationship between brand reputation and perceived marketing performance

In an emerging market context, this study presents a new integrative framework that explains how strategic marketing drivers shape competitive advantage and enhance perceived marketing performance in the air conditioning industry. These drivers include electronic Word-of-Mouth (e-WOM), brand reputation, perceived marketing capabilities, product differentiation, and pricing strategy. This study differs from earlier research by examining how competitive advantage connects the resource-based and

market-based views, rather than studying these factors in isolation or only their direct impact on purchasing decisions. In addition, this study adds to the existing body of knowledge by expanding the definition of strategic marketing effectiveness in high-tech durable goods industries to include technological turbulence, a boundary condition established by dynamic capacity theory.

3. Methodology

This study utilized a quantitative methodology with an explanatory research design to examine the causal links among the variables in the established conceptual model. A quantitative methodology was employed because it facilitates empirical hypothesis testing via statistical analysis of numerical data ([Joseph F. Hair Jr, Ortinau, & Harrison, 2024](#)). This was a cross-sectional study in which data were collected from respondents who met the research criteria over a defined time frame. A total of 450 questionnaires were distributed, and 398 valid questionnaires were obtained for analysis, resulting in a usable response rate of 88.44. The study population comprised 398 air conditioner consumers in Medan who had acquired and used AC products.

A purposive sampling method was employed. The inclusion criteria were established to ensure that the respondents had sufficient comparative expertise in evaluating air conditioner products. Respondents were included if they: (1) were at least 17 years old; (2) lived in Medan or had purchased/used AC products in Medan; (3) had purchased, used, or been involved in the decision to purchase AC products; (4) had experience using more than one AC unit, either from the same brand or different brands; (5) were able to compare AC products based on product features, price, service, brand reputation, energy efficiency, and technological features; and (6) had used AC products for at least six months.

Respondents who had never purchased or used AC products, had experience with only one AC unit without comparative knowledge, provided incomplete answers, or were directly involved as AC sellers or distributors were excluded to maintain a consumer-based perspective of the study. All measurement items were assessed using a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. The items were adapted from the established marketing and strategic management literature and modified to fit the air conditioner consumer context in Medan. This sample size satisfies the minimum criteria for multivariate analysis, since [Roscoe \(1978\)](#) asserts that an adequate sample size for research ranges from 30 to 500 respondents ([Joseph F. Hair Jr, Hult, Ringle, & Sarstedt, 2022](#)).

Data analysis was performed using Structural Equation Modeling based on Partial Least Squares (SEM-PLS) with SmartPLS software. The SEM-PLS method was used because of its appropriateness for intricate research models featuring many latent variables and mediation and moderation connections. Moreover, [Joseph F. Hair Jr et al. \(2022\)](#) highlighted that PLS-SEM is proficient at predicting objectives and advancing theoretical development in management and marketing research. The model evaluation was conducted in two phases: the measurement model assessment and the structural model assessment. The measurement model was evaluated using convergent validity, discriminant validity, and construct reliability, using outer loadings, Average Variance Extracted (AVEs), composite reliabilities, and HTMTs. The structural model was evaluated using bootstrapping methods to assess the significance of route coefficients, R^2 values, effect sizes (f^2), predictive relevance (Q^2), and mediation and moderation analyses using indirect effects and interaction terms ([Joseph F. Hair Jr et al., 2021](#)).

4. Results and Discussions

4.1 Demographic Result

Based on the data in Table 1, of the 398 respondents, the majority were male (61.3%) and within the productive age range of 31–40 years (57.3%), followed by those aged 25–30 years (30.4%). The economically productive age group, who rationally evaluate price, quality, and product innovation, dominates AC purchasing decisions, as indicated by this composition. Self-employed individuals and private-sector employees with middle-income levels (5.1–10 million rupiah) constitute many respondents in terms of occupation. This suggests that pricing strategy, product differentiation, and perceived value are important determinants of building competitive advantage. Conceptually, these

characteristics strengthen the relevance of strategic marketing drivers in explaining the formation of competitive advantages in the AC industry.

Most respondents used ACs for household needs, and many used more than one brand, especially two different brands, indicating strong comparative behavior. Local stores are the dominant purchasing channel, but online purchases are also significant, emphasizing the value of marketing communications and e-WOM. Japanese and Chinese brands are the most popular choices because they are known for their quality, reputation, and low price. The most frequently purchased AC sizes are 1/2 and 1 PK, which meet the needs of middle-class households. Overall, this respondent profile supports the research model, which states that perceived marketing capability, product differentiation, pricing strategy, e-WOM, and brand reputation shape competitive advantages and perceived marketing performance. The results regarding respondent characteristics are presented in Table 1.

Table 1. Respondent characteristic result

Respondent Profile		Sex Category		Respondent Profile		Sex Category	
		Male	Female			Male	Female
Age	25 - 30 Years	62	59	Number of brands of AC used	1 brand	131	34
	31 - 40 Years	150	78		2 brands	76	97
	> 50 Years	32	17		3 brands	24	14
Occupation	Civil Servants	67	28		> 3 brands	13	9
	Private	72	57	AC purchased	Store	168	62
	Self-Employed	81	67		Online	76	92
	Farmers	18	0	Made in brand AC last purchased	China	43	69
	Not Working	6	2		Japan	89	35
Monthly Income (IDR)	3 - 5 million	75	21		Korea	52	32
	5.1 - 8 million	48	67		Indonesia	54	15
	8.1 - 10 million	63	53		Europe	6	3
	> 10 million	58	13	The size of the last AC purchased (PK)	0,5	118	55
AC is used	Residential	132	84		0,75	34	12
	Office	21	44		1,0	57	78
	Church/Mosque	45	14		1,5	13	4
	School	34	7		2,0	12	2
	Warehouse	12	5		2,5	10	3

4.2 Results of the Structural Model Analysis

The SEM-PLS evaluation results in Figure 1 indicate that all key elements in this study are reliable and meet the convergent validity standards established in previous research. Cronbach's alpha readings ranged from 0.874 to 0.939, while rho_A values ranged from 0.876 to 0.942, all beyond the minimal threshold of 0.70, hence demonstrating strong internal consistency. The composite reliability ranged from 0.908 to 0.951, indicating excellent construct reliability. The AVE values for all variables exceeded the 0.50 threshold [Joseph F. Hair Jr et al. \(2021\)](#), ranging from 0.632 to 0.793. This figure indicates that each construct explains more than 50% of the variance in its indicators. This result indicates that the measurement model in this study is trustworthy and exhibits excellent internal consistency, making it suitable for further testing and hypothesis testing.

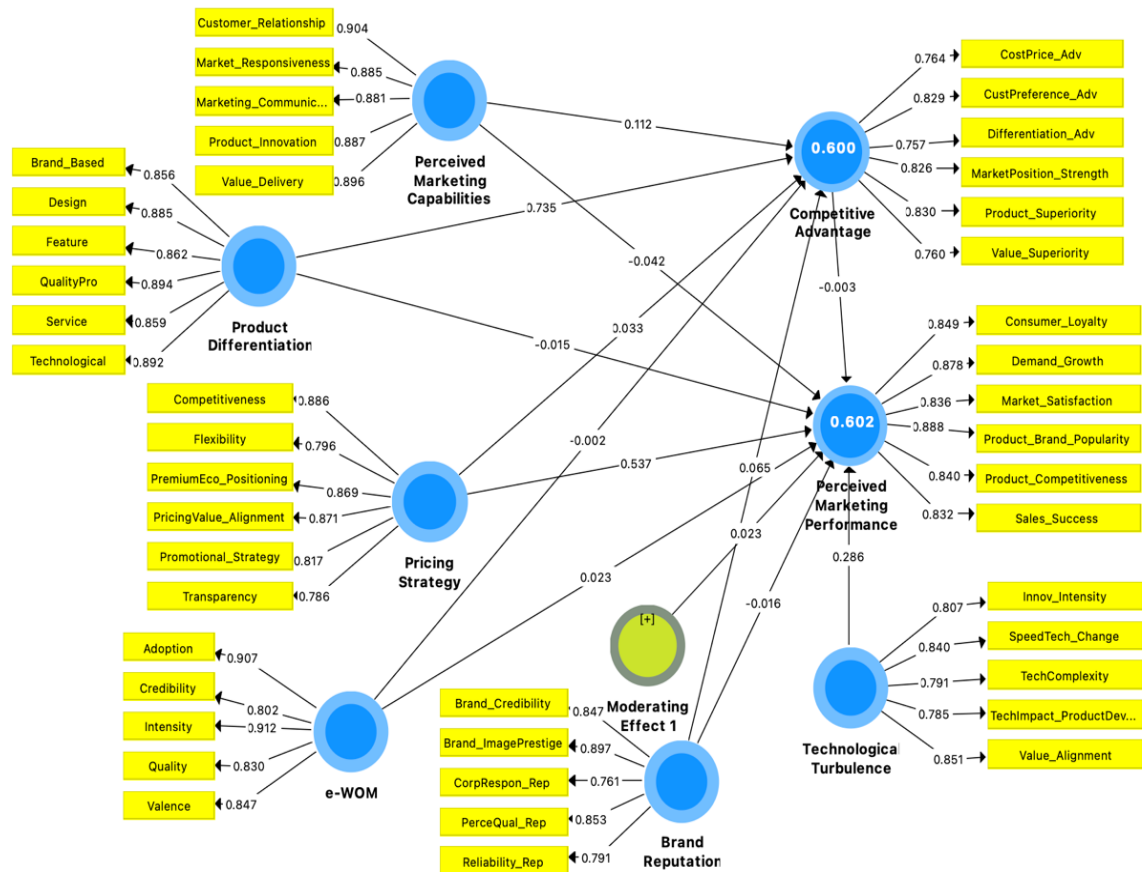


Figure 1. PLS-SEM model evaluation results

Table 2. Heterotrait-Monotrait Ratio (HTMT) value results

Variables	BR	CA	PMC	PMP	PS	PD	TT
CA	0,192						
PMC	0,073	0,213					
PMP	0.075	0,142	0,035				
PS	0.101	0,238	0,060	0,802			
PD	0,139	0,837	0,113	0,141	0,253		
TT	0.119	0.167	0,043	0,748	0,793	0,120	
e-WOM	0.182	0,187	0.076	0,537	0,644	0,192	0,636

Note: Brand Reputation (BR), Competitive Advantage (CA), Perceived Marketing Capability (PMC), Perceived Marketing Performance (PMP), Pricing Strategy (PS), Product Differentiation (PD), Technological Turbulence (TT), electronic Word-of-Mouth (e-WOM).

The Heterotrait–Monotrait Ratio (HTMT) in Table 2, results indicate that all ratios in this study are below the suggested limit of 0.90 [Joseph F. Hair Jr et al. \(2021\)](#), with most below 0.85, indicating that they meet. The highest HTMT value was found in the correlation between Product Differentiation and Competitive Advantage (0.837) and between Pricing Strategy and Perceived Marketing Performance (0.802). However, both values were within acceptable limits. Other correlations show much lower values, such as those between Perceived Marketing Capabilities and Perceived Marketing Performance (0.035) and between Brand Reputation and Perceived Marketing Capabilities (0.073), which help highlight the differences between the concepts. No HTMT score exceeded 0.90, indicating that each variable in the model was clearly distinct from the others and did not overlap. The measurement model met the requirements for discriminant validity and was ready for further structural model analysis and hypothesis testing.

The SEM-PLS structural model evaluation in Table 3 reveals that the Competitive Advantage variable has an R^2 of 0.600 (Adjusted $R^2 = 0.595$), and the Perceived Marketing Performance parameter has an R^2 of 0.602 (Adjusted $R^2 = 0.593$). This means that approximately 60% of the changes in both competitive advantage and perceived marketing performance can be explained by the other factors in the model, indicating that the results are strong (Joseph F. Hair Jr et al., 2021).

This suggests that integrating strategic marketing drivers significantly clarifies the development of competitive advantages and perceived marketing performance. Regarding impact size (F-square), Product Differentiation exerts a substantial influence on Competitive Advantage ($f^2 = 1.248$), but Pricing Strategy demonstrates a significant effect on Perceived Marketing Performance ($f^2 = 0.300$). Conversely, other factors, such as Brand Reputation, e-WOM, and perceived marketing capability, had minimal to negligible effects on the endogenous variables, with f^2 values near zero. These results show that the model is highly effective in explaining outcomes, mainly because product differentiation strongly affects competitive advantage, and pricing strategy influences marketing performance.

Table 3. Inner model evaluation: Adjusted R^2 and f^2 values

Variable	F-Square		R-Square	
	CA	PMP	R^2	Adjusted
Brand Reputation - BR	0,010	0,001		
Competitive Advantage - CA		0,000	0,600	0,595
Perceived Marketing Capability – PMC	0,031	0,004		
Perceived Marketing Performance – PMP			0,602	0,593
Pricing Strategy - PS	0,002	0,300		
Product Differentiation - PD	1,248	0,000		
Technology Turbulence - TT		0,089		
e-WOM	0,000	0,001		

According to the SEM-PLS structural model testing results in Table 4, three hypotheses were accepted, each exhibiting a p-value less than 0.05. Initially, Perceived Marketing Capabilities exerted a positive and substantial influence on competitive advantage ($\beta = 0.078$; $p = 0.000$), suggesting that Perceived Marketing Capabilities enhance Competitive Advantage. Secondly, Product Differentiation exerted a positive and significant impact on Competitive Advantage ($\beta = 0.510$; $p = 0.000$), representing the model's most substantial influence on Competitive Advantage. Third, the Pricing Strategy exerted a positive and significant influence on Perceived Marketing ($\beta = 0.373$; $p = 0.000$), thus affirming that pricing strategy is a fundamental driver of Perceived Marketing Performance. The findings suggest that Product Differentiation and Pricing Strategy are critical factors in establishing competitive advantage and enhancing marketing performance in the air conditioning sector in Medan City.

Conversely, many alternative hypotheses lack empirical support because their p-values exceed 0.05. The pricing strategy and e-WOM do not significantly influence Competitive Advantage; however, Brand Reputation, despite a p-value of 0.022, fails to satisfy the acceptance criteria in the model testing outcomes. Perceived Marketing Capabilities, Product Differentiation, e-WOM, and Brand Reputation also have a negligible direct impact on Perceived Marketing Performance. The concept of Competitive Advantage has not been shown to influence Perceived Marketing Performance significantly; hence, all mediation hypotheses (Perceived Marketing Capabilities, Product Differentiation, Pricing Strategy, e-WOM, and Brand Reputation via Competitive Advantage on Perceived Marketing Performance) lack support. The moderating factor, technological turbulence, does not have a strong effect on the relationship between Competitive Advantage and Perceived Marketing Performance, indicating that the structural model explains only a small part of the direct connection to marketing performance.

Table 4. Hypothesis relationship results

	Hypothesis Relation	O	M	STDEV	STDEV	P-Value	Note
H_1	PMC $\rightarrow$ CA	0,078	0,076	0.031	3.655	0.000	Accept
H_2	PMC $\rightarrow$ PMP	-0.043	-0.043	0.029	1.477	0,097	Reject

H_3	PD → CA	0,510	0,510	0.054	13.564	0.000	Accept
H_4	PD → PMP	-0.017	-0.017	0.033	0,363	0,418	Reject
H_5	PS → CA	0.033	0.031	0.046	0,498	0,329	Reject
H_6	PS → PMP	0,373	0,376	0.085	6.294	0.000	Accept
H_7	e-WOM → CA	-0.002	-0.001	0.037	0.043	0,671	Reject
H_8	e-WOM → PMP	0.023	0.022	0.055	0,291	0,469	Reject
H_9	BR → CA	0.065	0.066	0.028	2.303	0.022	Reject
H_{10}	BR → PMP	-0.016	-0.013	0.031	0,372	0,411	Reject
H_{11}	CA → PMP	-0.003	-0.002	0.048	0.068	0,657	Reject
H_{12}	BR → BT → PMP	0.023	0.021	0.036	0,453	0,357	Reject
H_{13}	PMC → CA → PMP	-0.000	-0.000	0.005	0.068	0,657	Reject
H_{14}	PD → CA → PMP	-0.002	-0.001	0.036	0.067	0,658	Reject
H_{15}	PS → CA → PMP	-0.000	-0.001	0.002	0.043	0,671	Reject
H_{16}	e-WOM → CA → PMP	0.000	-0.000	0.002	0.003	0,693	Reject
H_{17}	BR → CA → PMP	-0.000	-0.000	0.003	0.062	0,660	Reject

Note: Brand Reputation (BR), Competitive Advantage (CA), Perceived Marketing Capability (PMC), Perceived Marketing Performance (PMP), Pricing Strategy (PS), Product Differentiation (PD), Technological Turbulence (TT), electronic Word-of-Mouth (e-WOM).

4.3 Discussion

The rejection of many hypotheses in this study should not be interpreted as a weakness of the model but rather as evidence that consumer responses in the Medan air conditioner market are highly selective. The demographic profile shows that most respondents were in the productive age group, dominated by consumers aged 31–40 years, with many working as private employees or self-employed individuals and having a middle-level monthly income. This profile indicates that AC purchasing decisions are likely to be rational, functional, and value-oriented, rather than being driven mainly by brand image or online persuasion. In addition, most respondents used AC products for residential purposes and purchased relatively common AC sizes, especially $\frac{1}{2}$ and 1 PK, suggesting that consumers prioritized practical suitability, energy efficiency, affordability, and product performance.

Therefore, variables such as brand reputation and e-WOM may not directly influence competitive advantage or perceived marketing performance because consumers in this segment tend to evaluate AC products based on concrete attributes such as price, durability, cooling capacity, warranty, and after-sales service rather than symbolic or communicative cues. The demographic data also indicate that many respondents had experience using more than one AC brand, which strengthens their comparative expertise in evaluating the product alternatives. Consumers with comparative experience are more capable of distinguishing between marketing claims and actual product performance than those without. As a result, they may not easily perceive brand reputation, e-WOM, or general marketing capability as sufficient reasons to judge a brand's competitive superiority.

This explains why product differentiation has the strongest effect on competitive advantage, because consumers with comparative experience are more sensitive to observable differences in technology, product features, energy-saving performance, reliability, and service support. In contrast, pricing strategy did not significantly influence competitive advantage but significantly influenced perceived marketing performance, indicating that price is more directly associated with perceived market attractiveness, purchase feasibility, and consumer response than with long-term competitive superiority.

The effect size results further clarify why several hypotheses were rejected in this study. Product differentiation had a very large effect on competitive advantage with $f^2 = 1.248$, confirming that differentiation is the most dominant strategic driver in explaining competitive superiority. Pricing strategy had a substantial effect on perceived marketing performance ($f^2 = 0.300$), showing that price remains a strong determinant of consumer-perceived market performance in the AC market. However, the other rejected paths showed very small or negligible effect sizes, such as brand reputation toward

competitive advantage ($f^2 = 0.010$), pricing strategy toward competitive advantage ($f^2 = 0.002$), e-WOM toward competitive advantage ($f^2 = 0.000$), perceived marketing capability toward perceived marketing performance ($f^2 = 0.004$), product differentiation toward perceived marketing performance ($f^2 = 0.000$), e-WOM toward perceived marketing performance ($f^2 = 0.001$), brand reputation toward perceived marketing performance ($f^2 = 0.001$), and competitive advantage toward perceived marketing performance ($f^2 = 0.000$). These small effect sizes indicate that the rejected hypotheses were not only statistically unsupported but also practically weak in explaining changes in endogenous variables.

The absence of mediation through competitive advantage can also be explained by the insignificant path from competitive advantage to perceived marketing performance. Although product differentiation strongly builds competitive advantage, this advantage does not automatically translate into perceived marketing performance when consumers place a stronger emphasis on price suitability and practical purchase considerations. Similarly, the moderating role of technological turbulence was not supported, suggesting that technological change in the AC market may not be perceived as sufficiently disruptive by consumers in Medan, Indonesia. Many consumers still evaluate AC products based on familiar and functional criteria, such as price, cooling capacity, electricity consumption, durability, and service availability, rather than on rapid technological changes.

Thus, the findings show that in the local AC market, differentiation strengthens competitive advantage, whereas pricing strategy directly improves perceived marketing performance. However, brand reputation, e-WOM, competitive advantage, mediation mechanisms, and technological turbulence are less influential because consumers rely more on direct product comparisons and economic rationality. The findings indicate that three primary pathways were significant within the model: the effect of Perceived Marketing Capabilities on competitive advantage ($\beta = 0.078$; $p < 0.001$), the impact of Product Differentiation on competitive advantage ($\beta = 0.510$; $p < 0.001$), and the influence of Pricing Strategy on Perceived Marketing Performance ($\beta = 0.373$; $p < 0.001$).

The highest coefficient was observed for the Product Differentiation to Competitive Advantage connection, indicating that Product Differentiation was the most significant factor in establishing competitive advantage in the AC business. The R^2 values of 0.600 for Competitive Advantage and 0.602 for Perceived Marketing Performance suggest that almost 60% of the variation in both endogenous constructs can be explained by the exogenous factors in the model, indicating a moderate-strong effect size ([Joseph F. Hair Jr et al., 2021](#)). Statistically, these findings address the research question: strategic marketing drivers do not uniformly contribute; rather, they are selective and particular in fostering Competitive Advantage and performance. Consequently, product differentiation and pricing strategies are vital elements in the air conditioning market in Medan.

The discovery that Perceived Marketing Capabilities substantially affects Competitive Advantage corroborates the Resource-Based View (RBV) paradigm, which posits that marketing capabilities are strategic resources that are challenging to replicate and can yield a sustained Competitive Advantage ([Barney, 2021](#); [Morgan & Feng, 2024](#)). Market responsiveness and value delivery empower organizations to respond more effectively to market conditions, thereby improving their competitiveness. Nonetheless, the direct influence of Perceived Marketing Capabilities on Perceived Marketing Performance was negligible, suggesting that marketing capabilities are initially transformed into competitive advantages before affecting performance. These findings align with recent studies that indicate that marketing capabilities often operate indirectly through strategic positioning mechanisms ([Morgan & Feng, 2024](#); [Wati et al., 2025](#)). This phenomenon can be explained scientifically, as consumers do not directly evaluate a company's internal competencies but instead analyze tangible outcomes reflected in product excellence and market valuation.

The substantial impact of Product Differentiation on competitive advantage corroborates Porter's differentiation theory, which posits that product distinctiveness is a fundamental method for generating greater value ([Abdurohman & Maulina, 2025](#); [Makruf & Roostika, 2025](#); [Pangarkar & Prabhudesai, 2024](#)). The elevated coefficient ($\beta = 0.510$) signifies that AC attributes, design, quality, and technical innovation are crucial differentiators in the competitive arena. This finding aligns with recent research

indicating that the level of product innovation and differentiation greatly influences competitive positioning in the consumer technology sector ([Jerab & Mabrouk, 2023](#); [Wahyono, 2020](#)). In contrast, e-WOM and brand reputation did not significantly affect Competitive Advantage or Perceived Marketing Performance, contradicting previous research. This may be because air conditioning purchases are high-involvement decisions that rely more on rational analysis and technical requirements than on perceived reputation or online reviews.

The discovery that Pricing Strategy substantially affects Perceived Marketing Performance ($\beta = 0.373$; $p < 0.001$) suggests that price is a pivotal factor in shaping views of marketing efficacy, particularly among middle-income consumers. This aligns with the value-based pricing theory, which posits that the perceived equilibrium between price and benefits enhances market satisfaction and loyalty ([Liozu & Hinterhuber, 2023](#)). Nevertheless, Competitive Advantage did not exert a substantial influence on Perceived Marketing Performance, and the mediating and moderating effects of Technological Turbulence were likewise unsubstantiated, suggesting that technological dynamics are insufficiently robust to alter structural linkages within the local setting of the study. This condition can be elucidated by the constancy of customer preferences and the preeminence of pricing forces over technical volatility. This study advances the literature by demonstrating that, in the air-conditioning business in emerging markets, differentiation and pricing strategies are more critical to success than brand recognition, electronic word-of-mouth, or technical volatility.

5. Conclusions

5.1 Conclusions

This study provides important managerial insights into how strategic marketing drivers shape perceived marketing performance in the air conditioner market in Medan City. The findings indicate that managers should not treat all marketing factors as having equal strategic value. Instead, managerial attention should be directed toward strengthening product differentiation and designing pricing strategies that reflect consumer expectations of value, affordability, and functionality. In the AC market, competitive strength is more likely to emerge when companies offer unique products, such as energy efficiency, cooling performance, durability, warranty assurance, after-sales service, and relevant technological features. Therefore, managers must ensure that differentiation is communicated through promotions and directly experienced by consumers through product quality and service reliability.

For company managers, the findings suggest that marketing performance can be improved by aligning product and pricing strategies with the profile of local consumers. Because many consumers are middle-income, productive-age users who purchase AC products for household needs, companies should emphasize value-for-money positioning, transparent pricing, practical product benefits, and accessible service support. Brand reputation, e-WOM, and technological turbulence should not be ignored but should be treated as supporting factors rather than the main basis of the marketing strategy. Managers should focus on consumer education, clear product comparisons, energy-saving benefits, warranty programs, and after-sales responsiveness to strengthen consumer confidence. Thus, the practical contribution of this study lies in showing that AC companies in Medan should prioritize concrete consumer value, product distinctiveness, and price suitability rather than relying excessively on brand image, online reviews, or technological claims.

5.2 Research Limitations

This study creates a combined framework that brings together ideas from the Resource-Based View (RBV), Market-Based View (MBV), and Dynamic Capability Theory to show how strategic marketing factors affect competitive advantage and perceived marketing performance in the air conditioner industry. Thus, this study contributes to the strategic marketing literature. This study integrates several marketing variables e-WOM, brand reputation, perceived marketing capabilities, product distinctiveness, and pricing strategy into a single model, which differs from many prior studies that have examined these variables independently. Based on the results, product differentiation and price strategy are more important than reputational and technological aspects in determining competitive advantage and perceived marketing performance in an emerging market setting, particularly

highlighting how these factors can lead to increased market shares and customer loyalty. These findings shed light on the efficacy of marketing techniques in consumer durable goods markets and provide useful information for companies seeking to improve their competitiveness through product innovation, differentiation, and value-based pricing.

However, this study had several limitations that should be considered when interpreting the findings. First, the data were collected using self-reported questionnaires, which may have created the possibility of response bias, social desirability bias, or differences between respondents' perceptions and their actual purchasing behavior. Second, this study used a cross-sectional research design, which means that the data were collected at one point in time. Therefore, the causal relationships among strategic marketing drivers, competitive advantage, technological turbulence, and perceived marketing performance should be interpreted cautiously. Future studies should use longitudinal designs to examine whether consumer perceptions and marketing performance change over time, especially in response to technological innovation, pricing changes, and competitive dynamics in the air conditioner industry. Future researchers should also combine survey data with objective company data, such as sales growth, market share, customer retention, and service records, to strengthen the validity of their findings.

5.3 *Suggestions and Directions for Future Research*

This study indicates that air-conditioning companies should prioritize differentiation strategies centered on feature innovation, energy efficiency, product durability, cooling performance, warranty assurance, and after-sales service quality, while adopting competitive pricing strategies aligned with the purchasing power of middle-income consumers. Companies must convert internal marketing capabilities into concrete benefits that consumers can directly perceive, such as lower electricity consumption, faster cooling, quieter operation, a longer compressor warranty, easier spare-part access, and more responsive service. Managers are also advised to communicate product differentiation through clear comparison tables, energy-saving simulations, installation programs, trade-in offers, and service guarantees rather than relying only on general brand image or promotional claims. Thus, product and price strategies can be translated into stronger consumer trust, perceived value, and purchase confidence.

Future research should examine more specific strategic variables that reflect current developments in the air conditioner industry. For example, future studies may test IoT-based smart AC features as a form of product differentiation, such as remote control through mobile applications, automatic temperature adjustment, energy monitoring, air quality sensors, and smart-home integration. Future researchers may also examine green technology differentiation, including eco-friendly refrigerants, inverter technology, low-watt performance, and energy-label certification, to understand whether sustainability-oriented features influence competitive advantages and marketing performance. Future studies could also include perceived value, customer satisfaction, service experience, after-sales service quality, and customer trust as mediating or moderating variables. Comparative studies across different cities, consumer income groups, or AC brands are also recommended to determine whether the effect of differentiation and pricing strategy varies across market segments and levels of technological adoption.

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Author Contributions

BS conceptualized the study, designed the research framework, coordinated data collection, prepared the initial manuscript draft, and supervised the overall research. JJ conducted the literature review, assisted in developing the theoretical framework, performed data analysis, and contributed to the

interpretation of the findings. All authors reviewed and revised the manuscript, contributed to the discussion of the results, and approved the final version of the manuscript for submission.

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