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Improving Competitive Advantage from Costumer Perspective: Strategic Approaches in Indonesia's Telecom Sector

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ABSTRACT

This study examines Smartfren's market position, competitive advantage, and growth prospects amid Telkomsel's market dominance. It employs primary survey data from users and professionals and secondary industry reports, analyzed through a quantitative approach and Porter's Five Forces framework. The findings reveal Telkomsel's superiority in market share, network coverage, and technological innovation, while Smartfren offers stronger value in pricing and economic appeal. High industry rivalry, strong buyer power, and rising digital substitutes push both providers to innovate continuously. The study offers strategic insights for telecom firms and policymakers, and recommends broader sampling, inclusion of more operators, longitudinal analysis, and further research on consumer behavior and digital ecosystems.

ABSTRAK

Penelitian ini mengkaji posisi pasar, keunggulan kompetitif, dan prospek pertumbuhan Smartfren di tengah dominasi Telkomsel. Data primer diperoleh dari survei pengguna dan profesional, serta data sekunder dari laporan industri, dianalisis secara kuantitatif dengan kerangka Porter's Five Forces. Hasil menunjukkan Telkomsel unggul dalam pangsa pasar, cakupan jaringan, dan inovasi teknologi, sedangkan Smartfren lebih unggul dalam harga dan nilai ekonomis. Tingginya persaingan industri, kekuatan tawar pembeli, dan meningkatnya substitusi digital mendorong kedua operator terus berinovasi. Studi ini memberikan wawasan strategis bagi pelaku industri dan pembuat kebijakan, serta merekomendasikan perluasan sampel, penambahan operator, analisis longitudinal, dan eksplorasi perilaku konsumen serta ekosistem digital.

INTRODUCTION

The global telecommunications industry has experienced rapid growth in the past decade, in line with the acceleration of digital transformation, increased internet penetration, and advances in mobile and broadband technology. According to a report by Grandview Research, the global telecommunications services market value reached USD 1.88 trillion in 2023 and is projected to grow to USD 2.87 trillion by 2030 with a compound annual growth rate (CAGR) of 6.2% (Weissberger, 2023). In the midst of the era of digital connectivity which is the main driver of economic and social development, the telecommunications sector plays an increasingly strategic role in shaping the direction of global trade, governance, and technological advancement.

Indonesia, as one of the largest and fastest-growing mobile telecommunications markets in the Southeast Asian region, has also felt the direct impact of these global dynamics. With a population exceeding 270 million, Indonesia's telecommunications industry is growing significantly, driven by government-led digital transformation initiatives, private sector investment, and increasing public demand for mobile and broadband services. This industry has an important contribution in narrowing the digital divide between urban and rural areas, driving financial inclusion, and supporting the rapid growth of the e-commerce, financial technology (fintech), and digital entertainment

sectors in Indonesia.

Economically, Indonesia's telecommunications industry contributes a significant amount to the Gross Domestic Product (GDP), in line with the global trend where the sector contributes around 3–5% to the national GDP. In 2022, with Indonesia's GDP value reaching around USD 1.3 trillion, the direct contribution of the telecommunications sector is estimated to be in the range of USD 39-65 billion. In addition, the size of Indonesia's telecommunications market was recorded at USD 12.9 billion in the same year and is projected to grow at a CAGR of more than 1% until 2027 (Indonesia Country Commercial Guide, 2024). This growth is strengthened by the expansion of 4G and 5G networks, the increasing affordability of smartphone devices, and the government's efforts to build digital infrastructure evenly throughout the archipelago.

However, behind this promising growth, the structure of Indonesia's telecommunications market shows oligopolistic characteristics dominated by four main operators, namely Telkomsel, Indosat Ooredoo Hutchison (IOH), XL Axiata, and Smartfren. Among the four, Smartfren is the player with the smallest market share, both in terms of the number of customers, revenue, and network coverage. Despite this, Smartfren showed a consistent growth trend. In the period from 2018 to 2022, Smartfren's revenue market share increased from 2.8% to 4.8%, with the number of customers reaching around 36 million in 2022. Although it has not been able to compete with Telkomsel's dominance which controls more than 60% of the market share, Smartfren continues to strive to improve its competitive position through a marketing strategy based on 4P (product, price, distribution, and promotion), innovation of digital services such as VoLTE and eSIM, and financial support from the company's parent, Sinarmas Group.

Previous studies have investigated various aspects influencing competitive performance in the telecommunications sector, including internal operational quality (Chandra et al., 2021; Muhammad et al., 2023), strategic innovation impacts such as Fixed Mobile Convergence (Salim et al., 2024), and broader market dynamics within oligopolistic structures (Maisyarah, 2018), highlighting the need to further examine customer-oriented strategic approaches in Indonesia’s telecom industry.

In this context, this study is relevant to evaluate and compare the marketing strategies implemented by Smartfren with its main competitors. The main purpose of this study is to deeply understand Smartfren's market position, competitive advantage, and growth potential in the midst of fierce competition in the Indonesian telecommunications industry. By focusing on the analysis of differentiation strategies, customer value, and infrastructure challenges, this research is expected to provide a comprehensive picture of why Smartfren is still in the position of a follower in the industry and how the strategic direction forward can be directed to strengthen the company's competitiveness in the digital era. In this regard, the study also provides actionable insights that can support the formulation of equitable telecommunications policies and inform strategic decisions among industry actors operating in similarly competitive and highly regulated market environments.

RESEARCH METHOD

Research Design

In particular, this study is focused on two main questions: (1) What is Smartfren's core competitiveness form in Indonesia? and (2) How can Smartfren increase its revenue market share? By answering these two questions, this study seeks to uncover the reasons why Smartfren has not been able to become a national telecommunications market leader, as well as identify strategic opportunities to strengthen its existence in the midst of fierce competition. To obtain a comprehensive picture of the conditions and challenges faced by Smartfren, primary data was collected through a survey distributed to Smartfren users and industry professionals in Indonesia. The results of this study are expected not only to provide empirical insight into the issues faced by Smartfren, but also to produce strategies that can be implemented to improve its competitive position in the national telecommunications industry. Figure 1 shows Flowchart Research Methodology.

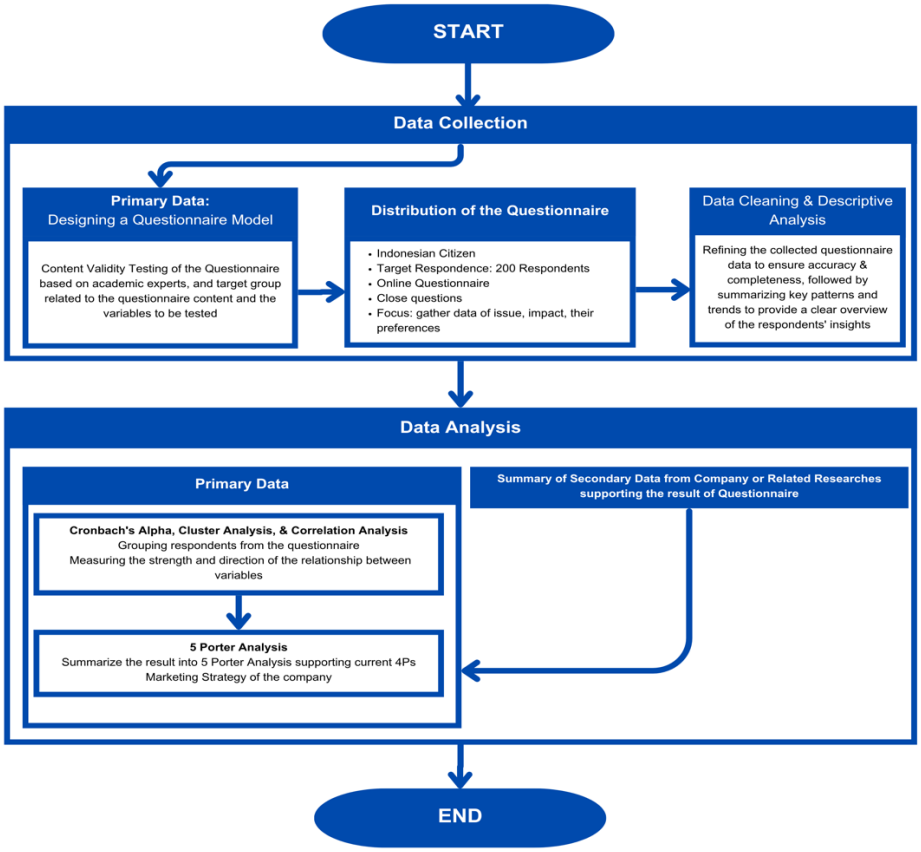

Figure 1 *Flowchart Research Methodology*

Collection Methods

The data collection method in this study uses a primary approach through a structured questionnaire specifically designed to explore consumer perceptions and preferences towards Smartfren's competitiveness in the Indonesian telecommunications industry. The questionnaire design is based on relevant indicators and adjusted to the conceptual framework that has been formulated beforehand. To ensure the validity of the content, this questionnaire has been reviewed by academic experts, industry practitioners, and tested on

pilot groups representing the target population. The objective of this procedure is to verify the content validity so that every question item governed by the content outline achieves the level of accuracy required for the specified constructs or dimensions.

The last questionnaire was conducted over the internet with 200 Indonesian participants, which included 100 Telkomsel and 100 Smartfren users. Such respondents were chosen based on their active participation as users of telecommunication services. The design of the questionnaire has closed type questions on a 1 to 7 Likert scale measuring satisfaction, interest, and behavior towards different telecommunication service offerings. This method provides a complete picture of to consumer perceptions and preferences but also allows detailed investigations of Smartfren and Telkomsel with regard to pricing, network quality, brand equity, and advertisement impact.

The identical questionnaire design strategy for both operators is intended to allow data analysis to be done on an "apple-to-apple" basis, resulting in fair and accurate comparisons. This primary data is an important foundation to analyze Smartfren's strategic position as well as identify room for improvement that can be made in responding to market competition dynamics.

Data Analysis Methods

In order for the analysis to have strong inferential power and credible results, this study uses a combination of quantitative approach to primary data and triangulation with secondary data. The main objective is to evaluate consumer perception, test the internal consistency of data, identify strategic patterns, and assess Smartfren's market position through relevant business frameworks. Primary data obtained from the questionnaire were analyzed using the following statistical techniques:

- Reliability with Cronbach's Alpha: To measure the internal consistency between items in a questionnaire, specifically on constructs such as brand trust, quality of service, price sensitivity, and customer satisfaction. An alpha value above 0.7 is considered to meet the reliability requirements of the instrument (Nunnally, 1978).
- Cluster Analysis: Used to group respondents based on similar answer patterns, such as a group of users who are price-sensitive, brand-loyal, or tech-oriented. The results of this cluster are a reference in developing a more targeted 4P (Product, Price, Place, Promotion) strategy.
- Correlation Analysis: Aims to identify the relationship between key variables, such as the relationship between satisfaction with network coverage and the tendency to recommend Smartfren, or between price affordability and customer loyalty. Pearson correlation is used to measure the strength and direction of the relationship.

The results of this statistical analysis form the basis for further strategic interpretation, especially in the context of the assessment of Smartfren's competitive position using Porter's Five Forces framework

Strategic Interpretation through Porter's Five Forces

The quantitative findings obtained from the analysis of primary data are then synthesized through Porter's Five Forces analysis framework, which is widely recognized

as a strategic tool for evaluating the level of competition in an industry. Each strength competition among competitors, threat of new entrants, buyer bargaining, supplier bargaining power, and the threat of substitution products is assessed based on survey results and industry dynamics. This approach allows for a direct correlation between consumer perception and the external conditions faced by Smartfren, as well as measuring the effectiveness of the 4P strategy currently implemented.

In extending the application of Porter's Five Forces framework, this study incorporates empirically tested consumer perception data, thereby complementing prior research that predominantly utilized qualitative approaches or secondary information sources (e.g., Rajasekar & Al Raee, 2013; Sirat et al., 2008). While Kusumawardhani and McCarthy (2020) applied the model to examine broader industry-level dynamics, the current study focuses on firm-level strategic positioning, offering a more granular and context-specific perspective within Indonesia's telecommunications landscape. Through this approach, the research contributes to strategic management literature by integrating consumer-based evidence with structural industry analysis, particularly relevant for oligopolistic market settings.

Secondary Data Support

To reinforce the validity and context of the analysis, secondary data was collected from a variety of reliable sources, including industry reports, company publications, competitors' financial reports, and academic literature. This information consists of subscribers, revenue market share, average revenue per user (ARPU), and other sectorial brand position benchmarking analysis. This secondary data serves to cross-verify the main findings of the primary data, while expanding understanding of Smartfren's internal performance and external industry dynamics. By combining statistical methods and comprehensive strategy models, as well as utilizing primary and secondary data simultaneously, this study produces a rigorous and in-depth multidimensional analysis. The results are expected to provide recommendations that can be implemented to encourage the sustainability of Smartfren's competitiveness in the Indonesian telecommunications market.

RESULT and DISCUSSION

Statistics Analysis Smartfren

Reliability Test Results

Table 1 presents the results of the reliability test based on the SPSS output, which shows the high level of internal consistency of the questionnaire items for each variable studied. For example, the C1 *Market Share* variable has a Cronbach's Alpha value of 0.856, which signifies excellent reliability. In social science research, a score above 0.7 is considered acceptable, and a score above 0.8 is categorized as good. Therefore, a value of 0.856 indicates that the measurement scale used has been statistically tested and is worthy of further analysis.

Table 1 *Smartfren Reliability Test Result*

Variable	Reliability Statistics	
	Cronbach's Alpha	N of Items
C1 Market Share	.856	6
C2 Network Coverage	.918	9
C3 Internet Speed	.895	6
C4 Pricing	.941	9
C5 Technological Advancement	.944	9

This high reliability indicates that the respondents provide answers consistently and that the question items are strongly interconnected, as reflected in *the item-total correlations* that mostly exceed 0.6. For example, the item "I recommend Smartfren based on the number of customers" has the highest correlation of 0.728, which shows a significant contribution to the construction *of market share*. From a practical perspective, these results reinforce the validity of the use of these scales in strategic decision-making and academic reporting. Thus, the insights generated from this dimension can be relied upon, including in comparing Smartfren with competitors such as Telkomsel.

Correlation Test Results

Market Share

Analysis of the inter-item correlation in the *market share variable* showed a statistically significant relationship at the 0.01 (2-tailed) level. For example, the items "I recommend Smartfren based on the number of customers" correlated strongly with "Satisfaction with the number of customers" (r = .599**) and "Satisfaction with growth" (r = .565**). The highest correlation was found between "The growth of telecommunication service providers is important for competitiveness" and "It is likely that I will continue to use Smartfren based on its growth" (r = .659**), which indicates that the perception of growth has an important impact on user loyalty.

Network Coverage

For *the network coverage dimension*, all correlations between items are significant at the level of 0.01. The items "I recommend Smartfren based on its range" are highly correlated with "Satisfaction with coverage in the city" (r = .602**), and "Satisfaction with network reliability" (r = .638**). The highest correlation was recorded between "Coverage in cities and villages is important to me" and "Network reliability is important in choosing a service provider" (r = .707**), indicating that geographic coverage and network reliability are decisive factors in customer decisions.

Internet Speed

In the dimension *of internet speed*, the correlation between items is also significant and strong. The highest correlation was recorded between "I tend to recommend Smartfren based on download speed" and "I am satisfied with the download speed" (r = .748**). In addition, the correlation between "Download speed is important to me" and "I'm satisfied with download speed" reaches r = .573**, indicating that expectations for speed are strongly related to satisfaction and reuse intent.

Pricing

The *pricing* dimension shows a very strong correlation between items, such as between "I will likely continue to use Smartfren based on the price" and "I am satisfied with the price of the Smartfren plan" (r = .756**). A high correlation was also seen between "I am satisfied with the value given by Smartfren" and "I will continue to use Smartfren because of the promotion given" (r = .750**). This demonstrates that customers' satisfaction with price, in addition to their perception of value, incredibly impacts loyalty towards the customers.

Technological Advancement

The technological advancement dimension indicates that Smartfren innovation perception and the 5G rollout are highly correlated. The strongest correlation was found for "I would likely recommend Smartfren based on the 5G launch" and "I will continue to use Smartfren based on its innovative services," where the value was r = .736**. This illustrates further the fact that in the context of customer loyalty regard, technological innovation serves as a critical determinant.

Results of the KMO and Bartlett Test

The KMO test of adequacy and Bartlett's Sphere Test were conducted to verify the Smartfren dataset suitability for factor analysis. These two tests are an important first step in multivariate analysis to assess the adequacy of the sample and the correlation between variables. Example of Interpretation on Variable 3:

- A KMO value of 0.853 indicates a "meritorious" level of sample adequacy, based on the interpretation of the Kaiser scale. A value above 0.8 reflects that the data is suitable for factor analysis.
- Bartlett's Test of Sphericity was significant ($p < 0.001$), which means that there is adequate correlation between variables, and the data is not in the form of *an identity matrix*. This indicates that the variables in this study are interrelated and can be reduced to fewer factors.

Statistics Analysis Telkomsel

Reliability Test Results

Based on the reliability test output (Table 2) using SPSS, all items in the questionnaire showed very high internal consistency on each variable. For example, in the *Market Share (C1)* variable, Cronbach's Alpha value of 0.961 indicates that items such as customer satisfaction, customer base importance, and likelihood of continued use due to growth are highly correlated and consistently measure the same construct.

Table 2 *Telkomsel Reliability Test Result*

Variable	Reliability Statistics	
	Cronbach's Alpha	N of Items
C1 Market Share	.961	6
C2 Network Coverage	.986	9
C3 Internet Speed	.967	6
C4 Pricing	.955	9
C5 Technological Advancement	.987	9

Cronbach's Alpha value above 0.9 is categorized as excellent, indicating that the measuring tool used has strong statistical reliability. Thus, the data obtained can be considered valid and suitable for use in future analysis. The *value of the corrected item-total correlations* ranged from 0.828 to 0.929, reinforcing the finding that each item contributed significantly to the overall reliability of the construct. For example, the item "Number of customers important to the reliability of telecom service providers" obtained the highest correlation value (0.929), indicating its very strong correlation with the overall scale. In addition, Cronbach's Alpha value remained above 0.94 even though one of the items was removed, indicating that no single item dominated the influence on reliability. This consistency strengthens the credibility of the findings and supports the use of this scale in evaluating Telkomsel's perception of market strength.

From a practical perspective, this high reliability supports the validity of *the market share* dimension in strategic comparison with other operators, such as Smartfren. These results ensure that respondents' perceptions of Telkomsel's customer base and growth are consistent and unified representations, which can be used as a basis for strategic decision-making, especially in measuring brand strength, customer loyalty, and competitive position.

Correlation Test Results

Market Share

The correlation analysis (see Appendix B) on Telkomsel's *market share* dimension shows a very strong and statistically significant relationship between the six items measured. The highest correlation was recorded between the items "I am satisfied with the number of Telkomsel customers" and "I am likely to continue using Telkomsel based on its growth" ($r = 0.856$, $p < 0.01$), indicating that customer satisfaction is a strong predictor of customer loyalty. Other items, such as "The number of customers is important for the reliability of telecommunication service providers," also showed a high correlation with the items "The growth of telecommunication service providers is important for competitiveness" ($r = 0.899$) and "It is likely that I will continue to use Telkomsel based on its growth" ($r = 0.868$). These results further strengthen the viewpoint that Telkomsel's brand image and expansion framework drives customer loyalty and trust.

Network Coverage

The dimension of network coverage showed a very high and significant correlation among the nine items, with Pearson values between 0.771 and 0.953 ($p < 0.01$). The greatest correlation was registered for "I am satisfied with Telkomsel's network coverage in the city," and "It is likely that I will continue to use Telkomsel based on the reliability of the network" ($r = 0.953$). This indicates that satisfaction with urban coverage significantly impacts user retention. In addition, the item "I recommend Telkomsel based on its network coverage" has a high correlation with overall coverage satisfaction ($r = 0.939$) and network reliability ($r = 0.924$), which indicates an integrated perception between network coverage and user trust level in the service.

Internet Speed

In the *internet speed* dimension, all items were strongly correlated with each other, with Pearson values ranging from 0.710 to 0.962 ($p < 0.01$). The highest correlation was between "I am satisfied with Telkomsel's download speed" and "I am satisfied with Telkomsel's upload speed" ($r = 0.962$). These results reflect that users tend to rate both aspects of speed simultaneously. Satisfaction with speed is also significantly correlated with the intention to recommend and continue to use Telkomsel ($r \geq 0.920$), indicating that internet performance is a key factor in user behavior.

Pricing

The *pricing* dimension shows a strong correlation between the nine items, with values ranging from 0.440 to 0.860. The highest correlation occurred between the items "I am satisfied with the value given by Telkomsel" and "I tend to recommend Telkomsel based on its value" ($r = 0.860$). A significant correlation was also found between items related to promotions and service usage decisions, such as "I am satisfied with Telkomsel's promotion" and "I will continue to use Telkomsel because of the promotion provided" ($r = 0.832$). These findings show that perceptions of price and value have a significant impact on satisfaction, loyalty, and intent to recommend. The correlation between the perception of price importance and value indicates a high price sensitivity among consumers.

Technological Advancement

The technological advancement dimension of the nine items showed the strongest relationship which performed the correlation analysis, having a Pearson range between 0.839 and 0.944 ($p<0.01$). The strongest correlation "I am satisfied with the 5G launch by Telkomsel" and "I recommend Telkomsel based on its 5G launch" was strong as well ($r=0.944$). A strong correlation was also observed for brand loyalty and innovative services satisfaction ($r=0.934$). This demonstrates that infrastructure investment and technology service innovation greatly influence users' perceptions and fosters loyalty towards Telkomsel as a technology leader.

KMO and Bartlett Test

In order to evaluate the appropriateness of conducting factor analysis on Telkomsel's data set, the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy as well as Bartlet's test of sphericity were performed. The KMO test assesses the adequacy of the Sample, whereas Bartlett's test assesses whether the inter-correlation matrix of the variables is sufficiently related for dimensionality reduction techniques like exploratory factor analysis (EFA) to be applied. The test results show that Telkomsel's data is suitable for factor analysis, because it meets the assumption of significant correlation between items and the suitability of the data structure. These findings support the validity of the constructs of the dimensions that have been analyzed and strengthen the theoretical interpretation of user perception of Telkomsel's performance.

Spider Analysis

Descriptive analysis using spider charts provides a strong visual representation of how users perceive different aspects of telecommunications services. In this study, a spider chart was used to compare the average perception of 100 Smartfren users and 100 Telkomsel

users on five strategic dimensions, namely *market share* , *network coverage* , *internet speed* , *pricing* , and *technological advancement* (technological advancement). Each axis in the graph depicts a single service factor, while the lines mapped for each provider show relative strengths and weaknesses based on user perception.

Table 3 *Average SPSS Factor Scores of Telkomsel and Smartfren*

	Smartfren	Telkomsel
C1 - Market Share	0.52260679	0.70022066
C2 - Network Coverage	0.54914646	0.74611827
C3 - Internet Speed	0.56836039	0.7266041
C4 - Pricing	0.67937705	0.62608143
C5 - Technological Advancement	0.45813051	0.711296

To obtain the results shown in Table 3, a series of factor analyses were performed. First, a factor analysis was carried out using SPSS on survey data from Smartfren and Telkomsel users, using *the Principal Component Analysis* (PCA) extraction method and Varimax rotation. A total of five components are delineated to represent each of the five strategic dimensions (C1–C5). The SPSS packages automatically compute a factor score for every respondent. Second, these scores needed to be adjusted proportionally to a 0-1 range through the normalization equation, allowing for relative comparison between the two groups. Third, the mean of the score which has been normalized for each service dimension is calculated for both Smartfren and Telkomsel. This average is the final result presented in Table 3 and it is used to create the spider chart visualization.

Analysis results indicate that Telkomsel outperforms, with a strong perception from users, within the infrastructure and network availability as well as region coverage commendable both in urban and rural settings, four out of five categories: market share (C1), network coverage (C2), internet speed (C3), and technological advancement (C5). Meanwhile, Smartfren has an advantage in the telecommunications services price-dimension (C4) with a score of 0.6794 against Telkomsel's 0.6207, indicating the perception of greater affordability and economic value of services offered by Smartfren targeted towards price-sensitive consumers.

Figure 2 enhances the comprehension Telkomsel's strategic advantage as market leader standing alongside Smartfren's competitiveness through pricing strategy enables emerging challenger that to compete through pricing—and carrier positioning—outlines strategic enables set decisive actions. Alongside serving clear academic perspectives, these findings aid wis perception-based understanding of each service provider's core strengths and weaknesses for constructive business decision making and strategical marketing policy formulation steps.

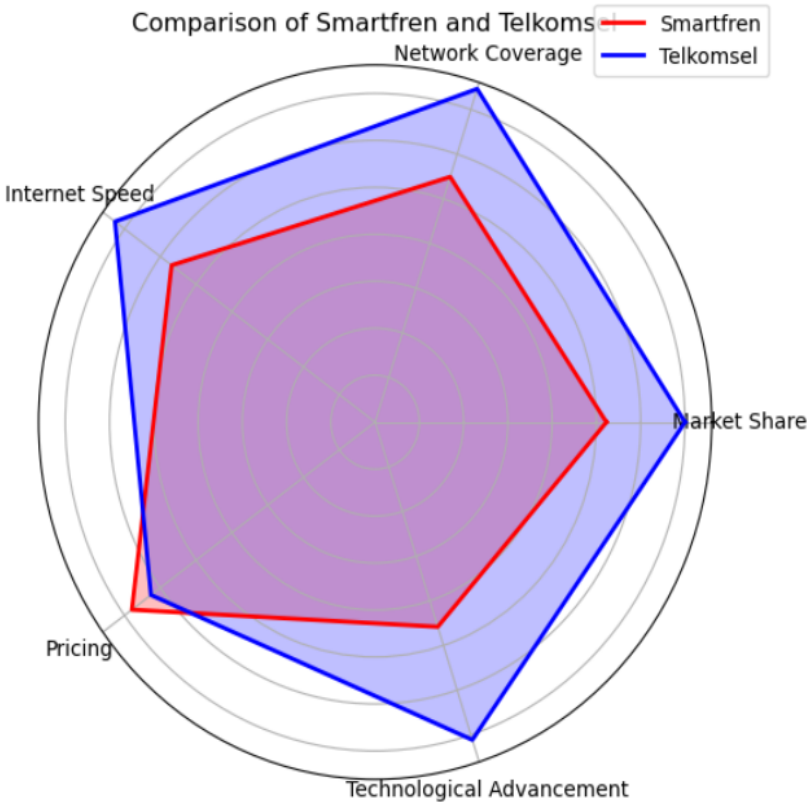

Figure 2 *Positioning Comparison: Telkomsel and Smartfren*

Discussion

1. Competitive Rivalry – Very High

Telecommunications in Indonesia is a highly penetrated industry with a handful of key players—Telkomsel, Indosat Ooredoo Hutchison, XL Axiata, and Smartfren—dominating the market. Telkomsel holds a dominant position with superior scores in market share, network coverage, and technological advancement, as reflected in both user satisfaction and statistical reliability. Smartfren, while improving, remains a challenger brand with a smaller customer base and more limited infrastructure. The intense competition is further fueled by aggressive pricing strategies and constant innovation, making rivalry among existing firms extremely high.

2. Threat of New Entrants – Low

The barriers to entry in the telecom industry are substantial due to high capital requirements, regulatory constraints, and the need for extensive infrastructure. Telkomsel's established dominance and Smartfren's ongoing investments in 4G and 5G networks make it difficult for new players to enter and compete effectively. Additionally, brand loyalty and economies of scale further protect incumbents. Therefore, the threat of new entrants is relatively low for both companies, though Smartfren is more vulnerable due to its smaller scale.

3. Bargaining Power of Suppliers – Moderate

Telecom providers rely heavily on equipment vendors, spectrum licenses, and technology partners. Telkomsel, with its scale and financial strength, likely has more negotiating power with suppliers compared to Smartfren. However, both companies are dependent on global technology providers (e.g., Huawei, ZTE, Ericsson), which limits their ability to fully control costs. Smartfren's strategic partnerships, such as with ZTE, help mitigate this risk but do not eliminate it. Thus, supplier power is moderate and affects both players, though Smartfren may feel the pressure more acutely.

4. Bargaining Power of Buyers – High

Consumers in Indonesia are highly price-sensitive and have multiple options, increasing their bargaining power. The correlation and reliability analyses show that users place significant importance on price, value, and promotional offers areas where Smartfren performs well. However, Telkomsel's strong performance in network reliability and speed gives it an edge in retaining premium users. The high availability of alternatives and low switching costs mean that both companies must continuously innovate and offer competitive pricing, making buyer power a critical force.

5. Threat of Substitutes – Moderate to High

The threat of substitutes is growing with the rise of internet-based communication platforms (e.g., WhatsApp, Zoom, and social media apps) that reduce reliance on traditional telecom services. Although both Telkomsel and Smartfren are adapting by preparing data-centric packages, the move toward digital services and over-the-top (OTT) platforms poses a more permanent challenge. Smartfren needs to diversify quicker, while Telkomsel's venture into the ecosystem telco and digital service offers provides some protective cover given its further online service infrastructure and services ecosystem.

6. Strategic Alignment with National Digital Policy

This competitive dynamic is also shaped by broader national digital development agendas, particularly the Palapa Ring Project, a nationwide fiber-optic backbone initiative that significantly expanded high-speed connectivity across remote regions (Kominfo, 2020). In addition, Indonesia's Digital Roadmap 2021–2024, launched by the Ministry of Communication and Information Technology (Kominfo, 2021), outlines strategic priorities for accelerating 5G deployment, enhancing digital infrastructure, and supporting inclusive digital transformation. These initiatives create both opportunities and strategic pressure for telecom operators. For Smartfren, they open pathways to expand service coverage beyond urban areas, but also require alignment with government priorities to remain competitive and relevant in an increasingly policy-driven ecosystem (World Bank, 2022).

CONCLUSIONS and SUGGESTION

Conclusion

This paper is Telkomsel and Smartfren's comparative benchmarking Telkomsel and Smartfren case study in Indonesia. The purpose of Smartfren case study is to explore and compare the two providers using primary data collected with structured questionnaires, as well as secondary data available in reports to cover: market share, network coverage, internet speed, pricing, and technological advancement. The analysis is also supported by

statistical tools like Cronbach's Alpha for reliability, Pearson correlation for inter-variable relationships, strengthening the outcome.

The findings indicate Smartfren continues to lag behind Telkomsel, demonstrating superior performance across most dimensions. In addition, Telkomsel's lead expands in terms of market share, network coverage, and technological advancements. The user satisfaction rating coupled with the correlation context of satisfaction, importance and behavioral intentions is high which illustrates the strength of these findings. Likewise, claiming satisfaction has a major influence on the results. Telkomsel has also high scores in reliability like Cronbach's Alpha equals to market share 0.961.

Conversely, Smartfren seems to have a competitive advantage in its pricing and Smartfren's marketing efforts offer great value even to the most price-sensitive. Smartfren's brand positioning as a low-cost provider of communication services helps sustain for the companies that lack cutting-edge infrastructure and advanced technology. Its reliability scores, while slightly lower than Telkomsel's, still indicate adequate internal consistency.

Analyzing the company with Porters Five Forces shifts neatly confirms that the competitive rivalry is quite intense as Telkomsel has extends distribution and ICT infrastructure, worrying infrastructure. and Smartfren serves as the value brand competing on price. Due to steep upfront costs and extensive red tape, the threat of new competitors is slim. The power held by suppliers is mid-range, while the power that is held by buyers is high, particularly in regard to the price-sensitive Indonesian market. The rise of over-the-top video services and other digital communication tools has amplified the threat of substitutes.

Overall, the study concludes that while Telkomsel has a reinforced market leadership position, Smartfren has been able to make inroads by positioning itself as a low-cost provider. Both providers need to continue innovating to keep pace with changing consumer needs and technology. Telkomsel needs to keep investing in infrastructure and digital services, while Smartfren needs to improve its network and technology reliability. These insights also suggest the importance of aligning strategic directions with broader digital transformation goals and consumer-oriented service policies.

These findings are useful for other telecom operators as well as policymakers and researchers. They highlight the need for balanced matching of service quality and customer expectation as well as sustained adaptation to change in the world of advanced technologies. The research clearly outlines the results that can be achieved through the application of quantitative techniques, blended with strategic perspective, in assessing competition in telecommunications.

Recommendation for Future Research

1. Expand the Sample Size and Diversity
   To improve the generalizability of capturing regional differences in service perception, future studies need to focus on a more demographically diverse sample from various regions of Indonesia.
2. Include Other Telecom Providers

Incorporating Indosat Ooredoo Hutchison into the analysis alongside XL Axiata would enable a more complete understanding of the competition while permitting greater benchmarking.

3. Incorporate Longitudinal Data
   Executing a longitudinal study would help monitor shifts in consumer perception and service provider performance over time, particularly following major technological enhancements like the introduction of 5G technology.
4. Explore Behavioral and Psychographic Factors
   Future research could integrate behavioral and psychographic variables (e.g., digital lifestyle, brand loyalty, tech adoption) to better understand customer decision-making.
5. Assess Impact of Digital Ecosystems
   Investigate how bundled services (e.g., fintech, streaming, cloud storage) influence customer satisfaction and retention, particularly as telecoms evolve into digital service providers.

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