

Analysis of Competition Maps, Service Quality, and Customer Movement Behavior of Internet Service Providers in the Special Region of Jakarta

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Abstract

This study aims to analyze the competitive map, service quality, and customer transfer behavior in four main internet service providers in the Special Region of Jakarta, namely IndiHome, Biznet, First Media, and MyRepublic. Internet services, which have become an essential need of urban communities, present fierce competition between providers, especially in terms of speed, stability, price, and user experience. This study uses the Multidimensional Scaling (MDS) method to map the brand position based on customer perception of service attributes, including features, network reliability, area coverage, speed, and price. In addition, the Kano model is used to assess the level of customer satisfaction with each service attribute, while the Markov Chain method is applied to predict the chances of customer switching between service providers. The results show that Biznet occupies the most differentiated position with advantages in terms of speed and network stability, while IndiHome, First Media, and MyRepublic are in close positions which reflects the perception of service similarity in the minds of customers. These findings confirm that competitive advantage in the internet service provider industry is not only determined by price, but also by technical quality, reliability, and customer experience. This research is expected to be a reference for internet service providers and regulators in formulating strategies to improve service quality, customer retention, and encourage the creation of healthy market competition in the Indonesian telecommunications sector.

1. INTRODUCTION

Internet services have now become an essential infrastructure that supports various sectors of life, such as the economy, education, health, and entertainment (Chen, 2024; Haleem et al., 2022; Wahab et al., 2020; Yu & Meng, 2022). Data from Statista (2024) It shows that 67.1% of the world's population is actively using the internet by 2024, reflecting the global digital transformation. Indonesia, as one of the fastest-growing countries in the world, has more than 212 million internet users in 2023, making it the country with the fourth-largest number of internet users in the world after China, India, and the United States. APJII Survey (2024) shows internet penetration in Indonesia which will reach 79.50% by 2024, with 221 million of Indonesia's total 278 million population already connected to the internet. This strengthens Indonesia's position as the largest internet service market, driven by increasing demand and accelerating

digitalization in various sectors.

However, despite the increasing number of internet users, the quality of service provided by internet service providers (ISPs) is still often an issue. Customer complaints related to unpredictable internet speeds, unresponsive customer service, and frequent network interruptions are the main challenges that drive the phenomenon of brand switching. On the other hand, competition between ISPs is getting fiercer, and customers are not only judging services based on price and speed, but also on their overall experience of using the service. This fairly significant brand switching phenomenon is an indicator of customer dissatisfaction with the quality of existing ISP services. With the growth in the number of customers and the increasing expectations for service quality, ISPs must optimize marketing strategies and improve service quality to meet customer needs and expectations.

In the Jakarta Special Area, competition between ISPs is getting tougher, with large providers such as IndiHome, Biznet, First Media, and MyRepublic competing fiercely in terms of speed, price, and service quality. Some previous studies have focused on analyzing ISP service quality, but most have only highlighted specific aspects, such as speed or price, without considering other factors that affect overall customer satisfaction. For example, research conducted by Vania, (2021) maps ISPs in the Jakarta Special Region based on service attributes, but does not include a more in-depth mapping of brand positioning, especially in terms of customer perceptions of the advantages and disadvantages of competing ISPs. In addition, although the Kano model has been widely applied to analyze customer satisfaction in various cities such as Bandung (Sidik et al., 2021), research on the attributes of service quality that are influential in Jakarta is still limited.

This study aims to fill this gap by integrating three comprehensive analytical approaches. First, the mapping of ISP brand positioning in the Special Region of Jakarta will be carried out using the multidimensional scaling (MDS) method to analyze the competitive position of ISPs based on customer perception of service attributes such as features, internet speed, network reliability, and price (Borg et al., 2013; Mogaji, 2021). Second, this study will evaluate the quality of ISP services using the Kano model to identify the service attributes that have the most impact on customer satisfaction, as well as provide insights into the improvements that ISPs need to make to improve customer satisfaction and loyalty (Phasa & Astuti, 2021; Sidik et al., 2021). Third, the Markov chain method will be used to analyze the dynamics of brand switching and customer switching patterns between ISPs, providing an overview of the factors influencing customers' decisions to switch ISPs in the Jakarta Special Region (Ching et al., 2013; Vania, 2021).

In this study, the gap that is to be overcome is the limitation of previous research that only focused on certain aspects of ISP services without providing a more comprehensive mapping of brand positioning and the dynamics of brand switching in Jakarta. This research will combine these three methods to provide a more holistic understanding of ISP market competition, service quality, and brand switching patterns in Jakarta. This research is also expected to make a strategic contribution for ISPs in designing more effective policies in improving service quality, retaining customers, and strengthening their competitive position in an increasingly dynamic market.

The objectives of this study are to: (1) Analyze the brand positioning mapping of ISPs in the Special Region of Jakarta using the MDS method based on customer perception of important service attributes, such as speed, price, area coverage, and network reliability; (2) Evaluate the service quality of ISPs using the Kano model to identify service attributes that have a significant effect on customer satisfaction; and (3) Analyzing the dynamics of brand switching among ISP customers in the Special Region of Jakarta using the Markov chain method. This research is expected to make a significant contribution in understanding the dynamics of ISP market competition, as well as providing strategic recommendations for ISPs and regulators in designing policies that encourage healthy competition and improve the quality of internet services in Jakarta.

2. KAJIAN LITERATURE

Internet Service Provider (ISP)

Internet service provider is an entity that provides access services to the global internet network. Etymologically, the internet refers to a global communication network that allows access to various information online, while *service providers* refer to service providers. ISPs act as a bridge that connects users to cyberspace, facilitating various digital activities such as communication, *e-commerce*, and entertainment. In Indonesia, the implementation of ISPs is regulated by the Regulation of the Minister of Communication and Information Technology Number 13 of 2019 concerning the Implementation of Telecommunication Services. Based on the technology used, ISPs can be categorized into *dial-up*, *broadband*, *wireless*, satellite, and *fiber-optic*. Meanwhile, based on the scope of service, ISPs can be differentiated into local, regional, national, and international ISPs.

As a key player in the telecommunications industry, ISPs offer a variety of service packages with varying speeds and capacities to meet the diverse needs of users. Sibarani *et al.* (2023) emphasizing the great potential of ISPs in driving the growth of Indonesia's digital economy. However, this is highly dependent on the quality of network infrastructure and government policy support. In addition to providing basic connectivity services, modern ISPs also offer additional solutions such as *domain hosting*, *storage Cloud*, and *cybersecurity*. The position of ISPs as a link between users and the global internet demands a high commitment in maintaining network security from various cyber threats. Research by

Liu (2019) highlighting the importance of network technology innovations, such as 5G, in improving ISP service quality and providing a more optimal user experience.

Brand Positioning

Fire or brands have an important role in distinguishing a product from its competitors since the beginning of human civilization. Function *fire* as a marker of quality and differentiator of products has been known since the Indus Valley civilization to develop in modern times (Moore & Reid, 2008). As a signal of quality and differentiation, *brand positioning* aims to create a strong brand image and value in the minds of consumers (Kotler & Armstrong, 2018). *Brand positioning* is a strategy that companies use to put their brand in the minds of consumers by designing unique and meaningful offerings and imagery (Keller et al., 2015).

Quality of Service

The concept of service quality (*service quality*) refers to the extent to which the characteristics and capabilities of a product or service are able to meet or even exceed customer expectations. According to Mutmainnah (2017), service quality is the overall characteristics that can meet customer needs. Gulla *et al.* (2015) emphasizing that quality is a decisive factor for companies to retain customers and create added value. Opele *et al.* (2020) He further explained that quality services are the result of the service provider's efforts in meeting the needs and desires of consumers in a timely manner. Service quality is a dynamic condition that is capable of exceeding customer expectations. The high quality of service not only increases customer satisfaction but also encourages loyalty and repurchase (Ulkhag & Br.Barus, 2017). However, measuring the quality of service is quite complex because of its *intangible*, heterogeneous, and simultaneous (Bordoloi et al., 2018). Prananda *et al.* (2019) adding that in addition to the quality of service, other factors such as price, product quality, and personal factors also affect customer satisfaction.

Brand Switching

Brand switching It is a phenomenon of consumer movement from one brand to another that is influenced by various factors such as service quality, price, and technological innovation. When consumers are dissatisfied with the brand used, they tend to look for better alternatives. *Brand switching* It can happen for a variety of reasons, including a search for variety, new product offerings, or dissatisfaction with an existing product. Medari *et al.* (2017) join *brand switching* with customer loyalty. Level *brand switching* A high indicates low customer loyalty to a brand. According to Agustina and Kembang (2019), some of the main reasons consumers do *brand switching* is product quality that does not meet expectations, uncompetitive prices, difficulty obtaining products, or the desire to try new products.

3. METHOD

This study uses primary data collected through a Likert scale questionnaire that was shared online with respondents using Google Form. The questionnaire consists of three main parts: brand positioning, service quality, and brand switching. In the brand positioning section, respondents were asked to provide an assessment of similarities or dissimilarities between ISPs based on service attributes, features, speed, area coverage, network reliability, and price. The service quality section measures the level of customer satisfaction with the functional and dysfunctional service attributes of each ISP. Finally, in the brand switching section, respondents were asked to reveal their reasons for staying subscribed or switching ISPs. The population of this study is residents of the Special Region of Jakarta who subscribe to IndiHome, Biznet, First Media, and MyRepublic. The sampling technique used a volunteer sampling approach, with a sample consisting of 400 respondents randomly selected from the productive age group between 19-49 years, who had objectivity in assessing the ISP used.

In data analysis, descriptive analysis techniques are used to describe the data obtained without making generalizations. The Likert scale used in the questionnaire has a weight of values from 1 (strongly disagree) to 5 (strongly agree), which is then analyzed by calculating the scale range to determine the category of the answers. The validity of the instrument is measured using the corrected-total item correlation method, where the question item is said to be valid if the correlation is significant at the level of 5%. Reliability is tested using Cronbach's Alpha, with values above 0.7 indicating the instrument received. To analyze brand positioning, Multidimensional Scaling (MDS) techniques are used to map customer perceptions of similarities between ISPs based on service attributes. MDS generates a perceptual map that shows competitive positions between ISPs, with the STRESS measure used to measure the goodness of fit of the low-dimensional configuration.

The Kano model is used to analyze the quality of ISP service by identifying attributes that affect customer satisfaction, such as features, speed, area coverage, and price. Service attributes are categorized into five types, namely Attractive, One-Dimensional, Must-be, Indifferent, and Reverse, based on their effect on customer satisfaction or dissatisfaction. The results of the Kano model evaluation were used to calculate the coefficient of customer satisfaction (extent of satisfaction and extent of dissatisfaction) with the existing equations. In addition, brand switching analysis was carried out using the Markov Chain method to map the pattern of customer switching between ISPs over a certain

period. The transition matrix is used to calculate the chances of a customer transition between ISPs and predict the likelihood of customers switching ISPs in the next period. This technique provides insight into the factors that influence *brand switching* decisions and helps ISPs design more effective customer retention strategies.

4. RESULTS AND DISCUSSION

Result

Table 1. Average attribute assessment score

Attribution	IndiHome	First Media	Biznet	MyRepublic
Service	3,453	3,438	3,765	3,437
Feature	3,152	3,254	3,303	2,957
Speed	3,267	3,557	3,634	3,550
Jangkauan Area	3,168	3,202	3,230	3,123
Network Reliability	3,043	3,350	3,500	3,127
Price Fairness	3,029	3,202	3,653	2,940
External	3,108	3,360	3,424	3,273

Based on the categories in table 2, the results in table 12 explain that customers tend to give a positive assessment (agree) to IndiHome's performance in terms (attributes) of services (score 3,453). First Media and MyRepublic showed similar performance, with each customer likely to agree that the ISP they use is positive in terms of service (scores of 3,438 and 3,437) and speed (scores of 3,557 and 3,55). Furthermore, customers tend to agree that Biznet is rated positive in almost all attributes except features (score 3.303) and area coverage (score 3.23) which are relatively neutral. However, overall the performance of the four ISPs tends to be rated not negatively by customers because they obtain an average score for all attributes that are classified as neutral and agreeable. Further evaluation was carried out by comparing the performance of the four ISPs presented in the radar diagram in Figure 11.

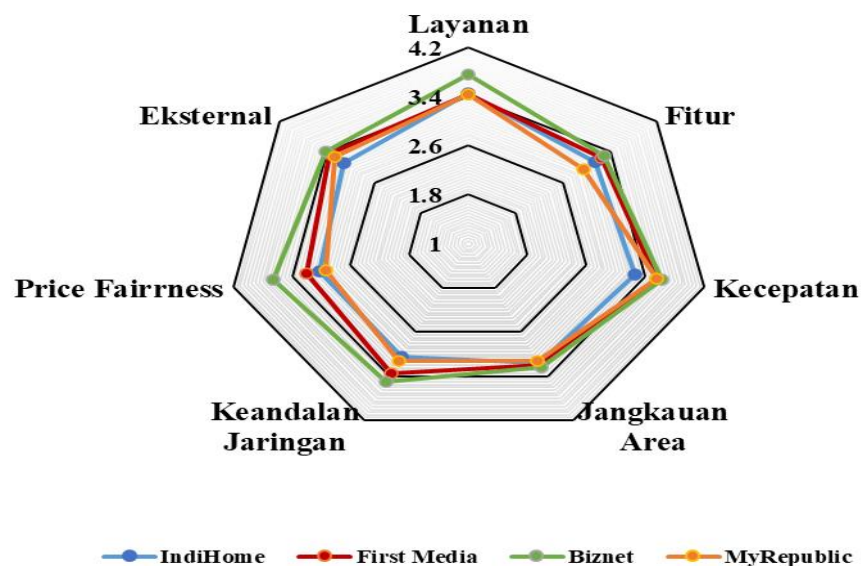
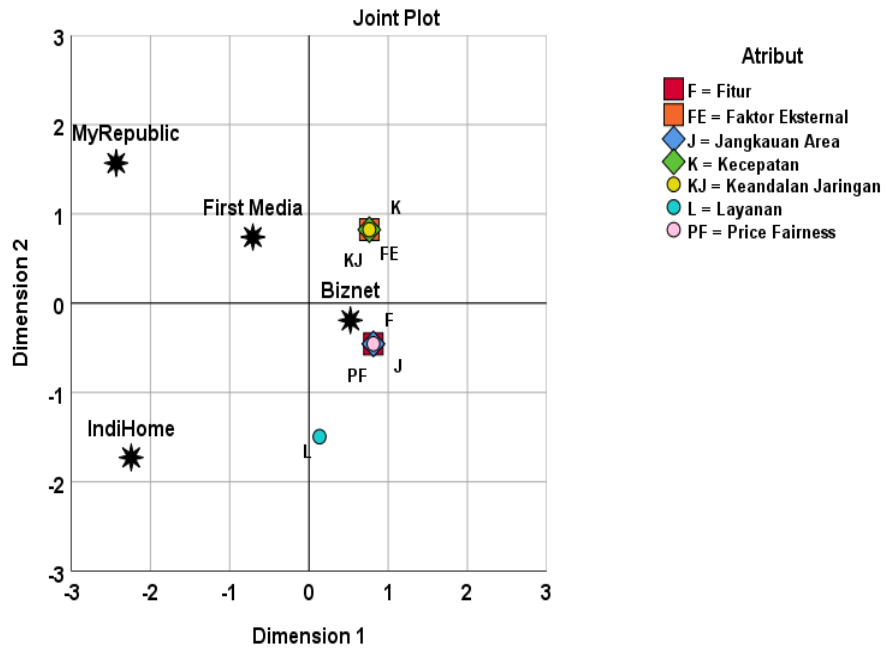


Figure 1. ISP attribute rating score scatter chart

Based on Figure 11, it can be seen that Biznet has the highest score in all attributes, even higher than the positive scores of IndiHome (service), as well as First Media and MyRepublic (service and speed). Service and price fairness are attributes that emphasize Biznet's superiority because of the significant score difference with the other three ISPs. First Media is considered quite superior because it has an attribute assessment score that is not much different from Biznet, especially in several attributes that received positive assessments, such as speed, network reliability, and external factors. In addition to having a positive rating in the speed attribute, MyRepublic also has an external factor attribute assessment score that is not much different from Biznet and First Media. However, in some other attributes, especially price fairness and features, MyRepublic's rating score is the lowest. Results are the main part of the scientific article, which contains: final results without data analysis processes, hypothesis testing results. Results can be presented with tables or graphs, to clarify the results verbally.

Figure 2. Perception map *positioning* ISP



Based on the position of the attributes in Figure 12, the economic feasibility attribute group is in the middle of the other two attribute groups with relatively equal distances. This indicates that the relationships formed from this group of attributes are integrated in shaping customer perceptions. This means that ISPs will meet performance and credibility criteria, if the economic feasibility criteria are also met. On the other hand, ISPs will meet the criteria for quality customer service, if the economic feasibility criteria are also met. In other words, the economic feasibility criteria in this case are a measure of customer validation to classify ISPs to be classified as performance and credibility criteria or quality customer service. Thus, these results provide an explanation of the competitive position of ISPs as follows.

The quality of the perception map produced by MDS can be measured from the data output in the form of several goodness-of-fit measures listed in Table 13 below.

Table 1 Goodness of fit peta persepsi

Indicator	Value	Interpretasi	Explanation
Kruskal's Stress	0,000	Sempurna	There is no error between the original distance between objects and the distance on the map
Variance Accounted For (RSQ)	1,000	Sempurna	All variants of the original data can be described on the map
Dispersion Accounted For	1,000	Sempurna	The map perfectly represents the distribution of data
Recovered Preference Orders	0,976	Excellent (close to 1)	The respondents' perception ratings are fully depicted on the map
Spearman's Rho	0,992	Excellent (close to 1)	The mapping results are highly representative of the original data sequence
Kendall's Tau	0,987	Excellent (close to 1)	Most data pairs remain consistent in order

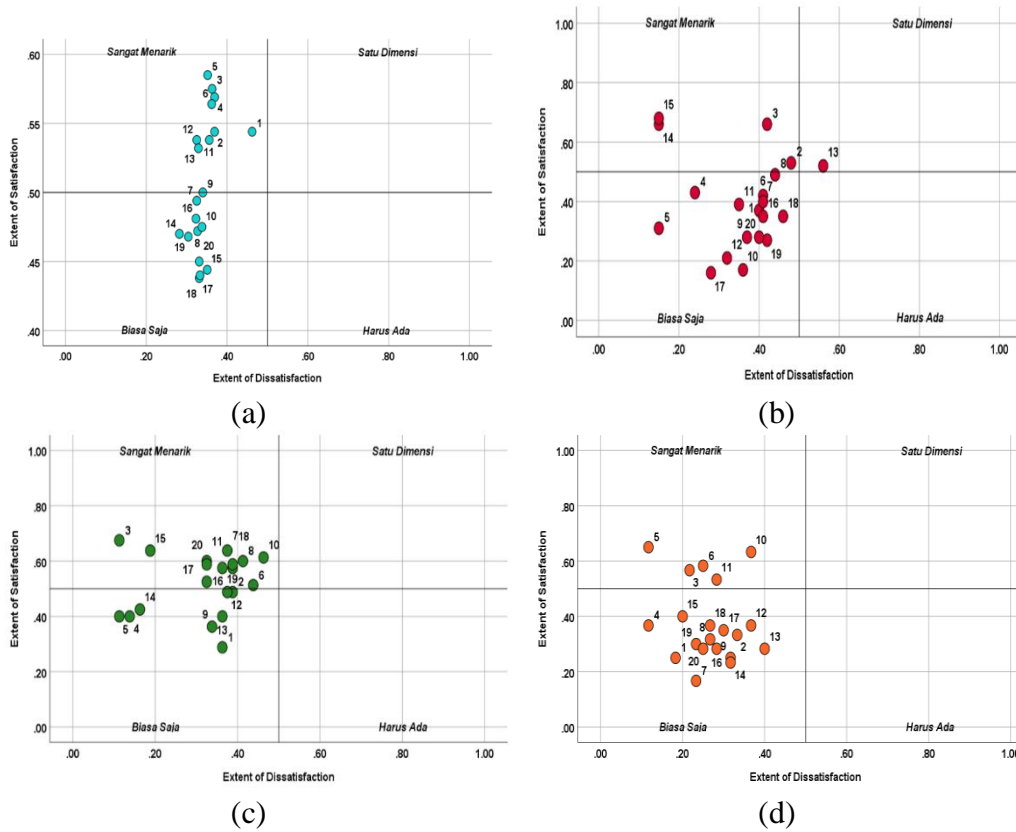


Figure 3. Kano analysis scatter chart related to ISP service quality (a) IndiHome, (b) First Media, (c) Biznet, (d) MyRepublic

The classification results show that most of the attributes of IndiHome's services are in the *attractive* category. Customers pay great attention to ease of access, customer service responsiveness, and installation speed. Technical attributes, such as high internet speed, connection stability, and availability of network *backups* are also considered excitement *factors* that significantly increase satisfaction when present. In addition, large and flexible data quotas, *mobile* applications for account management, and *TV streaming services* also fall into this category. On the other hand, attributes that are classified as *indifferent* include additional features such as extra speed during peak hours, coverage throughout the home, and discount-based loyalty programs. External factors such as ISP reputation, regulatory compliance, or IoT device support are also not seen as the main differentiator. This shows that IndiHome's customers are more focused on the direct experience and convenience of the service than the external aspects

Table 2 Number of ISP subscribers during the study

ISP	2024				2025
	January	April	July	October	January – July
IndiHome	157	160	154	148	160
First Media	97	97	115	97	100
Biznet	64	64	66	76	80
MyRepublic	70	67	53	67	60
Other	12	12	12	12	0

The customer migration model between ISPs was developed taking into account the migration probability of all service providers. This probability is derived from the historical data presented in Table 10 which shows the presence of customers using other ISPs during the observation period. The value of the current transition probability is calculated based on the aggregation of displacement data from the previous four periods. The results of the aggregation are summarized in Table 11.

Table 5. Aggregate of customer transitions between ISPs in the observation period

Previous period	Current period					Total
	IndiHome	First Media	Biznet	MyRepublic	Other	
IndiHome	590	8	16	5	0	619
First Media	11	376	7	12	0	406
Biznet	9	0	261	0	0	270
MyRepublic	11	14	2	230	0	257

Other	1	11	0	0	36	48
Total	622	409	286	247	36	1600

Each row in the transition matrix represents the ISP provider that the customer used in the previous period, while each column represents the ISP that was used in the current period. The values in each matrix cell indicate the aggregate number (frequency) of customer moves to ISPs in a given column, with the previous condition being the customers of the ISP on the corresponding row. For example, a value of 590 in cells (IndiHome, IndiHome) indicates that there were 590 instances when customers who previously subscribed to IndiHome maintained their services (did not move) during the observation period. In other words, the aggregate retention of IndiHome customers from January 2024 to July 2025 is 590 incidents. Based on this aggregate transfer data, the probability of a conditional transition between ISPs can be calculated. The resulting transition probability matrix is presented in Table 12.

Table 6. Cross-ISP customer transition probability matrix

Previous period	Current period				
	IndiHome	First Media	Biznet	MyRepublic	Other
IndiHome	0.953	0.013	0.026	0.008	0.000
First Media	0.027	0.926	0.017	0.030	0.000
Biznet	0.033	0.000	0.967	0.000	0.000
MyRepublic	0.043	0.054	0.008	0.895	0.000
Other	0.021	0.229	0.000	0.000	0.750

Based on the analysis of the transition matrix, it was revealed that the four major ISPs (IndiHome, First Media, Biznet, and MyRepublic) exhibited complex competition dynamics characterized by significant variations in customer retention and acquisition rates. The performance of each ISP and its implications for marketing strategies and customer loyalty will be discussed in depth by considering various theoretical and empirical perspectives from the current literature.

Table 7. Quarterly Forecast of the Market Share of Major ISPs in the Special Region of Jakarta

Period	Year	IndiHome	First Media	Biznet	MyRepublic
January - July	2025	40.0	25.0	20.0	15.0
October	2025	40.1	24.5	20.9	14.5
January	2026	40.2	24.0	21.8	14.0
April	2026	40.3	23.5	22.6	13.6
July	2026	40.4	23.0	23.4	13.2
October	2026	40.5	22.6	24.2	12.8
January	2027	40.5	22.1	24.9	12.4
April	2027	40.6	21.7	25.6	12.1
July	2027	40.7	21.3	26.3	11.8
October	2027	40.7	20.9	26.9	11.5

The market share forecast of the major ISPs in the Special Region of Jakarta shows a consistent trend over the three-year projection period. IndiHome and Biznet are projected to experience an increase in market share despite different growth patterns. IndiHome grew moderately from 40.0% to 40.6% (up 0.6%), while Biznet experienced a more significant increase from 20.0% to 26.9% (up 6.9%). In contrast, First Media saw a decline from 25.0% to 20.9% (down 4.1%), while MyRepublic recorded the sharpest decline from 15.0% to 11.6% (down 3.4%). This pattern indicates that market dominance tends to be focused on two main players, namely IndiHome as an existing player with a large customer base and Biznet which is able to attract new customers through service differentiation.

Discussion

Discussion is the most important part of the entire content of a scientific article. The purpose of this discussion is: to answer research problems, interpret findings, integrate findings from research into existing knowledge pools and formulate new theories or modify existing theories.

Analysis *brand switching* with Markov *Chain* emphasizing that the balance between customer retention and acquisition is a key determinant of the sustainability of market share. IndiHome and Biznet showed relatively stable dominance as they were able to manage both aspects simultaneously, while First Media and MyRepublic faced pressure due to strategies that still relied on pricing and short-term acquisitions. This pattern is in line with the findings Negro *et al.* (2021) which suggests that a high probability of retention correlates with long-term market share stability, while strengthening the view Mesh *et al.* (2009) that price wars only produce pseudo-unsustainable growth. In the perspective of management, this phenomenon is in line with the concept of *customer lifetime value* (CLV) which emphasizes that

long-term profitability is more determined by the ability to retain high-value customers than relying solely on new customer acquisition (Gupta dan Lehmann, 2006).

For IndiHome, the relevant strategy is to maintain the effectiveness of retention by strengthening innovation *bundling* and value-added services. This approach is in accordance with the theory *network effect* which emphasizes that the larger the customer base, the higher the perceived value of the service, so that it is created *switching barriers* natural that strengthens loyalty (Pang dan Etzion, 2012). Meanwhile, Biznet with the highest retention rate needs to optimize its technical advantages as a strategic resource according to the perspective *resource-based view* (RBV). Network reliability and quality are unique assets that are valuable, rare, and difficult to replicate, so they can be the basis for continuous competitive advantage. It is also in line with the framework *service-profit chain* Yee *et al.* (2009) which emphasizes that internal quality will increase customer satisfaction and ultimately drive profitability.

First Media faces a dilemma because despite having quite strong retention, its market share is showing a downward trend. Research Squirting (2025) highlighted that price and promotion factors are still dominant in influencing customer satisfaction in Greater Jakarta so that the urgency of First Media is to balance technical performance with a value-based pricing strategy (*value-based pricing*). Flexible packages and segmented promotions are considered effective for expanding the customer base without sacrificing the perception of quality. On the other hand, despite being technically superior in speed and latency, MyRepublic faces serious challenges in retention. Aggressive price penetration strategies are indeed effective in attracting new customers, as shown by Gerpott *et al.* (2001), but not enough to build long-term loyalty. Therefore, MyRepublic needs to strengthen its retention strategy through the development of value-added features, improving the quality of customer service, and optimizing the digital user community such as *Gamer* or *streamer* to build an emotional bond with customers.

Furthermore, the results of this study enriched the management literature by integrating Kano and MDS analysis. Most ISP service attributes are categorized as *attractive* or *indifferent* which indicates that the customer views the basic technical attributes as *must-have* which is no longer a differentiator, while competitive differentiation is more determined by additional service innovations. These findings support the theory of the evolution of service attributes (Tan & Pawitra, 2001) which explains the shift in consumer expectations for service standards as market maturity increases. Therefore, the product development strategy should be directed at optimization *delighters* to create differentiation and avoid price-based competition.

This approach strengthens Porter's positioning theory in Islamic *et al.* (2020) which emphasizes that differentiation of products or services if designed to be unique, high-value, and difficult to replicate will result in a continuous competitive advantage through customer loyalty and the company's ability to set premium prices. Empirical research supports this argument, e.g. studies by Saqib (2021) who found that differentiation strategies contribute significantly to a company's performance because it creates value that is difficult for competitors to replace.

The above is also emphasized in the literature review *positioning* across industries that show that *positioning* It is not just a marketing activity, but the core of the overall business strategy. On the other hand, the Blue Ocean Strategy introduced by Kim dan Mauborgne (2005) Offering a different paradigm through the concept *value innovation*, That is an effort to create new value that is able to open up an undeniable market space so that companies not only compete in the existing market but create new competition arenas. Kim and Mauborgne's study was supported by research Cho and Jung (2013) which proves that the strategy *blue ocean* tend to have a greater positive impact on business performance in the early stages of the industrial lifecycle, while Porter's competitive strategy is more relevant and effective when the industry has entered the maturity stage. Thus, it can be understood that Porter's differentiation serves to maintain the company's position in an established market, while value innovations such as *blue ocean* become a strategic instrument to create new growth opportunities.

The practical implications that can be drawn from the results of this study are the need for ISPs in the Special Region of Jakarta to integrate three main dimensions in their business strategy. First, continued investment in the technical quality of the network as the foundation of RBV to create a competitive advantage that is difficult to replicate. Second, the development of service differentiation through *innovative bundling*, value-added features, and measurable loyalty programs to improve CLV. Third, strengthening ethical *switching* barriers, such as flexible contracts with added value or easy service migration mechanisms in an effort to reduce the tendency to lose customers. By adopting this framework, each ISP can adjust its strategy according to its position, including IndiHome as a generalist with a large network effect, Biznet as a provider with solid technical advantages, First Media as a player in price differentiation and promotion, and MyRepublic as a technical *challenger* with the potential of digital community segments.

Overall, this study confirms that the sustainability of the *fixed-broadband* industry in Jakarta is not determined by price wars alone but by the company's ability to build loyalty through service quality, product innovation, and value-based customer relationship management. By linking empirical findings with modern management theories such as *service-profit chain*, CLV, and RBV, this research makes a practical and academic contribution to the formulation of ISP strategies that are more adaptive, competitive, and sustainable in the midst of the competitive dynamics of the digital market.

5. CONCLUSION

This research succeeded in achieving the goals that have been formulated with a comprehensive analysis of brand positioning, service quality, and brand switching in the ISP industry in the Special Region of Jakarta. Brand positioning mapping using the MDS approach shows that Jakarta customers divide their perception of ISPs into three criteria: economic feasibility, network performance and credibility, and customer service. Biznet excels in all service attributes, while First Media is the closest competitor. MyRepublic and IndiHome have positive performance but are not enough to compete with Biznet. A service quality assessment using the Kano Model shows that the majority of ISP service attributes fall into the category of attractive and indifferent, which indicates that customer satisfaction is more influenced by innovation and value-added services than by basic technical attributes such as speed and connectivity. The results of the brand switching analysis using Markov Chain revealed that Biznet and IndiHome have high customer retention rates, while First Media and MyRepublic face major challenges in retaining customers. Projections show that IndiHome and Biznet have the potential to increase market share, while First Media and MyRepublic are expected to decline.

Based on these findings, there are several suggestions for stakeholders. Service providers like Biznet need to maintain technical superiority and network reliability while being more aggressive in marketing to expand their customer base. IndiHome should focus on improving network quality and service reliability to ensure continued customer retention. First Media needs to evaluate its pricing strategy and service packages to increase perceived value and strengthen customer retention, while MyRepublic needs to improve its loyalty program and customer service quality to improve retention. For regulators, this research can be an input to encourage healthy competition and ensure the quality of services that meet basic standards. Further research can explore external variables such as the adoption of new technologies or government policies, as well as use qualitative approaches or longitudinal research to explore customer motivation in brand switching and monitor market changes over time.

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