



Enhancing a Customer Retention Framework for Fixed-Broadband Services: A Strategic Management Approach Using Churn Analysis

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Abstract. Increasing competition in the Indonesian broadband industry makes customer retention increasingly crucial as a strategy for maintaining revenue growth. Despite maintaining a significant national market share, IndiHome continues to struggle to retain customers in certain regions. This study aims to identify the root causes of IndiHome customers churning out of the service and develop strategies to maintain customer loyalty. The strategic management approach consists of three consecutive stages: Strategic Situation Analysis (SSA), Strategy Formulation (SF), and Strategy Implementation (SI). Primary data and customer survey results were analyzed using the Pareto Chart method to identify the key factors causing customer churn. A Fishbone analysis was conducted to identify the root causes of customer churn, followed by Affinity Diagrams and Impact-Effort Diagrams to generate, evaluate, and determine the most appropriate solutions. The results indicate that the main factors causing customer churn are infrequent service usage, perceived high prices, a multitude of service options, and disruptions in service delivery. Six alternative retention strategies were identified and evaluated. Based on the impact and effort analysis, the most effective strategy is to implement a sustainable Voice of the Customer program by conducting regular customer needs surveys, satisfaction surveys, and direct and ongoing service evaluations. The proposed approach can help telecommunications service providers create data-driven customer retention strategies and improve customer loyalty.

Keywords: Customer Retention, Customer Churn, Fixed Broadband, Strategic Management, IndiHome.

1 Introduction

1.1 Fixed-Broadband Services Trends and Challenges

The number of internet users in Indonesia continues to expand annually, positioning the country among the world's largest digital populations [1-2]. According to a report by the Indonesian Internet Service Providers Association (APJII), Indonesia recorded 196.7 million internet users in 2020 and gradually increased to reach 229 million users

in 2025 [3]. This figure represents a substantial 16.42% increase for a period of six years, as illustrated in Fig. 1.

The sustained growth of internet users in Indonesia from 2021 to 2026 is primarily driven by a permanent behavioral shift toward a digital economy, particularly in the post-COVID-19 pandemic era [4-6]. This digital shift has facilitated the transition of various activities online, including distance learning (e-learning), remote working (work from home/WFH), cloud-based collaboration, and e-commerce platforms [7-8]. Consequently, this structural transformation has compelled previous offline populations to adopt internet technologies.

Furthermore, Indonesia’s profile as a mobile-first society—evidenced by an 84.31% smartphone dominance in 2026—is coupled with the expanding fixed broadband infrastructure [1]. The following shows the number of households (in millions) using fixed broadband from 2020 to 2025, based on the official dataset from the One Data Portal of the Ministry of Communication and Digital (Komdigi), as illustrated in Fig. 2.

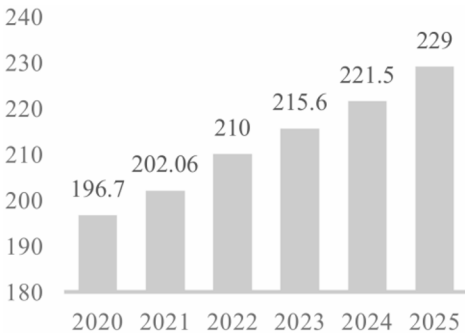


Fig. 1. Number of Internet Users in Indonesia

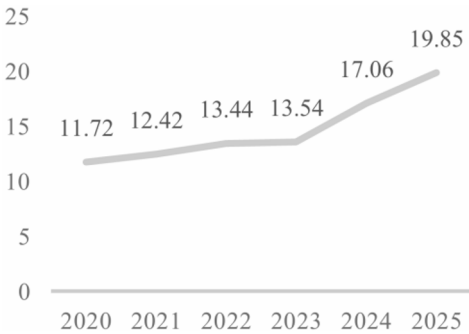


Fig. 2. Number of Indonesia's Households with Fixed Broadband

As of now, the fixed broadband market share remains dominated by IndiHome at 47.3%, followed by myRepublic (13.8%), iConnet (4.7%), MNC Play (3.3%), and Biznet (3.1%). IndiHome's dominance of the national fixed broadband market share does not mean it faces no challenges in customer acquisition and retention. Data indicates that customer retention performance at Witel X requires improvement, based on figures for Voluntary Churn (CAPS) and customer retention rates for the period from January to December 2026. The data shows that Witel X recorded one of the highest total CAPS figures and the lowest customer retention rate within TREG 3 (refer to Fig. 3 and 4).

The continuously rising number of CAPS and persistently low monthly customer retention at Witel X represent a lost opportunity for IndiHome to generate revenue from existing customers; therefore, it is necessary to evaluate the reasons behind the CAPS status and formulate strategies to improve customer retention.

The objectives of this study are:

1. To identify the reasons why IndiHome customers in Witel X undergo CAPS.
2. To formulate strategies for customer retention in Witel X.

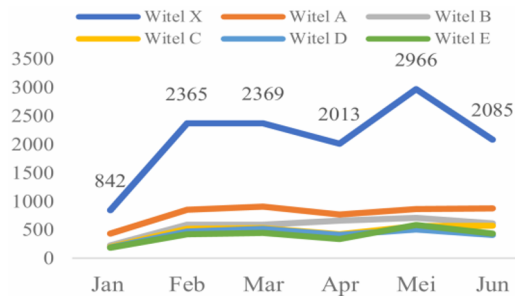


Fig. 3. Data CAPS on TREG 3

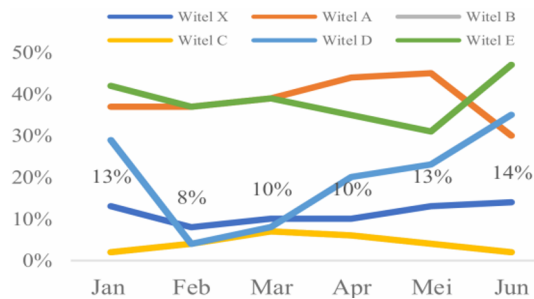


Fig. 4. % Customer Retention on TREG 3

2 Literature Review

2.1 Telecommunications Industry

In recent years, the telecommunications industry has undergone a significant transformation. The forces driving these changes include increasing customer demand, technological advancements, and global regulatory trends. Alongside regulatory developments in the telecommunications industry, market competition has intensified in many countries. To survive in this competitive environment, telecommunications companies must develop new products and services to meet growing customer needs, which may require the implementation of more advanced technology [9].

Furthermore, the growth of the telecommunications industry is driven by the information and communications sector, which has become an essential part of everyday life. Telecommunications has become a primary need for society, where telecommunications facilities facilitate various activities in their daily lives.

2.2 Fixed-Broadband

Fixed broadband is a technology based on utilizes cable, telephone lines (DSL), wireless networks, or electrical power lines to provide customers with a fast, always-on internet connection for residential and business customers [10].

ISPs must face challenges in deploying fixed broadband networks in Indonesia, including:

1. Requires a relatively high investment cost. Indonesia is a vast archipelagic country, so ISPs must be prepared to invest significant capital to build fixed broadband networks, including backbones and submarine cables, to reach a wider customer base.
2. Local market needs. Although the digital world is borderless, market needs vary across regions and require different approaches to service.
3. The presence of numerous local players has resulted in fierce market competition.
4. Long return on investment (ROI) period. Armed with substantial capital and intense market competition, ISPs must be prepared to achieve a long-term return on investment.

2.3 Customer Retention

Customers are important intangible assets for a company, and they must therefore be valued and managed effectively [11]. Customer retention refers to the tendency of customers to remain with their service provider [12]. Customer evaluations of service performance are more sensitive to negative performance (dissatisfaction) than to positive performance (satisfaction), so companies should primarily focus on attributes where customers experience negative performance, followed by resource allocation to attributes where customers experience positive performance [13].

Customer satisfaction is closely related to customer loyalty. Studies examining the relationship between customer satisfaction and customer loyalty can be classified into three groups [14]:

1. Customer satisfaction as an antecedent of customer loyalty, which in turn subsequently influences company profitability.
2. Customer loyalty is influenced by customer satisfaction.
3. Customer satisfaction and customer loyalty do not exhibit a significant relationship.

3 Methodology

3.1 Strategic Management Methodology

In identifying, formulating, and implementing a strategy for robust innovation, a strategic management approach can be used. Situation analysis (SSA) to understand the business's current situation, strategic formulation (SF) to find the root cause and priority, and strategic implementation (SI) to evaluate. There are three stages, namely Strategic Situation Analysis (SSA), Strategic Formulation (SF), and Strategic Implementation (SI) to evaluate and control the implemented strategy. The schema of this methodology can be seen in Fig. 5 below.



Fig. 5. Strategic Management Methodology

Strategic Situation Analysis (SSA) was used to define the gap between the ideal and real situation. The first step that will be taken is to collect primary data & conduct customer visits, where the data will later be processed using the Pareto chart method to obtain the current conditions that occur in the field. Strategic Formulation (SF) In the second stage, researchers will conduct a company evaluation to obtain a strategic formulation using methods, namely Fishbone Analysis, Affinity Diagram, and Impact-Effort Diagram. These methods are used to identify the root of the problem to form a proposal and prioritize solutions to the problems that occur. Strategic Implementation (SI) In the final stage, researchers will implement the results of the analysis that has been carried out in the previous 2 (two) stages. The form of strategy creation will be in 2 (two) forms, namely a technical strategy that will be accompanied by details of activities that can be carried out.

4 Results and Analysis

4.1 Results on Strategic Situation Analysis

Table 1 shows the reasons given by IndiHome customers who applied for CAPS and were unsuccessful with the Witel X for the period January–June 2025. Based on the data above, we will divide the data into external and internal reasons. External reasons are those beyond the Witel X control, while internal reasons are those within the Witel X control (see Tables 2 and 3).

Table 1. Failed to be retented Reasons on CAPS Data (Jan – Jun 2021)

Reasons of Churn	Quantity of Churns						Avg. Churn
	Jan	Feb	Mar	Apr	May	Jun	
Change Address	699	699	725	706	700	659	698
Idle of Usage	283	298	230	307	224	346	281
Infrequent of Using	176	166	172	143	164	191	169
Business Termination	123	86	109	93	77	77	94
Expensive Price	94	115	79	48	39	91	78

Having new Indihome service	49	99	63	85	81	70	75
House Renovation	58	50	43	37	69	69	54
Dismantle caused by redundancies	35	76	72	66	21	29	50
Frequent complaints	29	64	62	39	37	44	46
Moving of Boarding House	22	32	28	39	41	28	32
Switch to Competitors	17	29	40	20	22	31	27
Gimmick failure	6	12	17	15	13	9	12
Moving of Temporary House	7	5	10	19	12	12	11
Input Error	2	18	15	4	4	6	8
Management Suspend Direction	5	4	5	2	7	6	5
Too Long Recovery Time	2	9	8	4	2	1	4
SLA Failure	6	4	2	4	3	5	4
Out of Gimmick		3	4	6	2	6	4
Payment Appointment					2		2

Table 2. External Reasonings

Reasonings	Avg. Churn
Change Address	698
Idle of Usage	281
Business Termination	94
Having new Indihome Service	75
House Renovation	54
Moving of Boarding House	32
Moving of Temporary House	11
Payment Appointment	2
Total	1247

Table 3. Internal Reasonings

Reasonings	Avg. Churn
Infrequent of using	169
Expensive Price	78
Dismantle by redundancies	50
Frequent complaints	46
Switch to Competitors	27
Gimmick failure	12
Input Error	8
Management Suspend Direction	5
Too Long Recovery Time	4
Out of Gimmick	4
SLA Failure	4
Total	406

Next, the internal reason data will be processed using the Pareto chart method, which aims to clarify the most important factors among several existing factors [15]. The Pareto chart method itself shows that 80% of the problems that cause customers to use CAPS originate from the 20% of factors that cause customers to use CAPS. Therefore, it is important for Witel X to focus on solving problems in the 20% of factors that cause customers to use CAPS [16]. Table 4 and Fig. 6 show the results of processing the internal reason data from customers who use CAPS using the Pareto chart method. The internal reasons customers use CAPS that are problematic are:

1. Infrequent Use at Home
2. Efficiency - High Price
3. Efficiency - More Than 1 Line
4. Frequent Interruptions

Table 4. Cumulative Percentage of Internal Reasonings

Reason	Avg. Churn	Cumulative	%
Infrequent of using	169	169	42%

Expensive Price	78	246	61%
Dismantle caused by redudancies	50	296	73%
Frequent Complaints	46	342	84%
Switch to Competitors	27	369	91%
Gimmick failure	12	381	94%
Input Error	8	389	96%
Management Suspend Direction	5	394	97%
Too Long Recovery Time	4	398	98%
Out of Gimmick	4	402	99%
SLA Failure	4	406	100%

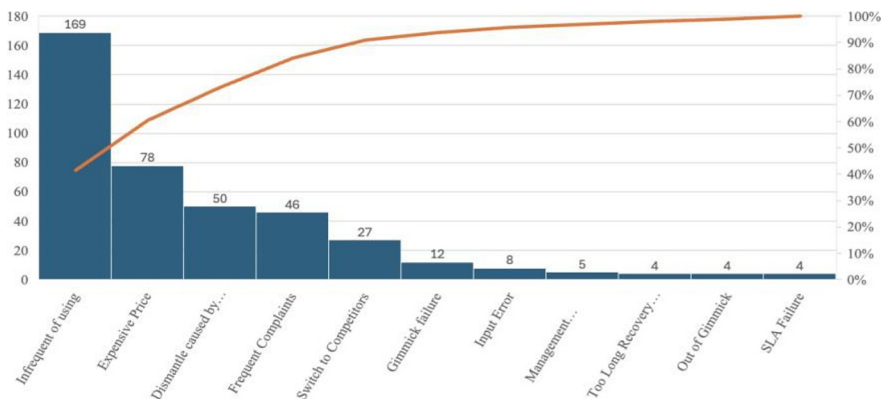


Fig. 6. Pareto Chart of Internal Reasonings (Jan – Jun 2025)

4.2 Results on Strategic Formulation

After identifying potential problems using a Pareto chart, the next step is to identify the root causes, which will serve as the basis for proposed solutions. The root cause analysis will be used for each problem, as follows:

1. The problem of Infrequent Home Use will be analyzed from a product perspective, with root causes identified as a lack of information regarding available packages and unattractive channels (see Fig. 7).
2. Efficiency Issues – High Prices will be analyzed using a price and process perspective, with each finding the root cause: No confirmation regarding cost increases, and Customers not knowing how to view usage details (see Fig. 8).
3. Efficiency Issues – More than 1 Line will be analyzed using a process and people perspective, with each finding root cause: No further verification for new connections with registered addresses, and Differences in commissions for salespersons (SP) between new connections and package upgrades (see Fig. 9).
4. Frequent disruptions will be analyzed from a people perspective, with the root cause identified as failure to promptly repair the disruption (see Fig. 10).

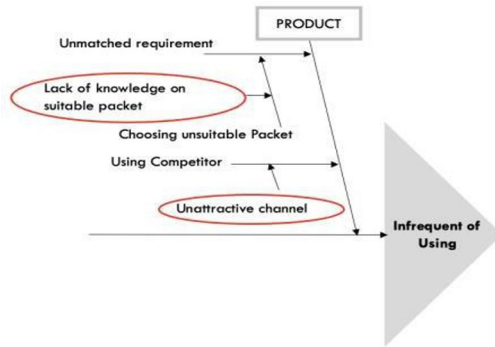


Fig. 7. Fishbone Analysis from Rarely Used on Home

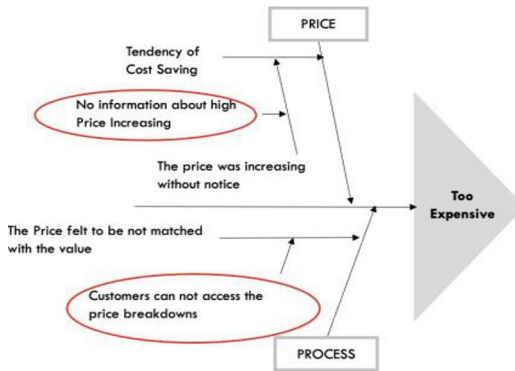


Fig. 8. Fishbone Analysis from Expensive Rate

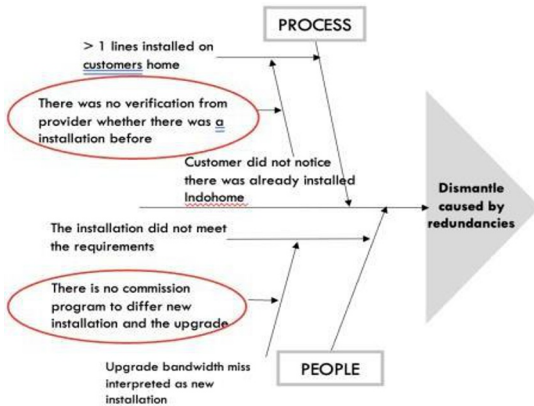


Fig. 9. Fishbone Analysis from More than 1 Line Installation

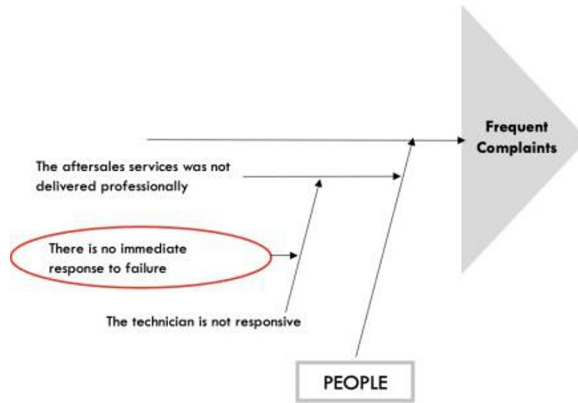


Fig. 10. Fishbone Analysis from too Many Complaints

Based on the root cause findings from the fishbone analysis method above, possible solutions will be developed using the affinity diagram method. In this Affinity Diagram, the proposed solutions refer to procedures, activities, infrastructure, technology, and strategies in detail:

1. Procedures:
 - a. SOP for service providers receiving outage reports
 - b. Creating SOPs for service providers regarding new installations
 - c. Reviewing service provider rewards
 - d. Conducting customer profiling to ensure targeted products
2. Activities:
 - a. Creating package and price brochures at Plasa
 - b. Increasing the use of myIndiHome
 - c. Surveying customer needs
 - d. Improving the customer database
 - e. Training for service providers receiving outage reports
 - f. Customer satisfaction survey
3. Infrastructure:
 - a. Expanding the network
 - b. Network improvements
4. Technology:
 - a. Notification to customers regarding cost increases
 - b. Notification to service providers if a case remains unresolved within 24 hours
 - c. Creating a verification system for new installations
 - d. Creating a loyalty system for customers
5. Strategy:
 - a. Creating packages tailored to customer needs
 - b. Real-time customer assessment of service staff

Based on the analysis results, a mapping of possible solutions for each root cause can be seen in Fig. 11. Next, each proposal formed in the affinity diagram will be combined into a solution to the problem, namely:

1. Obtaining the voice of the customer (VOC) regularly. Conducting needs surveys, satisfaction surveys, and real-time assessments for officers.
2. Network expansion and improvement.
3. Rewards and punishments for sales representatives.
4. Conducting customer profiling through the use of myIndiHome. Customer database, customer loyalty, and package creation.
5. Disseminating pricing and package information through brochures at the Plaza.
6. Notifying customers regarding cost increases.

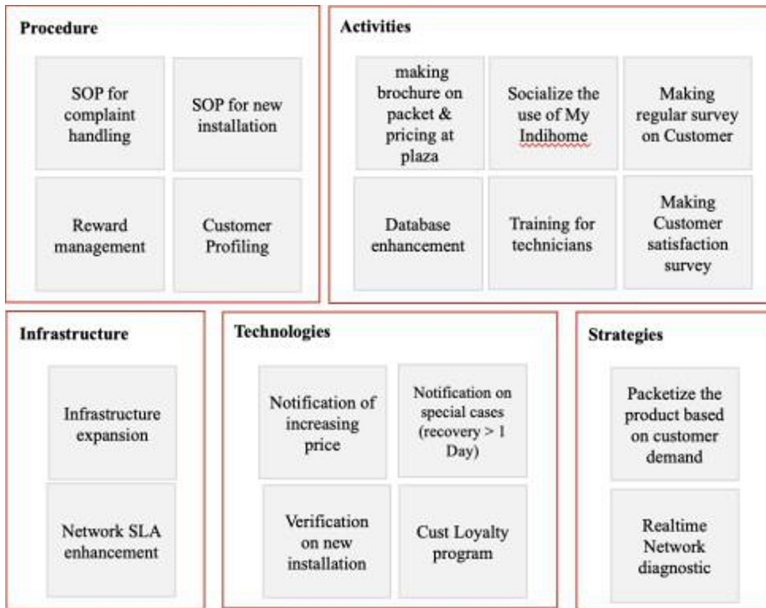


Fig. 11. Affinity Diagram

Based on these six proposals, it is necessary to measure the impact and effort using the Impact-Effort Diagram method. The Impact-Effort Diagram is specifically designed to determine which solutions are recommended for implementation, where this method involves measuring qualitative and quantitative data [17] (see Table 5).

Table 5. Impact-Effort Diagram

Axis	Criteria	Routine Voice of Customers		Expansion of Infrastructure & Incident Handling		Rewards & Punishments for Sales Person		Customer profiling from MyIndiHome		Price & Packet Brochure		Price Fluctuation Notification	
		Explanation	Value	Explanation	Value	Explanation	Value	Explanation	Value	Explanation	Value	Explanation	Value
Effort	Delivery Time	7 Days	2	3 Months	5	7 Days	2	1 Month	4	1 Day	1	1 Month	4
	Implementation Costs	Google Form	1	CAPEX	5	Certificate	1	App Dev.	3	Brochure	2	System Dev.	4
	Operational Costs	-	3	Maintenance Costs	5	-	3	Maintenance Costs	4	-	4	Maintenance Costs	3
Impact	Impact on Churn Decreasing	High	4	Medium	3	Medium	3	High	5	Low	1	High	4
	Impact on Customer Satisfaction	High	5	High	4	Low	2	Medium	3	Low	1	Medium	3

Based on these measurement results, solutions will be mapped based on the effort and impact they provide. The goal of this method is to prioritize solutions (see Table 6).

Table 6. Impact-Effort Diagram

Solution	Effort	Impact
1. Routine Voice of Customers	2	4.5
2. Expansion of Infrastructure & Incident Handling	5	3.5
3. Rewards & Punishments for Salesperson	2	2.5
4. Customer profiling from MyIndiHome	3.67	4
5. Price & Packet Brochure	2.33	1
6. Price Fluctuation Notification	3.67	3.5

Based on the matrix, the priority order for the proposed solutions is: 1 – 4 – 6 – 2 – 3 – 5 (Getting the voice of customers regularly. Needs surveys, satisfaction surveys, and real-time assessments for officers - Conducting customer profiling using myIndiHome. Customer database, customer loyalty, package creation - Notification to customers regarding cost increases - Network expansion and improvement - Rewards & Punishments for Salesperson - Notification to customers regarding cost increases (see Fig. 12).



Fig. 12. Matrix Impact – Effort

4.3 Results on Strategic Implementation

In this final stage, the proposed solution will fall into the Quick Win quadrant. Quick Wins are activities deemed to have the greatest impact. Therefore, our primary focus for this problem is point 1, which is obtaining VOC regularly. Detailed activities to support the selected proposal include obtaining VOC regularly through:

1. Customer Needs Survey
 - a. This activity will be conducted monthly after bill payment.
 - b. This survey will be conducted through the Google Form link provided on the bill payment receipt.
 - c. This survey will cover all channels used by IndiHome customers.
 - d. This survey aims to identify market needs so the company can improve existing services or even create new ones.
2. Customer Satisfaction Survey
 - a. This survey will be conducted weekly through the myIndiHome and Plasa apps.
 - b. This survey will be conducted through Google Forms.
 - c. This survey will cover all channels used by IndiHome customers.
 - d. This survey will be awarded to customers who complete the survey, fostering engagement between the customer and the company.
 - e. Serve as a database for improving service quality.
3. Real-time Assessments for Officers
 - a. Assessments are more valid because they are conducted after the officer has completed the service.
 - b. Assessments will be conducted on myIndiHome, necessitating application development.

- c. Customer assessments will become ratings for officers.
- d. Officers with the lowest ratings will receive training.
- e. Officer service assessments serve as a database for training.

5 Conclusion & Recommendation

5.1 Conclusion

Based on the research conducted, the following conclusions can be drawn:

1. Witel X has the highest churn rate with a retention rate of just under 12% in TREG 3.
2. Reasons for customer churn include infrequent service use, high prices, multiple lines, and frequent disruptions.
3. The root cause of each churn reason was investigated.
4. A proposed solution was provided for each root cause using an affinity diagram.
5. Six solutions were proposed based on the root causes: regularly obtaining the voice of customers, expanding and improving the network, rewards and punishments for service providers (SPs), conducting customer profiling through the use of MyIndiHome, disseminating pricing and package information through brochures at Plazas, and notifying customers of cost increases.
6. The selected solution was to obtain the voice of customers based on the effort-impact diagram.

5.2 Recommendation

Based on the research conducted, the following recommendations can be made:

1. The selected solution must be implemented immediately to assess the success of the strategy.
2. Every change in the strategy, whether successful or unsuccessful, will be used as evaluation material for future strategy improvements.

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