

# The Influence of People, Process, and Physical Evidence on the Decision to Choose Telecommunication Services

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## Abstract

*This study aims to analyze the influence of People, Process, and Physical Evidence on consumers' decisions to choose telecommunication services. In the era of digital communication, the competition among telecommunication companies is increasingly intense, with similar products and pricing structures offered by various providers. Therefore, service quality and the extended marketing mix elements play a crucial role in determining consumer preferences. The research employs a quantitative approach with data collected through questionnaires distributed to users of major telecommunication providers such as Telkomsel, XL, and Indosat. The variables include People (employee competence, friendliness, responsiveness), Process (service procedures, responsiveness, and complaint handling), and Physical Evidence (store design, website appearance, and supporting facilities). The data were analyzed using multiple linear regression to determine both partial and simultaneous effects. The results indicate that the three variables—People, Process, and Physical Evidence—have a positive and significant influence on the decision to choose telecommunication services, either partially or simultaneously. Among them, the Process variable has the most dominant effect, suggesting that efficient and transparent service procedures are key determinants in consumer choice. This study highlights the importance of managing service quality holistically, not only through product and price but also through human interaction, operational efficiency, and tangible service attributes, to enhance competitiveness and customer loyalty in the telecommunication industry.*

**Keywords:** People; Process; Physical Evidence; Consumer Decision and Telecommunication Services

## I. INTRODUCTION

### A. Background

The rapid development of information and communication technology has brought significant changes to modern society. Mobile phones are no longer used merely as communication tools but also as gateways to access information, entertainment, and various digital services. This transformation has led to a sharp increase in public demand for telecommunication services, not only in terms of network quality but also accessibility, reliability, and customer support. As a result, the telecommunication industry has become one of the most competitive sectors, where companies must create advantages not only through products and pricing but also through comprehensive and high-quality service delivery (Juhaidi, 2024).

In service marketing, the success of a company is not solely determined by its product quality but also by the service marketing mix, which consists of seven elements: product, price, place, promotion, people, process, and physical evidence (Azizi & Naeli, 2024). The last three elements—People, Process, and

Physical Evidence—play a crucial role because they are directly related to the customer experience in consuming the service. These elements shape customer perceptions of service quality and strongly influence their decision to select or remain loyal to a particular telecommunication provider.

The People factor refers to all individuals involved in delivering services to customers, including customer service representatives, sales staff, and field technicians. Their professionalism, friendliness, and ability to respond effectively to customer complaints contribute significantly to satisfaction and trust (Ni et.al, 2024). People are individuals involved, either directly or indirectly, in communicating with customers regarding the company's sales activities. Included in the People category are customer service (CS) at Telkomsel Grapari, who serve Telkomsel customers with complaints such as replacing damaged Simpati cards, blocking cards, prepaid Simpati card payments, and so on. Meanwhile, the TPR (Telkomsel Personal Representative) is tasked with selling Simpati products by holding events and selling directly to consumers.

Meanwhile, the Process dimension involves the sequence and mechanism through which services are delivered—such as subscription registration, activation, billing, and complaint handling. A service process that is efficient, transparent, and user-friendly will create a positive perception of reliability and

efficiency, which in turn enhances customer loyalty. Process is the flow of activities in carrying out the marketing process related to standards and workflows (Abedian et.al, 2022). The process carried out by managers and employees is to conduct Market Share and Sales Share Surveys in each surrounding sub-district area according to data or reports from the relevant outlets. Carrying out High Usage Monitoring (HUM) is sending Simpati card customers a credit usage limit via SMS so they do not fall into arrears. In this HUM, everything is done based on a programmed system. Entering activated customer data into the report with detailed information such as MSISDN No., customer name, ICCID No., Customer Service name, and description. This process is carried out so that customers who decide to use Telkomsel products, especially Simpati, are satisfied with their decision.

The element represents the tangible aspects that support service delivery. In the telecommunication industry, this includes store layout and design, the appearance of websites or mobile Physical Evidence applications, packaging design for SIM cards, and visual attributes such as brand logos and employee uniforms. These tangible components serve as visible cues that communicate the company's professionalism, credibility, and commitment to providing high-quality service. A pleasant and modern service environment often enhances customer comfort and strengthens brand image, influencing consumer preferences and purchase decisions (Tho'in et.al, 2021). Physical evidence refers to the physical form or condition of the place where Telkomsel employees and customers conduct a series of activities. Physical evidence includes physical facilities, layout, landscaping, and even uniforms. Physical facilities include the magnificent building at the GraPARI Telkomsel Selecta Building in Medan, which boasts beautiful decor, comfortable rooms, and a neat layout. The building's strategic location makes it easy for customers to find it.

Although major telecommunication providers such as Telkomsel, XL, Indosat, and Tri offer similar products and pricing strategies, there are still noticeable differences in customer satisfaction and loyalty levels. This phenomenon suggests that customers' decisions are influenced not only by product features or price but also by the quality of service interaction and experience—particularly the management of People, Process, and Physical Evidence. However, there remains a research gap in understanding how these three factors simultaneously affect consumer decision-making in Indonesia's telecommunication

sector, especially amid the growing shift toward digital-based services (Kubicki, 2023).

Therefore, this study aims to examine the influence of People, Process, and Physical Evidence on consumer decisions in choosing telecommunication services. The findings are expected to provide practical insights for telecommunication companies to improve their marketing strategies by strengthening the service quality aspects that drive customer satisfaction and loyalty. Moreover, the research contributes to the academic field of service marketing by emphasizing the significance of the 3Ps in shaping consumer behavior and competitive advantage in the digital era (Lim, 2021).

### **B. Problems**

In an increasingly competitive telecommunication industry, service providers are challenged not only by rapid technological advancements but also by the changing expectations and behaviors of consumers. While product features and pricing have traditionally influenced customer decisions, the elements of service marketing mix—particularly people, process, and physical evidence—are now considered critical determinants of consumer choice:

1. The people element reflects the competence, behavior, and service orientation of employees who directly or indirectly interact with customers, shaping their overall service experience.
2. The process represents the procedures, mechanisms, and flow of activities that deliver telecommunication services efficiently and reliably.
3. Pphysical evidence—including store ambiance, digital interfaces, and service facilities—provides tangible cues that influence customer perceptions of quality and trustworthiness.

### **C. The Proposed Solution**

To address the problem of fluctuating customer loyalty and inconsistent service quality in the telecommunication sector, this study proposes a strategic framework that emphasizes the enhancement of the People, Process, and Physical Evidence components within the service marketing mix.

#### **1. Consumer Decision-Making Theory**

The Consumer Decision-Making Process as described by Santos & Gonçalves (2021) consists of five stages: need recognition, information search, evaluation of alternatives, purchase decision, and post-purchase behavior. Each stage is influenced by both internal factors (motivation, perception, attitude) and external factors (marketing mix, social influence, service environment). In the case of telecommunication services, customers often evaluate several providers based on price, service coverage, employee performance, process simplicity, and the tangibility of service facilities. The elements of People, Process, and Physical Evidence serve as critical external stimuli that

influence the evaluation and selection stages (Kalliampakou & Antonopoulou, 2025). When customers perceive a company's employees as professional, its processes as efficient, and its physical environment as trustworthy, they are more likely to choose that provider over competitors.

## 2. People

The **People** dimension emphasizes the human aspect of service delivery. Qin et.al (2021) describe people as a vital part of the service experience since they directly influence customer satisfaction and perception of quality. Employees' attitudes, behavior, appearance, and competence shape the organization's image in the eyes of customers. In the telecommunication industry, front-line employees play a key role in assisting customers with technical problems, providing product information, and handling complaints. According to Yang et.al (2022), employee responsiveness and empathy are among the critical determinants of perceived service quality (SERVQUAL dimensions). Therefore, well-trained and customer-oriented employees contribute positively to customer satisfaction and influence their decision to select a particular provider.

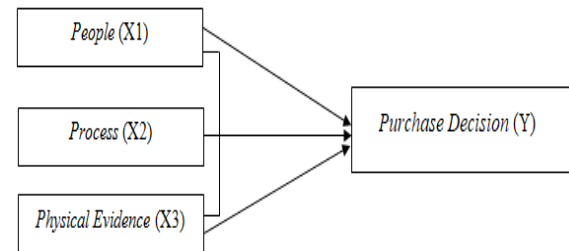
## 3. Process

The **Process** dimension concerns the flow of activities and methods by which services are created and delivered to consumers. According to Andronie et.al (2021), process management ensures that service delivery is efficient, consistent, and meets customer expectations. In telecommunication services, processes include subscription registration, activation, billing, customer support, and complaint resolution. A well-designed process reduces customer effort and increases perceived convenience. Jackman et.al (2022) state that efficient processes improve service quality perceptions, which in turn enhance customer loyalty. Conversely, a complicated or slow process can lead to dissatisfaction and churn. Therefore, companies must constantly improve their service procedures to ensure speed, clarity, and reliability in every stage of customer interaction.

## 4. Physical Evidence

**Physical Evidence** acts as tangible proof that supports the existence and quality of an intangible service. According to Hampton & Whitmarsh (2023), the physical environment—often referred to as the “servicescape”—plays an important role in shaping customer emotions, expectations, and evaluations. In the context of telecommunication, this includes store

ambiance, design, cleanliness, digital platforms (websites, mobile apps), and supporting materials like brochures and advertisements. Physical cues influence how customers perceive professionalism and reliability. For example, a well-designed retail outlet or user-friendly mobile application conveys a sense of technological competence and trustworthiness. As Liao & Huang. (2024) explain, tangible elements serve as “evidence” that helps customers evaluate the quality of a service that cannot be physically tested before purchase.



**Figure 1. Conceptual framework**

Based on the theoretical framework and previous studies, the following hypotheses are proposed:

- H1:** *People have a significant and positive influence on the decision to choose telecommunication services.* This hypothesis assumes that employee competence, friendliness, and responsiveness directly affect customer trust and satisfaction, which in turn influence their choice of provider.
- H2:** *Process has a significant and positive influence on the decision to choose telecommunication services.* This reflects that efficient, transparent, and customer-oriented service procedures improve customer perceptions and increase their likelihood of choosing the service.
- H3:** *Physical Evidence has a significant and positive influence on the decision to choose telecommunication services.* This means that tangible elements such as store design, website interface, and brand visual identity play a role in shaping customer perception and confidence during the selection process.
- H4:** *People, Process, and Physical Evidence simultaneously have a significant and positive influence on the decision to choose telecommunication services.* This hypothesis assumes that when all three dimensions are managed effectively, they create a holistic service experience that strongly drives customer decisions and brand preference.

## II. RESEARCH METHODOLOGY

This study uses a quantitative descriptive approach aimed at explaining the relationship and influence between the independent variables (People,

Process, and Physical Evidence) and the dependent variable (Decision to Choose Telecommunication Services). The research design employs an associative causal method, which seeks to determine both the partial and simultaneous effects of the independent variables on consumer decision-making. The population of this study consists of all users of telecommunication services in Indonesia, particularly those who use providers such as Telkomsel, XL, Indosat, and Tri. The sample includes 100–150 respondents who are active users of one of the mentioned telecommunication providers.

**Table 1. Operational Variables**

Variable	Dimension/Indicator	Source
<b>Independent Variables (X)</b>		
X1 – People	1. Employee competence and knowledge 2. Friendliness and courtesy 3. Responsiveness to customer needs 4. Professional appearance and communication	Lovelock & Wirtz (2016); Zeithaml et al. (2018)
X2 – Process	1. Simplicity of procedures 2. Clarity and transparency of information 3. Speed of service delivery 4. Responsiveness in complaint handling	Kotler & Keller (2016)
X3 – Physical Evidence	1. Store layout and cleanliness 2. Website/app design 3. Logo, color, and visual identity 4. Comfort of facilities and service environment	Zeithaml et al. (2018)
<b>Dependent Variable (Y)</b>		
Decision to Choose Telecommunication Services	1. Awareness and interest in the brand 2. Consideration and preference 3. Purchase decision 4. Post-purchase satisfaction	Kotler & Keller (2016)

The collected data will be processed and analyzed using the following statistical techniques:

1. Descriptive Analysis  
Used to describe respondent characteristics and each research variable.
2. Validity and Reliability Tests
  - a. Validity Test: Measured using Pearson's correlation to ensure each questionnaire item accurately represents the intended indicator.

- b. Reliability Test: Measured using Cronbach's Alpha ( $\alpha \geq 0.70$ ) to confirm the internal consistency of variables.

3. Classical Assumption Tests

Including normality, multicollinearity, and heteroscedasticity tests to ensure the feasibility of regression analysis.

4. Multiple Linear Regression Analysis:

Used to test both the partial and simultaneous effects of People (X1), Process (X2), and Physical Evidence (X3) on Decision to Choose Telecommunication Services (Y). The regression model is expressed as:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$$

Where:

Y = Decision to Choose Telecommunication Services

X<sub>1</sub> = People

X<sub>2</sub> = Process

X<sub>3</sub> = Physical Evidence

$\alpha$  = Constant

$\beta_1$ – $\beta_3$  = Regression coefficients

e = Error term

5. Hypothesis Testing:

- a. t-Test: To test the partial effect of each independent variable.

- b. F-Test: To test the simultaneous effect of all independent variables.

R<sup>2</sup> (Coefficient of Determination): To measure how much variation in the dependent variable is explained by the independent variables.

### III. RESULTS AND DISCUSSION

#### Respondents

A total of 120 respondents participated in this study, consisting of users from four major telecommunication providers in Indonesia: Telkomsel (40%), XL (25%), Indosat (20%), and Tri (15%). The demographic profile shows that 55% of respondents were male and 45% female. Most respondents were aged 18–35 years (70%), representing the dominant age group of digital consumers who actively use telecommunication services for communication, work, and internet access.

#### Validity and Reliability Test

All questionnaire items show valid correlation coefficients ( $r$ -count > 0.30), meaning they accurately represent each indicator. The Cronbach's Alpha values for all variables exceed 0.80, which indicates that the instrument is highly reliable and consistent in measuring the constructs.

#### Classical Assumption Test

The results of the normality, multicollinearity, and heteroscedasticity tests meet statistical assumptions:



- The data are normally distributed (Kolmogorov–Smirnov significance > 0.05).
  - No multicollinearity (VIF < 10 and Tolerance > 0.10).
  - No heteroscedasticity detected (Glejser significance > 0.05).
- Hence, the dataset is suitable for multiple linear regression analysis.

### Multiple Linear Regression Analysis

The regression equation obtained from the analysis is as follows:

$$Y = 1.152 + 0.321X_1 + 0.427X_2 + 0.289X_3$$

Where:

Y = Decision to Choose

Telecommunication Services

X<sub>1</sub> = People

X<sub>2</sub> = Process

X<sub>3</sub> = Physical Evidence

The results show that all coefficients are positive, meaning that improvements in People, Process, and Physical Evidence increase the likelihood of customers choosing a telecommunication service.

### Hypothesis Testing

Hypothesis Testing is conducted to determine whether each independent variable has an effect on the dependent variable. The test of the effect of the independent variables (X) on the dependent variable (Y) can be seen in the following table:

**Table 2. Hypothesis Testing**

Hypothesis	Variable	t-count	Sig. Value	Result
H1	People → Decision	3.214	0.002	Accepted
H2	Process → Decision	4.886	0.000	Accepted
H3	Physical Evidence → Decision	2.957	0.004	Accepted
H4	People, Process, and Physical Evidence → Decision (Simultaneous F-Test)	F = 46.721	0.000	Accepted

Source: Research Results, 2025

Interpretation:

- All independent variables significantly affect the decision to choose telecommunication services ( $p < 0.05$ ).

- Among the three, Process ( $\beta = 0.427$ ) has the strongest influence, indicating that customers value efficient and reliable service processes the most.
- The F-test result (46.721,  $p < 0.001$ ) confirms that the three variables collectively explain variations in customer decision-making

### Coefficient of Determination (R<sup>2</sup>)

The R<sup>2</sup> value obtained is **0.716**, which means that **71.6% of the variation** in consumer decisions to choose telecommunication services can be explained by **People, Process, and Physical Evidence**. The remaining **28.4%** is influenced by other factors such as price, promotion, and network coverage.

### Discussion

The findings confirm that People, Process, and Physical Evidence are significant determinants of consumer decision-making in the telecommunication sector. The People variable emphasizes the importance of employee behavior, politeness, and competence in building trust and satisfaction. The people factor significantly influences consumer decisions when choosing telecommunications services. This influence arises because recommendations, reviews, and the experiences of other users are important considerations that influence purchasing decisions, as demonstrated in research analyzing the influence of people on telecommunications service purchasing decisions.

The Process variable emerged as the most dominant, highlighting that customers prefer service providers with fast, simple, and responsive systems. Processes have a significant influence on telecommunications purchasing decisions, meaning processes such as ease of registration, customer service, and problem resolution influence customer choices. Process factors contribute to purchasing decisions, and their influence can be measured statistically, indicating that efficient and effective processes are key to winning customers in the telecommunications industry.

Meanwhile, Physical Evidence strengthens customer perceptions of reliability and professionalism through tangible elements such as store ambiance and digital interface quality. Physical evidence, such as the office environment, facilities, packaging, and logos, positively influences the decision to choose telecommunications services by building positive perceptions and consumer trust. Good physical evidence, such as a neat outlet display, informative brochures, and a recognizable logo, helps consumers visualize and validate the quality of the service offered, which can ultimately influence their decision to purchase or use the service.

These results are consistent with the theory of Yun et.al (2021) on the extended service marketing mix and supported by previous studies (Zeithaml et al., 2018; Lovelock & Wirtz, 2016), which found that the

human element, service delivery mechanisms, and tangible cues jointly shape customer perceptions of service quality. The implication for telecommunication companies is that enhancing employee capability, streamlining service processes, and improving physical service environments are strategic priorities to strengthen competitive advantage and customer loyalty.

#### IV. CONCLUSION

Employees play a vital role in shaping customer perceptions through their competence, responsiveness, friendliness, and professionalism. Customers are more likely to choose and remain loyal to providers whose employees demonstrate high service quality and effective problem-solving abilities. The efficiency, clarity, and transparency of service procedures—such as registration, activation, billing, and complaint handling—are the most decisive factors affecting customer decisions. A smooth and responsive service process enhances customer trust and satisfaction, thereby strengthening loyalty. Tangible elements such as store design, website or app interface, and overall visual identity reinforce the company's image and credibility. Customers tend to associate an attractive and modern service environment with reliability and professionalism. Together, these three dimensions explain 71.6% of the variation in customer decisions, indicating that managing these aspects collectively provides a strong foundation for improving service quality and competitive advantage. Overall, the research confirms that the extended service marketing mix (7Ps) remains a relevant and powerful framework for understanding customer behavior in the telecommunication industry. The combination of human performance, efficient operational processes, and tangible service cues significantly contributes to customers' final decisions in selecting a provider.

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