

Learning and Memory, Enhancing The Brand Positioning of Oppo Smartphones in Pekanbaru

Indriaty¹, Yudho Wibowo², Bayu Sedih Nanda Ria³, David Opel Alexander⁴
^{1,2,3,4} STIE Dharma Putra Pekanbaru

Email:

¹indriatywibowo@gmail.com

²yudhowibowo@stiedharmaputra.ac.id

³bayusedihnandariastiedp@gmail.com

⁴dvd.na70@gmail.com

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Abstract

This Research aims to know the influence of learning and memory variables on brand positioning variables on Oppo smartphone products.

Research results IDC (2026) obtained fact that smartphone demand in Indonesia ranges 1st quarter of 2025 to first quarter of 2026 experienced decline by 2.9%. The Oppo brand has experience decline shipments in Q1 2026 compared to Q1 2025 by 9.9%.

Research methods use analysis multiple linear regression equipped with assumption test regression. The sampling technique used purposive sampling of 92 people who became respondents.

Research show that Learning variables are proven have significant influence on brand positioning variables, value significant t-test on the learning variable is 0.043 more small compared to 0.05. Variable memory in the t-test has mark significance of 0.011 more small from 0.05 also proves that proven memory variable own influence on the brand positioning variable. The F-test also shows mark significance still 0.035 more small compared to 0.05 proves that learning and memory variables simultaneous own its influence on brand positioning variables.

INTRODUCTION

The widespread adoption of AI (Artificial Intelligence) is prompting smartphone manufacturers to modify existing device specifications. Manufacturers are beginning to adjust hardware and software to ensure optimal AI performance, with critical changes naturally occurring in processors and memory chips. Amidst global uncertainty, a significant 20% surge in demand for memory chips has led to shortages and driven up prices. Rising prices for electronic devices without a corresponding increase in quality could dampen consumer interest.

Table 1. Indonesian Smartphone Market Share

Perusahaan	Pengiriman Kuartal 1 Tahun 2026	Pangsa Pasar Kuartal 1 Tahun 2026	Pengiriman Kuartal 1 Tahun 2025	Pangsa Pasar Kuartal 1 Tahun 2025	Perubahan dari Tahun ke Tahun
Samsung	62.4	21,2%	60.6	20,0%	2,9%
Apel	61.8	21,0%	59.1	19,5%	4,4%
Xiaomi	33.8	11,5%	41.8	13,8%	-19,1%
OPPO	30.7	10,5%	34.1	11,3%	-9,9%
hidup	21.2	7,2%	22.7	7,5%	-6,9%
Yang lain	84.0	28,6%	84.3	27,8%	-0,3%
Total	293,8	100,0%	302.6	100,0%	-2,9%
Sumber: IDC Quarterly Mobile Phone Tracker, 7 Mei 2026					

IDC research (2026) reveals that smartphone demand in Indonesia declined by 2.9% between the first quarter of 2025 and the first quarter of 2026. This downturn was driven by the persistent and worsening memory shortage crisis, alongside the US-Iran conflict, which added a new layer of cost pressure on smartphone OEMs due to rising oil prices and transportation costs. These combined pressures forced vendors to cut shipments, raise prices, and focus on higher price tiers. The year 2026 will be a defining one for the industry as a new reality of structurally higher costs takes hold. For consumers, this means the era of ultra-cheap smartphones is over. For vendors, it means that only those capable of adapting their strategies to this new cost environment and sustaining demand at higher price points will survive. IDC (2026) also notes that large-scale smartphone vendors with supply bargaining power and pricing strength namely Apple, Samsung, and Huawei could gain market share, whereas smaller Android brands, particularly those concentrated in the entry-level segment and emerging markets, will face the sharpest contractions and, in some cases, exit the market.

Concrete steps are required to formulate a marketing strategy that is precise, effective, and efficient—at the very least to maintain the market share already achieved. Based on the data in Table 1, the researcher notes a 9.9% decline for Oppo smartphones, placing it in the middle of the pack among other smartphone manufacturers experiencing similar drops. This decline in market share may stem from a lack of strong brand positioning in the minds of consumers; furthermore, the influx of information regarding other smartphone brands risks causing Oppo smartphones to be overlooked. Consequently, the researcher aims to explore marketing strategies from the perspective of consumer behavior by incorporating the variables of learning and memory in relation to the product positioning of Oppo smartphones.

Literature Review

Learning

Learning is any change in the content or organization of long-term memory or behavior and is the result of information processing. In the previous chapter, we described information processing as a series of activities by which stimuli are perceived, transformed into information, and stored (Mothersbaugh & Hawkins, 2016)

Learning is a relatively permanent change in behavior caused by experience. The learner need not have the experience directly; we can also learn when we observe events that affect others.² We learn even when we don't try: We recognize many brand names and hum many product jingles, for example, even for products we don't personally use. We call this casual, unintentional acquisition of knowledge incidental learning. (Solomon, 2013)

Solomon (2013) said behavioral learning theories assume that learning takes place as the result of responses to external events. Psychologists who subscribe to this viewpoint do not focus on internal thought processes. Instead, they approach the mind as a "black box" and emphasize the observable aspects of behavior. The observable aspects consist of things that go into the box (the stimuli or events perceived from the outside world) and things that come out of the box (the responses, or reactions to these stimuli). Two major approaches to learning represent this view: classical conditioning and instrumental conditioning. According to the behavioral learning perspective, the feedback we receive as we go through life shapes our experiences.

Cognitive learning encompasses all the mental activities of humans as they work to solve problems or cope with situations. It involves learning ideas, concepts, attitudes, and facts that contribute to our ability to reason, solve problems, and learn relationships without direct experience or reinforcement. (Motherbough and Hawkin, 2016)

Observational learning occurs when we watch the actions of others and note the reinforcements they receive for their behaviors- in these situations, learning occurs as a result of vicarious rather than direct experience. This type of learning is a complex process; people store these observations in memory as they accumulate knowledge and then they use this information at a later point to guide their own behavior. Modeling (not the runway kind) is the process of imitating the behavior of others. The modeling process is a powerful form of learning, and people's tendencies to imitate others' behaviors can have negative effects. (Solomon, 2013)

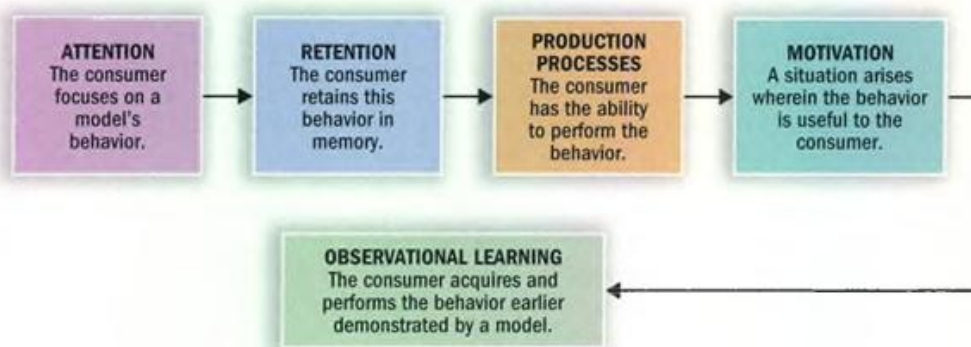


Figure 1. The Observational Learning Process (Solomon, 2013)

Memory

Memory is a process of acquiring information and storing it over time so that it will be available when we need it. Contemporary approaches to the study of memory employ an information-processing approach. They assume that the mind is in some ways like a computer: Data are input, processed, and output for later use in revised form. In the encoding stage, information enters in a way the system will recognize. In the storage stage, we integrate this knowledge with what is already in memory and "warehouse" it until it is needed. During retrieval, we access the desired information (Solomon, 2013)

Episodic memories relate to events that are personally relevant.⁴⁴ As a result, a person's motivation to retain these memories will likely be strong. Couples often have "their song," which reminds them of their first date or wedding. We call some especially vivid associations flashbulb memories (for example, where were you when you first heard that Osama bin Laden had been killed?). And recall of the past may affect future behavior. A college fund-raising campaign can raise more money when it evokes pleasant college memories than when it reminds alumni of unpleasant ones. (Solomon, 2013)

A narrative, or story is often an effective way to convey product information. Our memories store a lot of the social information we acquire in story form; it's a good idea to construct ads in the form of a

narrative so they resonate with the audience. Narratives persuade people to construct mental representations of the information they see or hear. Pictures aid in this construction and allow us to develop more detailed mental representations. 45 Research supports the idea that we are more likely to positively evaluate and purchase brands when they connect with us like this. (Solomon, 2013)

Memory is the total accumulation of prior learning experiences. It consists of two interrelated components: short-term and long-term memory. These are not distinct physiological entities. Instead, short-term memory (STM), or working memory, is that portion of total memory that is currently activated or in use. Long-term memory (LTM) is that portion of total memory devoted to permanent information storage. (Motherbough and Hawkin, 2016)

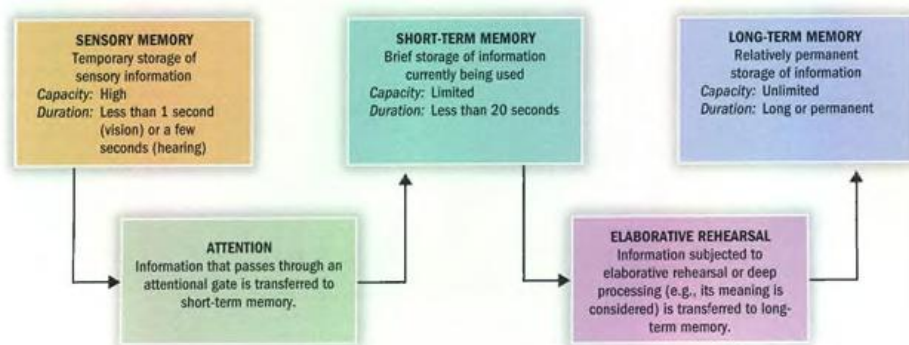


Figure 2. Types of Memory (Motherbough and Hawkin, 2016)

Product Positoning

Product positioning is a decision by a marketer to try to achieve a defined brand image relative to competition within a market segment. That is, marketers decide that they want the members of a market segment to think and feel in a certain way about a brand relative to competing brands. (Motherbough and Hawkin, 2016)

Product positioning is a decision by a marketer to attempt to attain a defined and differentiated brand image, generally in relation to specific competitors. A brand image that matches a target market's needs and desires will be valued by that market segment. Such a brand is said to have brand equity because consumers respond favorably toward it in the market. In addition, these consumers may be willing to assume that other products with the same brand name will have some of the same features, which relates to how consumers learn to generalize from one stimulus to another.

Product positioning has a major impact on the long-term success of the brand, presuming the firm can create the desired position in the minds of consumers. A key issue in positioning relates to the need for brands to create product positions that differentiate them from competitors in ways that are meaningful to consumers.⁷⁰ A brand that fails to differentiate itself from competitors (stimulus discrimination) will generally find it difficult to generate consumer interest and sales. (Motherbough and Hawkin, 2016)

The final stages of target marketing involve the development of positioning strategies Effective product positioning takes place in the mind of the customer and relates to psychology and understanding how people perceive products and brands. The key aspects of this approach acknowledge that are Products and brands have both objective and subjective attributes; Purchasers use such attributes when choosing between products and brands in a particular segment.; and The customer has individual ideas about how competitive products or brands rate on each attribute (Lancaster and Massingham, 2018).

Hypotesis

H₁: The learning variable influences the brand positioning of Oppo smartphones.

H₂: The memory variable influences the brand positioning of Oppo smartphones.

H₃: The learning and memory variables influence the brand positioning of Oppo smartphones.

Method

Population and sample

A population element is an individual participant or object that is the subject of measurement; such an element constitutes a unit of analysis. The population represents the entire set of elements about which we wish to draw conclusions (Cooper & Schindler, 2014). In this study, the population consists of Oppo mobile phone users in Pekanbaru.

A sample is a subset of the population. It comprises specific members selected from the population; in other words, a sample is formed by some but not all elements of the population (Sekaran & Bougie, 2016). A sample is a group of cases, participants, events, or records drawn from the target population and carefully selected to represent that population (Cooper & Schindler, 2014).

This study employs a non-probability sampling method specifically purposive sampling with a sample size of 92 Oppo mobile phone users.

Regression Assumption Testing

1) Normality

According to Ghazali (2018), the normality test aims to determine whether the independent and dependent variables are normally distributed. This study employs the Kolmogorov-Smirnov test to assess data normality. In this test, if the probability is greater than 0.05, the regression model distribution is considered normal; conversely, if the probability is less than 0.05, the regression model distribution is considered abnormal.

2) Multicollinearity

The multicollinearity test is conducted to determine whether multicollinearity exists among the independent variables. In a good regression model, there should be no correlation between the independent variables; the presence of such correlation is referred to as multicollinearity. The decision-making criteria for the multicollinearity test are as follows: If the Tolerance value is > 0.10 and the VIF value is < 10, it can be concluded that multicollinearity is not present. If the Tolerance value is < 0.10 and the VIF value is > 10, it can be concluded that multicollinearity is present.

3) Heteroskedasticity

The heteroskedasticity test aims to determine whether the variance of the residuals is unequal across observations within a regression model. A good regression model is one that does not exhibit heteroskedasticity. The presence or absence of heteroskedasticity can be assessed by examining a scatterplot. The criteria are as follows: If a specific pattern exists such as data points forming a distinct, regular pattern then heteroskedasticity is present. If there is no clear pattern, or if the points are scattered above and below the zero (0) mark on the Y-axis, then heteroskedasticity is not present.

Hypothesis Test

1) Regression Equation

$$Y = a + b_1X_1 + b_2X_2$$

Y : Brand positioning

a : Constant

b₁, b₂ : Coefficient regression

X₁ : Learning

X₂ : Memory

2) t-test

Priyatno (2016) states that the t-test is used to examine the partial effect of the independent variable (X) on the dependent variable (Y). The criteria for the t-test are as follows: If the significance value < α (0.05),

H_a is accepted and H_o is rejected, meaning the variable has a significant effect on the dependent variable. If the significance value $> \alpha$ (0.05), H_o is accepted and H_a is rejected, meaning the variable does not have a significant effect on the dependent variable.

3) F-test

Priyatno (2016) states that the F-test is used to examine the simultaneous effect of the independent variables (X) on the dependent variable (Y). The criteria for the F-test are as follows: If the significance value is $< \alpha$ (0.05), H_a is accepted and H_o is rejected, meaning the variables have a significant simultaneous effect on the dependent variable. If the significance value is $> \alpha$ (0.05), H_o is accepted and H_a is rejected, meaning the variables do not have a significant simultaneous effect on the dependent variable.

4) Correlation and Determination Coefficients

The correlation coefficient (R) is used to determine the degree of closeness or strength of the relationship between the independent variable and the dependent variable; it measures the strength of the relationship within the model employed. The coefficient of determination (R^2) is a figure indicating the extent of the variance or dispersion.

Result

Respondent Characteristics

The characteristics of the respondents, derived from the summary of the questionnaires distributed to them, are summarized in the following table:

Table 2. Characteristics of respondents

Catagory		Frequency	Percentage
Gender	Male	39	42.4%
	Female	53	57.6%
Number of Smartphones	1	69	75%
	1-2	20	21.7%
	> 2	3	3.3%
Occupation	Entrepreneur	16	17.4
	PNS/Police/Military	13	14.1%
	Professional	9	9.8%
	Private Employee	34	36.9%
	Student	20	21.8%
Reason for Purchase	Features	27	29.3%
	Design	32	34.8%
	Technology	37	40.2%
	After-sales service	9	9.8%
	Price	14	15.2%

Source: Processed data, 2026

Based on the data in the table above, 42.4% of the respondents were male and 57.6% were female. Regarding smartphone ownership, the majority (75%) of respondents owned only one smartphone. The respondents' occupations varied: 17.4% were entrepreneur, 14.1% were PNS or military/police personnel, 9.8% were professionals, 36.9% were private employees, and 21.8% were students. The primary reasons for purchasing an Oppo smartphone were technology (40.2%), design (34.8%), price (15.2%), and after-sales service (9.8%).

Regression Assumption Analysis

Normality Test

The normality test results obtained from data processed using SPSS version 27 as shown in the table below—indicate a significance value of 0.161, which is greater than 0.05. Therefore, it can be concluded that the data are normally distributed.

Table 3. Kolmogorov Smirnov Test

One-Sample Kolmogorov-Smirnov Test		Unstandardized Residual
N		92
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	1.46057845
Most Extreme Differences	Absolute	.128
	Positive	.128
	Negative	-.094
Test Statistic		.128
Asymp. Sig. (2-tailed) ^c		.161
Monte Carlo Sig. (2-tailed) ^d	Sig.	.152
	99% Confidence Interval	Lower Bound
		Upper Bound
		.143
		.161

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. Lilliefors' method based on 10000 Monte Carlo samples with starting seed 299883525.

Source: Processed data, 2026

Multicollinearity

The multicollinearity test results based on the obtained data show that the VIF value for each variable is 1.558 (less than 10) and the tolerance value is 0.642 (greater than 0.1); this indicates that the research data does not exhibit multicollinearity.

Table 4. Multicollinearity Test

Collinearity Statistics	
Tolerance	VIF
.642	1.558
.642	1.558

Source: Processed data, 2026

Heteroskedasticity

Heteroskedasticity is indicated by a pattern of data points distributed evenly above and below as well as to the right and left of the zero point, without forming distinct patterns.

The data obtained from respondents, as shown in Table 5, reveal that the data points are evenly distributed below, above, and to the right and left of the zero point. This demonstrates the absence of heteroskedasticity.

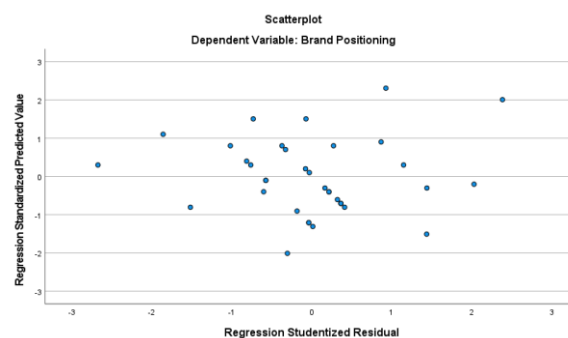


Figure 2. Scatter plot (Processed data, 2026)

Multiple Linear Regression Analysis

The processed regression results are presented in Table 5 below:

Table 5. Coefficients

Coefficients ^a							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	18.685	3.167	5.900	<.001		
	Learning	.381	.181	.417	.043	.642	1.558
	Memory	.456	.169	.535	.011	.642	1.558

a. Dependent Variable: Brand Positioning

Source: Processed data, 2026

The regression equation derived from the table above is as follows:

$$Y = 18.685 + 0.381X_1 + 0.456X_2$$

X_1 : Learning

X_2 : Memory

In this equation, the coefficient for the "memory" variable is larger than that for the "learning" variable. This indicates that memory plays a crucial role in influencing brand positioning. The type of memory that needs to be cultivated is long-term memory; this ensures that brand positioning is maintained and passed on to future generations through the learning process, ultimately leading to recommendations to friends and family.

Hypothesis Testing

H_1 : The learning variable influences the brand positioning of Oppo smartphones.

The results in Table 5 show that the significance level for the learning variable is 0.043 which is less than 0.05 leading us to accept H_1 ; it is proven that the learning variable influences the brand positioning of Oppo smartphones.

H_2 : The memory variable influences the brand positioning of Oppo smartphones.

The results in Table 5 show that the significance level for the memory variable is 0.011 which is less than 0.05 leading us to accept H_2 ; it is proven that the memory variable influences the brand positioning of Oppo smartphones.

H_3 : The variables of learning and memory influence the brand positioning of Oppo smartphones.

Hypothesis H_3 is tested using the F-test, as shown in the table below.

Table 6. F Test

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	19.469	2	9.734	13.822	.032 ^b
	Residual	81.503	90	2.547		
	Total	100.971	92			

a. Dependent Variable: Brand Positioning

b. Predictors: (Constant), Memory, Learning

Source: Processed data, 2026

The Sig. value in Table 6 above is 0.032; since this figure is less than 0.05, we accept H_3 and reject H_0 , thereby confirming the proposed hypothesis that the variables of learning and memory simultaneously influence the brand positioning of Oppo smartphones.

Correlation and Determination

Correlation (R) indicates the strength of the relationship between the independent and dependent variables. In this case, Table 7 below shows that the correlation between the learning and memory variables and the brand positioning variable is 0.739, representing a positive and strong relationship.

Table 7. Correlation

Model Summary ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.739 ^a	.547	.512	1.596

a. Predictors: (Constant), Memory, Learning

b. Dependent Variable: Brand Positioning

Source: Processed data, 2026

Meanwhile, the coefficient of determination (R^2) indicates the extent to which the independent variables explain the dependent variable. As shown in Table 7, the R^2 value is 0.547; this means that the learning and memory variables explain 54.7% of the brand positioning variable, while the remaining 45.3% is explained by other variables not examined in this study.

The results of this study demonstrate the crucial role of learning and memory processes in establishing brand positioning. Building brand positioning cannot be achieved simply through low pricing or seamless distribution; it is equally important to foster consumer learning and memory retention—spanning both short- and long-term memory to ensure the continuous formation of brand positioning. This established positioning leads to stable and growing market share over time. A comprehensive marketing strategy is required to engage consumers, encouraging them to learn and remember the brand so that it becomes embedded in their memory.

Conclusion

This quantitative study employed multiple linear regression analysis to examine the variables of learning, memory, and brand positioning. The respondents consisted of 42.4% males and 57.6% females. The majority of respondents (75%) owned a single smartphone, and technology was the dominant reason cited for their purchase.

Hypothesis testing results demonstrated that the learning variable influences the brand positioning of Oppo smartphones, as does the memory variable; furthermore, the learning and memory variables were found to simultaneously influence the brand positioning of Oppo smartphones.

The results also indicated that the learning and memory variables explain 54.7% of the variance in brand positioning, with the remainder attributed to other variables not included in this study.

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