

## Push, Pull, and Mooring Effects on E-Commerce Customer Switching Intention



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**ABSTRACT:** This study aims to determine the effect of push, pull, and mooring on switching intention for Tokopedia e-commerce customers in Surabaya. A quantitative approach is employed in this research, with the population consisting of Surabaya people who have shopped at Tokopedia. This study aims to determine the effect of push, pull, and mooring on switching intention for Tokopedia e-commerce customers in Surabaya. A quantitative approach is employed in this research, with the population consisting of Surabaya people who have shopped at Tokopedia. The sample size of 105 respondents was selected using purposive sampling technique. Data collection involved the distribution of online questionnaires to eligible Tokopedia customers. The collected data was then analyzed using SEM-PLS method with SmartPLS. The results showed that push and pull have a positive and significant effect on switching intention. Meanwhile, mooring has a positive but insignificant effect on switching intention.

**KEYWORDS:** Push Factors; Pull Factors; Mooring Factors; Switching Intention; E-Commerce

### I. INTRODUCTION

Tokopedia stands as one of the largest e-commerce platforms in Indonesia. Tokopedia started as an online marketplace where individuals and businesses can sell various products from different categories, including fashion, electronics, beauty, and more. With a mission of digital economic equity, Tokopedia has contributed to the growth of Indonesia's e-commerce ecosystem and has been recognized for its efforts to empower small businesses and entrepreneurs (Tokopedia, n.d). From the Gojek Tokopedia (GoTo) financial performance report in the third quarter of 2022, e-commerce Tokopedia has recorded GTV growth of 15% and gross revenue of 27% year-on-year in 3Q22. The main support was obtained from the business take rate through the implementation of a new commission scheme for consumer-to-consumer (C2C) merchant partners, the launch of a new platform fee scheme in July 2022, and the utilization of value-added services such as advertising and logistics. In addition, it's also derived from a new strategy that focuses on product innovation and moving away from growth that relies on incentives and promos (GoTo Group, 2022).

The new strategy implemented by Tokopedia aims to reduce GoTo's net loss, which has soared by 32% or equivalent to 20.9 trillion rupiah from the same period last year (GoTo Group, 2022). However, this strategy can also backfire for Tokopedia. This can be proven by the increasing number of bad reviews given by customers on Tokopedia e-commerce. Examining Tokopedia's bad reviews on the Appstore, some of them expressed disappointment with Tokopedia's new policy which was considered to have harmed customers. Not a few even compare Tokopedia with other e-commerce platforms. This situation is quite worrying for Tokopedia, because customers who are dissatisfied with a service will be very likely to switch to using other service providers that are considered more attractive (Sugandha, 2021).

Based on this phenomenon, there is a problem regarding switching intention in Tokopedia e-commerce customers. Switching intention is a factor underlying switching behavior, where it refers to the level of probability or certainty that the customer will switch to another service provider (Widhi Prasetio et al, 2022). According to Bansal et al. (2005), switching intention can be explored using the PPM framework, which involves categorizing its factors into three groups: push factors, pull factors, and mooring factors.

Therefore, the Push-Pull-Mooring (PPM) approach will be applied to examine customer switching intentions with the title "Push, Pull, and Mooring Effects on E-Commerce Customer Switching Intention".

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### II. LITERATURE REVIEW AND RESEARCH DEVELOPMENT

#### A. *PPM Framework*

Push, Pull, and Mooring constitute the essential elements of the PPM framework, closely tied to consumer behavior. This model is utilized to comprehend shifts in consumption patterns, particularly within service providers (Bansal et al., 2005). Push, as defined by Setiani (2019), represents negative factors originating from the original service provider that stimulate the inclination to switch among customers. In the view of (Bansal et al., 2005), push elements encompass aspects like quality, satisfaction, trust, and price perception that drive individuals to abandon their existing service providers. Conversely, pull factors as articulated by Bellami (2018: 38) in (Muttaqin, 2022), are positive influencers that empower customers to transition between services. In a prior definition by Bansal et al. (2005), pull factors denote attributes possessed by alternate service providers, enticing customer attention towards making a switch. These factors that induce the desire to switch are termed "alternative attractiveness," implying positive attributes perceived as better in alternative service providers compared to the original. Lastly, mooring can be influenced by several factors prompting customers to reconsider switching desires (Sugandha, 2021). As outlined by Bansal et al. (2005), mooring factors depend on the situational context customers face, such as subjective norms, prior switching behavior, and variety seeking.

#### B. *Switching Intention*

Bansal et al. (2005) provides a definition for switching intention as the degree of likelihood or certainty that a customer will make a transition or shift to a different service provider. In the work by Roos, Edvardsoon, and Gustafsson (2004) as cited in (Mellandhia Shandy et al., 2022), two categories of customer switching are identified. Firstly, internal switching involves moving between units within the same company. Conversely, external switching pertains to customers opting to shift to alternative service providers external to the company, as stated by Setiani (2019). While dissatisfaction with the current service provider usually triggers switching intention, it's important to note that customers might also choose to switch even if their current service provider has a positive reputation and has delivered satisfactory shopping experiences.

#### C. *Push Effect on Switching Intention*

Astuti et al. (2019) stated that push have a significant impact on the switching intention of e-commerce users in Langsa. The study elucidates how the presence of shortcomings or challenges experienced in utilizing the prevailing e-commerce platform can motivate users to transition and explore more favorable e-commerce alternatives. Similar results were also shown by Muttaqin (2022) who examined the displacement of online game use. In addition, research from Sugandha (2021) states that push factors consisting of low service quality, satisfaction trust, and pricing problems, can have a positive effect on switching intention to use wifi. From some of these studies, it can be deduced that a clear connection exists between push factors and switching intentions. This connection is underscored by the observation that as the performance of the original service provider deteriorates, customers' tendency to switch correspondingly increases.

H1: Push have a positive and significant effect on switching intention for Tokopedia e-commerce customers in Surabaya.

#### D. *Pull Effect on Switching Intention*

Marseto et al. (2019) in their research entitled "Push, Pull, and Mooring Evaluation of User Switching Intention from Social Commerce to E-Commerce" have shown that pull have a positive impact on switching intention. In a similar study regarding customer migration on online shopping websites by Wahanandra et al. (2022), it was also shown that pull factors have a significant positive effect on switching intention. Both studies indicate that when customers perceive alternative services as having superior attributes, they are more likely to switch to those alternatives. This conclusion clarifies the relationship between the influence of pull factors and switching intention.

H2: Pull have a positive and significant effect on switching intention for Tokopedia e-commerce customers in Surabaya.

#### E. *Mooring Effect on Switching Intention*

Previous research conducted by Astuti et al. (2019) has proven that mooring factors, encompassing subjective norms, attitudes towards switching, switching costs, past behavior, and variety seeking can affect the switching intention of e-commerce users in Langsa. Similarly, the study by Marseto et al. (2019) has also yielded comparable findings, indicating that the mooring factor can exert a positive influence on switching intention. However, in contrast to research by Yusuf & Ratnasari (2022) which suggest that the mooring has a positive but insignificant effect on switching intention among Video on Demand application users during the Covid-19 Pandemic. Therefore, it can be concluded that mooring factors generally tend to exert a positive impact on switching intention, although outcomes may differ in distinct contexts.

H3: Mooring have a positive and significant effect on switching intention for Tokopedia e-commerce customers in Surabaya.

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### III. RESEARCH METHODS

This study employs a quantitative approach, with a population consisting of Surabaya people who have previously made purchases on the Tokopedia e-commerce platform. Non-Probability Sampling is the chosen method for selecting a representative sample from this population. The study's sample consists of 105 respondents, selected through purposive sampling techniques. Data collection is facilitated by distributing online questionnaires to Tokopedia e-commerce customers in Surabaya who meet the established criteria for participation. Once the data collection phase is complete, the gathered data will undergo processing and analysis using SEM-PLS method, with the aid of Smart PLS software.

### IV. RESULTS AND DISCUSSION

#### A. Respondent Characteristics

Based on the research questionnaire that has been distributed online to Tokopedia e-commerce customers in Surabaya, 105 respondents were obtained who meet the criteria as research samples. The characteristics of respondents in this study include gender and age group, which are presented in the following table.

**Table 1. Respondent Characteristics**

Characteristics	Number	Percentage
Gender Male	61	58.1%
Female	44	41.9%
Age 17 – 23 Years	55	52.4%
24 – 30 Years	12	11.4%
31 – 40 Years	25	23.8%
41 – 55 Years	13	12.4%
≥ 56 Years	0	0.0%

#### B. Convergent Validity

**Table 2. Outer Loading (Mean, STDEV, T-Values)**

	Original mple (O)	Sample lean (M)	Standard Deviation (STDEV)	Standard Error (STERR)	T Statistics ( O/STERR )
X1.1.1 <- Quality	0.850958	0.844680	0.043059	0.043059	19.762582
X1.1.2 <- Quality	0.889534	0.891582	0.028536	0.028536	31.172231
X1.2.1 <- Satisfaction	0.875151	0.874904	0.023405	0.023405	37.390945
X1.2.2 <- Satisfaction	0.861214	0.855585	0.043027	0.043027	20.015623
X1.3.1 <- Trust	0.913720	0.915754	0.013001	0.013001	70.282348
X1.3.2 <- Trust	0.870527	0.868354	0.036876	0.036876	23.606792
X1.4.1 <- Price Perception	0.919872	0.920868	0.017569	0.017569	52.358556
X1.4.2 <- Price Perception	0.925634	0.926838	0.015068	0.015068	61.431158
X2.1 <- Pull	0.745851	0.749107	0.062852	0.062852	11.866813
X2.2 <- Pull	0.834481	0.836194	0.035048	0.035048	23.809537
X2.3 <- Pull	0.890609	0.890135	0.020874	0.020874	42.665124
X2.4 <- Pull	0.829208	0.829558	0.037913	0.037913	21.871214
X3.1.1 <- Subjective Norms	0.893368	0.892575	0.021035	0.021035	42.469644
X3.1.2 <- Subjective Norms	0.914945	0.913819	0.015429	0.015429	59.298996
X3.2.1 <- Prior Switching Behavior	0.872221	0.868344	0.046401	0.046401	18.797362
X3.2.2 <- Prior Switching Behavior	0.835406	0.833620	0.053526	0.053526	15.607606
X3.3.1 <- Variety Seeking	0.688254	0.624428	0.206422	0.206422	3.334201
X3.3.2 <- Variety Seeking	0.957122	0.952821	0.065176	0.065176	14.685114
Y1.1 <- Switching Intention	0.853327	0.852004	0.047767	0.047767	17.864322
Y1.2 <- Switching Intention	0.936340	0.938810	0.012765	0.012765	73.353921
Y1.3 <- Switching Intention	0.883222	0.885776	0.025878	0.025878	34.129914

## Push, Pull, and Mooring Effects on E-Commerce Customer Switching Intention

Indicator validity can be assessed by examining the factor loading values between variables and their corresponding indicators. Factor loading represents the correlation between an indicator and a variable. Factor loading values exceeding 0.5 and/or TStatistics values surpassing 1.96 (Z-value at  $\alpha = 0.05$ ) are considered indicative of satisfactory validity. In this study, all reflective indicators within each dimension of the Push (X1) and Mooring (X3) variables, as well as the indicators of the Pull (X2) and Switching Intention (Y) variables, exhibit factor loading values (original sample) greater than 0.50 and/or significant (T-Statistics values exceeding the  $Z\alpha = 0.05$  (5%) threshold of 1.96). Consequently, the estimation results of all these reflective indicators can be concluded to possess convergent validity or good validity.

### C. Discriminant Validity

Table 3. Average Variance Extracted (AVE)

	AVE
Quality (X1.1)	0.757700
Satisfaction (X1.2)	0.753789
Trust (X1.3)	0.796351
Price Perception (X1.4)	0.851481
Push (X1)	0.544880
Pull (X2)	0.683356
Subjective Norms (X3.1)	0.817615
Prior Switching Behavior (X3.2)	0.729336
Variety Seeking (X3.3)	0.694888
Mooring (X3)	0.388292
Switching Intention (Y)	0.794993

Validity of latent variables is considered good when convergence value of AVE is greater than 0.5. AVE represents the extent of indicator variance contained within latent variable. AVE testing results for all dimensions as well as Push (X1), Pull (X2), and Switching Intention (Y) variables exhibit good validity, with AVE values above 0.5. However, in the testing of Mooring (X3) dimension and variable, the validity is less satisfactory, as AVE values fall below 0.5.

### D. Composite Reliability

Table 4. Composite Reliability

	Composite Reliability
Quality (X1.1)	0.862091
Satisfaction (X1.2)	0.859604
Trust (X1.3)	0.886573
Price Perception (X1.4)	0.919783
Push (X1)	0.905150
Pull (X2)	0.895820
Subjective Norms (X3.1)	0.899644
Prior Switching Behavior (X3.2)	0.843425
Variety Seeking (X3.3)	0.816058
Mooring (X3)	0.778855
Switching Intention (Y)	0.920738

The construct reliability, assessed using the composite reliability value, is considered reliable if it exceeds 0.70. Thus, these indicators can be considered consistent in measuring latent variables. The testing outcomes of composite reliability for all dimensions as well as Push (X1) and Mooring (X3) variables, along with Pull (X2) and Switching Intention (Y) variable, reveal composite reliability values exceeding 0.70. This indicates that overall, the constructs (dimensions) and variables in this study are reliable.

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### E. Path Analysis

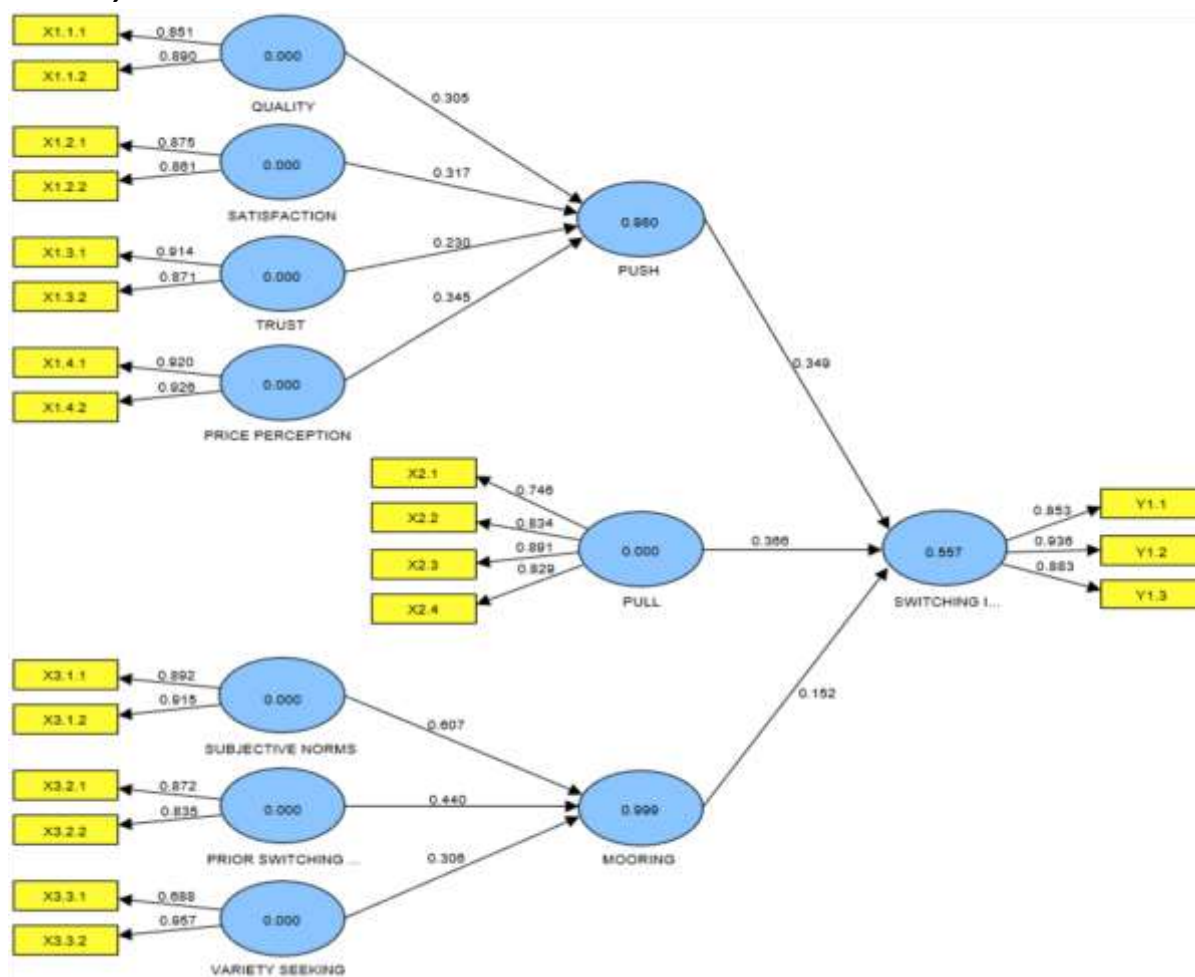


Figure 1. Outer Model with Factor Loading, Path Coefficients and R-Square values

### F. R-Square

Table 5. R-Square

	R Square
Push (X1)	
Pull (X2)	
Mooring (X3)	
Switching Intention (Y)	0.556972

Inner model testing can be evaluated through the examination of R-square values, which serves as a test for goodness of fit of the model's equations between latent variables. R-square ( $R^2$ ) value indicates the extent to which exogenous (independent) variables within the model can explain the variations in the endogenous (dependent) variables. R-square value of 0.556972 presented in the table above can be interpreted to mean that the model is capable of explaining the phenomenon of Switching Intention (Y) which is influenced by exogenous variables including Push (X1), Pull (X2), and Mooring (X3), accounting for 55.69% of the variance. On the other hand, the remaining 44.31% (100% - 55.69%) is accounted for by other variables beyond the scope of this study (excluding Push, Pull, and Mooring variables).

### G. Hypothesis Testing

Table 6. Path Coefficients (Mean, STDEV, T-Values)

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	Standard Error (STERR)	T Statistics ( O/STERR )
Push -> Switching Intention	0.349164	0.330004	0.127431	0.127431	2.740025
Pull -> Switching Intention	0.365565	0.384371	0.116005	0.116005	3.151291
Mooring -> Switching Intention	0.151541	0.157833	0.114771	0.114771	1.320384

## **Push, Pull, and Mooring Effects on E-Commerce Customer Switching Intention**

H1: Push has a positive and significant effect on switching intention is accepted. This is supported by path coefficients of 0.349164 and a T-Statistics value of 2.740025, which exceeds the critical value of  $Z\alpha = 0.05$  (5%) = 1.96, indicating statistical significance (positive).

H2: Pull has a positive and significant effect on switching intention is accepted. This is supported by path coefficients of 0.365565 and a T-Statistics value of 3.151291, which exceeds the critical value of  $Z\alpha = 0.05$  (5%) = 1.96, indicating statistical significance (positive).

H3: Mooring has a positive and significant effect on switching intention is not accepted. This is supported by path coefficients of 0.151541 and a T-Statistics value of 1.320384, which is below the critical value of  $Z\alpha = 0.05$  (5%) = 1.96, indicating lack of statistical significance (positive).

### **H. Push Effect on Switching Intention**

Based on conducted hypothesis testing, it's evident that push have a positive effect on switching intention for Tokopedia ecommerce customers in Surabaya. Through descriptive analysis, it was found that the price perception dimension with indicators reflecting additional costs charged by Tokopedia makes the total payment higher has the greatest influence on customer switching intention. The implementation of new fee schemes by Tokopedia, such as increasing shipping costs through the use of additional logistics services and adding service and application fees has led to an overall increase in costs for each transaction. The findings of this study align with prior research conducted by Sugandha (2021) concerning switching intention in the context of Wi-Fi usage and by Muttaqin, F. (2022) who investigated switching behavior in online game usage. Both studies demonstrate that push factors have a positive influence on customer switching intentions.

### **I. Pull Effect on Switching Intention**

Based on conducted hypothesis testing, it's evident that pull have a positive and significant effect on switching intention for Tokopedia e-commerce customers in Surabaya. In addition, the results of descriptive analysis show the indicator with statement that shopping in other e-commerce will be more profitable as the most influential indicator on customer switching intention. This suggests that the factor motivating customers to switch to another platform is the perception that shopping on a different ecommerce platform will offer more advantages. In this context, customers have the perception that other platforms provide greater benefits, such as lower prices, more appealing discounts, more advantageous loyalty programs, or a better shopping experience. Therefore, customers tend to feel attracted to switch to other platforms that are considered more profitable than Tokopedia. This finding is consistent with previous research by Marseto et al. (2019) and Wahanandra et al., (2022) which also examined consumer switching on online shopping sites. The study shows that pull factors have a significant positive effect on customer switching intentions.

### **J. Mooring Effect on Switching Intention**

Based on conducted hypothesis testing, it's evident that mooring has a positive influence on customer switching intentions on Tokopedia e-commerce platform in Surabaya, although the effect is not statistically significant. From the results of descriptive analysis on mooring variable, it was found that the dimension of variety seeking, with indicators reflecting customers' preference to continue shopping on Tokopedia rather than other e-commerce platforms has the least impact on influencing customer switching intention. This indicates that customers tend to have lower loyalty retention towards Tokopedia and are more open to exploring alternatives on other e-commerce platforms. This might be due to customers perceiving that Tokopedia cannot provide adequate variation in the products, brands, or types of services they are seeking. As a result, customers are interested in exploring other e-commerce platforms that offer more appealing benefits or better suit their needs. This emphasizes that even though the impact of the mooring factor is not statistically significant, there is still an indication that this factor plays a role in influencing customers' decisions to switch from Tokopedia to alternative e-commerce platforms. These findings are consistent with previous research by Yusuf & Ratnasari (2022), which indicated that the mooring factor had a positive but statistically insignificant influence on customer switching intention for Video on Demand application users during the Covid-19 pandemic.

## **V. CONCLUSIONS**

The results showed that push, pull, and mooring can affect switching intention of Tokopedia e-commerce customers in Surabaya. Push which includes quality, satisfaction, trust, and price perception, positively and significantly affects customers' intention to switch to alternative e-commerce platforms. Pull which reflects the alternative attractiveness has a positive and significant influence on customers' switching intention. Meanwhile, moorings such as subjective norms, prior switching behavior, and variety seeking have a positive but insignificant impact on switching intention.



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These results contribute to a deeper comprehension of the determinants of switching intention in e-commerce customers, with particular emphasis on the significance of push and pull factors in customers' decision making processes when considering the switch to alternative platforms.

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