

# **Worker Switching Intention from Pay Later Apps to Card : An HCM Approach of Traveloka Customers in Jakarta**

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## **Abstract**

The Traveloka Pay later card's launch in September 2019 by Traveloka collaborates with Bank BRI to improve digital payment services. The last digital payment service expects to increase the number of members to reach 5 million by 2025, considering that BRI is the bank with the most extensive network. It is interesting to know Traveloka customers' behaviour to switch for the new product. A research survey was conducted in Jakarta in March 2020. This study uses a push-pull-mooring (PPM) framework to show the Traveloka customer switching behaviour determinants from pay later to pay later card. SEM conducted on data from 1117 workers using pay later card in Jakarta province. HCM was used to prove the impact of second-order variables on switching intention. This study shows that only pull variables in the second-order cause switching intention from pay later to pay later card. Even though the aesthetic design explains the push effect, Inertia and perceived substitutability caused a mooring effect, but those cannot explain the switching intention. Only pull-effect as a latent variable of economic benefit, convenience for a transaction, gamification, and locatability cause switching intention significantly. For future research, comparing four types of HCM are essentials to select suitable ones.

## **Keywords**

*Switching intention, Push-Pull-Mooring, Pay Later Card, Higher Component Model*

## **1. Introduction**

At present, when the digital era covers all aspects of life, including in business, mainly when it associated with the COVID-19 pandemic, it dramatically affects the dynamics of business development. For this reason, the business sector must innovate marketing strategies related to the trend of digital mobile services (Heo & Kim, 2017). Traveloka made changes to the payment method in its business. If previously Traveloka customers used the pay later application, then in September 2019, collaborating with Bank BRI, one of the banks with the broadest network in Indonesia, issued a pay later card (www.tirto.id, 2020). This development occurred because of the emphasis on service convenience (Adirinekso G. , Purba, Budiono, & Rajagukguk, 2020), especially in the e-business sector (Purba, Budiono, Rajagukguk, Samosir, & Adirinekso, 2020).

Credit cards designed to make it easier for users. Besides being practical and can be used in an emergency, the transaction tool can also help users evaluate their expenses. The bank will send a bill to users to judge for what purposes they spent. However, in many ways, convenience also has an unfortunate effect. Without accurate transaction notification — things that then make users unaware of the number of transactions — and the need to pay an annual fee are examples of how having a credit card is often considered a boomerang by its users.

This kind of problem is what Traveloka PayLater Card tries to solve. Some considerations on use and acceptance pay later technology from Traveloka has conducted in the previous year (Adirinekso, Purba, & Budiono, Measurement of Performance, Effort, Social Influence, Facilitation, Habit and Hedonic Motives toward Pay later Application Intention: Indonesia Evidence, 2020). President of the Traveloka Group, Henry Hendrawan, said that apart from providing an innovative user experience, the new product provides solutions to Traveloka users' obstacles. The advantages of the product offered and online transactions on the Traveloka PayLater Card can use in 53 million locations around the world that accept payments via Visa. Furthermore, a pay later card is a credit solution with accurate time control by the customer (Traveloka, 2020). This good product offered to pay later customers who have never been overdue.

Does the product excellence offered to Traveloka customers pay later users who have never had a problem with their transactions immediately switch to the pay later card? Does the appeal of the pay later card encourage customers to use it? What is the driving force for the customer to switch to the new product? These questions need to answer, even if there is no customer movement. This understanding of switching behaviour is essential for brand managers to anticipate customer voices and develop strategies to retain customers through interesting fintech.

We will use the pull-push-mooring (PPM) framework widely applied in various studies to answer some of these problems. Some of them are technology products (Wu, Vassileva, & Zhao, 2017), the aviation industry (Jung, Han, & Oh, 2017), and social network sites (Xu, Yang, Cheng, & Lim, 2014). This study examines the switching behaviour between company products. In particular, this study will examine self-switching behaviour for customers, as was done by Li (Li, 2018).

Traveloka, as one of the early unicorns in Indonesia (Ramadhani, 2019), became the subject of research because, at the same time, customers were allowed to become members of the Traveloka Pay later Card and Traveloka Pay later which were introduced to the customer first. On the other hand, even though Traveloka pays later card provides many conveniences, there are still many complaints about just registration from consumers' voices.

Studies related to the shift between membership cards and car applications using the ppm approach, for example, were carried out by Li (Li, 2018) Starbucks case in Taiwan, Kuo (Kuo, 2020), the shift in-car payment service platforms in Taiwan, Hsieh (Hsiesh, Hsieh, Chiu, & Feng, 2012), replacement of online services by bloggers to social networks, sites. Meanwhile, Liu Fan (Fan, Zhang, Rai, & Du, 2021) examines the shift in payment methods from internet payment to mobile payment. Lai (Lai, Debbarma, & Ulhas, 2012), observes consumer switching behaviour towards mobile shopping. All of these researchers use a push-pull-mooring framework in explaining the displacement that occurs

This research will contribute to the moving behaviour of a person related to payment methods for Traveloka customers. If it is proved that there are factors that influence displacement, managerial implications will arise. Studies on the transfer of payment methods by customers for the same product have been relatively under-studied, especially in Indonesia.

## 1.1 Objectives and Contribution

This study will apply PPM Framework to analyze the switching intention of an urban worker in Jakarta, from Traveloka Pay Later Apps to Pay Later Card. In applying the framework, we compare two types of the higher component model.

This research is expected to contribute to the moving behaviour of a person related to payment methods for Traveloka customers. If it is proven that there are factors that influence displacement, it is hoped that managerial implications will arise. Studies on the transfer of payment methods by customers for the same product have been relatively under-studied, especially in Indonesia.

## 2. Literature Review

As a dominant paradigm in migration research (Li, 2018), Pull-Push-Mooring, has identified negative factors that will push the people away. Low satisfaction, quality value, trust, commitment, and high price perceptions are examples of push factors. Meanwhile, other factors which attract people as pull factors. Moon, including mooring variables like personal variables or contextual constraints in the PPM framework (Moon, 1995). The application of the PPM framework to investigate customer behaviour switching has developed by Li (Li, 2018). It will now be implemented to capture the switching behavior between Traveloka pay later, and Traveloka pay later cards.

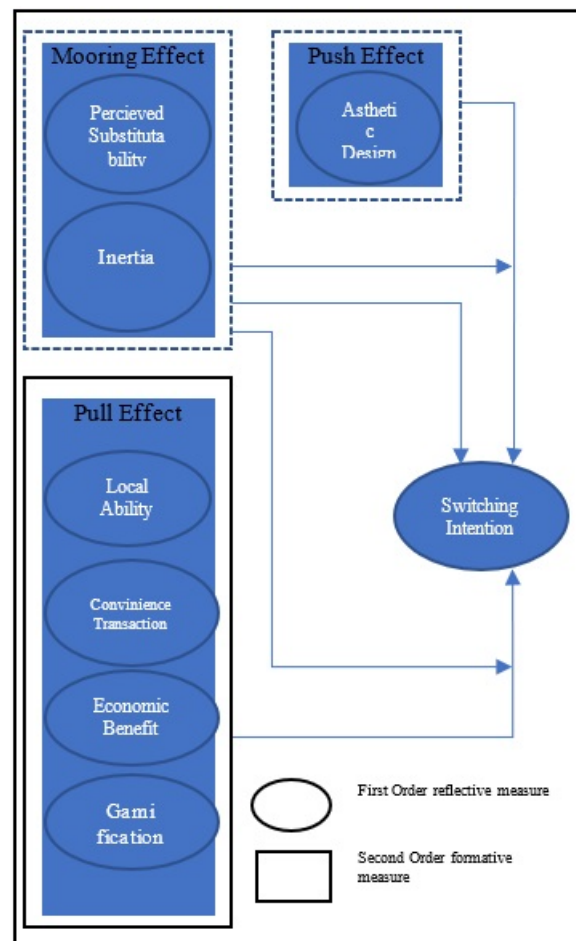
Push factors refer to aesthetics design (Hyeuk, 2016), and adopt the indicators by Li (Li, 2018). Aesthetics is defined as the feelings, concepts, and judgment arising from an appreciation of the arts or the broader class of objects considered moving, beautiful, or sublime. It means aesthetic design provides intangible benefit related to

psychological needs (Candi & Saemundsson, 2011). Therefore, the consumer will evaluate more profitable products endowed with aesthetically pleasing from those lacking such styling. If the products have a poor aesthetic design, it will push the customer away from using pay later card.

Pull factors include local ability, transaction convenience, economic benefits, and gamification. Those pull factors motivate the customer to switch from Traveloka pay later card to Traveloka pay later. Local ability or usefulness will capture the ease of getting up-to-date information, accessible for relevant information, and timely information (Xu, Teo, Tan, & Agarwal, 2009). If customers efficiently complete their purchase, quick to complete the Transaction, and need a little time to make a transaction, they will convenient for a transaction (Chang & Polonsky, 2012). After that, financial gain, lower financial cost, spending less, and save customer money will reflect their economic benefits (Chang & Polonsky, 2012). Gamification in this study adopts Hsu (Hsu, Chang, & Lee, 2013). Customers feel clear about purchasing and reward, varying reward, automatic notification, and their experiences retrievable.

Mooring factors are substitutability and Inertia. Customer switching is a complex decision because even though pull or push factors are substantial. Li defines mooring effects as switching barriers because these represent forces that make switching difficult or costly (Li, 2018). Substitutability in this study represents the ability of Traveloka pay later card to compensate Traveloka pay later. If customers satisfy the same need, but in different forms, then two products are substitute. Meanwhile, Inertia in this study focuses on consumption patterns associated with various services under a single brand, Traveloka.

The research framework in this study refers to Li (Li, 2018), as shown in figure 1.



**Figure 1** The Research Framework

## 2.1. Hypothesis

When the product's design appeals to the customers, they effectively connect with the outcome and visually improve its experience. A better aesthetic communicates the service's attribute more positively, leading to customer perception of increased usability (Candi & Saemundsson, 2011). The visual appeal of the product influences consumer perception and behaviour (Wang & Li, 2017). If the design of membership pay later cards low, the consumer cannot receive the value that compensates for drawbacks in functionality. Therefore the aesthetic design will push switching intention. H1: Aesthetic Design associated with Traveloka pay later influences consumer switching intentions with Traveloka to pay later membership card. Ye and Potter (Ye & Potter, 2011) stated that consumers consider switching when a substitute offers relative advantages over the existing service. If Traveloka pay later, cards give many benefits for consumers, it will push them to change. Locatability or usefulness using navigational services creates benefits for consumers (Junglas & Watson, 2008).

Consumers can receive information based on their current location; it means Traveloka pay later card will give precise information about their transactions. Locatability of Traveloka pay later card will push consumer's to switch from the old one. H2: Locatability influences the switching intention of customers.

In the current modern world, all consumers need convenience to make the Transaction more practical, straightforward, and easy to use. Park and Ryoo (Park & Ryoo, 2013) also proposed that the potential for enhanced performance stimulates consumers switching intention. We have known that Traveloka Pay Later Card also has some advantaging features than Traveloka pay later. When consumers feel the convenience of doing a transaction for new services, they switch to new ones. As Teo et al. (Teo, Tan, Ooi, Hew, & Yew, 2015) said, transaction convenience affects users' performance expectations and will influence intention. H3: Transaction convenience of Traveloka pay later card influence consumers to switch intention.

Traveloka pay later cards give some benefit to their customers. First, ill perform monetary value (Venkatesh, Thong, & Xu, 2012), gaining financial savings (Hong & Tam, 2006). Second, consumers choose their choice, considering price as big weighted than others (McFadden, 2001). From those perspectives, the H4 in this study is Economic Benefit influence consumer switch intention.

The last pull factor in the PPM framework is gamification (Li, 2018). As a marketing strategy, gamification adds game elements to the nongame environment, product, or services. It is like an extra value (Bittner & Schipper, 2014), motivating the consumer to exhibit the desired behaviours (Darejeh & Salim, 2016). The impact of gamification on consumer behaviour is explicitly found in entertaining customers, accelerating purchase, and retaining consumers. In addition, it improves customer motivation and engagement in performing a particular task (Hofacker, de Ruyter, Lurie, Manchanda, & Donaldson, 2016), and increase customer loyalty and better customer experiences (Rodrigues, Costa, & Oliveira, 2016). H5: Gamification influence consumer switching intention to Traveloka pay later card.

Another factor that causes workers' switch to use other applications is the mooring in the application's substitution capability. If the substitution level of the two applications. If the usability, convenience, and similarities of Traveloka pay later card and their apps are the same, this will be a mooring for workers to move. Worker or consumer perception of substitutability affects their attitude toward brand extension (Ganesh Pillai & Bindroo, 2014). If two products or services are substitutable, an increase in one product or service activity may reduce the marginal benefit received from the other (Hagedoorn & Wang, 2012). The substitutability will affect purchase intention (Dennis, Jayawardhena, & Papamatthaiou, 2010). This study proposed that perceived substitutability positively influences customers' intention to switch from pay later to pay later card. H6: Perceived Substitutability influence on switch intention from pay later to pay later card.

Consumers who already have a good perception of a product or service are reluctant to look for other products or services. If Traveloka pay later users have a good perception of it, they will be unwilling to switch to Traveloka pay later card. It could be that they are reluctant to switch to a new product because they do not analyze the choice of the products (White & Yanamandram, 2004). Therefore, switching intention will be negatively affected by these inertia consumers. H7: Inertia has a negative influence on switching intention from pay later to pay later card.

## 3. Methods

In this study, PLS-SEM used as an analytical method applied in many marketing research. Structural Equation Modeling (SEM) currently used to cover the regression method's weaknesses (Ghozali, 2014). SEM is an evolution of multiple equation models developed from econometrics principles and combined with the organizing principles of psychology and sociology (Ghozali, 2014). As a result, SEM has emerged as an integral part of academic, managerial

research. This study's indicator approach combines the reflective and formative approaches, where the indicators can reflect latent variables.

An Outer Model Test carried out to ensure the measurements used are appropriate to measures (convergent and discriminant validity and reliable test). In the SEM PLS approach, a measurement meets convergent validity if it meets several criteria.

Loading factor parameters  $> 0.7$ ; Average Variance Extracted (AVE) parameter  $> 0.5$ ; Communality parameter  $> 0.5$  (Hair, Hult, Ringle, & Sarstedt, 2017). AVE value is higher than the correlation value squared (Hair, Black, Babin, & Anderson, 2014). Practically, the discriminant validity test formulated as follows: AVE root parameters and correlation of latent variables  $>$  potential variable association. Cross loading parameters  $> 0.7$  in one variable (Vinzi, 2010)

Reliability testing can use two methods—first, Cronbach's alpha and composite reliability. Cronbach's alpha measures the lower limit of a construct's reliability value, while composite reliability measures the actual value of a construct's reliability. Alpha value or composite reliability is higher than 0.7, although the amount of 0.6 is still acceptable (Hair, Black, Babin, & Anderson, 2014).

Inner Model Test. These tests carry out to test the relationship between latent constructs. There are several structural or inner model tests. a) R Square  $> 0.67$  (strong), 0.33 (moderate), 0.19 (weak); b) Estimate for Path Coefficients performed by the Bootstrapping procedure; c) Prediction Relevance (Q Square) or also known as Stone-Geisser's. d). Q Square if the values obtained are 0.02 (small), 0.15 (medium) and 0.35 (large) (Vinzi, 2010).

**Hypothesis testing.** To test the hypothesis will be analyzed from the P-value of the SEM PLS test. The hypothesis will accept if the probability value lower than 0, with a significance level of 1-95% or 0.05. In the P-value test, test hypotheses often use  $P < 0.05$  rather than  $P \leq 0.05$  (Kock & Hadaya, 2018).

#### 4. Data Collection

The convenience sampling method is using to choose the sample. The author surveys Traveloka customers in March 2020 who have used pay later and now pay later cards. The 1.117 samples, especially workers in DKI Jakarta. A measurement of a construct, as an abstraction of a phenomenon or reality, will be operationalized in a form that various values can measure. The operational definition explains the specific ways in which researchers operate to operationalize constructs into testable variables. Construct variables can be measured using numbers or attributes that use a Likert's scale. For example, likert scale can measure people's attitudes, opinions, and perceptions about a person or group of people about a symptom or phenomenon (Djaali, 2008). All questionnaires related to main variables use close questions with a five Likert scale. The questionnaires adopt from Li (Li, 2018) with some adjustments regarding the different research objects. The list of questionnaires shows in the appendix.

#### 5. Results and Discussion

In this study, we use a higher construct model. Several variables include aesthetic design, locatability, transaction convenience, economic benefit, gamification, substitutability, and inertia included as first-order constructs. Meanwhile, the pull effect conceptualized as a second-order formative measurement construct.

From table 1 it shows that the construct validity and reliability in the model fulfilled the criteria. The validity and reliability values show the fulfilment of the requirements set for the construct validity and reliability. However, some indicators like IN3, L3, L4, B1, B4, CT2, G1, G2, G5, L3, L4, SI2, SI3, SI4 dropped because they did not match with criteria of outer loading.

Fornell-Larker and Heterotrait-monotrait (HTMT) were used to evaluate discriminant validity. HTMT values of Push effect – aesthetic design (0,85), mooring effect-inertia (0,85), and perceived substitutability-mooring effect (0,85) were very small upper the predefined threshold 0.85. So the criteria still fulfilled in two digits, indicating the main constructs measured different aspects. This study also tested potential multicollinearity among items on formative constructs using variance inflation factor VIF value. The value of VIF of all indicators is below the cut of point 3.3 (Ghozali, 2014) and (Roldan & Sanchez-Franco, 2012) with maximum values 2.5.

**Table 1. Construct Validity & Reliability**

	Items	Loadings	AVE	CR	Rho A
<b>Push Effect</b>			<b>0.689</b>	<b>0.899</b>	<b>0.850</b>
Aesthetic Design	AD1	0.809	0.689	0.899	0.850

	AD2	0.840			
	AD3	0.827			
	AD4	0.843			
<b>Mooring Effect</b>			<b>0.519</b>	<b>0.882</b>	<b>0.845</b>
Percieved Subtitutability	PS1	0.725	0.643	0.900	0.861
	PS2	0.759			
	PS3	0.788			
	PS4	0.788			
	PS5	0.779			
Inertia	IN1	0.849	0.698	0.822	0.571
	IN2	0.822			
<b>Pull Effect</b>					<b>1000</b>
Locatalability	L1	0.906			1000
	L2	0.913			
Convinience for Transaction	CT1	0.842			1000
	CT3	0.918			
Benefit	B2	0.893			1000
	B3	0.919			
Gamification	G3	0.873			1000
	G4	0.846			
<b>Moderating Pull Effect</b>		<b>1022</b>	<b>1000</b>	<b>1000</b>	<b>1000</b>
<b>Moderating Push Effect</b>		<b>1000</b>	<b>1000</b>	<b>1000</b>	<b>1000</b>
<b>Switching Intention</b>	<b>SI1</b>	<b>1000</b>	<b>1000</b>	<b>1000</b>	<b>1000</b>

Table 2 shows the estimation results of the empirical model using the bootstrapping method. The results show that processed data support several hypotheses. The following is a detailed explanation for each idea.

There are some research findings. First, the push effect did not significantly affect the switching intention of urban workers. The results of this study differ from those of Li (Li, 2018), Hsieh (Hsiesh, Hsieh, Chiu, & Feng, 2012), or Kuo (Kuo, 2020). Second, the existence of a membership card should encourage consumers to switch from the usual payment methods. One possible reason is as a member of the Traveloka pay later card. Third, urban workers did not find an attractive card, professionally designed, visually appealing, meaningful. Even all aesthetic design indicators significantly reflected the push effect. The implications are that the aesthetic design is unsuitable as a push factor or another variable should be considered a component of the push effect.

Second, the pull effect, in terms of economic benefit, the convenience of the Transaction, gamification, locatability, did not affect urban worker switching intention. This result is inconsistent with Li (Li, 2018) and Kuo (Kuo, 2020). The Traveloka pay later card offered provides comfort in commerce, but it does not provide economic benefits. Workers in urban areas feel that they are not getting financial services or reducing their financial costs, which reduces their expenses when using Traveloka pay later card. This result is essential for Traveloka and BRI managers in designing Traveloka pay later cards to indicate the need for product improvements. Let us look at various sources on the internet, the complaints about the ease and speed for city workers who have become customers to make Traveloka pay later cards. Understandably, there is an uncomfortable perception. It could be a trigger factor why even though the product provided has more value, it becomes less attractive than the Traveloka pays later app. A brand manager must extend its service scope by integrating location-based services and other technology systems and fixing their registration process problems, including improving its "together service works" with BRI.

As we know from Table 2, even though economic benefit, gamification, locatability, and convenience for Transaction formed a pull effect. Urban workers pull to use Traveloka pay later card because it is easy to complete the Transaction, more quickly and short time for purchase. However, these contributions did not remove urban workers who feel little economic benefits like financial gain, lower financial cost, and spend the same time using Traveloka pay later card to compare with Traveloka pay later.

Gamification includes actual notification, statistics about their progress, or status upgrade are relatively the same between using Traveloka pay later card and Traveloka pay later as before. The indifference between the two products makes urban workers stay with the previous method to do their Transaction.

A similarity services between Traveloka pay later card and Traveloka pay later app, confused to give pull effect for an urban worker. An up to date information, access information, and found information on time have been offered by Traveloka pay later apps. Then pull affect insignificantly switching intention. The general functionality of pay later cardholders to make an online or offline transaction on million merchants will confuse them to know their switching intention.

Third, inertia and substitutability are the moorings for urban workers. The influence of variable inertia on the mooring effect arises from his satisfaction with Traveloka pay later and using it to shop for flight tickets at Traveloka. Meanwhile, the substitution rate for Traveloka pay later card is relatively high for Traveloka pay later. The replacement arises from the same services provided, the same method, providing the same satisfaction, the same situation, and almost the same tools. However, this mooring variable is not significant in influencing switching intention, but it is a factor that urban workers consider. It means the function of a pay later card can substitute with pay later apps. This result does not support other studies by Li (Li, 2018), Kuo (Kuo, 2020), Liu Fan (Fan, Zhang, Rai, & Du, 2021).

Forth, the mooring effect variable, in this study, cannot be a moderator variable for the push and the pull effect on switching intention. It means Inertia and perceived substitutability does not increase or decrease the impact of the push and pull effect on switching intention. This result is different from the findings of Li (Li, 2018), Kuo (Kuo, 2020) which can increase the effect of the push and pull effect to switching intention.

Moreover, the mooring effect does not affect changing urban workers' behaviour to change from Traveloka pay later to Traveloka pay later card. In this study, the mooring effect is only potential to be a moderating variable

**Table 2. Path Coefficients**

<b>Path Coef</b>	<b>Original Sample (O)</b>	<b>P Values</b>
Push effect -> Aesthetic Design	1.000	0.000
<b>Push Effect -&gt; Switching Intention</b>	0.033	<b>0.300</b>
Benefit -> Pull Effect	0.335	0.000
Convenience for Transaction -> Pull Effect	0.331	0.000
Gamification -> Pull Effect	0.335	0.000
Locatability -> Pull Effect	0.210	0.000
<b>Pull Effect -&gt; Switching Intention</b>	0.026	<b>0.458</b>
Mooring Effect -> Inertia	0.700	0.000
Mooring Effect -> Perceived Substitutability	0.959	0.000
<b>Mooring Effect -&gt; Switching Intention</b>	0.048	<b>0.124</b>
Moderating Pull Effect -> Switching Intention	-0.013	<b>0.674</b>
Moderating Push Effect -> Switching Intention	0.029	<b>0.408</b>

Based on the estimation results above, it cannot be conclude that the factors significantly affect the shift in the use of pay later apps to pay later cards by urban workers (Adirineksa & Assa, 2021). For this reason, the analysis is continued at the next stage by making other estimates using the High Component Model (HCM) or often referred to as the High Order Model.

There are various forms of HCM, namely Reflective-Reflective, Reflective-Formative, Formative-Formative, and Formative-Reflective (Sarstedt, Hair, Jun-Hwa, Becker, & Ringle, 2019). In this paper, we use a Reflective-Reflective model. The latent variable model generated from the reflective-reflective form through the estimation procedure and high order construct validation shown in Figure 2.

In the high order construct in PLS-SEM, it is necessary to adjust the algorithm used. There are two different types of estimating measurement models. In this case, mode A. Using mode A (i.e., correlation weights), the bivariate correlations between each indicator and the construct determine the indicator weights used to compute the latent

variable scores (Sarstedt, Hair, Jun-Hwa, Becker, & Ringle, 2019). Mode A used because it estimates the reflective shape.

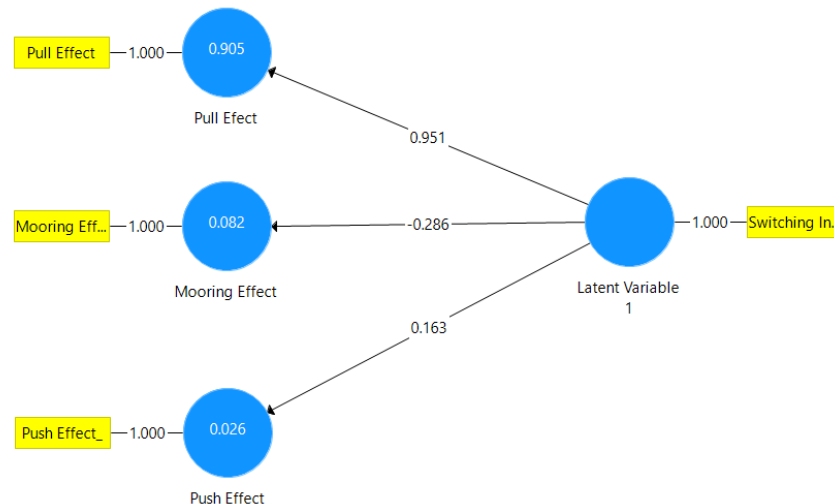


Figure 2. Latent Variable in Higher Order Model

**A two-stage approach.** After applying the procedures and criteria in measurement models and structural model, stage one considers all measurement models, including those of lower-order component (LOC). In this stage, repeated indicators to identify the higher-order construct are not being evaluated. The estimation of two-stage approach describes in table 3.

Table 3 Path Coefficient Higher-Order Model

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
Latent Variable 1 -> Mooring Effect	-0.286	-0.255	0.312	0.916	0.360
Latent Variable 1 -> Pull Effect	0.951	0.960	0.019	49.878	0.000
Latent Variable 1 -> Push Effect	0.163	0.142	0.412	0.395	0.693

The estimation results in Table 3 show that 2 latent variables, namely the mooring effect and the push effect, do not significantly influence the migration of urban workers in Jakarta in using pay later apps to pay later cards. It is probably because pay later apps are not strong enough to encourage or sustain these urban workers to use them anymore.

The pay later card offered by Traveloka in collaboration with Bank BRI has attracted low-income urban workers from using pay later apps. The perceived benefits, convenience in transactions, locatability, and gamification offered by pay later cards have lured consumers to switch to using pay later cards. This effort is certainly proof of the success of the marketing strategy undertaken by Traveloka and Bank BRI.

## 6. Conclusion

Based on the above discussion, it several conclusions. First, the simple SEM model estimation shows that the evaluation of the push-pull-mooring model applied in the new products offered by Traveloka company can prove several hypotheses. However, the higher latent variables, namely Push Effect, Pull effect, and Mooring Effect, do not significantly affect the product shift from pay later apps to pay later cards. Second, the estimation results using the high order component approach type I can explain the effect of high order constructs on product displacement. Thus



the High Component Model is more suitable for evaluating product displacement when using a PPM framework. For further research, we can compare the best high component model among four types of HCM.

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