

# Interdependence between Integration of Land Transportation Modes and Applications Information System on Commitment to Choosing Public Transportation

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### Abstract

**Purpose:** The problem of this research is that Jakarta is one of the State Capitals with a fairly high level of congestion in the world. Jakarta is the capital of Indonesia with a population density exceeding a number of major cities in Indonesia, the purpose of the study was to explain the Interdependence between Integration of Land Transportation Modes and Applications Information System: Jakarta's Mass Transport Case. **The research method:** used is quantitative. **The results**: of the research on the integration of land transportation mode vehicles have no effect on the commitment to choosing public transportation access has an influence on the commitment to choosing public transportation mode vehicles does not have a significant influence and access to the JakLingko application has a significant influence on commitment to choosing public transportation.

**Keywords:** Customer Commitment; Jaklingko Applications; Land Transportation; Mode Integration; Rebranding Transportation System

# Introduction

Jakarta is one of the national capitals with a high level of congestion in the world. Jakarta is the capital of Indonesia with a population density exceeding a number of major cities in Indonesia, even ranked as the first in Indonesia with a population of 10,562,088 people and an area of 664.01 KM2 (Central Bureau of Statistics, 2021).

Data from the tomtom traffic index ranking shows that Jakarta is ranked 46th out of a total of 406 most congested cities in the world, with a congestion index reaching 34% in 2021 (Tomtom Traffic Index, 2021). The large number of people moving in and out of Jakarta is one of the main causes of congestion.



In addition, this congestion problem has caused at least 71.4 trillion rupiah in economic losses every year (CNN Indonesia, 2021).

DKI Jakarta is in the process of transforming from a city whose population mobility and development concept is car oriented to public transport oriented. With an integrated public transport approach in terms of management, routes and ticketing, Jakarta will provide its residents with the convenience of affordable travel and become an environmentally friendly city with less pollution, public facilities that optimize their benefits, and lower mobility costs for families in Jakarta.

According to the Antaranews website, (2021) DKI Jakarta Governor Anies Baswedan explained that the concept of intermodal integration under the Jaklingko network has started since 2018 with 109 routes and 2,300 fleets. Currently, there are 248 routes and 4,123 fleets integrated in one service under Transjakarta. As a result, public transportation passengers in Jakarta increased, from an average of 350,000 per day in 2018 to 1 million passengers per day in early 2020.

This integration has covered 83 percent of Jakarta, from previously only about 20 percent. Anies targets public transportation services to reach 95 percent of Jakarta, or at least every 500 meters there is a bus stop.

This condition is a challenge for land transportation entrepreneurs, especially in the capital city of Jakarta, to compete in creating rebranding strategies that can attract consumers. The growth of rebranding strategies is very high, with a tight competitive situation encouraging a brand to have mature strategies and tactics in attracting and winning consumers. Emotional power becomes an important aspect when other brands more often focus on things like quality and price. Using an understanding of segmentation and knowledge of consumers through their behavior and characteristics is one example of an emotional approach.

Multimodal transportation, is the transportation of goods using at least 2 (two) different modes of transportation, on the basis of one contract using multimodal transportation documents from a place where the goods are received by the multimodal transportation operator to a place designated for the receipt of these goods. The integration of the service network and transportation infrastructure is an interconnection at the transportation node (meeting point to facilitate modal shift activities), which is called an intermodal terminal. This terminal serves multimodal or intermodal transportation, which never breaks up (single seamless service), both from the aspects of users, operators, and regulators of transportation services. The public, which is the user aspect, must be guaranteed safety, quality, timeliness, and affordability. Intermodal/multimodal transportation operators provide guarantees of conflict solutions, tolerance of conveyance delays, guarantee of business operation security. And the regulator guarantees integrated arrangements and guarantees the feasibility of conveyance functions. (Government Regulation No. 8/2011 on Multimodal Transportation).



To perfect the comprehensive integration service, in 2021 the DKI Jakarta Provincial Government launched the JakLingko transportation card and JakLingko superapp. The launch of the JakLingko card and JakLingko application was carried out on September 29, 2021, along with the inauguration of Jabodetabek transportation integration. Reporting from jakita.jakarta.go.id, Muhamad Kamaluddin as President Director of PT JakLingko Indonesia (2020-2023) revealed that with one card, people can go anywhere, and with one application they can plan trips by any transportation.

Saygan (2011) suggests that commitment in organizations is a concept that presents or expresses the relationship between employees and their company or organization, where commitment becomes a concept that can psychologically show the relationship between the organization and its consumers. From this, it can be seen that consumer involvement in choosing public transportation. Public transportation or public transportation is all means of transportation when passengers do not travel using their own vehicles.

In connection with what has been explained previously, it is deemed necessary to review Interdependence between Integration of Land Transportation Modes and Applications Information System: Jakarta's Mass Transport Case

#### Literature Review

Previously conducted studies serve to help analyze and enrich the research discussion and also relate to the research being conducted. This research includes 5 international journals from previous research related to the focus of Rebranding and Urban Public Transportation. The five journals include:

The first research entitled The efficacy of rebranding through architecture: analyzing different aspects and dimensions of rebranding, what is the efficacy of urban rebranding strategies?, written by Stacey Barratt in 2021 using quantitative research methods, explains that rebranding strategies are very important to ward off economic degeneration and increase competitiveness between cities in urban areas. Iconic architecture is often associated with brand identity in this context. This article outlines three main approaches: market-led, top-down, and flagship rebranding strategies, each with an accompanying unique architectural precedent: Titanic Belfast, Northern Ireland; Turner Contemporary, Margate, UK; and Guggenheim Bilbao, Spain. Addressing the reasons for setbacks and investigating the rebranding strategies of each case study, including the impact of socioeconomic phenomena such as deindustrialization, globalization, and gentrification, allows the distinct architectural significance and overall efficacy to be critically assessed. In the end, it was concluded that a comprehensive top-down rebranding strategy was the most effective and sustainable.

The second study, entitled The Influence of Logo Change on Brand Loyalty and the Role of Attitude Toward Rebranding and Logo Evaluation, written by Antonio S. Williams, Sungwook Son,



Patrick Walsh, and Jin Park in 2021 using quantitative research methods, explains that although sports rebranding is an emerging topic for both academia and industry, there is a limited amount of research on how sports rebranding affects sports fans. The purpose of this study is to find out how sports rebranding in the form of logo redesign affects fan loyalty. Through an experimental approach, the results show that attitudes towards rebranding play an important role in fan response when sports rebranding occurs. Additional findings show that logo evaluation partially mediates the relationship between logo change and brand loyalty. This study makes a significant contribution to the knowledge of sports rebranding by revealing how fans' attitudes towards rebranding influence brand loyalty. The proposed model suggests directions for future sports rebranding research, and the paper provides implications for how sports marketers can use various rebranding strategies to improve rebranding outcomes and reduce negative responses from sports fans.

The third study, titled Issues of Sustainable Urban Mobility Simulation, written by Zhuravskaya, M., Lempert, A., Anashkina, N., & Zharkov, M. in 2018 using quantitative research methods, explains to achieve a high level of sustainability according to the triple bottom-line criteria - economic, ecological and social factors, it is important to look at the organization of the urban habitat and transport system. In the XXI century the transportation problems of modern cities have changed: instead of having the maximum vehicle throughput capacity, it is important to achieve top figures in passenger pass-through operating flows. At the same time, the transport system should be user and environmentally friendly, involving the principles of livability and multimodalism. This work examines the experience of European cities in creating a sustainable transport environment and suggests some measures for the implementation of sustainable development in Russia, based on this expertise, concerning the regional specifics of Russian cities. The important role of transportation hubs is shown. In this connection, the purpose of this work is the creation and software implementation of a generalized mathematical model, and its identification for Ekaterinburg. The BMAP model is used to describe traffic in passenger transportation hubs. The stochastic model of operations is represented in the form of a multiphase non-Markov queuing system. In addition to mathematical simulations, the article addresses the issue of modeling the design of interior spaces based on futuristic principles, using technologies of the future, but aimed at the mass consumer. These ideas are not intended for immediate implementation, but provide further prospects for the development of a sustainable environment and transportation system in a modern city.

The fourth study, entitled Public transport use among the urban and rural elderly in China: Effects of personal, attitudinal, household, social-environment and built-environment factors, written by Yi Zhang, Qian He, Wei Wu and Chaoyang Li in 2018 using quantitative research methods, explained that public transport brings significant benefits to the elderly community by providing essential mobility for seniors. However, few studies have investigated the factors that influence public transportation use among



urban or rural elderly. This study explores the influence of personal, attitudinal, household, social environment, and built environment factors on elderly public transport trips. Research data were collected from 274 urban and rural neighborhoods of Zhongshan, a medium-sized Chinese city. Negative binomial regression models show that, all else being equal, living in neighborhoods with high levels of public transport services, abundant green space along walking routes connecting homes and bus stops, or relatively balanced age or income structures are strongly connected to more elderly public transport trips. The results also show that a strong preference for public transit is significantly associated with public transportation use while providing insights for achieving effective policy design to encourage public transportation use among the elderly in China.

The fifth study, titled Impact of Covid-19 on Urban Mobility in Indian Cities, written by Ramit Raunak, Nishant Sawant and Dr. Shalini Sinha in 2020 using quantitative research methods, explains Covid-19 is the biggest disruption of this century. It has an unprecedented impact on the mobility sector worldwide. This research presents the perceptions of people living in Indian cities with respect to the impact of Covid-19 on the urban transportation sector after India's nationwide lockdown. The paper investigates the impact of lockdowns on various parameters such as mode choice, vehicle ownership, public transport patronage, trip frequency and expectations from public transport operators. It also compares how public transport will experience a sustained reduction in demand as existing public transport users prioritize their health and safety while traveling. Moreover, many distrust the current public transport to commute, will contribute the highest share of new vehicle purchases. As public transport will remain the pillar of urban transport to reduce GHG emissions and ease congestion, this journal discusses visions and actions that will help create a resilient, carbon-free, and sustainable mobility system in both the short and long term.

# Persuasion Social Theory

Ronald and Karl define persuasive communication as a dense communication process, where individuals or groups show messages, intentionally or unintentionally by verbal and non-verbal means to obtain a specific response from individuals or groups (Littlejohn and Foss, 2009). From the explanation above, it can be concluded that persuasive is a process with the aim of changing opinions, behaviors, and attitudes.



# Stimulus Organism Response Theory

According to McQuail, (2010) the theory underlying this research is the SOR theory (Stimulus, Organism, Response) which believes that the cause of attitudes that can change depends on the quality of the stimuli that communicate with the organism. The S-O-R theory explains how a stimulus gets a response. The simplest level of interaction occurs when someone performs an action and is given a response by another person.

# Vehicle Integration of Land Transportation Modes

Intermodal integration can be in the form of physical integration, namely the meeting point between modes is located in one building, for example the airport, bus terminal and train station are one building or located close together or system integration, namely the node point of each mode does not need to be in one building, but there is a transportation network system that connects the node point between modes, so that it is a complete unit. With this integration, it will facilitate travel, even if you have to change modes several times. Intermodal integration will also increase the use of public transportation (Munawar, 2007).

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# JakLingko Application

According to Yuhefizar (2012) applications are information system programs developed to meet user needs in carrying out certain jobs. To perfect a comprehensive integration service, in 2021 the DKI Jakarta Provincial Government launched the JakLingko Card transportation card and the JakLingko application (superapp). The launch of the JakLingko card and JakLingko application was carried out on September 29, 2021, along with the inauguration of Jabodetabek transportation integration.

Reporting from jakita.jakarta.go.id, Muhamad Kamaluddin as President Director of PT JakLingko Indonesia (2020-2023) revealed that with one card, people can go anywhere, and with one application can plan trips with any transportation.



He added, the implementation of the JakLingko card and application will be carried out in three phases. In the first phase, JakLingko cards and applications can be used as a means of payment in many Jabodetabek transportation modes, such as KRL Commuterline, MRT, LRT, and Transjakarta.

The next phase is Mobility as a Service (MaaS) or all mobility services, where JakLingko cards and applications will be integrated with other transportation services such as online transportation, culinary outlets, tourist attractions, and so on.

As for the third phase in August 2022, the JakLingko card and application will enter the account-based ticketing stage, which is a transformation from card-centered to account-based, so users will be more flexible, allowing users to get daily, weekly, or monthly tickets. From the user profile, it can later be used for special rates that will be given to several user profiles such as students, elderly (elderly), disabilities, veterans and others.

DeLone and McLean (2013) reveal that there are six components that must be contained in an information system application, namely:

Information quality refers to the desired characteristics of the information produced by the information system. When measuring end user satisfaction and information quality is often one of the key variables. The quality of the information produced by the information system will determine the satisfaction of users in using the information system to complete their tasks, if the information produced by the system is very difficult to understand or not accurate enough, this can cause frustration among users. Some of the most established information qualities according to Petter et. al. (2008) are accuracy, completeness, relevance, timeliness, and information format.

System quality can be described as the overall performance of an information system. DeLone and McLean (1992) explain system quality as the desired characteristics of an information system that aims to produce information that must be used by users and decision makers. According to Petter et. al. (2008) important components of system quality are user convenience, ease of learning, and system flexibility.

The service quality construct has been added to the model with its update. Service quality as the overall support provided by the service provider. It is not important whether this support is provided by the information systems department, a new organizational unit, or outsourced to an Internet service provider. They also noticed that in this period of time, users were regarded as customers, so poor user support would result in loss of customers and loss of sales. In other words, the importance of service quality is greater than ever (Yuda, 2024).



Information system usage has been established as one of the most widely used measures to assess the success of information systems. According to Seddon (1997) use can be described as the effort that will be consumed to use the information system and frequency of use, amount of use, or current use vs. non-use as the best way to assess the use of information systems. However, according to DeLone and McLean (1992) using actual use as a way to assess the success of information systems is only relevant if use is voluntary.

User satisfaction has traditionally been seen as a measure of information system success and can be described as a summary of a person's attitudes or feelings towards several factors that influence a particular situation. (Jaafreh, 2017) In the DeLone and McLean model, user satisfaction refers to user responses to the use of information systems (DeLone and McLean 1992).

The net benefits success measure qualifies to be the most important by the authors of the model. This construction captures the balance of positive and negative effects of the system on customers (users), suppliers, employees, organizations, markets, industries, economies and society. They also note, that net benefits cannot be measured correctly without considering system quality and information quality measures.(Jaafreh, 2017)

Commitment to Choosing Public Transportation

Saygan (2011) suggests that commitment is a concept that presents or expresses the relationship between consumers and their company or organization, where commitment becomes a concept that can psychologically show the relationship between the organization and its consumers. Commitment also believes that the relationship that develops between one person and another is very important to ensure maximum effort to maintain it (Yulianti, 2024).

In addition, Mayer & Allen (1990) revealed 3 basic dimensions of commitment, namely:

Continuance commitment, this commitment relates to the amount of someone's desire to continue something because they don't get anything else.

Affective commitment, almost the same as continuance commitment, affective commitment relates to a person's attitude to stick with something.

Normative commitment, this commitment is related to loyalty, namely the feeling of staying in his desire because of pressure from others.

Rebranding the Old Transportation System into JakLingko System



According to Muzellec and Lambkin (2006), rebranding is a new word formation consisting of two terms formulated as "re" is a prefix to a verb, which can mean "again" or "new", implying that the action is performed at another time. While "branding" is creating a name, logo, or symbol for a product or service. Kristanto (2024) defines rebranding as creating a new name, term or symbol, design, or a combination thereof for a brand with the aim of developing a new differentiation position in the minds of stakeholders and competitors.

Public transportation can be said to be inherent to the citizens of the capital city, even many people who have depended on the existence of public transportation for their mobility. However, public transportation in DKI Jakarta has undergone massive evolution to be where it is today. Before there were modern modes of public transportation such as the MRT or LRT, the DKI Jakarta Provincial Government repeatedly thought about the right public transportation for its citizens.

JakLingko Indonesia is a joint venture between PT MRT Jakarta (Perseroda), PT Jakarta Propertindo (Perseroda), PT Transportasi Jakarta and PT Moda Integrasi Transportasi Jabodetabek (Official website of PT JakLingko Indonesia, 2022). JakLingko Indonesia integrates payment, fare and route systems in MRTJ, Transjakarta, LRT (Jakpro), KCI and Railink.

JakLingko Indonesia was launched on July 15, 2020 by the Governor of DKI Jakarta Province, the Minister of BUMN RI, and the Minister of Transportation RI at the Shareholders Agreement (SHA) signing ceremony by the shareholders, based on DKI Jakarta Governor Regulation Number 63 of 2020 concerning Assignment to BUMD to organize an Intermodal Transportation Payment Integration System. JakLingko is taken from two meanings of words, namely Jak which means Jakarta and Lingko which means network or integration (taken from the customary land rice system in Manggarai, East Nusa Tenggara).

Uma Sekaran in his book Business Research (1992) suggests that, the framework is a conceptual model of how theory relates to various factors that have been identified as important problems.

A good framework will explain theoretically the links between the variables to be studied. So theoretically it is necessary to explain the relationship between the independent and dependent variables.

The relationship between these variables is then formulated into a research paradigm. Therefore, every research paradigm must be based on a framework (Sugiyono, 2010).

From the description previously described, it states that there is a relationship between the Integration of Land Transportation Mode Vehicles and Access to the JakLingko Application on Commitment to Choosing Public Transportation. In this study, the integration of Land Transportation Mode Vehicles is the independent variable (independent one), JakLingko Application Access is the independent two), and Commitment to Choosing Public Transportation is the dependent variable.





Source: obtained from primary data

Therefore it is hypothesized as follows:

- H<sub>o</sub>1: The integration of Land Transportation Mode Vehicles does not affect the Commitment to Choose Public Transportation
- H<sub>a</sub>1: The integration of Land Transportation Mode Vehicles affects the Commitment to Choose Public Transportation
- H<sub>o</sub>2: Access to the JakLingko Application has no effect on Commitment to Choosing Public Transportation
- H<sub>a</sub>2: Access to the JakLingko Application affects Commitment to Choosing Public Transportation

#### Methods

This research uses a positivistic paradigm. Paradigm was first proposed by (Thomas Kuhn in Neuman, 2014) which means the basic orientation for theory and research. There are many definitions of paradigms, in general, a scientific paradigm is an overall system of thinking. It includes basic assumptions, important questions to answer or puzzles to solve, research techniques to use, and examples of what good scientific research looks like. In this research, the author uses the Positivism paradigm.

Positivism is the earliest scientific paradigm that emerged in the world of science. The basic belief of this school is rooted in ontology, which states that reality *exists* in a reality that runs according to natural laws.

The term positivism was first used by Saint Simon (around 1825). Positivism is rooted in empiricism, the philosophical principles of positivism were first developed by the English empiricist



Francis Bacon (around 1600). The thesis of positivism is: that science is the only valid knowledge, and possible historical facts can become objects of knowledge. Positivism thus rejects the existence of any forces or subjects behind the facts, rejecting any use of methods beyond those used to examine the facts.

Positivism is broadly defined, with a natural sciences approach. In fact, most people assume that the positivist approach is the approach to science. (Turner in Neuman, 2014) says, "Positivism no longer has a clear referent, but it is clear that for many people, being a positivist is not a good thing."

According to Neuman (2003), there are three types of procedures commonly used in quantitative research, namely; experiments, surveys and content analysis. This research uses survey research type, survey research is often called correlational. The survey research conducted by the author has the aim of providing explanatory research. The main purpose of the survey is to produce statistical data, or data in numbers about various aspects of the population under study. Information collection is done by submitting statements to the sample where the answers are data that will then be analyzed (Neuman, 2003).

# Scale of Measurement

# Independent Variable (X)

Independent variables are variables that may cause, influence, or have an effect on the outcome. Variables that affect or cause changes or the emergence of dependent variables (bound) (Creswell, 2013). The independent variables in this study are Land Transportation Mode Vehicle Integration and JakLingko Application Access.

# Dependent Variable (Y)

Meanwhile, the dependent variable is the result of the influence of the independent variable (Creswell, 2013). In Indonesian, it is often referred to as the dependent variable. The dependent variable is the variable that is influenced or that becomes the result of the independent variable. The dependent variable in this study is Commitment to Choosing Public Transportation

Variahle	Dimensions	Source from			
variable	Dimensions	previous study			
Vehicle	1. Connecting Modes	(Buchari 2008)			
Integration of	2. Main Modes	(2000)			

# Table 1.Measurements and references

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Land	Land3. Multimodal Network	
Transportation	4. Mode Switching Facility	
Modes	Modes 5. Intermodal Switching Facilities with Different	
(X1)	(X1) Networks	
	6. Regulation	
	1. Information Quality	
Access	Access 2. System Quality	
JakLingko	JakLingko 3. Service Quality	
Арр	App 4. User	
(X2)	5. User Satisfaction	
	6. Net Benefits	
Commitment	1. Ongoing Commitment	
to Choosing	to Choosing 2. Affective Commitment	
Public		$\begin{array}{c} (Wayer and \\ Allen 1990) \end{array}$
Transportation	Transportation3. Normative Commitment	
(Y)		

# Source: obtained from primary data

# Results

**Descriptive Information** 

The majority of respondents were female, as many as 65.6%, it seems that more public transportation users in DKI Jakarta are women. Then the rest are male respondents, as many as 34.4%. The number of respondents based on age is divided into 5 age groups. Respondents aged <20 years have the least interest in riding public transportation by 5.1%, respondents aged 20-29 years have the most interest in riding public transportation by 29.2%. The number of respondents based on occupation is divided into 5 occupational groups. Respondents who work as entrepreneurs have the lowest interest in riding public transport at 11.9%. Respondents who work as private employees have the highest interest in riding public transport at 28.6%. The majority of respondents who have an interest in riding public

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transportation come from DKI Jakarta by 59.3% and respondents from outside DKI Jakarta by 40.7%.

# Reliability

According to Umar (2008), the reliability test needs to be carried out to determine the degree of accuracy, accuracy, or accuracy of the measuring instrument used. The reliability test is used to find the reliability of the instrument against alternative answers of more than two, using the Cronbach's Alpha test.

Reliability testing is carried out on statement items that are included in the valid category. The questionnaire is said to be reliable, if the reliability coefficient is positive and greater than 0.70 (Hair et al, 2011). The results of the reliability test are as follows:

Var	r-alpha	r-critical	Results
X1	0.861	0.70	Reliable
X2	0.773	0.70	Reliable
Y	0.888	0.70	Reliable

Table 2.Variables and number of statements

Source: obtained from primary data

The reliability value of the statement items on each questionnaire shows that they are reliable, because they have a validity coefficient greater than 0.70.

The results of research were processed by SPSS 26 and was calculated by the Path Coefficient Model. The result of regression was shown in Tables 3 and 4.

# Table 3.Descriptive statistics

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Mode	R	R sq	Adjusted	Std. Error of the
1			R Square	Estimate
1	.679 ª	.461	.460	8.62052

Source: obtained from primary data

Through Table 3 above, it can be seen that the correlation coefficient (R) value is 0.679. It is defined that changes in variable Y (commitment to choosing public transportation) of 46.1% can be explained by variables X1 (integration of land transportation mode vehicles) and X2 (access to the JakLingko application).

The coefficient of determination of 46.10% shows the effect of X1 (integration of land transportation mode vehicles) and X2 (access to the JakLingko application) on Y (commitment to choosing public transportation). While the remaining 53.90% is influenced by other factors not observed in this study.

	•					
		Unstandardize				
		d Coefficients			t	Sig
		в	Std.	Reta		515.
		D	Error	Deta		
1	(Constant)	42.688	2.257		18.917	.000
	TOTAL_X 1	059	.035	037	-1.709	.088
	TOTAL_X 2	1.361	.042	.693	32.411	.000
		1 1			1	

Table 4.Result of path coefficient

Source: obtained from primary data

Based on the results presented in Table 4 above, the value of  $-t_{count}$  (-1.709) >  $-t_{tabel}$  (-1.962) can be concluded that X1 (integration of land transportation mode vehicles) does not have a significant effect on Y (commitment to choosing public transportation).

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Based on the results presented in the table above, the  $t_{count}$  value (32.441)>  $t_{tabel}$  (1.962) can be concluded that X2 (access to the JakLingko application) has a significant influence on Y (commitment to choosing public transportation).

#### Discussion

The first hypothesis is that the Land Transportation Mode Vehicle Alignment variable does not have a significant effect on the Commitment to Choosing Public Transportation variable directly, as seen in the t test results which show that the Land Transportation Mode Vehicle Alignment has a  $t_{count}$  of -1.709> -1.962 or 0.088> 0.005.

On the basis of the first hypothesis, it can be concluded that the integration of Land Transportation Mode Vehicles implemented as an effort to lure customers to Commit to Choosing Public Transportation does not have a significant effect.

This is supported by the Intermodal Transport Interchange for London (2001), there are at least 3 (three) supporting factors which are the main part of intermodal transportation services and their existence is closely related to each other, including infrastructure, application systems and intermodal cooperation. However, the t test results show that the integration of JakLingko transportation mode vehicles does not have a significant effect on the commitment to choose public transportation.

The second hypothesis is that the JakLingko Application Access variable has a significant effect on the Commitment to Choosing Public Transportation variable directly, seen in the t test results which show that the JakLingko Application Access has a  $t_{count of}$  32.441 > 1.962 or 0.000 < 0.005.

On the basis of the second hypothesis, it can be concluded that the JakLingko Application Access implemented as an effort to attract customers to Commit to Choosing Public Transportation has a significant influence.

This is supported by DeLone and McLean (2013), which reveal that there are six components that must be contained in an information system application, namely information quality, system quality, service quality, users, user satisfaction and net benefits. Therefore, the results of this study show that access to the JakLingko application has a significant influence on commitment to choosing public transportation.

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#### Conclusion

From a series of research stages regarding the Interdependence between Integration of Land Transportation Modes and Applications Information System: Jakarta's Mass Transport Case, it can be concluded that:

The integration of land transportation mode vehicles has no effect on the commitment to choose public transportation. This is indicated by the  $t_{count}$  value of -1.709> -1.962 or 0.088> 0.005. Access to the JakLingko application has an influence on commitment to choosing public transportation. This is shown by the  $t_{count}$  32.441> 1.962 or 0.000 <0.005.

Thus, this study can be concluded that the integration of land transportation mode vehicles and access to the JakLingko application has a strong influence on commitment to choosing public transportation. This can be seen in the results of the correlation coefficient of 0.679 and the results of the coefficient of determination owned by the integration of land transportation mode vehicles and access to the JakLingko application of 46.10% on commitment to choosing public transportation.

### References

- Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organization. *Journal of Occupational Psychology*, 63(1), 1–18.
- Alves, G. M., Sousa, B. B., & Belino, M. (2021). Understanding the Brand Management and Rebranding Processes in Specific Contexts of Medical Tourism. In New Techniques for Brand Management in the Healthcare Sector (pp. 124-141). IGI Global.
- Antaranews (2020). Kerugian Akibat Kemacetan Jakarta Mencapai Rp65 triliun. <u>https://www.antaranews.com/berita/1650506/kerugian-akibat-kemacetan-jakarta-</u> <u>mencapai-rp65-triliun</u>
- Badan Pusat Statistik (2021). Jumlah dan Distribusi Penduduk. https://sensus.bps.go.id/main/index/sp2020



- Barratt, S., (2021) "Analysing different aspects and dimensions of rebranding, what is the efficacy of urban rebranding strategies?", *Fields: journal of Huddersfield student research* 7(1).
- Barrera-Fernández, D., Rodríguez-González, M. A., & Hernández-Escampa, M. (2020). City rebranding, social discontent and bidding for cultural events. In *Events Tourism* (pp. 184-195). Routledge.
- Bonotto, C. (2019). Rebranding in service companies a&o Hostels case.
- Bowen, J., & Sotomayor, S. (2021). Including residents in the rebranding of tourist destinations to achieve sustainable development goals. *Worldwide Hospitality and Tourism Themes*.
- Buchari, E. (2008). "Angkutan Umum Multimoda, Alternatif Perencanaan Transportasi Yang Sustainable". Jurnal Transportasi FSTPT, Volume 8 Edisi Khusus No 3.
- Bungin, B. (2008). Sosiologi Komunikasi ; Teori, Paradigma, dan DIskursus Teknologi Komunikasi di Masyarakat. Jakarta: Kencana Prenada Media Group.
- Chen, M. C., Hsu, C. L., & Chen, M. M. (2019). How transportation service quality drives public attitude and image of a sustainable city: Satisfaction as a mediator and involvement as a moderator. *Sustainability*, *11*(23), 6813.
- Creswell, John W. (2014). *Research Design: Pendekatan Kualitatif, Kuantitatif dan Mixed.* Yogyakarta: Pustaka Pelajar
- Dishub DKI Jakarta (2022). Berita Terkini Update Informasi Anda Dengan Berita Terbaru dari Kami. https://dishub.jakarta.go.id/
- Ferrell, C. E. (2019). The Potential for Using Loyalty Rewards and Incentives Programs to Encourage Transit Ridership and Regional Transportation and Land Use Integration.
- Harrison, Shirley. (2007). *Marketers Guide to Public Relation*. New York: John Willy and Son.
- Hashimoto, A. (2020). The Tokyo Olympic Stadium: Site of National Memory. *The Asia-Pacific Journal Japan Focus*, *18*(4).



- Hildén, E., Väänänen, K., & Syrman, S. (2018, October). Modeling bus travel experience to guide the design of digital services for the bus context. In *Proceedings of the* 22nd International Academic Mindtrek Conference (pp. 143-152).
- Jaklingko (2022). News room Release Jaklingko. https://www.jaklingkoindonesia.co.id/id/newsroom/release
- Joseph, A., Gupta, S., Wang, Y., & Schoefer, K. (2021). Corporate rebranding: An internal perspective. *Journal of Business Research*, *130*, 709-723.
- Kamal, F. K. M., & Queiri, A. R. (2021). The Factors Influencing Tourist's Choice to Select Various Transportation Modes in Oman. *Global Business & Management Research*, 13(3).
- Kotler, P., dan Armstrong, G., 2008. Prinsip-prinsip Pemasaran. Jakarta: Erlangga Siregar, S. (2013). Metode Penelitian Kuantitatif. Jakarta: kencana.
- Liasse, D., & Tigges, J. (2019). Branding Public Transportation in Sweden.
- Littlejohn, Stephen W. & Foss, K.A (Ed). 2009. *Encyclopedia of Communication Theory*. California : Sage Publication.
- MRT Jakarta (2021). Turun ke Peringkat 46 Dunia, Indeks Kemacetan Jakarta Semakin Baik.

https://jakartamrt.co.id/id/info-terkini/turun-ke-peringkat-46-dunia-indeks-kemac etan-jakarta-semakin-baik

- Muhammad, G. A., Harharah, N., & Rizky, R. C. *The Effect of "Solv" Logo Rebranding to Customer-Based Brand Equity of Gojek Indonesia.*
- Neuman, W. L. (2003). *Social Research Methods: Qualitative and quantitative Approaches*. Pearson Education.
- Neuman, W. Lawrence. (2013). *Metodologi Penelitian Sosial Pendekatan Kualitatif dan Kuantitatif Edisi* 7. Jakarta: Indeks.
- Noland, R. B., DiPetrillo, S., Lubin, A., & Center, A. M. V. T. (2021). Transit Training Needs Assessment: Identifying Current and Future Training Needs of the Public Transportation Industry, Final Report (No. FTA Report No. 0191). United States.
  Federal Transit Administration. Office of Research, Demonstration, and Innovation.
- Olteanu, L. (2020). Rebranding strategies and their boomerang effect—The curious case of Burberry. *The Journal of World Intellectual Property*, 23(5-6), 777-797.



Parmar, H. J. (2018). Rebranding of Professional Services: Three Case Studies (Doctoral dissertation, Auckland University of Technology).

- Philip Kotler, K. L. (2007). *Marketing Management, Global Edition, 15th Edition*. New Jersey: Pearson Education.
- Raunak, R., Sawant, N., & Sinha, S. (2020). Impact of Covid-19 on Urban Mobility in Indian Cities. Transport and Communications Bulletin for Asia and the Pacific, 90, 71-85.
- Rubtcova, M., & Pavenkov, O. (2019). Features of public Relations of Railway Transport in Russia. In Academicsera–384th International Conference on Multidisciplinary Research & Practice (ICMRP), Chennai, Tamil Nadu, India, 23rd-24th January.
- Ruslan, R. (2008). *Manajemen Public Relatoins & Media Komunikasi*. Jakarta: PT Raja Grafindo Persada.
- Setiadi, N. J., Sutanto, H., & Surienty, L. (2021, April). Creative city as the rebranding strategy to accelerate new economic city: Indonesia's city development strategy to build a new economic center as an integrating ideas, society and industries in the development of Indonesian creative cities. In *IOP Conference Series: Earth* and Environmental Science (Vol. 729, No. 1, p. 012116). IOP Publishing.
- Sugiyono. (2016). metode penelitian; kuantitatif, kualitatif, dan R&D. Bandung: Alfabeta.
- Tarnovskaya, V., & Biedenbach, G. (2018). Corporate rebranding failure and brand meanings in the digital environment. *Marketing Intelligence & Planning*.
- Titi, S., & Anang, S. (2018). The effect of new identity, new image, and repositioning as a process of rebranding toward brand loyalty, brand associations, perceived quality as part of brand equity. *Russian Journal of Agricultural and Socio-Economic Sciences*, 76(4), 253-263.
- Umair, M., Cheema, M. A., Cheema, O., Li, H., & Lu, H. (2021). Impact of COVID-19 on IoT adoption in healthcare, smart homes, smart buildings, smart cities, transportation and industrial IoT. *Sensors*, 21(11), 3838.
- Venus, Antar. (2018). Manajemen Kampanye Panduan Teoritis Dan Praktis Dalam Mengefektifkan Kampanye Komunikasi Publik Edisi Revisi. Bandung: Simbiosa Rekatama Media.



- Vitkauskaitė, E., & Vaičiukynaitė, E. (2020). Comparative study of business models of European micro-mobility online services. In 20th International Conference on Electronic Business, ICEB 2020 (pp. 55-62).
- Vlachos, P. (2020). A spatial analysis of culture and urban development: some preliminary findings on the rebranding of Woolwich town centre.
- W. H. DeLone and E. R. McLean, "Information systems success: The quest for the dependent variable," Inf. Syst. Res., vol. 3, no. 1, pp. 60–95, 1992.
- Weaver, T. P. (2019). The New Enclosures: London, New York City, Philadelphia, and the Transformation of Public Space. *New Political Science*, *41*(3), 423-442.
- Williams, A. S., Son, S., Walsh, P., & Park, J. (2021). The influence of logo change on brand loyalty and the role of attitude toward rebranding and logo evaluation. *Sport Marketing Quarterly*, 30(1), 69-81.
- Williams, A. S., Son, S., Walsh, P., & Park, J. (2021). The influence of logo change on brand loyalty and the role of attitude toward rebranding and logo evaluation. *Sport Marketing Quarterly*, 30(1), 69-81.
- Winberg, A. T. (2021). Using Events as Rebranding and Repositioning Tourism Strategies for Destinations: The Case of Ibiza.
- Yuda, M. S., Kurniawan, H. G., & Kristanto, H. (2024). Strategi Branding Berbasis Pengalaman Wisata dalam Membangun Citra Destinasi Geopark Ciletuh-Palabuhanratu. *Communication & Design Journal*, 1(1), 69-82.
- Yulianti, E., Sucipta, I. D. K., & Kristanto, H. (2024). STRATEGI PERSONAL BRANDING PRABOWO SUBIANTO DALAM MEMBANGUN CITRA POLITIK DI MEDIA SOSIAL INSTAGRAM (Studi Fenomenologis pada Pemilihan Presiden 2024). COMMUNICATION & DESIGN JOURNAL, 1(1), 15-30.
- Zhang, Y., He, Q., Wu, W., & Li, C. (2018). Public transport use among the urban and rural elderly in China. *Journal of Transport and Land Use*, *11*(1), 701-719.
- Zhuravskaya, M., Lempert, A., Anashkina, N., & Zharkov, M. (2018). Issues of sustainable urban mobility simulation. Business Logistics in Modern Management.