

Technology Service Delivery in Urban Transportation Business Strategy in Indonesia

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Abstract

Traveling to various countries and cities is usually fun and tiring. The same is true for urban residents whose transportation needs are very high. Speed of accessibility is very urgent in the lane between potential passengers and vehicle owners. With the presence of information technology such as FinTech it has become more convenient and beautiful. An accurate digital payment method can make a real difference from the previous one. With digital payment technology it has become fast and accurate for many people living in urban areas. In Indonesia, the percentage of fintech users for payment and online vehicle applications proliferates, providing fresh air for entrepreneurs and loyal customers. In Indonesia, the percentage of fintech users and online vehicle applications is growing rapidly, how the providers strategies for giving services to their new and loyal customers. This paper aims to enhance Fintech services with online vehicle applications in urban areas around Jakarta.

Keywords:

Fintech, service delivery, urban transportation, strategy, Indonesia

1. Introduction

The increasing number of motorized vehicles in urban areas will increase congestion in big cities, especially those that already use digital services as online transportation (Brandt et al., 2020). To support high community mobility, an effective mode of transportation is needed to get to work insufficient time (Indra, 2017, Purba 2020, Tan et al 2019). Urban transportation problems generally include traffic jams, parking, public transport, pollution and traffic order problems. As stated by (Munawar, 2007) the, congestion always has a negative impact, both on the driver himself and in terms of the economy and the environment. Negative impacts on the environment in the form of increased air pollution due to CO toxic gas and increased vehicle noise, beside it caused congestion that consumes time and fuel for running vehicles.

Since the emergence of online transportation services for the first time in 2014 in Indonesia, it has changed how urban residents, especially residents of Jakarta and other urban areas move in their activities (Agostino et al., 2021) (A. Purba & Purba, 2020) (Tan et al., 2019). Most of the residents of Jakarta admit that this service is an alternative mode of transportation to avoid traffic jams that often occur in the capital (A. Purba et al., 2019)(J. T. Purba et al., 2020). In addition, convenience, flexibility, and affordable prices are some of the main reasons why this service is multiplying in recent years (Arshad & Su, 2015). Now, this service does have not only transportation services but also food and beverage delivery services and documents (Nielsen, 2019)(Primahendra et al., 2021). Unfortunately,

the presence of this online transportation service has good and bad impacts, especially for the urban mobility situation.

One of these adverse effects is seen during peak hours in the morning and evening when online Ojek driver-partners occupy part of the road space. This, of course, hampers the flow of traffic in the vicinity. In addition, the behavior of the driver-partners who do not heed the regulations (A. Purba et al., 2019), such as using the sidewalk as a parking lot, the incompatibility of the motorcycle license plate number with the one listed in the application. For the service in the online delivery; (J. T. Purba & Panday, 2015a) the pick-up and drop-off location that is not adequately defined, of course, causes inconvenience to users of this online transportation service and other road users (J. T. Purba et al., 2019). Seeing this phenomenon, the three initiating institutions believe that online transportation like Ojek Shelter is essential, significantly to improve the safety, comfort, and regularity of urban mobility, both for road users, users of online transportation services, and driver-partners. This initiative is in line with the Ministry of Transportation Regulation Number 12 of 2019 concerning the Protection of the Safety of Motorcycle Users Used for the Interest of the Community, which subsequently became the primary basis for the preparation of this practical guide.



The preparation of this practical guide aims to provide recommendations for stakeholders in providing and managing Ojek Online Shelter facilities as an instrument to respond to the development of online transportation services in urban areas (J. T. Purba et al., 2020). This practical guide is intended for at least three main stakeholder groups who are considered to have an active role in the provision and management of Online Ojek services for the customers (Indra et al., 2019). The three main stakeholder groups include the first group: operators or providers of online transportation services, the second group: landowners and building managers, and the third group: the provincial government of the Special Capital Region (DKI) Jakarta (Prahawan et al., 2021)(Brandt et al., 2020). Furthermore, this practical guide is expected to be the beginning for real action and collaboration of various parties to respond to the phenomenon of online transportation services in a targeted and effective manner.

2. Literature Review

2.1 Financial Technology

The terminology of Fintech derived from the words "financial" and "technology" and describes, in general, the connection of modern and mainly internet-related technologies established business activities of the financial services industry (Gomber *et al.*, 2017), or a cross-disciplinary subject that combines finance, technology management and innovation management (Leong and Sung, 2018). With this term, the emergence of Fintech has given rise to "financial service disintermediation" and the need for a new form of protection for consumers and investors (Giudici, 2018; Guo & Liang, 2016). FinTech start-ups can avoid the intermediation costs and minimum capital requirements usually associated with traditional banking services (Iman, 2018). The use of big data analytics and data science has also changed how data are captured, processed, and analyzed, which has reduced search costs significantly (Giudici, 2018; Iman and Tan, 2020).

FinTech has overgrown in many different contexts, most likely offering new innovative products and services using contemporary technologies. Some studies carefully review FinTech by focusing on the adoption and diffusion of FinTech products and services on the customer side, but very few studies focus on what happens to the producer side. While there is no standard definition of FinTech, there is some review that digital finance encompasses all products, services, technology, and infrastructure that enable individuals and companies to have access to payments, savings, and credit facilities via the internet (online) without the need to visit a bank branch or without dealing directly with the financial service provider (Ozili, 2018). After extensive review, Scheffel (2016) defines the term FinTech as standing on shaky ground and suffering from semantic problems. Brand image is considered very

important therefore creating a positive or good brand image has become a high priority for many companies (Cho et al., 2015). How is the influence of the fintech brand in Indonesia dominated by OVO and GoPay.

2.2 Service Delivery

Service delivery can be considered the service provider's ability to perform its duties to provide satisfaction to its customers. There are clear and definite performance specifications when assessing a product to assess the services provided. It is the same with only service matters were assessing the quality of service is not as simple as assessing product quality. In the service sector, quality assessment is based not only on the final results and technical quality provided but also on the service process carried out, such as the available quality provided (Ennew et al., 1993). When buying an item, the buyer has many tangible aspects of judging its quality, such as the model, shape, color, label, packaging, etc. However, when assessing a quality service, it is certainly more than a natural aspect to assess the quality of the service in question (Parasuraman et al. 1985).

2.3 Ease of Use

In a paper by Claudio et al., (2015), David describes perceived Ease of use as a level of an individual's Trust in technology through the easy understanding of both hardware and software. Then Davis, Bagozzi, & Warsaw in Anugrah (2020) stated that Ease of use could be shown through interaction and the intensity of user use of the system. The frequency of use of a system indicates the Ease with which the system is understood, operated, and used. These definitions can then be summed up into several indicators (Lee & Wan, 2010): 1. Ease of learning information technology, 2. The level of difficulty to become skilled in using information technology, 3. The level of Ease of information technology operations (Bank, 2020); (Poushneh & Vasquez-Parraga, 2018).

2.4 Benefit

The avail of financial technology benefits customers, especially for both products and services, especially electronic transactions (Tan et al., 2019). The essential Benefit provided by Fintech is the Ease of financial services (Services, 2017). For example, maybe a few years ago, payments at restaurants were usually still using cash now many have used electronic money even using electronic money, there are many benefits that we can enjoy in it (Prahiawan et al., 2021). Therefore, with the presence of Fintech, you can also maximize all these forms of payment via a smartphone (J. T. Purba et al., 2021); (Adirinekso et al., 2020). Mobile payment, such as FinTech continuation intention, depends on digital payment users' relatively component valuation of mobile payment by adjusting from time to time due to acceleration of education (Simbolon et al., 2020). Theory of Reasoned Action (TRA) into mobile payment FinTech context. Mobile payment has been known that customers choose available services and like the most valuable service, and as a customer makes a risky decision, it means they are ready to take risks to receive advantage or profit (Kim *et al.*, 2008). Definition of term benefit is a customer perception about the potential that mobile payment of FinTech use will result in a positive outcome. Benefits can significantly affect mobile payment usage (Liu *et al.*, 2012).

2.4 Trust

Trust is the key and critical ingredient in digital transactions activities (Singh & Sinha, 2020). The argument of some experts states that Trust is fundamental because its presence or absence can have a bearing on what we choose to do, and in many cases, what we can do (Li et al., 2020); (Conway & Garimella, 2020)." Trust can form individual expectations about the actions of others and can also be a determinant for taking action (Nelloh et al., 2019). Because the Fintech application is the answer to assisting the government in achieving financial inclusion targets, Trust is the most important thing to pay attention to (Adirinekso et al., n.d.); (J. T. Purba et al., 2019). Because with Fintech, everyone can process financial transactions as long as they have an internet connection, it will be straightforward to use the services of this financial technology (J. T. Purba & Panday, 2015b); (Budiono et al., n.d.). The next steps to increase the Trust of customers the confidence to use cashless payment (Prahiawan et al., 2021); caused the company must build psychological bonding with the customer by communicating all of the information and product knowledge through advertisement, newsletter, and social, digital marketing tools as integrity (Faria, 2019); (Kumra et al., 2019).

2.5 Security

Using digital transactions through the internet is always subject to various security threats; consumers' Trust is fundamental in website transactions and is affected by perceived information security systems provided by professional providers (Tsiakis, 2012); (Sungkana et al., 2019). Due to fraud and hacker intrusion, it causes

monetary loss among users and violates the privacy of users, which is a significant concern of many online and mobile users (Lee, 2009). Broadly view, FinTech has been known and defined four types of elements of risk that have essential roles: financial, legal, security, and operational risks (Ryu, 2018); (Data, 2018). Security is essential that the company provides Fintech or digital application transactions (Hawlitschek et al., 2018); (Sungkana et al., 2019) . Security risk is the more significant potential loss due to fraud or a hacker compromising the Security of financial transactions in FinTech. Perceived Security as the probability that customers believe that others will not view their payment information transaction, falsified by unauthorized users during finalized the transaction, while users have their own safety expectations that all parties must fulfill in this transaction process (Ally & Toleman, 2005).

2.6 Self-Efficacy

Bandura (1986) stated that individuals' self-beliefs influence human behavior and motivation about their capabilities. According to Bandura (1991), self-efficacy is defined as a person's judgment of their ability to execute the action that required attaining their desired performance. Departing from Bandura (1977, 1982) mentioned that social cognitive theory about an accurate evaluation of personal efficacy has considerable functional value and it also determines how much effort users will make and how long they will persist in the face of obstacles. Moreover, in previous studies, self-efficacy has been considered as one of the factors that have direct or indirect to the relationships of the digital transaction activities in the Fintech itself (Choi, 2018; Kim *et al.*, 2016; Li *et al.*, 2012; Shiau *et al.*, 2020). Alternatively, some studies have directly used self-efficacy, not to use for the measurable concept at a general level since the ability to use FinTech mobile payment services is domain-specific. Hence, Cassar & Friedman (2009) developed domain-specific self-efficacy rather than general self-efficacy because domain-specific self-efficacy has been shown to have potential predictive power when describing a specific phenomenon (Betz & Hackett, 1983; Gist, 1987). Several terms in self-efficacy include technological self-efficacy, computer self-efficacy, internet self-efficacy, smartphones self-efficacy, investing self-efficacy, financial self-efficacy (Shiau *et al.*, 2020).

3. Methods

This research uses a questionnaire as a collecting data tool using the Likert scale for scoring. The population of this research includes some users of the electronic wallet application offered by Go-Jek in the Jabodetabek urban area, Indonesia. The unit of analysis in this research is individuals who have used an e-wallet application selected using a purposive sampling technique—online questionnaires to respondents to clarify if question items are unclear. The data gathering needs one month from distribution until data is collected and ready to calculate and interpret. The reliability and reliability test aims to test the consistency of the instruments used in the study. The reliability test in this study used the Cronbach alpha coefficient and the item to total correlation. Cronbach alpha can be accepted if the value is greater than or equal to 0.70, while the minimum item to total correlation must be 0.50 (Hai et al., 2013; Sekaran, 1992). A score to the total correlation that is smaller than 0.50 is still acceptable if the eliminated items will result in a smaller Cronbach alpha. This study tested empirically for using electronic money services offered by Go Pay when using online transportation. The test was carried out using the basic TRI model which was modified by using several additional latent variables.

4. Finding and Discussion

1. Instrument Test

A. Validity Test

Validity test in this research used SPSS, measure Bivariate Pearson Correlation (Pearson Product Moment). This validity test is to measure how real this test or instruments. Formula of validity test:

- If r calculation $\geq r$ table, this test is valid.
- If r calculation $\leq r$ table, this test is invalid.

Indicator	r calculation	r table	Notes
B1	-.035	0.113	Invalid
B2	.589**	0.113	Valid
B3	.542**	0.113	Valid
B4	.623**	0.113	Valid
B5	.657**	0.113	Valid
T1	.656**	0.113	Valid
T2	.641**	0.113	Valid
T3	.689**	0.113	Valid
T4	.806**	0.113	Valid
T5	.689**	0.113	Valid
SE1	.465**	0.113	Valid
SE2	.589**	0.113	Valid
SE3	.667**	0.113	Valid
SE4	.584**	0.113	Valid
SE5	.634**	0.113	Valid
S1	.587**	0.113	Valid
S2	.607**	0.113	Valid
S3	.609**	0.113	Valid
S4	.562**	0.113	Valid
S5	.681**	0.113	Valid
EU1	.565**	0.113	Valid
EU2	.759**	0.113	Valid
EU3	.806**	0.113	Valid
EU4	.785**	0.113	Valid
EU5	.816**	0.113	Valid
FIN1	.709**	0.113	Valid
FIN2	.709**	0.113	Valid
FIN3	.700**	0.113	Valid
FIN4	.784**	0.113	Valid
FIN5	.708**	0.113	Valid
FIN6	.750**	0.113	Valid

Source: based on calculation from 309 respondents (2020)

Based on the measurement from correlation Bivariate Pearson showed that benefit variable (B2,B3,B4,B5), trust (T1,T2,T3,T4,T5), security (S1,S2,S3,S4,S5), ease of use (EU1,EU2,EU3,EU4,EU5), self-efficacy (SE1,SE2,SE3,SE4,SE5) and financial technology (FIN1,FIN2,FIN3,FIN4,FIN5,FIN6) have larger results than 0.113 (r-table), only one indicator from Benefit (B1) showed invalid, overall all of other indicators is valid.

B. Reliability test

Reliability test used as a method in this research is to measure whether each indicator from each variable that used showed accuracy and consistency if further research will conduct for the next time being. Test for discriminant validity that has been used in this research with cut off value ≥ 0.50 . Each variable show reliability if the value same or greater that cut off value.

Table - 1 : Reliability Test

Variable	CR	AVE	Discriminant Validity
Benefit	0.79	0.48	0.69
Trust	0.77	0.28	0.53
Security	0.67	0.23	0.48
Ease of Use	0.78	0.52	0.72
Self-Efficacy	0.82	0.22	0.47
Financial Tech	0.51	0.44	0.66

Source: based on calculation from 309 respondents (2020)

Based on the result above, some variables results show above cut off value 0.50, however there are some variables results show below cut off value. Therefore, this variable include Benefit, Trust, Ease of use and financial tech showed reliability, however Security and self-efficacy showed uncertainty for this test, because below cut off value.

C. Regression Multiple Linear

Table - 2 : F- Test

ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	1622.870	6	270.478	47.902	.000 ^b
Residual	1699.581	301	5.646		
Total	3322.451	307			

a. Dependent Variable: TOTAL_FIN_Y

b. Predictors: (Constant), SNM, Zscore(TOTAL_EU_X), Zscore(TOTAL_SE_Y), Zscore(TOTAL_B_X), Zscore(TOTAL_S_X), Zscore(TOTAL_T_X)

Based on the result from ANOVA showed that the significance level of sig is $0.000 < 0.005$ and F calculation $< F$ table is $47.902 > 1.23$, so it can be concluded that variables of Benefit, Trust, Security, Ease of use, and self-efficacy have shown significant effect on financial technology of using GOPAY. Furthermore, it can be summarized that independent variables fulfill the requirements for predicting the dependent variable.

T-Test

Table - 3: Coefficients

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	25.622	.246		104.209	.000
Zscore(TOTAL_B_X)	.802	.198	.244	4.057	.000
Zscore(TOTAL_T_X)	.417	.207	.127	2.019	.044
Zscore(TOTAL_S_X)	.571	.195	.173	2.932	.004
Zscore(TOTAL_EU_X)	1.109	.215	.337	5.169	.000
Zscore(TOTAL_SE_Y)	-.202	.190	-.061	-1.064	.288

a. Dependent Variable: TOTAL_FIN_Y

- If sig value < 0.05 or T calculation $> T$ table, so that there is significant effect between independent variable and dependent variable.
- If sig value > 0.05 or T calculation $< T$ table, so that there is no significant effect between independent variable and dependent variable.

Hypothesis 1: Benefit affect self-efficacy and financial technology of using GOPAY

Based on the table above, significance value level from Benefit is 0.000, which is smaller than 0.05 and t calculation value $4.057 > t$ table 1.968 can be explain variable of Benefit has greater significance effect towards self-efficacy and financial of technology, therefore H1 is accepted.

Hypothesis 2: Trust affect self-efficacy and financial technology of using GOPAY

Significance level value from Trust is 0.044, which is smaller than 0.05 and t calculation value $2.019 > t$ table 1.968 can be explaining variable of Trust has significant effect towards self-efficacy and financial of technology, therefore H2 is accepted.

Hypothesis 3: Security affect self-efficacy and financial technology of using GOPAY

Based on the result above, Security significance level value is 0.04, this is smaller than 0.05 and t calculation value $2.932 > t$ table 1.968, therefore can be conclude there is significant effect of Security towards self-efficacy and financial of technology, therefore H3 is accepted.

Hypothesis 4: Ease of Use affect self-efficacy and financial technology of using GOPAY

Based on the table above, significance value level from Ease of use is 0.000, which is smaller than 0.05 and t calculation value $5.169 > t$ table 1.968 can be explain variable of Ease of use has influence towards self-efficacy and financial of technology, therefore H4 is accepted.

Hypothesis 5: Self-Efficacy affects financial technology of using GOPAY

Significance level value from Self Efficacy is 0.288, which is greater than 0.05 and t calculation value $-1.064 < t$ table 1.968 can be explain variable of Self-Efficacy has negative effect towards self-efficacy and financial of technology, therefore H5 is rejected.

D. KMO Test – Kaiser Meyer Olkin Test

Table - 4 : KMO Test - Source: based on calculation from 309 respondents (2020)

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.892
Bartlett's Test of Approx. Chi-Square		4439.082
Sphericity df		465
Sig.		.000

Based on the results above, KMO results is above 0.5 which is 0.892, so that this sampling is fulfill the requirement of KMO. Function KMO is to compare index intervals between correlation coefficients with other partial coefficients. Next, Bartlett's Test Sphericity is assumption of factor analysis. SPSS calculation for Bartlett's test of Sphericity is 4439.082 with significance level of 0.000. In addition, Bartlett Test of Sphericity is meet criteria, because the significance level is below 0.05.

E. Analysis Test using SEM – AMOS

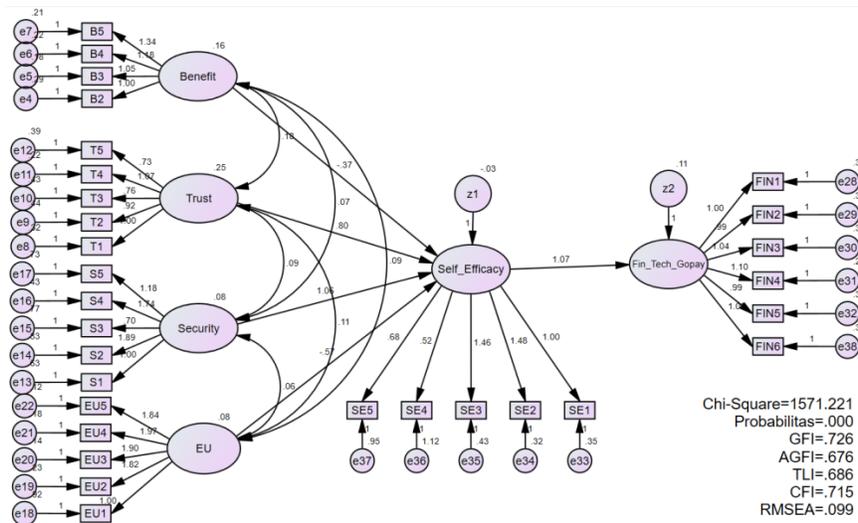


Figure – 1 : Unstandardized Estimate

Table – 5: Estimate Value Regression Weights

Criteria	Results	Critical Value	Model Evaluation
Chi-Squares	1571.22	expected to be small value	
Probability p value	0.000	≥ 0.05	
GFI	0.726	≥ 0.90	Marginal Fit
AGFI	0.676	≥ 0.90	Marginal Fit
TLI	0.686	≥ 0.95	Marginal Fit
CFI	0.715	≥ 0.95	Marginal Fit
RMSEA	0.099	≤ 0.08	Marginal Fit

This evaluation model can be described based on criteria of goodness of fit. Based on the results above, one of main criteria to measure how fit the model is Chi-square. Chi-Square value in this analysis is ≤ 0.05 ; this model does not fit the chi-square criteria. Based on GFI (Goodness of fit Index) is marginal fit, because the result is smaller than criteria value $0.726 < 0.90$, and AGFI (Adjusted Goodness of Fit Index) is marginal fit, if the value of the analysis is smaller than 0.90; therefore, this analysis AGFI value is marginal fit with result $0.676 < 0.90$. Measurement of RMSEA (The Root Mean Square Error of Approximation) is one of the statistic measurement methods in the goodness of fit to test the model. RMSEA criteria value is $0.05 \leq RMSEA \leq 0.08$, in this research RMSEA value is 0.099, this model is marginal fit.

5. Conclusion

In this study, the researchers wanted to prove how digital technology supports the community to survive during strict restrictions during the pandemicCov-19 in the Jakarta Bogor Tangerang Bekasi, in Indonesia. This study uses a model with a research framework as discussed in this study. The literature review leads to the development of five hypotheses according to the proposed framework. The presence of digital technology gives support to the financial technology payment with an available platform for food delivery feature in the mobile application of the consumers.

This study found that Fintech providers as companies engaged in e-commerce and digital money in building relationships with their customers are very dependent on the ability of their customers to use internet technology. This technology becomes the revolution to supply chain and others that applied to respective consumers with digital technology. Such technology application is a new civilization that forced the people to use in the *force majeure* situation. The core of this business always emphasizes online or non-cash, both for payment for buying and selling goods and payments for bills.

This technology can be installed for both operations in IOS and android mobile devices that provide an online ordering that is safe, comfortable, useful, and efficient and the delivery of goods and other services available in this application technology.

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