



# Jakarta F&B Merchants' Adoption of the E-Payment Gateway System

Elita Jessamine Chandra<sup>1</sup>, Andamar Pradipta<sup>2</sup>

1. Department of International Business Management, Indonesia International Institute for Life Sciences
2. Department of BioEntrepreneurship, Indonesia International Institute for Life Sciences  
Jl. Pulomas Barat No.Kav. 88, RT.4/RW.9, Kayu Putih, Kec. Pulo Gadung, Kota Jakarta Timur, Daerah Khusus Ibukota Jakarta 13210

Corresponding author:  
elita.chandra@i3l.ac.id

## ABSTRAK

Dengan bertambahnya jumlah penyedia layanan pembayaran elektronik (*e-payment*), para penjual F&B (*Foods and Beverages*) di Jakarta, terutama usaha kecil menengah (UKM), didorong untuk mengadopsi sistem pembayaran elektronik untuk bisnis mereka. Namun, adopsi ini masih dianggap rendah dibandingkan dengan jumlah UKM dan industri F&B di Jakarta. Penelitian ini merupakan sebuah studi prilem yang menggunakan *technology acceptance model* di UKM F&B di Jakarta untuk menganalisa statistik deskriptif dari 31 responden di lima kota di Jakarta. Hasil penelitian mencakup reliabilitas dan validitas instrumen, pengukuran statistik deskriptif dari frekuensi, tendensi sentral, dan penyebaran variasi.

Kata kunci:

Pembayaran Elektronik, System Gateway, Usaha Kecil Menengah, Technology Acceptance Model Makanan dan Minuman.

## ABSTRACT

With the increase of various *e-payment* service providers, *Foods and Beverages (F&B)* merchants in Jakarta, especially *Small and Medium-Sized Enterprises (SMEs)*, are encouraged to adopt *e-payment* systems for their businesses. However, the adoption is still considered low compared to the number of *SMEs* in the *F&B* industry in Jakarta. This paper acts as a preliminary study and uses the *technology acceptance model* on *F&B SMEs* in Jakarta to analyze the descriptive statistics of 31 respondents in the five cities of Jakarta. The results include the reliability and validity of the instrument, the descriptive statistics measure of frequency, central tendency, and dispersion of variation.

Keywords:

*E-Payment*, *System Gateway*, *Small Medium Enterprise*, *Technology Acceptance Model*, *Food and Bevaraeages*.

## INTRODUCTION

Global transactions are transitioning from paper forms of money to non-cash electronic ones. This phenomenon that changed the traditional systems of payment to electronic payment systems (e-payment) that have become a part of market mechanisms, opened up new massive opportunities for both businesses and end-consumers (Khanin, Bilozubenko & Sopin, 2022).

Trivedi (2016, as cited in Osman, Jabaruddin, Suria, Jifridin, & Zolkepli, 2021) defined electronic wallets (e-wallets) as the processing and receiving of payments that are conducted electronically. An E-wallet is also defined as a part of e-payment that uses communication technology, using smartphones to conduct transactions (Junadi & Sfenrianto, 2015, as cited in Osman, Jabaruddin, Suria, Jifridin, & Zolkepli, 2021).

In Malaysia, due to the support from the Malaysian government, the usage of e-wallets is rising among providers, retailers, and customers (Abdul-Halim, Vafaei-Zadeh, Hanifah, Teoh & Nawaser, 2021). The rise of electronic payment (e-payment) transactions using electronic wallets (e-wallets) in Indonesia has been apparent in large cities and most smaller cities in Indonesia. According to Bank Indonesia (Hendartyo, 2022), transactions of electronic money in Indonesia have reached Rp. 34.6 billion in January 2022.

Soegoto (2021) explained that the use of e-payment started as early as the 1970s when Electronic Funds Transfer (EFT) was applied to transfer money from financial institutions using telecommunications networks. Later on, with the increased adoption of the internet, the market shifted and electronic payment systems gained

a crucial role. E-payment system (or online electronic payment) is the activity of transferring money from the payer to the recipient usually being authenticated through a third party (banks, ATMs, or other providers).

Laudon and Travor (2019), explained payment using a mobile device might include bill pay, online purchases, in-store purchases, and P2P payments. To conduct these transactions, one needs to use mobile wallet apps. Mobile wallets (also known as digital wallets, electronic wallets, or e-wallets), can be categorized into three categories: the first one is universal proximity mobile wallets, which can be used on different merchants if the merchant supports the service, the second category is branded store proximity mobile wallets, which can only be used with a single merchant, and lastly is P2P mobile payment apps, which are used to pay individuals who have the same app (Junani & Sfenrianto, 2015).

Currently, there are several providers for e-wallets that are registered and supervised by the Financial Services Authority (Otoritas Jasa Keuangan/OJK). Some providers are from the national banks, while some others are from super apps or digital banks. These providers are increasing in numbers, offering flexibility, promotions, and various programs, resulting in changes in consumer behaviors that have many options to choose from.

In Indonesia, there are three types of e-wallets. The first one is a card-based e-wallet, provided by national banks such as BCA, Mandiri, BRI, BNI, and other banks. These e-wallets are similar to debit cards but need to be topped up, previously used to give allowance to children, but now they

are also used by adults for tollway payment and public transport access. The second type of e-wallet is provided by super apps such as GoPay, ShopeePay, TravelokaPay, and their pay later services. The last type of e-wallet is the app-based/digital bank e-wallet, such as OVO, Dana, Jenius, and Jago. The third kind is turning to superapps by providing investment options, bill payments, insurance, and phone credits, among other things. Both super apps and app-based e-wallets are categorized as universal proximity mobile wallets, they are also partnering with various merchants and e-commerce to gain market size.

For most food and beverages enterprises, because they have partnered with either delivery that also provides a payment gateway, they only needed to change the proportion of offline and online transactions. However, most offline businesses would have to switch to online business, or at least do their business in a blended manner. (Ikram, 2021). With new habits encouraged during the pandemic: wearing masks, physical distancing, and washing hands, physical/offline platforms transactions were suggested to use means other than cash, including debit cards and e-wallet transactions.

Based on the KBLI 2-digit spread, SMEs in the Greater Jakarta area in 2020 were dominated by the food and beverage, and the fashion industry, where the population reached 22.066 (34%) and 16.828 (26%) respectively (BPS, 2022). This paper will focus on the food and beverage industry as the most dominant industry in 2020.

There have been several studies on the customers who are using e-money for their daily transactions, however, there have been limited studies on the adoption of

e-money from the merchants' sides. This particular study will be focused on the merchants who have adopted the e-payment system gateway, especially in the Jakarta area. The aim of this paper is to analyze the technology acceptance model for the e-payment gateway used by SMEs in the food and beverage industry, especially in Jakarta, using a descriptive statistical method.

1. How does perceived usefulness impact the adoption of e-payment systems in SMEs in Jakarta?
2. How does perceived ease of use of e-payment gateway impact the adoption of e-payment system in SMEs in Jakarta?
3. Which e-payment gateway is being used the most by merchants?

### ***Consumer Behavior toward E-Wallets in 2021***

According to Schueffel (2017), financial technology (also called FinTech) is a new financial industry that applies technology to improve financial activities. The financial technology industry is growing in Indonesia, due to the fact that as of October 2020, there are currently 51 licensed e-money providers in Indonesia, 14 from banks, and 37 from non-bank providers, offering payment gateway to SMEs (or merchants) to allow them to receive payment digitally. These 51 licensed providers do not include lending and investment businesses. Fintech is usually one of the strategies used by Financial Services.

Kadence International (2021) conducted consumer behavior research in 2021 on financial services providers, focusing on the five most used e-wallets: OVO, GoPay, ShopeePay, Dana, and LinkAja. The research was conducted online with a total of 1,000 respondents living in

Medan, Palembang, Jabodetabek, Bandung, Surabaya, and Makassar. Based on the research, transaction types were mostly used for ordering food, transportation, and online shopping, although the report also stated that transactions within the financial services sector, including investment and bill payments, were quietly increasing as well.

The main reasons for choosing e-wallet providers among consumers were because of a few factors, namely, the ease of using the app, security, convenience, speed, and merchant acceptance (Al-Dmour, Al-Dmour, Al-Barghuthi, Al-Dmour & Alshurideh, 2021; Angelini, 2019). Since the research was focusing on the end customers, there is a gap between the merchants' perspectives.

### ***SMEs' Understanding of Using Digital Platforms***

Oktaviana, Nurhalim, and Hernawati (2021), mentioned that GoFood, GrabFood, and ShopeeFood claimed that they have partnered with fifteen thousand restaurants, only in Tangerang City, as of April 2021. The Ministry of Cooperatives and Small and Medium Enterprises of the Republic of Indonesia (Kementrian Koperasi dan UMKM), targeted 30 million registered SMEs to go digital by 2024. As per data from May 2021, there are 6 million SMEs that have applied digitalization to their businesses, resulting in 21% out of 64 registered SMEs. One of the programs that the government created to support achieving this target was called UMKM Go Digital, a workshop held to encourage SMEs to digitize their business processes by using e-commerce platforms. This program may be one of the reasons why SMEs have digitized their businesses, but further research on how it has affected market attractiveness needs to be conducted.

### ***Technology Adoption Model***

Technology adoption model was first proposed by Davis (1989), where actual adoption or usage of a technology is determined by Perceived Usefulness (PU) and Perceived Ease of Use (PEU), affecting the Attitude Toward Using (ATU) the technology, which then affects the Behavioral Intention (BI) to adopt the technology. The model was adapted from the Theory of Reasoned Action and the Theory of Planned Behavior (Granić & Marangunić, 2019). The model has been widely used in various types of technology, on equally various populations, including in consumers' adoption of e-wallets and other e-payment system adoptions (Nuryyev, Spyridou, Yeh & Lo, 2021; Liu, Lin, & Hsu 2022).

### ***Perceived Usefulness***

According to de Luna, (2018) a consumer's subjective probability of how technology can improve his/her goal, described what perceived usefulness is. In the context of e-payment, usefulness can be defined as the belief that a consumer or a merchant has where it is believed that applying the system in their business will improve their performance, or productivity, hence increasing the outcome of their business (Cao, Yu, Liu, Gong, & Adeel, 2018, as cited in de Luna, 2018). Studies found that perceived usefulness is related to attitude (Hsu & Chiu, 2004; Kim & Shin, 2015, as cited in de Luna, 2018), and it also has a relation to the intention to use (Huang, Wu, & Chou, 2013, as cited in de Luna, 2018).

### ***Perceived Ease of Use***

Ramadan and Aita (2018, as cited in Fahlevi, 2021), described perceived ease of use as a belief about the process of making decisions in using new technology. A person who believes that completing a

work/task was facilitated by technology extends to his/her perception of the ease of using said technology. His/her behavior will then be affected by the perception. Davis (1989, as cited in Chen & Aklirikou, 2019), suggested that both perceived ease of use and perceived usefulness are core principles that are essential to the process of a technology's adoption.

According to Madan & Yadav (2016), perceived ease of use refers to how much a person believes that information technology could provide assistance in doing work so that they could produce less effort. Cao, Yu, Liu, Gong, & Adeel (2018) explained that perceived ease of use is measurable through several indicators that include ease of learning, ease of control, how easy the technology is to understand, flexibility, ease of implementation, and ease of use.

#### ***Attitude toward Using the Technology***

Fishbein and Ajzen (1975) argued that attitude is a multidimensional construct encompassing cognitive, affective, and conative factors. Alonso and Grande (2004) explained that cognitive factors refer to a person's experiences, beliefs, and opinions towards a certain product/service; affective factors refer to a person's feelings, emotions, and values towards that product/service; and behavioral factors refer to the intention to purchase, respond, and reject.

Jian, Wang, Rahmanti, Chien, Hsu, Chien, Li, Chen, Chin, & Huang (2022) suggest that the attitude of the application's users is heavily influenced by how they perceive usefulness, (what they think the benefit they are getting are from using the application), as well as perceived ease of use (meaning not many efforts needed to use the application), was an important factor that affects the behavioral intention

or actual usage, which then affect the actual adoption or acceptance of the application.

#### ***Intention to Use E-Payment System Gateway***

Behavioral intention (BI) to use refers to the tendency to use (and continue using) a technology (Casaló, Flavián, & Ibáñez-Sánchez, 2020). Another definition of BI is that it is the consumers' intention to effectively use future products/services (Venkatesh, Morris, Davis, Davis, 2003). In this study, BI is used to explain both the intention to use and continue using a system (which refers to, in this study, the e-wallets being discussed).

#### **METHODS**

The scope of this research included research methodology development, choosing respondents, and gathering and analyzing data. The respondents were mainly micro-merchants in the Jabodetabek area that have less than 20 employees and/or income of less than 300 million rupiah per year, as per Constitution no. 20, 2008. This research will aim to get 30 respondents from business owners or those in managerial positions in the Food and Beverage industry.

This study used descriptive statistics from a quantitative research point of view, using survey research methods. The questionnaire used was adapted from Davis' 1989 Technology Acceptance Model. Due to the analysis of merchants' e-payment gateway adoption in Indonesia being limited, this study only provided the frequency distribution analysis of the Davis (1989) measurement instruments. Mishra, Pandey, Singh, Gupta, Sahu, & Keshri (2019) summarized that studies using descriptive statistics analysis can be focused on three categories, which are measures of frequency (looking at the frequency an item was



answered and the percentage), measures of central tendency (measuring the mean, median, and mode), and the last category is measures of dispersion of variation (which measure the variance, standard deviation, standard error, quartile, interquartile range, percentile range, and coefficient of variation).

### **The Constructs**

This research was conducted in the Special Capital Region of Jakarta (DKI Jakarta), because as the capital city of Indonesia, it hosts a population of 10.9 million citizens (World Population Review, 2022), with an increasing number of smartphone users. In this study, a quantitative method was used. The sampling method used in this research is probability sampling since the total population is unknown. The criteria of respondents are as follows: SME business owners who have operated their business for at least 3 months continuously. Since the total population is unknown, the distribution of questionnaires used was an accidental sampling method.

Due to the language difference, the original questions were translated into Bahasa Indonesia. A pre-test was conducted and distributed to 27 respondents to see their understanding of the statements in the questionnaires.

The questionnaire was created using Google Form, and distributed through WhatsApp,

and social media by sending direct messages to the business' official accounts, and through visiting SME businesses. The respondents were allowed to fill in the questionnaire from February-June 2022.

The questions included in the questionnaire were divided into two sections: the demographic information of the business, and the business owners/managers' perception of the variables in the Technology Adoption Model. The first section collected data including: how long has the business been running, the number of employees, the location of the business, and the e-money systems that the businesses accept. The second section was the construct of the variables, adapted from previous studies.

## **RESULT AND DISCUSSION**

### **Demographic Results**

There are 31 results obtained from the distribution of the questionnaires, from which the location was summarized in Table 1, 6 businesses or 19.4% were located in North Jakarta, 4 or 12.9% were located in South Jakarta, 7 or 22.6% were located in East Jakarta, 5 or 16.1% were located in Central Jakarta, 8, or 25.8% were located in West Jakarta, and 1 or 3.2% has multiple locations in East and South Jakarta.

Table 2 summarized the number of employees the businesses have, which might indicate whether they can be categorized as a micro, small or medium enterprise. 18

Table 1: Location of businesses

<b>Location</b>	<b>N</b>	<b>%</b>
North Jakarta	6	19.4%
South Jakarta	4	12.9%
East Jakarta	7	22.6%
Central Jakarta	5	16.1%
West Jakarta	8	25.8%
East Jakarta, South Jakarta	1	3.2%

Table 2: Number of Employees

Number of Employees	N	%
less than 5	18	58.1%
6-20	11	35.5%
more than 20	2	6.5%

Table 3: Length of business operational years

Length of Business (years)	N	%
≤1 year	6	19,4%
1-3 years	14	45,2%
3-5 years	1	3,2%
≥5 years	10	32,3%

respondents have less than 5 employees, 11 respondents have between 6-20 employees, and 2 respondents have more than 20 employees.

Table 3 shows the length of years that the businesses have been operational. Six businesses or 19.4% have been operating for less than 1 year, while 14 or 45.2% have been operating between 1-3 years, 1 business has been operating between 3-5 years, and 10 businesses have been operating for more than 5 years.

Since the questionnaire was taken from Davis's technology acceptance model questionnaire, the questions were originally

written in English. For the purpose of this study, the questionnaire was translated into the Indonesian language, and Pearson correlation was used.

### Reliability and Validity Test

Because this study was processed using the Partial Least Square-Structural Equation Model (PLS-SEM), reflective and formative outer models were used to analyze the results. According to Abdul-Hamid, Sami, and Sidek (2017), the reflective outer model examines how reliable each item (indicator reliability), each latent variable, and internal consistency (using Cronbach's Alpha and Dijkstra-Henseler's rho/rho\_A for composite reliability), construct validity (using loading

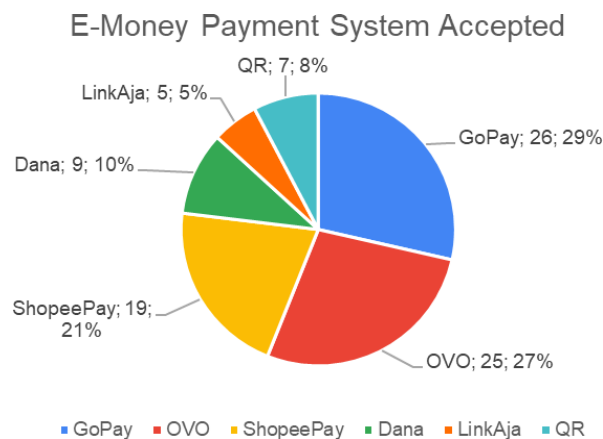


Figure 1. E-money payment system accepted

and cross-loading), convergent validity (using average variance extracted/AVE), and discriminant validity (using Fornell-Larcker criterion, cross-loading, HTMT criterion). For this study, however, due to the limitation of the respondents, results for the HTMT criterion were omitted.

To see the reliability of the instrument, according to (Dijkstra & Henseler, 2015), results of  $\rho_A > 0.7$  indicate the reliability of the measurement for the constructs that were used in this research. Cronbach's Alpha tests were conducted to see the reliability of each variable or indicator to

Table 4: Reliability and Validity of the Instrument

	<b>Cronbach's Alpha</b>	<b><math>\rho_A</math></b>	<b>Composite Reliability</b>	<b>Average Variance Extracted (AVE)</b>
ATT	0.977	0.978	0.983	0.936
PEU	0.987	0.988	0.990	0.963
PU	0.970	0.970	0.980	0.943
BI	0.972	0.974	0.982	0.947

Table 5: Central Tendency

<b>Construct</b>	<b>Mean</b>	<b>Median</b>	<b>Mode</b>	<b>Std. Dev.</b>
<b>Attitude towards e-money payment systems</b>				
The use of an e-money payment system is a good idea.	4.29	5	5	1.01
The use of an e-money payment system is convenient.	4.32	5	5	0.945
The use of an e-money payment system is beneficial.	4.39	5	5	0.919
The use of an e-money payment system is interesting.	4.26	5	5	1.03
<b>Intention to use e-money payment systems</b>				
Given the opportunity, I will use an e-money payment system.	4.26	5	5	1.03
I am likely to use an e-money payment system in the near future.	4.26	5	5	0.999
I am open to using an e-money payment system in the near future.	4.32	5	5	0.909
<b>Perceived usefulness of e-money payment systems</b>				
The e-money payment system is a useful mode of payment.	4.29	5	5	1.01
Using an e-money payment makes the handling of payments easier.	4.29	5	5	1.01
I believe that an e-money payment system improves my consumer decisions (providing flexibility, speed, etc.)	4.32	5	5	0.909
<b>Perceived ease of use of e-money payment systems</b>				
It is easy to become skillful at using an e-money payment system.	4.19	4	5	1.01
Interaction with an e-money payment system is clear and comprehensible.	4.13	4	5	0.991
It is easy to follow all the steps of an e-money payment system.	4.16	4	4	0.934
It is easy to interact with an e-money payment system.	4.23	4	5	0.956



be used in this study, and the minimum accepted value is 0.70. The results show that the instruments used in this study are reliable since each construct has an internal consistency of  $>0.7$ . Much like Cronbach's Alpha test, Composite Reliability's threshold is also 0.7, meaning that results above 0.7 are considered reliable (Lonardi, 2021).

### **Descriptive Statistics**

Table 5 shows the values of means and standard deviations of the technology acceptance model for an e-payment system. The statement: "The use of an e-payment system is beneficial" has the highest mean of 4.39 with a standard deviation of 0.919, while "Interaction with an e-money payment system is clear and comprehensible" has the lowest score of 4.13 and a standard deviation of 0.991.

### **Constructs and Questions**

Table 6. shows the frequency distribution for each construct, where most of the respondents are leaning towards 4 and 5. This means that they agree or strongly agree with the statements of each variable.

This pilot study tests the model of Technology Acceptance Model as proposed by Davis in 1989. The results were analyzed using descriptive analysis that shows the frequency, percentage, means, mode, and standard deviation of each construct in the instrument.

Almost all responses showed that all the variables have a mode of 5, which means that most respondents strongly agreed that the variables in the Technology Acceptance Model are the reasons they adopted an

Table 6: Frequency distribution of each construct

<b>Construct</b>	<b>Received number of each option</b>				
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Attitude towards e-money payment systems</b>					
The use of an e-money payment system is a good idea.	1	1	3	9	17
The use of an e-money payment system is convenient.	1	0	4	9	17
The use of an e-money payment system is beneficial.	1	0	3	9	18
The use of an e-money payment system is interesting.	1	1	4	8	17
<b>Intention to use e-money payment systems</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Given the opportunity, I will use an e-money payment system.	1	1	4	8	17
I am likely to use an e-money payment system in the near future.	1	1	3	10	16
I am open to using an e-money payment system in the near future.	1	0	3	11	16
<b>Perceived usefulness of e-money payment systems</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
The e-money payment system is a useful mode of payment.	1	1	3	9	17
Using an e-money payment makes the handling of payments easier.	1	1	3	9	17
I believe that an e-money payment system improves my consumer decisions (providing flexibility, speed, etc.)	1	0	3	11	16
<b>Perceived ease of use of e-money payment systems</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
It is easy to become skillful at using an e-money payment system.	1	1	4	10	15
Interaction with an e-money payment system is clear and comprehensible.	1	1	4	12	13
It is easy to follow all the steps of an e-money payment system.	1	1	2	15	12
It is easy to interact with an e-money payment system.	1	1	2	13	14

e-payment system gateway in their business. However, for the variable Perceived Ease of Use (PEU), specifically for the statement “It is easy to follow all the steps of an e-money payment system”, the mode is 4 with a frequency of 15. This means 48.4% of the respondents agree that the system is easy to use, but they may have some issues using the system. There was also a respondent that answered all the questions with ‘strongly disagree’. This could be because of a response bias. Baumgartner and Steenkamp (2001) mentioned that when a respondent prefers disagreement options, it is called the dis-acquiescence response style (DRS).

### MANAGERIAL IMPLICATIONS

This research has significant implications for the broader managerial issue of technology adoption, especially in Indonesia. SMEs in Indonesia are in need of fully-adopting e-payment systems as most businesses, including ones that are interconnected with these SMEs’ production and distribution processes, see e-payment as useful. The Technology Acceptance Model can be used in measuring perceived usefulness, perceived ease of use, attitude, and behavioral intention in new technology adoption: there is a need for proving that new technology adoption is highly possible amongst Indonesian SMEs.

### CONCLUSION

Based on this pilot study, the technology acceptance model proposed by Davis (1989) was proven to be relevant in testing the e-payment system gateway adopted by F&B SMEs in Jakarta. The instrument translated from English was also proven to be valid and reliable.

However, there are a couple of limitations to this study. When structuring the questionnaire, the author did not include the educational background, which may explain why there is a response bias. The second limitation was the methods in choosing the respondents, because the population was unknown, it was difficult to determine the sampling method, which then affected the number of respondents in this study.

To enrich the study, other variables such as the educational background of business owners/managers, social influence, perceived risk, government regulations, and quality of systems may be added and analyzed using the Extended Technology Acceptance Model to see the correlation between each variable.

### Acknowledgements

The authors would like to express their utmost appreciation to the Community Language Center of Indonesia International Institute for Life Sciences (i3L) for the proofreading and suggestions. The authors would also like to thank Nadira Maharani Ramses, M.B.A. for her support throughout the writing process.

## REFERENCES

- Abdul-Hamid, M. R., Sami, W., & Sidek, M. M. (2017, September). Discriminant validity assessment: Use of Fornell & Larcker criterion versus HTMT criterion. In *Journal of Physics: Conference Series* (Vol. 890, No. 1, p. 012163). IOP Publishing.
- Abdul-Halim, N., Vafaei-Zadeh, A., Hanifah, H., Teoh, A. P., & Nawaser, K. (2021). Understand the Determinants of E-wallet Continuance Usage Intention in Malaysia. *Quality & Quantity*, 56, 3413-3439. <https://doi.org/10.1007/s11135-021-01276-7>
- Ajzen, I., & Fishbein, M. (1977). Attitude-behavior relations: A theoretical analysis and review of empirical research. *Psychological bulletin*, 84(5), 888.
- Al-Dmour, A., Al-Dmour, H., Al-Barghuthi, R., Al-Dmour, R., & Alshurideh, M. T. (2021). Factors influencing the adoption of E-payment during pandemic outbreak (COVID-19): Empirical evidence. *Studies in Systems, Decision and Control*, 133-154. [https://doi.org/10.1007/978-3-030-67151-8\\_8](https://doi.org/10.1007/978-3-030-67151-8_8)
- Angelini, K., & Koesrindartoto, D. P. (2019). E-money or e-wallet? a study of university students preference in choosing cashless payment systems. *Unit Research And Knowledge, SBM ITB*, 64-68.
- Badan Pusat Statistik Provinsi DKI Jakarta (2022, March 15). Profil Industri Mikro Kecil Provinsi DKI Jakarta 2020. <https://jakarta.bps.go.id/publication/2022/03/15/c5da38d310921b78e36f3005/profil-industri-mikro-kecil-provinsi-dki-jakarta-2020.html>
- Baumgartner, H., & Steenkamp, J. B. E. (2001). Response styles in marketing research: A cross-national investigation. *Journal of marketing research*, 38(2), 143-156.
- Cao, X., Yu, L., Liu, Z., Gong, M., & Adeel, L. (2018). Understanding Mobile Payment Users' Continuance Intention: A Trust Transfer Perspective. *Internet Research*, 28(2), 456-476. <https://doi.org/10.1108/IntR-11-2016-0359>
- Casaló, L. V., Flavián, C., & Ibáñez-Sánchez, S. (2020). Influencers on Instagram: Antecedents and consequences of opinion leadership. *Journal of business research*, 117, 510-519.
- Chen, L., & Aklirikou, A. K. (2020). Determinants of E-government adoption: testing the mediating effects of perceived usefulness and perceived ease of use. *International Journal of Public Administration*, 43(10), 850-865.
- Davis, F. D. (1985). A technology acceptance model for empirically testing new end-user information systems: Theory and results (Doctoral dissertation, Massachusetts Institute of Technology).
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319-340. doi:10.2307/249008
- de Luna, I. R., Liébana-Cabanillas, F., Sánchez-Fernández, J., & Muñoz-Leiva, F. (2019). Mobile payment is not all the same: The adoption of mobile payment systems depending on the technology applied. *Technological Forecasting and Social Change*, 146, 931-944. <https://doi.org/10.1016/j.techfore.2018.09.018>
- Digital Payment and Financial Services Usage and Behavior in Indonesia. Kadence. (2021, September 21). Retrieved October 30, 2021, from <https://kadence.com/wp-content/uploads/2021/09/Kadence-Digital-Payment-and-Financial-Services-Usage-and-Behavior-in-Indonesia.pdf>
- Dijkstra, T. K., & Henseler, J. (2015). Consistent partial least squares path modeling. *MIS quarterly*, 39(2), 297-316.
- Fahlevi, M., & Alharbi, N. (2021). Adoption of e-payment system to support health social security agency. *International Journal of Data and Network Science*, 5(4), 737-744.
- Fishbein, M., & Ajzen, I. (1975). Belief, attitude, intention and behavior: An introduction to theory and research. Addison-Wesley.
- Granić, A., & Marangunić, N. (2019). Technology acceptance model in educational context: A systematic literature review. *British Journal of Educational Technology*, 50(5), 2572-2593. <https://doi.org/10.1111/bjet.12864>
- Hendartyo, M. (2022, February 11). Bank Indonesia: e-Money Transaction Value Grows 66.65% in January. *Tempo.co*. <https://en.tempo.co/read/1559724/bank-indonesia-e-money-transaction-value-grows-66-65-in-january>

- Huang, T. C. K., Wu, L., & Chou, C. C. (2013). Investigating use continuance of data mining tools. *International Journal of Information Management*, 33(5), 791-801. <https://doi.org/10.1016/j.ijinfomgt.2013.05.007>
- Hsu, M. H., & Chiu, C. M., 2004. Internet self-efficacy and electronic service acceptance. *Decis. Support. Syst.* 38 (3), 369–381.
- Ikram, M. M. (2021). Keputusan Penggunaan Layanan GoFood Selama Masa Pandemi Covid-19. *Jurnal Ilmiah Manajemen Kesatuan*, 9(2). <https://doi.org/10.37641/jimkes.v9i2.467>
- Jakarta population 2022. Jakarta Population 2022 (Demographics, Maps, Graphs). (n.d.). Retrieved July 21, 2022, from <https://worldpopulationreview.com/world-cities/jakarta-population>
- Jian, W. S., Wang, J. Y., Rahmanti, A. R., Chien, S. C., Hsu, C. K., Chien, C. H., Li, Y. C., Chen, C. Y., Chin, Y. P., & Huang, C. L. (2022). Voice-based control system for smart hospital wards: a pilot study of patient acceptance. *BMC health services research*, 22(1), 1-11.
- Junadi, & Sfenrianto. (2015). A Model of Factors Influencing Consumer's Intention to Use E-payment System in Indonesia. *Procedia Computer Science*, 59(Iccsci), 214–220. <https://doi.org/10.1016/j.procs.2015.07.557>
- Khanin, I., Bilozubenko, V., & Sopin, Y. (2022). Improving The Level Of Economic Effectiveness Of Electronic Payment Services In A Global Digital Economy. *Baltic Journal of Economic Studies*, 8(1), 148-158. <https://doi.org/10.30525/2256-0742/2022-8-1-148-158>
- Laudon, K. C., & Traver, C. G. (2019) *E-commerce: Business, Technology, Society*. Pearson
- Liu, T. L., Lin, T. T., & Hsu, S. Y. (2022). Continuance Usage Intention toward E-Payment during the COVID-19 Pandemic from the Financial Sustainable Development Perspective Using Perceived Usefulness and Electronic Word of Mouth as Mediators. *Sustainability*, 14(13), 7775. <https://doi.org/10.3390/su14137775>
- Lonardi, H., & Legowo, N. (2021). Analysis of Factors Affecting Use Behavior of QRIS Payment System in DKI Jakarta. *Turkish Journal of Computer and Mathematics Education (TURCOMAT)*, 12(6), 3709-3728.
- Madan, K., & Yadav, R. (2016). Behavioural intention to adopt mobile wallet: a developing country perspective. *Journal of Indian Business Research*.
- Mishra, P., Pandey, C. M., Singh, U., Gupta, A., Sahu, C., & Keshri, A. (2019). Descriptive statistics and normality tests for statistical data. *Annals of cardiac anaesthesia*, 22(1), 67.
- Nuryyev, G., Spyridou, A., Yeh, S., & Lo, C. C. (2021). Factors of digital payment adoption in hospitality businesses: A conceptual approach. *European Journal of Tourism Research*, 29, 2905-2905. <https://doi.org/10.54055/ejtr.v29i.2416>
- Oktaviana, M., Nurhalim, A. D., & Hernawati, E. (2021). An Analysis Of Go-Food, Grabfood, And Shopeefood Utilization To Improve Customer Loyalty On Home-Based Business Owners In Tangerang City. *Primanomics: Jurnal Ekonomi & Bisnis*, 19(3), 1-10. <https://doi.org/10.31253/pe.v19i3.631>
- Osman, S., Jabaruddin, N., Suria, A., Jifridin, A. A., & Zolkepli, A. K. (2021). Factors Influencing the Use of E-Wallet among Millennium Tourist. *Journal of Information Technology Management*, 13(3). DOI: <http://10.22059/jitm.2021.83114>
- Ramadan, R., & Aita, J. (2018). A model of mobile payment usage among Arab consumers. *International Journal of Bank Marketing*, 36(7), 1213–1234. <https://doi.org/10.1108/IJBM-05-2017-0080>
- Schueffel, P. (2016). Taming the Beast: A Scientific Definition of Fintech. *Journal of Innovation Management*, 4, 32-54. [https://doi.org/10.24840/2183-0606\\_004.004\\_0004](https://doi.org/10.24840/2183-0606_004.004_0004)
- Soegoto, E. S. & Rahman, R. A. (2021). Technology on E-payment Systems. *International Journal of Research and Applied Technology*. 1(1): 140-147 <https://ojs.unikom.ac.id/index.php/injuratech/article/view/5657/2638>
- Trivedi, J. (2016). Factors Determining the Acceptance of E-Wallet. *Journal of Applied Marketing and Management*, 1(2), 42–53.
- Venkatesh, V., Morris, M. G., Davis, G. B. & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 27(3), 425. <https://doi.org/10.2307/30036540>