

# The Effect of Product Knowledge Perceived Benefits and Perceptions of Risk on Indonesian Student Decisions

*by Bob Foster*

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## Article

# The Effect of Product Knowledge, Perceived Benefits, and Perceptions of Risk on Indonesian Student Decisions to Use E-Wallets for Warunk Upnormal

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**Abstract:** (1) Background: The purpose of this research is to find out how product knowledge, benefit perception, and risk perception variables affect the decision to use e-wallets (Go-Pay). (2) Methods: The population used in this study is Indonesian students who used Go-Pay to carry transactions at Warunk Upnormal of Dipatiukur Branch, West Java, Indonesia. The sampling technique used by the author is a non-probability sampling technique. Meanwhile, the type of sampling used by the author is accidental sampling. Based on the calculations made, the sample used in this study is 100 Indonesian students. Furthermore, the research method used in this study is quantitative methods. Data analysis was carried out using structural equation modeling (SEM). (3) Results: this study indicates that the final product knowledge and perception of risk have a positive and significant effect on user satisfaction. The latent variable of perceived benefits has a negative and insignificant impact on the decision to use. (4) Conclusions: the latent variables of product knowledge and risk perception have a positive and significant effect on user satisfaction. Meanwhile, the latent variable of perceived benefits has a negative and insignificant impact on the decision to use the e-wallet.

**Keywords:** product knowledge; perceived benefits; perceived risk; usage decisions

## 1. Introduction

China is one of the pioneers in the use of financial technology. WeChat and Alipay are examples of financial technology (fintech) companies from China that are able to shift the dominance of banking. These two payment platforms control the majority of payment transactions and prevent banks from moving freely in the retail business. Citing Forbes, currently, both digital wallets hold 80–90% of payment transactions. There are at least two reasons for the development of mobile payments, especially Alipay and WeChat Pay. The first reason is regarding the infrastructure. In China, the internet infrastructure is developing rapidly at high speed. Second, banking services are considered unfriendly. Therefore, people think that going to the bank is difficult because they have to queue and fulfill various requirements to have an account and get a debit card. In addition, credit cards from banks in China are not popular because Chinese people do not like to have debt. In this case, Alipay and WeChat are gaining fantastic popularity; this is proven by their active users, who reached 520 million and 1 billion monthly, respectively. Furthermore, their consumers invested more than USD 2.9 trillion in 2016 [1].

Consumers rely on online information provided by others, which may be credible to adopt and may profoundly influence their behavior, subjective norms, beliefs, intention, and attitude. Involvement, information credibility, and information quality are important

sources that appeal to consumers' social ties [2]. Consumers' psychology and their intention to using online payment platforms are becoming interesting to understand, and increasingly, it has become complicated in the current global market. Therefore, in a broader view of the psychologically driven consumers, motivation and consumer decision-making process features are critical for consumers' online information adoption in making their decisions on using mobile payment services [3].

Another factor that can be a primary determinant of someone wanting to use a technology service is the perception of risk, which is a concern about uncertainty or the possibility of loss when transacting online; one of the electronic payment services is an electronic wallet which has been seen as a facility that provides convenience and convenience in transactions. However, many people see that this technology also has risks, especially because it is related to payments. Although it contains risks according to some, many customers still believe in it and continue to use it [3].

One of the growing e-payment services in Indonesia is Go-Pay. Go-Pay is an e-wallet presented by Go-Jek to make it easier for its customers to complete transactions on the Go-Jek application. The global research institute, Growth for Knowledge (GfK) Indonesia, released data at the end of 2015 related to the use of transportation applications in Indonesia. It is known that the Go-Jek application is the most widely used, with the number of users reaching 21.6% of the total smartphone technology application users in Indonesia [4]. As shown in Figure 1, smartphone users' data in Indonesia in 2016 are estimated to reach 65.2 million users [5]. If you look at this, the number of Go-Jek application users is 21.6% of the 65.2 million users, reaching 14,083,200 users. Among these, many users of the Go-Jek application service and almost every downloader has used the Go-Pay service because of the free balance program for users who enter a referral code/voucher and a discount program. It is also known that Go-Pay transactions' growth has been very high since it was first launched [6].

In addition to the two factors above, a person will also consider the perceived usefulness in using a service technology. Perceived usefulness is the extent to which a person believes that using a technology will help improve their performance. Go-Pay users can get benefits defined as positive impacts received by users while using Go-Pay. The advantage of using Go-Pay services for customers is that Go-Jek service rates are cheaper [4]. This is expected to encourage Go-Jek service users to use Go-Pay, so that users who feel that Go-Pay is helpful for them are expected to increase their use of Go-Pay.

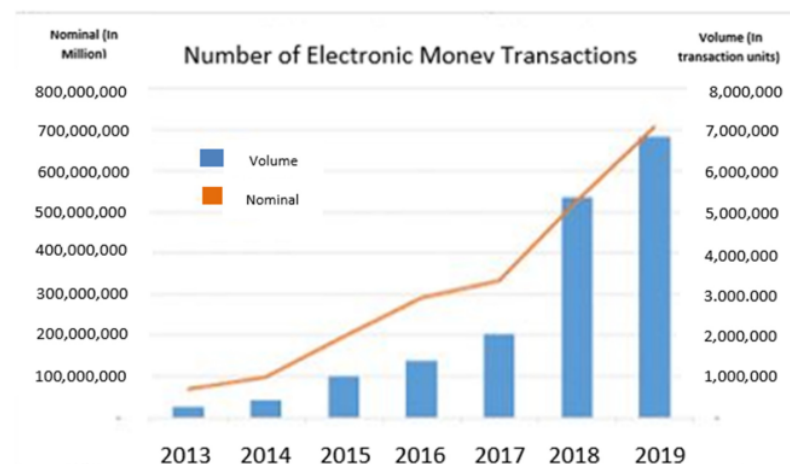


Figure 1. Number of electronic money transactions.

Along with the development of technology and the rise of e-commerce, the volume and value of transactions using e-money are experiencing an increasing trend in Figure 1 [7]. Since 2017, the increase was significantly even higher, and the importance of e-money usage increased by 2473% from 2013 to 2019. This was accompanied by an increase in transaction volume, which reached 920% over the same period. From the data that describe the use and value of transactions using non-cash payment systems, it can be seen that the use of non-cash payment instruments has been currently and increasingly chosen by the public to make payments for transactions, both goods and services.

Go-Pay is intensively promoting its products with various strategies, some of which are by offering discounts and cashback to encourage people to use the application. These two apps quickly became the consumer's choice, and other players dropped out regularly because they could not compete with this application. Go-Jek is getting serious about strengthening Go-Pay services by acquiring three local financial technology (fintech) startups: Kartuku, Midtrans, and Mapan. The acquisition of these three local startups is because they have processed a total transaction of more than IDR 67.5 trillion per year, either through credit, debit cards, or digital wallets for users, service providers, and affiliated merchants.

According to Figure 2 the Financial Times Confidential Research Mobile Payment [8], the top five electronic money providers in Indonesia are Go-Pay, Ovo, Trash, BCA Klikpay, and Doku wallet. The FT Confidential Research Mobile Payment survey found Go-Pay the most popular mobile payment platform in Indonesia. Still, it faces stiff competition from Ovo, part of the conglomerate Lippo Group. However, this year, the two companies will face even tougher competition as traditional banks have a larger market share. Go-Pay was used by nearly three quarters of mobile payment users in the last three months of July–September, slightly higher than in the same period the previous year, followed by OVO, which is used by about 42%. To date, Go-Pay has partnered with 28 financial institutions and has been accepted by more than 240,000 business partners in various cities in Indonesia, 40% of which are MSMEs [6].



Figure 2. Most popular mobile payment services.

Indonesian youth's understanding of financial technology is still general and limited to the meaning of words, as well as understanding young people towards cash. According to Ferdiana, interest in using Go-Pay is not high, and companies engaged in financial technology can develop well, but it takes a lot of time and requires public education and knowledge. It is possible, if later financial technology will master payment transactions, there will be special financial statements to report all cashless based financial transactions [9]. Contrarily, Sembiring et al. found Go-Pay technology is accepted by the community, especially by early adopters of innovation who, in this study, are proxies with students and well accepted. Students are a relatively young age group, so they tend to have a high level of acceptance against the risks of new innovations. In addition, they are also seen as more familiar

with new technologies [10]. Perception of benefits, convenience, trust, familiarity, and risk together equally influenced the intention of using electronic wallets and Go-Pay [9]. The perceived benefits and ease of use have no significant effect on the intention of using e-wallets, while the perceived risks and attitudes have a significant influence on the intention of using e-wallets [11]. Zhang and Yu added that electronic buying behaviors were made in terms of consumers' perception of the risk of product effects, consumers' perception of service risks, and consumers' perceptions of other risks. The degree of trust in the e-wallet platform and negative reports about the platform also affect buying behavior [12]. Arifin et al. found in the term of e-wallet five factors of perceived risk that have a significant negative influence on intention to use e-wallets while shopping online, and social risk was found to be insignificant. Among these factors, security risk is the main contributor for consumers to deter from using an e-wallet while purchasing online [13]. The development of e-wallets has led to some challenges to consumers, which comprise security of payment, data protection, the validity and enforceability of the e-contract, insufficient information disclosure, product quality, and enforcement of rights. This issue emerged because many retailers do not understand the main factors that will contribute to consumers' perceived risk. Consumers' perceived risks will influence consumer attitudes toward decision to use e-wallets. Studies on consumers' perceived risks toward intentions to use e-wallets are still inconclusive. Thus, this paper fills the gap in the research area, focusing on students' decisions to use e-wallets.

This study aims to analyze Indonesian students' intentions to use e-wallets in this era of rapid technological advancement, using the technology acceptance model (TAM) as the base. It is also envisaged to analyze if product knowledge, perceived benefits, and perceptions of risk can be considered as an independent factor and variable influencing the decisions to use e-wallets for Indonesian students. With the ever-growing popularity of use of e-payments taking place in applications, risk issues, and high competition, researchers were interested in researching the factors that cause someone to decide to use an e-wallet (Go-Pay) in conducting transactions. A notion stating effective shaping of the student intention to use technology could be achieved at this stage as well. A handful of researchers have studied the TAM model to describe the intention of use of technology amongst students. The results from this study will conceivably help us understand the relationships among the TAM constructs when applied to a bigger sample. The research questions mentioned below are proposed: RQ1. Is the TAM an efficient model to explain Indonesian students' intention to use an e-wallet? RQ2. Which are the significant relationships among the constructs in the TAM in explaining Indonesian students' intention to use an e-wallet?

## 2. Literature Review

### 2.1. Technology Acceptance Model (TAM)

As a general rule, acceptance is characterized as "an enmity to the term dismissal and means a positive choice to utilize a development". Leaders need to know the issues that influence clients' choices to utilize a specific framework so they can consider it during the improvement stage. This is a typical inquiry of both professionals and analysts as to why individuals acknowledge new innovations. Responding to these inquiries can help them to better techniques for planning, assessing, and anticipating client reactions to new advancements [14]. TAM has proven to be a theoretically helpful model for predicting and explaining user acceptance of information technology. Based on this definition, TAM is used to describe the rejection or acceptance of a technology. TAM shows a number of factors that influence users' decisions about when and how they use a new technology. There are five constructs in TAM that can influence users in using a technology, namely perceived usefulness, perceived ease of use, attitude, behavioral intention, and actual system usage [15]. In the TAM model, perceived benefits and perceived convenience are the basic factors determining the acceptance of technology use. In this study, the TAM model is not fully used, but only takes the perception of benefits as a factor influencing the interest in using Go-Pay services for Go-Jek customers. This variable is the basic factor that



is used as a reference for users when they first decide to use a technology. The benefits of using Go-Pay services are a benchmark that customers use as reasons for using Go-Pay service.

## 2.2. Mobile Payment

Mobile payment is an innovation from exchanging value or other payment instruments that can be used by consumers who tend to rely more on the sophistication of features from smartphones and consumer financial authorization [16]. Another definition states that a mobile payment system is made through a mobile device used to initiate, activate, and confirm payments in obtaining goods or services. So, it can be concluded that a mobile payment system is a payment transaction activity carried out with a mobile device, such as a tablet or smartphone. Mobile payment systems enable customers to purchase and pay for goods or services via mobile phones. Here, each mobile phone is used as the personal payment tool in connection with the remote sales. A phonecard-based payment system has the advantage over the traditional card-based payment in that the mobile phone replaces both the physical card and the card terminal as well. Payments can take place anywhere far away from both the recipient and the bank. Traditionally, in the real world, the most popular modes of payments are cash, cheques, debit cards, and credit cards. With the possibilities created by the Internet, a new generation of payments appeared, such as electronic payments, digital payments, and virtual payments. Now, with the growing penetration of the mobile phone and the development of m-commerce, the mobile payment will become an uncontested mode for paying for goods. Mobile payment methods currently in use or under trial may be classified according to the basis of payment. A payment transaction has been identified on the basis of multiple dimensions. A distinction between the different types of payments is on the basis of location, time, size, and medium. Mobile payments are typically differentiated by technology, transaction size, location (remote or proximity), and funding mechanism [17].

## 2.3. Go-Pay

Bank Indonesia Regulation No.18/40/PBI/2016 Article 1 no 7 defines that an electronic wallet is an electronic service for storing data on payment instruments, including payment instruments using cards and electronic money, which can also accommodate payment instruments. In regard to funds, to make payments, Go-Pay is an electronic wallet developed by the Go-Jek company to be used as a payment service while using the Go-Jek application. The Go-Jek company started its business from motorcycle transportation services, then developed its business network by offering various services [18]. Go-Pay is a form of FinTech innovation. Other services available in the Go-Jek application are Go-Ride, Go-Car, Go-Food, Go-Pulsa, Send, Go-Point, Go-Bills, Go-Box, Go, Mart, Go-Tix, and Go-Med.

## 2.4. Product Knowledge

Innovation and knowledge of mobile payments are some of the factors that influence the use of mobile payments [19]. Product knowledge is information obtained from a product, including product categories, brands, product attributes, product features, product prices, and product trust. Product knowledge refers to the information that users get from using the product [20]. In this case, the data obtained by the user will be considered first before deciding to use a product. The product is a physical, psychological, and symbolic attribute that is made to satisfy the needs and desires of customers [21]. A product is anything that helps a want or need through its use, consumption, or acquisition [22]. Meanwhile, a product is a set of tangible and intangible attributes, including packaging, color, price, manufacturer's prestige, and manufacturer's retailer, which the buyer may accept as an offering [23]. Product knowledge is needed as the basis for the success of a product, usually through the use or involvement in a product. Consumer knowledge on

the expectation of a product positively affects satisfaction because expertise will make the product more realistic. Consumers have different levels of product knowledge.

The research results [24] suggest that product knowledge is essential in making it easier for users to make mobile payments. On the other hand, [25] found that product knowledge had no significant effect on the use of electronic money. This can be due to the lack of information that causes a person's low interest in using a product and the culture of the Indonesian people who still feel comfortable using cash instead of electronic money.

### *2.5. Perceived Benefits*

The perceived benefit is a primary determinant of technology user acceptance. Perceived benefits can be interpreted as a user's belief that using technology will bring benefits that can improve the user's performance [26]. It is further claimed that people will believe in using the latest technological products if the technology can complete their work more productively, faster, and better [27]. Furthermore, users will develop good attitudes and intentions toward mobile payment systems because they have higher advantages than other methods, such as cash and card payments [28]. The technology acceptance model of perceived benefits is the most significant and vital construct in influencing the actual system usage of information technology [29]. Based on the results of their research model, Abdullah et al. found that perceived benefits enable consumers to make better purchasing decisions [30]. They also claimed that perceived benefits are likely to influence online ordering intentions and decisions [30]. Furthermore, research was conducted by Renny et al. discovering that the perceived benefit affects attitudes toward using airline ticket reservations [31].

The TAM model shows that perceived usefulness is the most significant construct in influencing the actual system usage of information technology. According to Priyono, the perception of benefits shows a subjective assessment of the usefulness offered by Go-Pay services in making it easier to get the services they want. So, the benefits of Go-Pay will be in line with the use made by Go-Jek customers. The higher the help of the Go-Pay payment service system, the higher the intensity of using Go-Pay services. Based on this, the perception of the benefits of Go-Pay services can be interpreted as the positive impact obtained by Go-Jek customers while using Go-Pay services [32].

### *2.6. Perceived Risk*

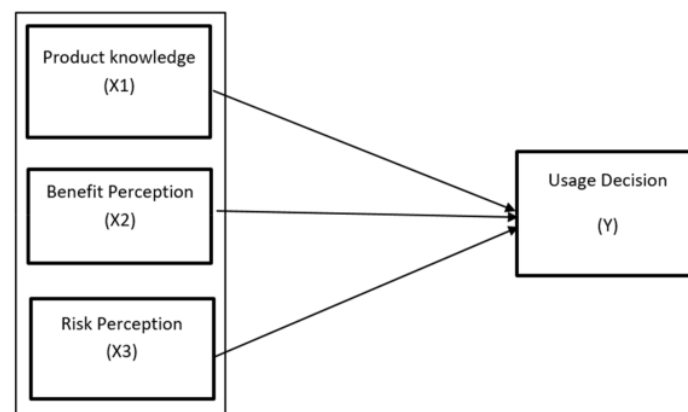
Perception is how a person assesses and pays attention to objects around him. Risk is something that happens because an event does not occur as expected. Another definition of risk is a subjective opportunity for possible losses when deciding to use online transactions [33]. Furthermore, according to Abrahao, perceived risk is a belief that mobile service users will likely be exposed to risk. Perceived risk is also interpreted as a subjective assessment by a person of the likelihood of an accident event and how worried the individual is about the consequences or impacts of the event [34]. The security and confidentiality of information systems are reflected by the existence of management that can prevent, overcome, and protect the system from actions that can be detrimental, such as unauthorized use, intrusion, and information theft [35]. Maciejewski revealed that the risk of a wrong purchase, which accompanies the consumer, is an essential aspect of purchasing decision-making [36]. Furthermore, that risk affects decisions, and the order of the main risks perceived by consumers is financial risk, performance risk, and service risk [37]. Priyono's findings say that the perception of risk hurts the adoption of electronic payment technology. This shows that most users make payment transactions when the situation is favorable and tend to avoid risk, rather than take significant risks [5].

### 2.7. Usage Decision

The decision to use services, better known as *purc*, is part of consumer behavior. The purchasing decision is an action or consumer behavior of whether to make a purchase or transaction or not [36]. In this case, the number of consumers in making decisions is one of the determinants of achieving the company goals. Purchasing decisions are consumer decisions that are influenced by the financial economy, technology, product culture politics, prices, locations, promotions, physical evidence people, and processes to form an attitude in consumers to process all information and draw conclusions in the form of responses that emerge from what products to buy [19]. Through their study on how individuals or groups choose to purchase and use, and how goods and services ideas satisfy their needs and desires, they defined purchasing decisions as part of consumer behavior [35]. Through their research, it can be concluded that the purchase decision is a series of processes for seeking information and evaluating the problem of needs through a particular product or brand, which then leads to a decision to make a transaction or purchase [36]. Furthermore, purchasing decisions are activities where consumers buy and consume a product or service to fulfill their needs and desires [36].

#### Research Paradigm

Based on the framework of thinking, it can be described in Figure 3 that the relationship of the independent variable and the dependent variable is as follows:



**Figure 3.** Research Paradigm.

- (1) X1 = Product knowledge influences usage decisions,
- (2) X2 = Perception of benefits affects the decision to use,
- (3) X3 = Risk perception affects the decision to use.

### 3. Materials and Methods

The current research involved research objects in the form of Indonesian students who had conducted transactions using Go-Pay at Warunk Upnormal Bandung, West Java, Indonesia. The research method will determine the strategy to achieve research objectives that have been set, and acts as a guide for researchers throughout the research process. With this design, a clear description of the relationship between variables, data collection, and data analysis is enabled, so that with a good design, researchers and other interested people have an idea of how the interrelationships between variables are, how to measure them, and so on [34]. Furthermore, the research technique used is the descriptive verification method. Meanwhile, convenience sampling and random sampling are used to obtain the research samples. Convenience sampling is a sampling technique based on chance [35]. In this case, the samples are any people the researcher met by chance who matched the



sample criteria: customers who used Go-Pay at Warunk Upnormal of Dipatiukur Bandung City, as many as 100 respondents. In this study, the data collection used by the researcher comprised online questionnaires to students or, with the convenience sampling technique, anyone who agreed to provide the required information to the researcher, either directly or indirectly, and who was registered as a student, aged 15–45 years old, used the GoPay e-wallet in payment transactions, and registered as an Indonesian citizen, could be used as a sample in this study if the respondent is suitable as a data source.

### 3.1. Data Collection

Data was collected through an online survey because people today, especially the young generation, tend to have their own smartphone and spend most of their time on it. Before the survey was conducted, researchers had developed a possible list of questions based on the research topic and evaluated each question together to determine the top 10 questions to ask the participants through Google survey form and shared via social network. To achieve an explicit and superior result, questions that consist of multiple choices, including both Indonesian Bahasa and English subtitles, had been planned so that they could obtain a better understanding and easy answering for major participants. The total number of respondents in the survey is 100 students, selected at random from different academic years. Furthermore, researchers also collected secondary data from publishing websites for reference and guidance purposes only.

### 3.2. Sampling Technique

This study also used a non-probability sampling technique, because not all samples have criteria that are in accordance with what the authors have specified. The type of sampling used by the author is accidental sampling. This study was measured using a Likert scale by determining the level of their agreeable answers to the questions raised. The questionnaire in this study provides 1–5 scale options as an alternative answer that will be used by respondents.

### 3.3. Data Processing

Furthermore, the data processing was conducted using Lisrel 8.80. To clarify the variables studied as formulated in the description above, the main problems studied are product knowledge (X1), perceived benefits (X2), risk perception (X3), and usage decisions (Y). The identification of the SEM model was done by calculating the degree of freedom from the SEM model. The value of the degree of freedom from the structural equation model (SEM) plays an important role in determining whether the process to estimate the parameters of the SEM can be carried out or not. The calculation of the value of degrees of freedom from the SEM is intended to find out whether each value of the estimated parameter of the SEM has a unique value/single solution. Based on the output of Lisrel, it is known that the degree of freedom from the SEM is 38. Since the degree of freedom is greater than 0, then the process for estimating the parameters of the SEM can be carried out. Such an SEM is called an over-identified model.

Testing the inner model will give the results of the relationship between constructs. Table 1 is the result of bootstrapping, which describes the estimation results of each 5% significance.

**Table 1.** Construct Reliability and Validity.

Construct	Loading Factor	Rho_A	AVE	Cronbach's Alpha	Composite Reliability
Product Knowledge	0.665	0.829	0.726	0.813	0.888
Perceived Benefits	0.889	1	1	1	1
Perceptions of Risk	0.856	0.731	0.775	0.713	0.775

Based on Figure 4, it is known that the latent variables in this study are product knowledge, perceived benefits, and perceived risk, which are exogenous latent variables. Meanwhile, the latent variable is decision, which is particularly an endogenous latent variable. The endogenous latent variable is characterized by an arrow that goes toward the latent variable. In other words, endogenous latent variables are influenced by other latent variables.



Figure 4. Structural equation model (SEM) diagram.

#### 4. Results and Discussion

The identification of the SEM model was made by calculating the degree of freedom from the SEM model. The value of the degree of freedom from the structural equation model plays an important role in determining whether the process to estimate the parameters of the structural equation model can be carried out or not. The calculation of the value of degrees of freedom from the SEM is intended to find out whether each value of the estimated parameter of the SEM has a unique value/single solution. Based on the output of Lisrel, it is known that the degree of freedom from the SEM is 38. Since the degree of freedom is greater than 0, the process for estimating the parameters of the structural equation model can be carried out. Such an SEM is called an over-identified model.

##### 4.1. Respondent Profile

To provide more comprehensive data, a discussion of the respondent's description was carried out by descriptive analysis of the respondent including gender, age, education level and status of e-wallet usage. Analysis based on the respondents' answers can be seen in Table 2.

Table 2. Descriptive statistic of respondents' e-wallets.

No	Description	Frequency	Percentage (%)
1	Gender		
	Man	34	34
2	Woman	66	66
	Age		
	15–25 years	41	41
	26–35 years	42	42
	36–45 years	17	17

Table 2. Cont.

No	Description	Frequency	Percentage (%)
3	Education Level		
	Junior High School	5	5
	Senior High School	10	10
	College	20	20
	Academy	5	5
	Bachelor	33	33
	Magister	20	20
4	Doctoral	7	7
	Duration of Using E-Wallets		
	>1 year	79	79
5	<1 year	21	21
	Reason of Use		
	Easy to Use	23	23
	Benefit Offer	53	53
	Low Risk	24	24

Based on Table 2, the profile of 100 respondents in the research of intentions to use electronic wallets at Warunk Upnormal, Bandung, West Java was dominated by women (66%) and men (34%) aged 26–35 years (42%) with an undergraduate education level/bachelor (33%). Most of the respondents' reasons for using an e-wallet are not dominated by the cause of benefit offerings (53%), because respondents have used an e-wallet for more than one year (79%). People use e-wallets for transactions on almost all purchases (23%) on the grounds that e-wallets are practical, easier, faster without having to carry cash, can be used anywhere, and avoids risk (24%), as well as that they are many of the choices of merchants.

#### 4.2. Structural Equation Model

When the results of the identification of the structural equation model show that the parameters of the SEM can be estimated, then further estimation of the parameters of the structural equation model can be achieved through various techniques (Table 3). However, based on Lisrel's output, which shows the estimation model used in estimating the parameters in this study, the maximum likelihood (ML) was used.

Table 3. Test results using the overall structural equation model (SEM).

Overall Model Fit Test Size	Benchmark Value for Model Fit	Model Fit to Data
Probability of $X^2$ count	0.12	$\geq 0.05$ Yes
RMSEA	0.055	$\leq 0.08$ Yes
NFI	0.97	$\geq 0.90$ Yes
NNFI	0.99	$\geq 0.90$ Yes
CFI	0.99	$\geq 0.90$ Yes
IFI	0.99	$\geq 0.90$ Yes
RFI	0.95	$\geq 0.90$ Yes
RMR	0.026	$\leq 0.05$ Yes
SRMR	0.045	$\leq 0.05$ Yes
GFI	0.92	$\geq 0.90$ Yes
AGFI	0.86	$0.8 \leq AGFI < 0.90$ Yes (Marginal Fit)

Based on Figure 5, it is known that the error value of each question is smaller than the value of the relation so that research using the structural equation model (SEM) can be continued. In addition, the overall SEM model test can also be used to see in its entirety whether the use of the structural equation model is suitable for the sample data. This test was carried out by comparing the sample covariance matrix and the estimated covariance matrix using a structural equation model. There were three types of measures to test

whether the use of the structural equation model as a whole fits the data (good fit). Those are absolute fit measures, incremental fit measures, and parsimony fit measures. Based on Lisrel's output for absolute fit measures, incremental fit measures, and parsimony fit measures, the results showed that the use the structural equation model as a whole has a good ability in terms of matching sample data (good fit). In other words, the estimated covariance matrix using the structural equation model is not statistically different from the sample data covariance matrix.

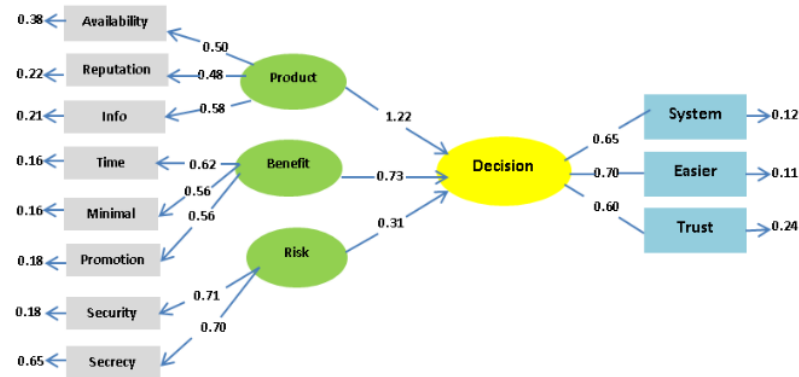


Figure 5. Structural equation output results.

The overall SEM model test showed that the SEM model as a whole is able to match the data (good fit). Meanwhile, the measurement model test showed that the measurement model has good convergent validity and discriminant validity. Furthermore, it was supported by the structural model test.

Based on Lisrel's output in Figure 6, the following structural equations are formed:

$$\text{Usage Decision} = 1.22 \text{ PP} - 0.73 \text{ PM} + 0.31 \text{ PR} + e$$



Figure 6. Structural model test results.

The structural equations above are also presented in the following Lisrel output (Figure 6).

The following will be interpreted for each of these structural equations in Figure 7.



Structural Equations

$$\text{Keputusa} = 1.22 \cdot \text{P.Produk} - 0.73 \cdot \text{P.Manfaa} + 0.31 \cdot \text{P.Risiko}, \text{ Errorvar.} = 0.30, R^2 = 0.70$$

(1.99)	(1.48)	(0.71)	(0.15)
2.61	-0.49	2.44	2.98

**Figure 7.** Output structural equations of Lisrel.

#### For Structural Equation

The path coefficient of the latent variable of product knowledge is 1.22. A positive path coefficient value indicates that the latent variable of product knowledge has a positive effect on satisfaction. The statistical value of the test for the path coefficient of the product knowledge latent variable is  $t = 2.61$ . The table value with the significance level is  $\alpha = 5\%$ . Therefore, it can be concluded that the effect that occurs between the latent variable of product knowledge and the latent variable of the decision is statistically significant at a significance level of 5% with  $tt = 2.61$   $\alpha = 5\%$   $t \text{ table} = 1.985$ . This means that the more customers know the features in their Go-Pay service, the faster they will make a decision to use Go-Pay services.

The path coefficient of the perceived benefit latent variable is  $-0.73$ . A negative path coefficient value indicates that the latent variable of perceived benefits has a negative effect on the decisions. The statistical value of the test for the path coefficient of the product knowledge latent variable is  $t = -0.49$ . The table value with the significance level is  $\alpha = 5\%$ . Therefore, it is concluded that the effect that occurs between the perceived benefit latent variable and the decision latent variable is not statistically significant at the 5% significance level with  $tt = -0.49$   $\alpha = 5\%$   $t \text{ table} = 1.985$ . This means that the more customers understand the benefits they will get in using Go-Pay services, they will be more interested in making decisions to use Go-Pay services.

Furthermore, the path coefficient of the risk perception latent variable is 0.31. A positive path coefficient value indicates that the risk perception latent variable has a positive effect on decisions. The statistical value of the test for the path coefficient of the risk perception latent variable is  $t = 2.98$ . Meanwhile, the table value with the significance level is  $\alpha = 5\%$ . Therefore, it is concluded that the effect that occurs between the latent variable of risk perception and the latent variable of decision is statistically significant at a significance level of 5% with  $tt = 2.98$   $\alpha = 5\%$   $t \text{ table} = 1.985$ . This means that the more customers understand the risks they will accept in using Go-Pay services, they will be more interested in using Go-Pay services.

The coefficient of determination based on Lisrel's output (Figure 4) is 0.70. This value can be interpreted as 70% of the total variation (total variation) of the latent decision variables can be explained by the structural equation, and the remaining 30% is explained by other variables ( $R^2$ ).

## 5. Discussion

### 5.1. The Effect of Product Knowledge on Usage Decisions

The test results in this study prove that product knowledge has an effect on usage decisions. This means that all information that consumers have about the product can be easily understood by consumers. Product knowledge is defined as a collection of various kinds of information about products [24]. This knowledge includes product categories, brands, product terminology, product attributes and features, product prices and product beliefs. Consumer product knowledge is basically determined by the level of consumer familiarity with the product. Consumer knowledge is all information that consumers have about various kinds of products and other information related to its function as a consumer. Understanding consumer knowledge is very important for marketers. Information about what to buy, where to buy, and when to buy will depend on consumer knowledge. Consumer knowledge will influence purchasing decisions, and even repeat purchases. When

consumers have more knowledge, they will be better at making decisions, more efficient, more precise in processing information, and able to recall information better

The results of research by Kim, Mirusmonov, and Lee [12] suggest that product knowledge is an important factor in facilitating users in making mobile payments. On the other hand, Parastiti and Mukhlis [37] found that product knowledge has no significant effect on use of electronic money. This could be due to the lack of information, thus causing a person's low interest in using a product, as well as the culture of the Indonesian people who still feel comfortable using cash instead of electronic money.

### *5.2. The Influence of Perceived Benefits on Use Decisions*

The test results in this study prove that the perceived benefits affect the decision to use. This means that usefulness in information technology or finance is the benefits obtained and expected by users in carrying out their activities [27]. Perceived usefulness is defined as where someone believes that using a system can improve their performance. Interpreting the perception of usefulness is the subjective profitability of potential users who use a particular application to facilitate their activities. Research by Kim, Mirusmonov, and Lee [10], and Wardhani [35] and Priyono [3], show that the perception of benefits has a positive and significant effect on the use of technology electronic payment. Perception of benefit is a subjective probability of potential users using a particular application to facilitate the performance of their work. Perception of benefits shows that respondents rate electronic money as providing high benefits, meaning that consumers, in this case users, feel that electronic money provides various advantages in the form of high benefits, such as providing speed and accuracy in transactions, the ability to be used for all forms of transactions of small value or value, used with a high frequency, being practical and easy to use for transactions, and more efficient than cash, thereby having a positive effect on interest in electronic money.

### *5.3. The Influence of Risk Perception on Use Decisions*

The test results in this study prove that the perception of risk affects the decision to use. This is accepted, meaning that risk perception is proven to influence decisions, wherein risk perception is the subjectivity of losses when obtaining a result [28]. Perceived risk is an outcome that is felt when a person is unable to predict a predetermined decision, where an uncertainty will be felt, and the consequences obtained are an important dimension in risk perception.

Risk is a perception of a violation of uncertainty and undesirable consequences in carrying out an activity. The risk that individuals tend to see when conducting online transactions is when there is uncertainty about the possible outcome of the transactions made.

Priyono [3] said that the perception of risk had a negative effect on adoption of electronic payment technology, different from the research conducted by Tham et al. [37] that product risk, convenience risk, and return policy risk have a significant and positive impact on intention to use online payment technology. Consumers also believe that there is a risk of controversy and they will be unable to submit if the products or services received do not fulfill the criteria. The lack of trust in online payment judgments is vetoed in some cases where switching programs occur. This may be due to online shopping delays in accepting products [37].

## **6. Conclusions**

Based on the analysis and interpretation that have been described previously, it can be concluded that the latent variables of product knowledge and risk perception have a positive effect on user satisfaction. Meanwhile, the latent variable of perceived benefits has a negative and insignificant effect on the usage decision. Based on the conclusions of the study, it is recommended that companies in their activities must always pay attention to the factors that cause someone to decide to use the products or features offered by the

company, because decisions are an important element before a consumer becomes loyal to the products. For this reason, the control and evaluation of the products or features offered are very important. Another factor that should also be considered is the demographics of the product users or feature offered.

This study provides useful information to retailers with e-wallet methods as payment activities. Previous studies show that many retailers are still facing some risks in using e-wallets as a payment method, and this will affect the transaction and performance of the retailers. It is hoped that the findings can help retailers to formulate strategies to reduce risks in the e-wallet environment, especially security risks for better e-wallet services. It is important for e-wallet providers to understand the awareness level of customers, particularly the youngsters, since they are the target audience for every new technology. Female respondents are having more intention to use an e-wallet when compared to males. It is also found that the benefit offering is the largest reason to use e-wallets among students. The advertisement and discounts/offers should be made in the social media networks which will capture young people into usage. Relating to the level of education, most consumers are the undergraduates—nearly half of the total participants—and the other half have diplomas, are in high schooler, and are college students. Almost half of the participants are significantly likely to use an e-wallet in retail shops such as Warunk.

Within undergraduate students, the digital wallets are mainly complimented as a trendy, newly dimensional service; moreover, e-wallets are considered to innovative, while the last quarter of total participants also had commendation for the idea of e-wallets. As a result, e-wallets have the potential to become substantially well-known and largely used among students. Additionally, according to the survey's result, there are benefit offerings that attract most respondents, so the provider must be concerned with the creativity in offering benefits to balance the curiosity and knowledge of consumers who continue to grow rapidly. These results also increase knowledge for international e-wallet providers in penetrating the market, knowing that there is a market for young people in Bandung city, Indonesia, for those with a bachelor's education background. This can be a business opportunity for them and for future research; it can be explored how female students have more interest in using e-wallets than males, and it can be explored why the benefit offerings invite students to use an e-wallet more than their ease of use.

The Go-Jek company needs to provide more education to Go-Pay customers, not only providing information about the benefits that will be obtained, but also providing information about the risks and weaknesses of the Go-Pay payment system. This is because, in this study, students who are Go-Pay customers do not care about the risks and weaknesses of the Go-Pay payment system. This is done so that customers can anticipate an unforeseen condition that can cause losses for them. Go-Jek companies can provide education by adding information or descriptions that are entered into the help center menu on the Go-Jek application regarding the risks, weaknesses, and solutions that help customers feel the risks and weaknesses of the payment. This is used so that customers know and understand the Go-Pay payment system better.

The limitations that exist in this study are first in terms of respondents where, in this study, the respondents were random; secondly, all constructs from the technology acceptance model (TAM) were not used, so that further research could use respondents for a wider audience and also include other constructs in the TAM.

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# The Effect of Product Knowledge Perceived Benefits and Perceptions of Risk on Indonesian Student Decisions

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