Assessing the Acceptance and Business Models Development Strategy of Go-Pay Indonesia Using TAM and BMC Approach

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

In pandemic situation, customers' preference for digital solutions will continue to increase to do a transaction with the platform. Push factor in the pandemic situation makes bank strives to provide a transaction banking ecosystem that can cater to the needs of customers in transitioning period to the new normal and maintain high levels of trust in a transaction using the digital platform. The impact on people's behavior around the world, especially towards their consumption behavior has rapidly increase the adaptation of digital technology throughout sectors of industry. Banking consumers are radically changing their lives in response to the pandemic. Gopay is a leading electronic money service in Indonesia that was founded in 2016. This research focuses on identifying factors for acceptance of the Gopay application using the TAM model and mapping marketing strategies using BMC analysis. The method in this study is divided into two parts, starting with conducting an analysis using SEM-PLS followed by a SWOT analysis mapping that can

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identify strategies that Gojek Indonesia can implement as the developer of the Gopay payment system. The results of this study indicate that perceived security, perceived ease of use and perceived usefulness can increase interest in using Gopay. In addition, the results of the SWOT mapping analysis show that based on internal strengths and weaknesses, external opportunities and threats, there are four sets of strategic alternatives that can be taken by company managers in facing increasingly fierce competition.

Keywords: Technology acceptance model; business model canvas; GoPay; e-wallet.

1. INTRODUCTION

The development of smartphone devices has contributed to the growth of mobile payment services in Indonesia. Significant improvements to the operating system and user interface, along with more reliable mobile internet connectivity, have significantly impacted how mobile payment services are delivered. The time and experience associated with mobile payment processing improved significantly when clients switched from USSD-code-based services to app-based services. Additionally, the number of use cases extended as an app-based platform enabled the integration of mobile payment services into other app-based services, such as ride-hailing and chatting/social networking. In 2020, 67.15 per cent of the population in Indonesia used a smartphone. The number of smartphone users in the country is estimated to reach 239 million by 2026 [1].

Growth in smartphone penetration in recent years (Fig. 1) shows the adoption rate of app-based mobile payment services has outstripped traditional mobile payment services. The value of digital transactions (e-wallets) in Indonesia is gaining popularity and becoming an option nowadays as considered to be more convenient, offers many attractive promotions such as discounts and cashback, and more safety [2]. Based on Daily Social research, there are 10 biggest e-wallet in Indonesia, OVO, ShopeePay, DANA, LinkAja, PayTren, i.saku, Sakuku, DOKU, Uangku, and Gopay.Gopay launched the service in 2016, and user traffic has already surpassed previous systems, such as Telkomsel T-Cash and Mandiri e-Cash, as shown in Fig. 2. GoJek's combination of mobile payments, ride-hailing, and other lifestyle services has proven to be a powerful combination that provides solutions to consumers' everyday needs. While the majority of traditional mobile payment providers have evolved into app-based mobile payment services, only a few have been able to develop platforms with meaningful and enduring use cases for everyday use.

In Indonesia, the increase trend of the usage of mobile payment services supported by the research that was done by PWC in 2019 to 21.480 respondent across several countries, it was revealed that 47% of respondent in Indonesia has used mobile payment in 2019 and make Indonesia as the fourth highest country that used mobile payment [4]. This trend to use mobile payment in Indonesia will keep increasing as the government has supported to use electronic money with the program of Gerakan Nasional Non Tunai in 2014 which the purpose is to make the financial transaction easier and at the same time can reduce the cost for money management. High-tech applications and platforms are replacing traditional purchase transactions, thus building its ecosystem, not dissecting its market pie with conventional banking sectors. This coming is considered a significant threat to other big banks that have been around for decades. The market share of these banks is being converted in great numbers. This is in line with the increasing growth in the number of productive age (age group of 15 to 64 years), which continues to increase compared to the total change in the unproductive period (over 65 years of age). This showed a staggering growth that cannot be ignored.

The rapid advancement of smartphone technology between 2015 and 2019 increased the number of Indonesia's internet users from 92 million to 152 million, a little more than 50% of its population [5]. This growth increase in population and internet users attracts investors locally and globally to penetrate the country's consumer spending, particularly in the financial technology sector. Gojek, a local ride-hailing app considered the country's first unicorn, expands its services by introducing Go-Pay as its e-wallet ecosystem and continues to add more services to its mature app. GoPay (PT Dompet Anak Bangsa) is a leading electronic money service in Indonesia that was founded in 2016. As part of the Gojek ecosystem, the largest application-based on-demand company in Southeast Asia, GoPay has

a mission to help millions of Indonesian families have access to various services and financial service products. In July 2017, GoPay won the Bank Indonesia Award for the category of the Most Active Fintech Company Supporting the National Non-Cash Movement (GNNT), Financial Inclusion and Education, and empowering MSMEs. In 2019, Gojek through GoPay became the only Indonesian company included in Fortune Magazine's List of Companies That Changed the World. According to Bisnis.com in September 2021, Gopay as one of the e-wallet in Indonesia is ranked second as a digital wallet in terms of active users with 64 percent of active users and 95 percent of brand awareness. GoPay is the preferred payment application for male users between the ages of 18-24. Based on

duwitmu.com, GoPay as a part of the large ecosystem of Gojek and Tokopedia, is easy and profitable for consumers who often transact in this ecosystem, and there is a PayLater as a loan facility for it's users. This extended facility become one of the strength that make Gopay win comparing with others e wallet in Indonesia. Despite of it's success story, The shares of PT GoTo Gojek Tokopedia Tbk (GOTO) dropped when they started their IPO at the level of Rp 338 on April 11, 2022, while currently October 2022 at level Rp 218 or have fallen 35.5%. Several previous studies have identified factors that can increase people's interest in using the e-wallet system. However, the results of the findings of previous studies raise different research gaps (Table 1).

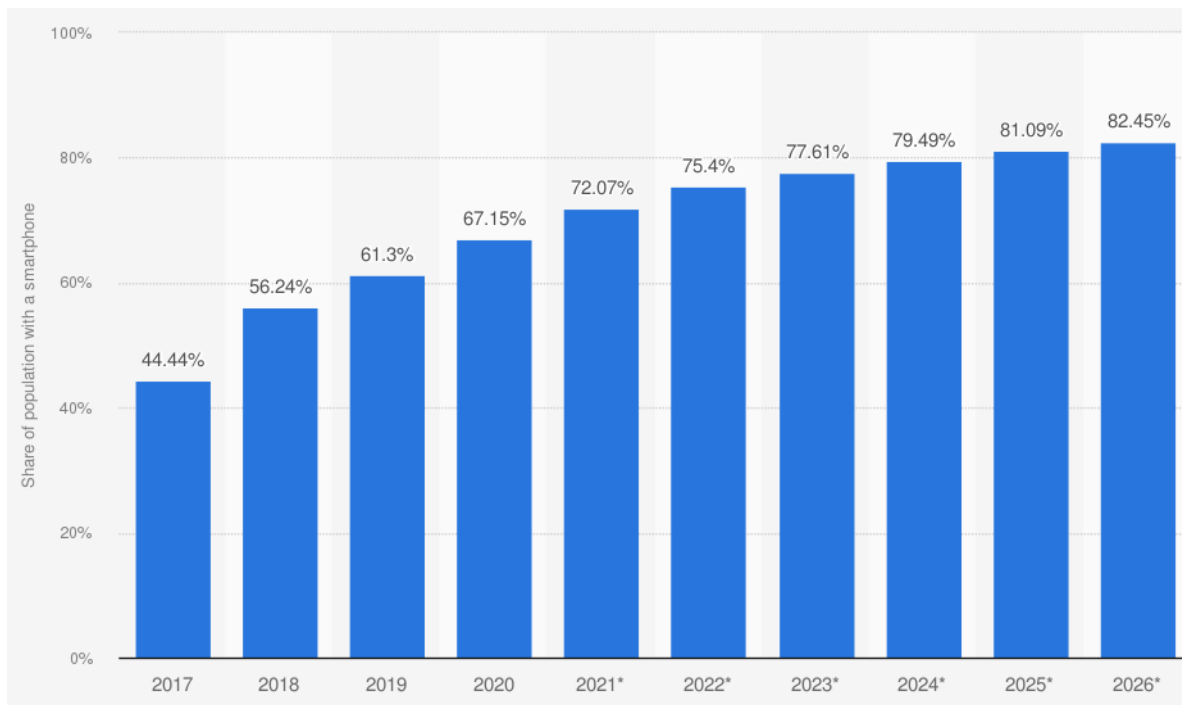**Fig. 1. Smartphone penetration growth from 2017 to 2026**
Source: [1]

Table 1. Research gap

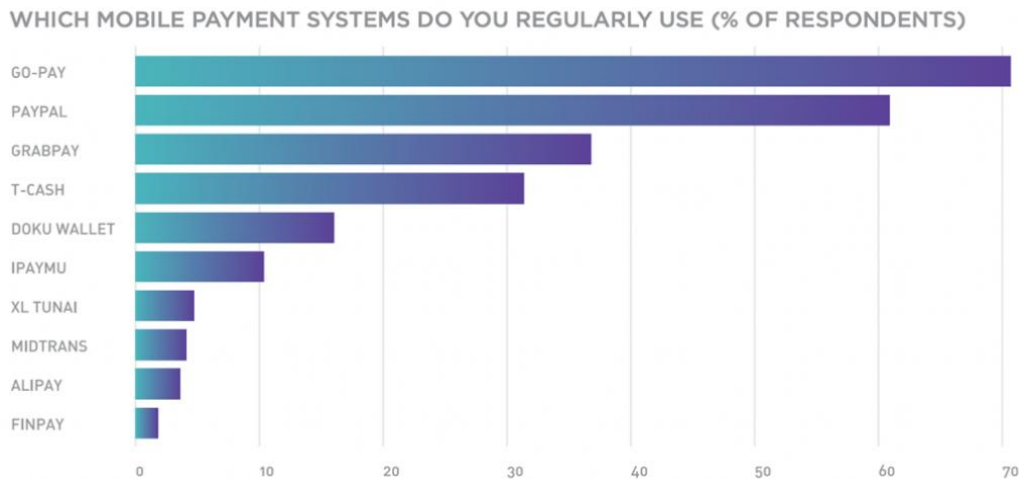| Determinant factors	Hypothesis accepted	Hypothesis rejected
Perceived Security → Intention to Use	[6,7,8,9]	[10]
Perceived Usefulness → Intention to Use	[15,11,6,10,8,9,12,13]	[12,14]
Perceived Ease of Use → Intention to Use	[15,11,10,8,9,12,13]	[16]

Fig. 2. Mobile payment usage in Indonesia
Source: [3]

In addition to identifying factors that can increase user acceptance, Gopay's strategy can be analyzed more deeply to find a suitable business model to be more accepted by the public. Canva's business model can help answer the right strategy by conducting an environmental analysis. *Environmental analysis* is a systematic process used by strategic planners to monitor environmental conditions that affect companies [17]. The Environmental Analysis consists of an analysis of the company's external and internal environment. Analysis of the company's internal environment helps to see the strengths and weaknesses of the company. At the same time, the Analysis of the company's external environment helps to see the opportunities and threats the company will face. Research conducted by Sugiyanto et al. [17] shows that by looking at the company's performance on its strategic factors, the company can determine its external and internal position. Based on these internal and external positions, as well as paying attention to strategic concepts, then with specific techniques and Analysis, the company can formulate the necessary strategies to deal with various problems in its business activities. To be able to understand internal and external conditions, companies can use SWOT analysis tools. Therefore, in facing competition, Gojek requires a SWOT analysis which aims to determine the right strategy, especially the marketing strategy, so that later it is hoped that the company will get maximum profits. For this reason, the study in this research has several problem formulations:

RQ1. What factors can increase intention to use Gopay Indonesia?

RQ2. What kind of business model canvas strategy is used by Gopay Indonesia?

2. MATERIALS AND METHODS

2.1 Technology Acceptance Model (TAM)

TAM is an information system that models how users are willing to accept and use technology. This model proposes that when users are offered to use a new system, several factors influence their decisions about how and when to use the system, especially in terms of usefulness (users believe that using this system will improve their performance), ease of use (users believe that using this system will improve their performance), believe that using this system will free him from trouble, in the sense that the system is easy to use) [18,19]. Information systems' acceptance is determined by perceived usefulness and perceived ease of use. Perception of usefulness is indicated by the extent to which a person believes using this system will improve his performance. In contrast, ease of use shows how someone will believe that using an information system is easy and does not require hard effort from the user, so users will tend to use the system [12]. The Technology Acceptance Model (TAM) was developed to study the determinants of IT use [20]. TAM generally determines computer acceptance and explains users' behaviour or attitudes in a population [21].

TAM is an adaptation of the generic Fishbein and Ajzen Theory of Reasoned Action (TRA) and was developed to explain the use of individual systems in the workplace [22]. The two variables

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of the TAM model, namely usefulness and ease of use, can explain aspects of user behavior [23]. The conclusion is that the TAM model can explain that the user's perception will determine his attitude in accepting the use of information technology. The success of information technology users of which can be known from the level of achievement that is expected. The user of the system reflects the acceptance of technology by its users [24]. The Technology Acceptance Model (TAM) has been a guide for past research in information systems related to behaviour, intentions and use of information technology [22]. The Technology Acceptance Model (TAM) was developed by Davis et al. [22] based on the Theory of Reasoned Action (TRA). The TRA model suggests that individual behaviour is driven by behavioural intentions, a function of individual attitudes toward behaviour and subjective norms surrounding behavioural performance. In other words, it states that behaviour and intention to behave are a function of a person's attitude towards the behaviour and their perception of it [22]. In general, if it turns out that after the study, the convenience factor for the information system is known to be no convenience, then the usefulness factor also becomes invisible. Logically how can it be useful for users if the information system is challenging or not easy to use? The acceptance factor of technology can come from the user or the system itself. From the user, it can be in the form of cognitive aspects, individual character, personality, and individual concerns about the impact of technology. Meanwhile, the system can be in the form of a computer network and the state of the computer [20].

The primary purpose of TAM is to explain what factors determine the acceptance of technology that can explain user behaviour. The TAM model conceptualizes how users accept and use new technologies. It originates from a psychological theory approach to explaining users, referring to their beliefs, attitudes, interests, and behavioural relationships. The hallmark of the TAM Model is that it is simple but can predict the acceptance and use of technology. External variables can be replaced and adapted to the object and topic of research. TAM has a vital element of behaviour which assumes that when a person forms a part to act, they will be free to act without restriction. By adding external variables using the TAM model evaluation, it will be known that the information is quality if the user accepts it. Evaluation of information systems with TAM was developed by Davis et al. [22] based on the

Theory of Reasoned Action (TRA) model. TAM adds two constructs to the TRA model to become five primary constructs: perceived usefulness, perceived ease of use, attitudes towards behaviour, behavioural interest or behavioural interest in technology and actual use of technology . Various research results that have been carried out using the TAM model, for example, are complexity, trustworthiness, self-efficacy, social factors, service guarantees, internet connection quality, etc [25,23].The TAM model integrates intrinsic and extrinsic factors as external variables that affect system use. Intrinsic factor means that it arises from within the individual user. In contrast, the extrinsic factor is due to environmental factors that encourage users to use information systems. The existence of external variables will be analyzed with the perception of ease of use and usefulness. It is predicted that the perception of ease will affect the perception of usefulness. Furthermore, the perception of usefulness and ease of use will affect attitudes towards using information systems and the intensity of use.

The technology acceptance model, derived from the psychology-based theory of reasonable action (TRA) and theory of planned behaviour (TPB) from Ajzen and Fishbein, has been widely used to explain users' behaviour toward technology. The theory assumes that individuals are usually entirely rational and systematically use available information. The theoretical model suggests that a person's actual behaviour can be determined by considering the person's prior intention along with beliefs that the person would have for the given behavior [26]. Therefore, the predictor of the behaviour is the behavioural intention, and the influence of the attitude on the behaviour is mediated through the intention. Ajzen then added a concept of perceived behavioural control known as the theory of TPB, which mentioned that the individual's performance of a particular behaviour is determined by the person's intention to perform the behavior [26]. Technology Acceptance Model (TAM) is one of several research models that can be used to analyze the factors that influence an information system's acceptance or absence. Fred Davis first introduced this research model in 1986. Davis et al. [22] published the findings of his research, TAM theory, emphasizing perceived ease of use and perceived usefulness as predictors of attitudes toward information systems use.

From the original TAM, Davis identified two distinct beliefs, perceived usefulness and

perceived ease of use, which, based on his research, is sufficient to predict a user's attitude toward a system. Based on a study by King and He [27] which conducted a statistical meta-analysis of TAM as applied in various fields, showed that TAM was a valid and robust model that has been widely used, thus implying its potential for broader applicability. The reason for choosing the technology acceptance model for this research was because the model has been tested empirically and supported through validations, applications, and replications [21,22,23,24]. Based on their research, [28] mentioned that TAM is one of the most powerful, robust, and parsimonious models for predicting user acceptance, especially in IS context. In addition, Viswanath et al. [24] mentioned that the parsimony of TAM combined with its predictive power makes it easy to apply to different situations.

2.2 Perceived Security

Perceived security is defined as the customer's perceptions and subjective valuations on a system security, and how well they are protected against potential risks [29]. According to Tsiakis and Sthephanides [30] users will be most likely to refuse in e-payment transactions if the perceived security towards the system is extremely low. In contrast, consumers who perceive payment cards to be highly secured tend to use cards more frequently than cash. Moreover, a study done by on among Canada consumers show that cash is more likely to be used as preferred payment method over payment card due to the [31] lacking of confidence on security and the fear of fraud at POS system. Tsiakis and Sthephanides [30] further revealed that the increment of system security incidents could potentially exert harmful consequences on the level of confidence in e-payment instruments among consumers. However, in another research done by Tsiakis and Sthephanides [30] on integrating perceived security as a descriptive variable across payment instruments, the findings showed insignificant effect of perceived security towards intention to adopt e-payment. Based on the past literatures, the following hypothesis is proposed:

> H1. Perceived security will have a positive effect on intention to use Gopay Indonesia

2.3 Perceived Usefulness

Perceived usefuless is a level where a person believes technology will improve work performance [21]. Based on this definition, it can be interpreted that the benefits of using a system can increase user trust and provide satisfaction for people who use it. According to (Daradkeh, 2019), the benefits of information technology are expected for users of information technology in carrying out their duties. The measurement of these benefits is based on the frequency of use and the diversity or diversity of applications that are run. Technology has become a necessity for organizations or individuals to do their jobs. According to (Wira Andika & Sumadi, 2021), the use of technology has a function that is applied by information system users when carrying out tasks which are measured by the seriousness of utilization, frequency of use and the amount of software used.

According to TAM, perceived usefulness and perceived ease of use are two key variables explaining various mechanisms related to technology adoption. Research highlights that perceived usefulness is essential because it is directly related to an individual's attitude towards a particular technology (Kim et al., 2021). Precisely, perceived usefulness, compared to other technology-related perceptions as perceived. Ease of use was found to have a stronger relationship with various mechanisms influencing technology adoption in diverse contexts [21,23]. Perception of technology usability refers to users' beliefs that certain technologies will improve their current performance (Arghashi & Yuksel, 2021). It is often recognized as a fundamental construct in user adaptation to new technologies (Roy et al., 2021). Users adapt to certain technologies due to intrinsic or extrinsic motivation (Lee et al., 2021). In line with this theory, this study considers perceived usefulness as users' external motivation to evaluate a particular technology's advantages (Maseeh et al., 2021).

Perceived usefulness, which defines as the degree to which the person believes that using the particular system would enhance his/ her job performance (Marangunic & Granic, 2014). In the context of mobile payment service adoption, perceived usefulness refers to the extent that people believe that a service will help them conduct payment transactions (Phonthanukitithaworn et al., 2016). If the user believe that one mobile payment system will help them make payments easier and quicker, they will believe that it brings benefit and at the end will be more motivated to use it. Studies conducted by Hsu and Chiu (2003) and Kim and

Shin (2015) have demonstrated that perceived usefulness has a direct relationship with intention to use. On the study conducted by Luna et al. (2018) which compare variables for adoption of 3 mobile payment services, revealed that perceived usefulness show greater relevance with the NFC payment system due to the impact of attitude and intention. In different study related to mobile payment, it has been concluded that the higher level of usefulness a user perceives when he/she decided to use specific mobile payment system, the greater the intention to use it (Cabanillas et al., 2020). This is in line with the findings of several other studies [16,8] (Li et al., 2019; Kumar et al., 2020; Chawla & Joshi, 2019; Hidayat et al., 2021); Chawla & Joshi, 2020). Thus, we hypothesized:

  H2. Perceived usefulness will have a positive effect on intention to use Gopay Indonesia.

2.4 Perceived Ease of Use

Perceived ease of use is the degree to which a person believes the technology is easy to understand (Venkatesh & Davis, 2000). According to (Livinus et al., 2021), the intensity of use and interaction between the user (user) and the system can also indicate ease of use. The system used more often indicates that it is better known and easier to operate by its users. Based on the above definition, it can be concluded that ease of use will reduce a person's effort (both time and effort) in learning the system. The comparison of convenience indicates that people who use the new system will work more efficiently when compared to people who work without using the old system. Users believe that information technology that is more flexible, easy to understand, and easy to operate (comfortable) is a characteristic of ease of use. Perceived ease of use determines the intention and acceptance

of a particular system. Users with perceived ease of use determine behavioural intentions to use the online system and will better utilize the system (Hahm, 2021). According to (Namira & Susanto, 2021), perceived ease of use can be defined as the extent to which a person believes in using technology free from effort. The perceived ease of use will have an impact on behaviour. The higher one's perception of the ease of using the system, the higher the level of technology utilization.

Perceived ease of use defined as the degree to which the person believes that using the particular system would be free of effort (Marangunic & Granic, 2014). In the context of mobile payment services, perceive ease of use is the extent to which using mobile payment technology to be relatively free of physical, emotional, or psychological efforts for the user (Phonthanukitithaworn et al., 2016). This can be considered as a major concern for user when using mobile payment services due to the numerous stages associated with the payment process, which may be challenging especially to the new adopter. The effect of perceived ease of use of a system have been demonstrated in some studies, which shown the relationship between perceived ease of use, attitude, and intention to use. Study from Liebana-Cabanillas et al. (2017) shows that the two key factors of TAM, perceived ease of use and perceived usefulness, have significant influences on the intention to use mobile payment services, whereby the effect of perceived of use have significant influences compare to the previous study in developing country (Liebana-Cabanillas et al., 2017). These findings have been confirmed by several other studies [8] (Li et al., 2019;; Kim & Kim, 2022), which found that perceived ease of use is a factor that influences the intention to use mobile payment services.
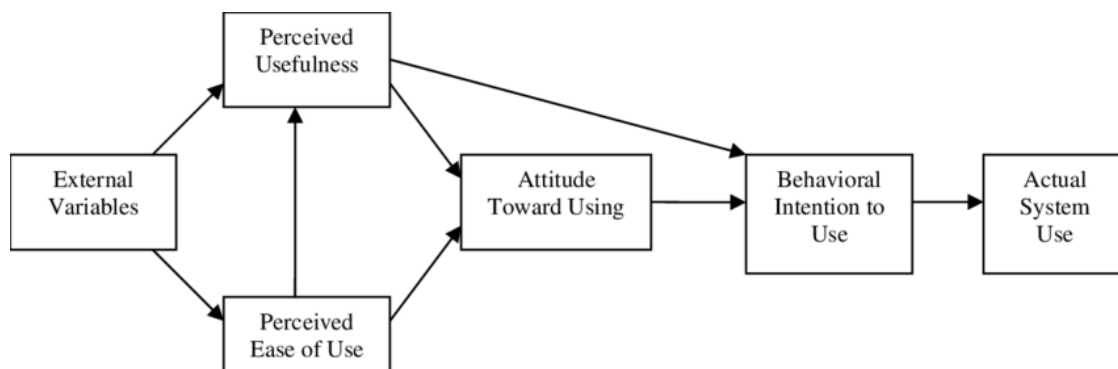

Fig. 3. Technology Acceptance Model (TAM)
Source: [22]

Although perceived ease of use was one of the critical factors influencing user interest in adopting mobile payment services, several previous studies found no role in perceived ease of use. Kumar et al. (2020) found that intention to use mobile payments was not influenced by perceived ease of use; when users realized that a system could be easily operated, there was no immediate strong interest from them to use the system. It can only improve their attitude towards the use of the application. Mobile payment service is a system that is very dependent on each user's wishes because it is voluntary. If the system is mandatory, in this case, the user is required to use it, the perceived ease of use will directly increase its use. The inability of perceived ease of use to influence the intention to use mobile payment services was also found in several other studies, which DO and DO [16] and Hidayat et al. (2021). Based on the preliminary research's findings, we hypothesized:

H3. Perceived ease of use will have a positive effect on intention to use Gopay Indonesia.

2.5 Business Model Canvas

The ontology of the BMC was developed by Osterwalder (2004) in his doctoral dissertation on business model innovation. The current version of the canvas, however, was only published in 2010 (in Osterwalder and Pigneur 2010) and is the result of the collaboration of Osterwalder and Pigneur with 470 practitioners from 45 countries recruited from the Business Model Alchemist, Osterwalder's blog (Stenn, 2017). The pervasive success of this conceptual instrument in academia and among practitioners can be summarized in a few key points. Before the end of 2014, the template of BMC was already downloaded over 5 million times, while the book Business Model Generation was already translated into over 30 different languages and used in more than 250 universities (Stenn, 2017). Also, when writing this article, Google Scholar indicates that the Business Model Generation has been cited over 5800 times.

Furthermore, the attractiveness of the BMC is also explained by its support to entrepreneurs. Indeed, this tool is understood to pressure entrepreneurs to consider each of the elements of the business individually and as a whole and to undertake an exercise of constant reflection, stimulating business creativity and innovation (Trimi and Berbegal- Mirabent 2012). Also, it improves a business by creating a shared

language, supporting brainstorming, team building, and collaboration, and creating a structure upon which new ideas and innovations are implemented (Stenn, 2017). At least according to its authors, the BMC is designed to frame for-profit companies and to analyze those organizations that 'have strong non-financial missions focused on ecology, social causes and public service mandates' (Osterwalder & Pigneur, 2010). In order to adapt the basic model of the canvas to the organizational settings of organizations that have social goals or, as the authors state, to 'accommodate triple bottom line business models' (Osterwalder & Pigneur, 2010, p. 265), two additional building blocks are added to the original nine. They serve the purpose of including 'two outcomes: (1) the social and environmental costs of a business model (i.e. its negative impact), and (2) the social and environmental benefits of a business model (i.e. its positive impact) (Osterwalder & Pigneur, 2010).

However, although the BMC is widely used and praised by many experts, it is also not immune to criticism. For example, the BMC was characterized as 'static' because it does not capture changes in strategy or the evolution of the model (Sinkovics, Sinkovics, and Yamin 2014). The most apparent limits of this instrument, however, concern its focus on the organizations and its consequent conceptual isolation from its environment, whether this is related to the industry structure (Nicola & White, 2013) or stakeholders such as society and natural environment (Bocken, Rana, and Short 2015). The two additional building blocks suggest the treatment of social and environmental costs and benefits as 'externalities': also, for-profit organizations have an indirect social impact (e.g. economic growth, job creation and poverty reduction), which is a by-product of their pursuit of economic value (Ormiston & Seymour, 2011). However, as argued in more detail below, these building blocks are considered insufficient to analyze the strategic choices of organizations that 'internalize' social and environmental benefits and consequences by making these part of the goals and value proposition.

2.6 SWOT Analysis

According to Stanton (2015), marketing strategy includes all systems related to planning and determining prices to promote and distribute goods and services that can satisfy the needs of actual and potential buyers. Implementing a

marketing strategy begins with an overall analysis of the company's situation. Marketers must conduct a SWOT analysis (SWOT analysis) by assessing the company's strengths, weaknesses, opportunities, and threats as a whole (Kotler & Amstrong, 2018). (1) Strengths include internal capabilities, resources, and positive situational factors that can help a company serve its customers and achieve its goals; (2) Weaknesses include internal limitations and negative situational factors that can hinder the company's performance; (3) Opportunities are favourable factors or trends in the external environment that companies can use to gain profits; (4) And threats are factors in an unfavourable external environment that present challenges to company performance.

According to Porter, quoted by Umar (2018), in general, aspects of the company's internal environment that should be observed can be seen from several approaches, namely as follows: (1) Functional Approach In this approach, internal analysis categories are often directed at markets and marketing, financial and accounting conditions, production, human resources, and organizational and management structures; (2) Value Chains Approach Analysis with a Value Chain approach is based on a series of sequential activities from a set of value activities carried out to design, produce, market, deliver, and support their products and services in companies consisting of from just one SBU.

According to Porter, quoted by Umar (2018), the external environment is divided into two categories: macro and industrial. The explanation of the two external categories is as follows: (1) Elements of the economy's economy are related to how people or nations produce, distribute, and consume various goods and services. Companies need to pay attention to the extent to which the economy can influence companies/organizations in terms of labour wages, inflation, taxation, unemployment, and prices of goods being managed; (2) The political and legal elements of political situations, politics and legal issues are closely related to the sustainability of the company for the long term. A conducive political situation provides comfort for organizations/business actors; (3) Socio-cultural elements of social conditions in question are demographic conditions, attitudes, lifestyles, customs and habits of people external to the company. Likewise, cultural conditions such as ecological, demographic, religious, educational and ethnic (4) Elements of the environment,

technology, science and human knowledge continue to develop from time to time. This makes technology also develop rapidly. Technology covers recent discoveries and includes ways of implementing them or new methods of doing a job, meaning that technology provides a broad picture, including designing, producing and distributing.

3. RESULTS AND DISCUSSION

This study uses a mixed method of methods, namely quantitative, which is used to answer the first problem formulation, and qualitative to answer the second question. This research method begins with identifying financial technology problems, literature studies, and data collection. The unit of analysis in this study was obtained from 175 respondents in Gopay users in Jakarta. This number meets the minimum requirements for the SEM-PLS sample, which multiplies five times the number of indicators (26 items). The variable measurement items in this study were adapted from previous research, which can be seen in Appendix 1. To answer the first problem formulation, SEM-PLS was used to identify factors that could influence interest in using Gopay. According to Ghozali (2015), Partial Least Square (PLS) is a general method for estimating path models that use latent constructs with several indicators. Partial Least Square is a multivariate statistical technique that compares multiple dependent and independent variables. Partial Least Square is a powerful analytical method because it is not based on many assumptions, the data does not have to be normally distributed multivariate, and the sample does not have to be significant.

Meanwhile, to answer the second formulation of the problem, the data collection techniques used in this study were observation and in-depth interviews with respondents who were experts in their fields to obtain information about the object under study. Sampling required in qualitative research for in-depth interviews is to balance the need for information or a description of the experiences of the respondents being interviewed. The data used in this study are primary and secondary, which are then used to analyze SWOT. The preparation of the IFE matrix was obtained by evaluating the company's internal factors. In contrast, the EFE matrix was obtained by evaluating the company's external factors. Weighting is needed to find out the key factors that have the most influence on the company. As for ranking, it is also determined

based on information from the questionnaire filling list given to PT Gojek Indonesia's Strategic Team. With a scale of 1 = very weak, 2 = weak, 3 = strong, 4 = very strong. A value will be obtained from the results of calculating weights and rankings, which will then add up to the overall value. Companies are usually considered to have fairly strong internal conditions, can overcome weaknesses, and have a good response to opportunities and threats if the final total score is above the average value, namely, 2.5.

3.1 PLS-SEM Analysis

PLS-SEM evaluation in this research begins by testing the normality of data distribution; researchers use statistical tests provided in the Partial Least Square program, namely the outer model test. According to Putra [38], to assess the assumption of normality is met if the critical value (skewness) is less than ±2.00 and the kurtosis value is not more than 7. The findings from this study found that all indicators were found to have a skewness value above 2.00 and kurtosis above 7. Furthermore, the model in this study was evaluated using a measurement model carried out to assess the validity and reliability of the model. The research measurement model in PLS-SEM is the outer model, which consists of relationships between indicators and latent variables [39]. According to [40] to assess convergent validity, the outer loading value must be more than 0.70. However, according to [41] reflective indicator loading can be considered a good measure for latent variables if it is above 0.50 (loading factor is between 0.50. Table 1 shows that several indicators have a loading factor value of more than 0.50. So it can be said that the indicator has high validity good.

Table 2. Significance of loadings factors

	Original sample (O)	Sample mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
ITU1 <- Intention to Use Gopay	0.809	0.809	0.026	31.009	0.000
ITU2 <- Intention to Use Gopay	0.848	0.849	0.023	36.685	0.000
ITU3 <- Intention to Use Gopay	0.845	0.845	0.025	33.871	0.000
ITU4 <- Intention to Use Gopay	0.867	0.867	0.023	37.603	0.000
ITU5 <- Intention to Use Gopay	0.847	0.847	0.025	33.449	0.000
ITU6 <- Intention to Use Gopay	0.876	0.877	0.024	36.997	0.000
ITU7 <- Intention to Use Gopay	0.822	0.821	0.038	21.413	0.000
ITU8 <- Intention to Use Gopay	0.813	0.813	0.036	22.468	0.000
PEOU1 <- Perceived Ease of Use	0.891	0.891	0.018	50.581	0.000
PEOU2 <- Perceived Ease of Use	0.881	0.879	0.021	41.412	0.000
PEOU3 <- Perceived Ease of Use	0.934	0.934	0.010	93.685	0.000
PEOU4 <- Perceived Ease of Use	0.891	0.890	0.019	47.582	0.000
PEOU5 <- Perceived Ease of Use	0.883	0.882	0.019	46.385	0.000
PS2 <- Perceived Security	0.782	0.780	0.035	22.584	0.000
PS3 <- Perceived Security	0.783	0.778	0.039	19.908	0.000

	Original sample (O)	Sample mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
PS4 <- Perceived Security	0.850	0.849	0.025	33.436	0.000
PS5 <- Perceived Security	0.790	0.791	0.034	22.990	0.000
PS6 <- Perceived Security	0.835	0.835	0.028	29.821	0.000
PS7 <- Perceived Security	0.765	0.765	0.037	20.876	0.000
PS8 <- Perceived Security	0.810	0.808	0.035	23.201	0.000
PU1 <- Perceived Usefulness	0.814	0.814	0.029	28.305	0.000
PU2 <- Perceived Usefulness	0.860	0.857	0.030	28.558	0.000
PU3 <- Perceived Usefulness	0.752	0.748	0.045	16.874	0.000
PU4 <- Perceived Usefulness	0.833	0.834	0.030	28.114	0.000
PU5 <- Perceived Usefulness	0.838	0.838	0.041	20.573	0.000
PS1 <- Perceived Security	0.759	0.758	0.043	17.756	0.000

Source: Authors

Furthermore, the evaluation continued to see convergent validity by looking at the average variance extracted (AVE) value, which must be greater than 0.5, which is more recommended; this ratio implies that latent variables have accounted for more than 50% of the variance of the reflective indicator. AVE is only relevant for reflective measurement models. The next step that is tested is the problem related to discriminant validity for each construct with a correlation value between constructs in the model [38]. This method is often called the Fornell Larcker Criterion, HTMT and Cross Loadings. Because according to [42] the Fornell Larcker Criterion approach failed to identify discriminant validity in most significant cases. For this reason, Henseler et al. [42] suggested assessing discriminate validity using the heteroite-monotrait ratio of correlations (HTMT). The bootstrapping procedure with a re-sample of 5000 was run to obtain a confidence interval (CI) value of less than or equal to 1.00 to identify no problems with discriminant validity [43]. In this study, it was found that the confidence interval (CI) value of either 2.5% or 97.5% of each dimension for the variable value was less than or equal to 1.00, which can be seen in the table below, so it was concluded that each supporting indicator had no discriminant validity problems. In discriminant validity testing, reflective indicators

can be seen in the cross-loading between the indicators and their constructs. An indicator is valid if it has a loading factor on other constructs. Thus, latent constructs predict indicators in their block better than others [44]. After the indicators are evaluated for validity, the next step is to evaluate the reliability of each latent construct using Cronbach's alpha and composite reliability values. Cronbach's alpha and composite reliability values can be considered to ensure the reliability of PLS construction scores, as defined in Dijkstra and Henseler [45] that composite reliability ≥ 0.7 and Cronbach's alpha ≥ 0.6. After the estimated model meets the outer model criteria, testing the structural model (inner model) is carried out (Fahmi et al., 2022a; Fahmi et al., 2022b).

According to Dijkstra and Henseler [45] the evaluation of the structural model (inner model) aims to predict the relationship between latent variables. Ramayah et al. [46] suggested looking at the Inner VIF value, coefficient of determination (R^2), model suitability and predictive relevance (Q^2) to assess structural (inner model). The inner VIF value is used to assess multicollinearity in the structural model. This test is necessary to assess and interpret path coefficients (i.e., collinearity between constructs) [40]. The multicollinearity assumption

is used to see no perfect or significant correlation between the independent variables. The correlation value between the observed variables (VIF) cannot be more than 10 [39]. The method used to test the occurrence of multicollinearity can be seen from the variable correlation matrix generated through the VIF value. According to Avkiran and Ringle (2018), the VIF inner model is used to view the structural model.

The test results show that the VIF values for all construct variables are below 10. Thus, all of these independent variables have VIF values <10, so it can be concluded that there is no multicollinearity between the independent variables. Assessing the model with PLS is continued by looking at the R-Square (R^2) for each endogenous latent variable. The coefficient of determination R-square (R^2) shows how much the exogenous variables explain the endogenous variables. The value of R-Square (R^2) is zero to one. Suppose the value of R-Square (R^2) gets closer to one. In that case, the independent variables provide all the information needed to predict variations in the endogenous variables. Conversely, the smaller the R-Square (R^2) value, the more limited the ability of the independent variables to explain variations in the endogenous variables. The value of R-Square (R^2) has a weakness; namely, the value of R-Square (R^2) will increase every time there is an addition of one exogenous variable even though the exogenous variable has no significant effect on the endogenous variable. The R-Square value in this study found that it was 0.826. These results indicate that the endogenous variable of interest in using Gopay can be explained by its exogenous variable of 82.6%. In contrast, the rest is explained by other exogenous variables outside this study. Predictive relevance (Q^2) for structural models measures how well the observed values are generated. According to Hair et al. [40], if the Q² value is more significant than zero for certain endogenous latent variables, the PLS model has predictive relevance for that construct.

The next stage is to determine whether the research hypothesis proposed in the research model is accepted or rejected. To test the proposed hypothesis, it can be seen the path coefficient value, the T-Statistic value through the bootstrapping procedure and the p-value. Hair et al. [40] confirmed that the 95% corrected and biased accelerated bootstrap confidence interval (BCa) should be used to assess the significance of the path coefficient in a structural model. As an alternative, researchers can return to the p-value (<0.05). Based on the results of testing the p-value in testing the hypothesis, it can be seen that all relationships have an influence relationship because the value is below 0.5. According to Hair et al. (2014), the path coefficient values are in the range of -1 to +1 values, where the path coefficient values close to +1 represent a strong positive relationship and the path coefficient values -1 indicate a strong negative relationship. Based on the results of the path coefficient test (original sample) in testing the hypothesis, it can be seen that all relationships have a positive direction because the value is close to +1. At the same time, T-Statistics (bootstrapping) is used to see the significant value between constructs. Hair et al. [40] suggested carrying out the bootstrapping procedure with a re-sample value of 5,000. The limit for rejecting and accepting the proposed hypothesis is ±1.96. Suppose the t-statistic value is in the range of -1.96 and 1.96. In that case, the hypothesis will be rejected or, in other words, accept the null hypothesis (H0). Based on the results of t-statistics testing on hypothesis testing, it can be seen that all relationships have a significant relationship direction because the value is above 1.96.

Based on the results of hypothesis testing, it was found that perceived security has a positive and significant effect on the intention to use. This is due to the finding of a p-value of 0.000 (<0.05), which indicates an influence relationship. In addition, the path coefficient was found to be 0.187 (> 0.00), which indicates a positive and significant relationship indicated by the t-statistic value of 2.717 (> 1.96). For this reason, it can be concluded that the statistical hypothesis that is accepted is H1: $\gamma1\xi1 \neq 0$ and rejects Ho: $\gamma1\xi1 = 0$. The results of existing research showing that the higher the perceived security, the higher the intention to use. Furthermore, perceived usefulness positively and significantly affects the intention to use. This is due to the finding of a p-value of 0.000 (<0.05), which indicates an influence relationship. In addition, the path coefficient was found to be 0.372 (> 0.00), which indicates a positive and significant relationship indicated by the t-statistic value of 6.737 (> 1.96). For this reason, it can be concluded that the statistical hypothesis that is accepted is H2: $\gamma2\xi2 \neq 0$ and rejects Ho: $\gamma2\xi2 = 0$. The results of existing research showing that the higher the perceived usefulness, the higher the intention to use.

Table 3. Hypothesis testing

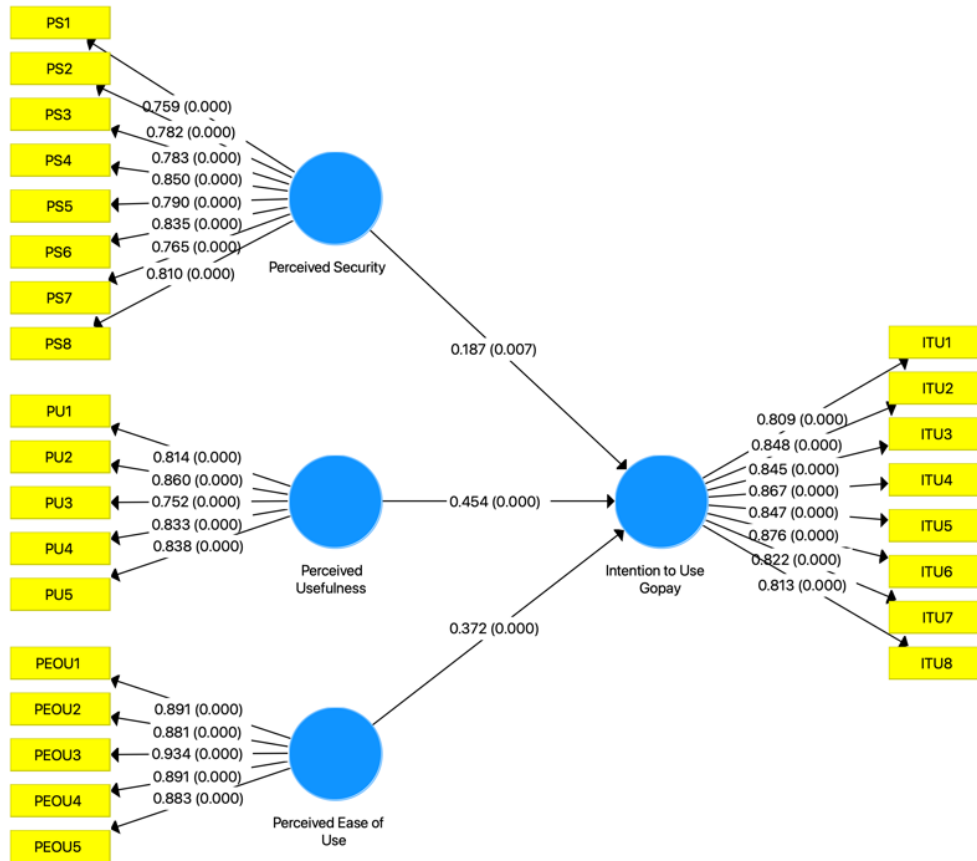|	Original Sample (O)	T Statistics (|O/STDEV|)	P Values
Perceived Ease of Use -> Intention to Use Gopay	0.372	6.737	0.000
Perceived Security -> Intention to Use Gopay	0.187	2.717	0.007
Perceived Usefulness -> Intention to Use Gopay	0.454	6.900	0.000

Source: Authors

Fig. 4. Hypothesis testing
Source: Authors

Based on the results of hypothesis testing, it was found that perceived ease of use has a positive and significant effect on the intention to use. This is due to the finding of a p-value of 0.000 (<0.05), which indicates an influence relationship. In addition, the path coefficient was found to be 0.372 (> 0.00), which indicates a positive and significant relationship indicated by the t-statistic value of 6.900 (> 1.96). For this reason, it can be concluded that the statistical hypothesis that is accepted is H3: γ3ξ3 ≠ 0 and rejects Ho: γ3ξ3 = 0. The results of existing research showing that the higher the perceived ease of use, the higher the intention to use.

3.2 BCM Analysis

The results of the analysis of the company's internal factors, namely strengths and weaknesses and external factors, including opportunities and threats, are presented in the Tables 4 and 5.

The IFAS matrix uses data from the results of weighting by calculating using AHP (Analytic Hierarchy Process), the results of which are described in the following Table 6.

Based on the results of the IFAS Matrix above, it is known that the internal factor of PT Gojek

Indonesia has a value of 2.935. According to David (2015), regardless of the number of factors included in the IFE Matrix, the total weighted average value ranges from the lowest 1.0 to the highest 4.0, with an average of 2.5. A total score that is far below 2.5 indicates a weak organization internally. In contrast, a total score that is far above 2.5 indicates a strong organization internally. PT Gojek Indonesia, with a total weighted average score of 2,8, shows that the company's strategy in exploiting strengths and minimizing weaknesses is above average, and the company's internal conditions tend to be strong. Meanwhile, the calculation of the EFAS Matrix is presented in the following Table 7. The EFAS matrix uses data from the results of weighting with calculations using the AHP (Analytic Hierarchy Process), the results of which are described in the following Table 7.

Based on the results of the EFAS Matrix above, it is known that the external factor of PT Gojek Indonesia has a value of 3,19. As in the IFAS matrix, regardless of the number of main opportunities and threats included in the EFAS matrix, the total weighted average score ranges from a minimum of 1.0 to a high of 4.0 with an average of 2.5. Even though PT Gojek Indonesia's external factor value is above the average of 2.5, PT. Gojek Indonesia must continue to make maximum efforts to take advantage of external opportunities and avoid threats that can affect the company. The next step in preparing the SWOT Matrix to obtain the right marketing strategy for the company can be implemented like the SWOT Matrix in Table 8.

The IFAS matrix is an internal environment analysis where the variables used are internal variables which consist of the strengths and weaknesses of the company while the EFAS is an internal environment analysis where the variables used are internal variables, then implemented into the Gojek Indonesia SWOT Matrix, as shown in Table 9.

Table 4. Internal factors item Gopay Indonesia

Internal Factors	Score
Strenghts	
Flexible top up (mBanking, eBanking, ATM, Merchants)	4
Many promos (discount / cashback)	4
Instant direct payment with QR Code at Merchants	4
Achieves ISO 27001:2013 accreditation, the international standard in the application of Security Management Systems (ISMS)	4
Transaction history is recorded	4
Balance refund guarantee	4
Cooperate with more than 500.000 merchants	4
Weaknesses	
Top up fee 1.000 IDR per transaction except via Sea Bank, Gojek's driver	4
Gopay application can't stand alone without Gojek application	4
The shares of PT GoTo Gojek Tokopedia Tbk (GOTO) dropped when started their IPO at the level of Rp 338 on April 11, 2022 (35.5%)	4

Table 5. External factors item Gopay Indonesia

External Factors	Score
Opportunities	
Cashless" trend is increasing	4
Currently Gojek has only served 167 cities, and in Indonesia there are 514 cities	4
Support the MSME (UMKM) all around Indonesia	4
The largest shareholders are foreign business entities as many as 81,43% until April 2022	4
Customer with Paylater account tend to utilize more Gopay services as they have additional credit line to support it	4
Threats	
1. Many similar competitors (OVO, Shopee Pay, DANA, Link Aja, etc.)	4
2. Cyber crime	4
3. There is a possibility that Government will impose a tax on e-wallet	4
4. There are more banks in Indonesia are using QR techniques for payments, shifting the Gopay function as instant payments	4

Table 6. Matrix IFAS

NO.	Internal factors	Weight (MAX = 1)	Rating (1 - 4)	Score (W x R)
Strengths				
1	Flexible top up (m-Banking, e-Banking, ATM, Merchants)	0.07	3	0.21
2	Many promos (discount / cashback)	0.07	4	0.28
3	Instant direct payment with QR Code at Merchant	0.09	3	0.27
4	Achieves ISO 27001:2013 accreditation, the international standard in the application of Security Management Systems (ISMS)	0.1	1	0.1
5	Transaction history is recorded	0.07	2	0.14
6	Balance refund guarantee	0.1	4	0.4
7	Cooperate with more than 500.000 merchants & other platforms	0.1	3	0.3
Weaknesses				
1	Top up fee 1.000 IDR per transaction except via Sea Bank, Gojek's driver	0.1	4	0.4
2	Gopay application can't stand alone without Gojek application	0.2	3	0.6
3	The shares of PT GoTo Gojek Tokopedia Tbk (GOTO) dropped when started their IPO at the level of Rp 338 on April 11, 2022 (35.5%)	0.1	1	0.1
Total IFAS		1	28	2.8

Table 7. Matrix EFAS

NO.	External factors	Weight (MAX = 1)	Rating (1 - 4)	Score (W x R)
Opportunities				
1	"Cashless" trend is increasing	0.1	3	0.3
2	Currently Gojek has only served 167 cities, and in Indonesia there are 514 cities	0.16	4	0.64
3	Support the MSME (UMKM) all around Indonesia	0.07	2	0.14
4	The largest shareholders are foreign business entities as many as 81,43% until April 2022	0.1	1	0.1
5	Customer with Paylater account tend to utilize more Gopay services as they have additional credit line to support it	0.1	3	0.3
Threats				
1	Many similar competitors (OVO, Shopee Pay, DANA, Link Aja etc.)	0.2	4	0.8
2	Cyber crime	0.05	2	0.1
3	There is a possibility that Government will impose a tax on e-wallet	0.07	3	0.21

NO.	External factors	Weight (MAX = 1)	Rating (1 - 4)	Score (W x R)
4	There are more banks in Indonesia are using QR techniques for payments, shifting the Gopay function as instant payments	0.15	4	0.6
Total EFAS		1	26	3.19

Table 8. Matrix SWOT

EFAS \ IFAS	Strengths (S)	Weaknesses (W)
	Determine the factors of internal strength	Determine the factors of internal weakness
Opportunities (O)	**Strategy (SO)**	**Strategy (WO)**
Determine the factors of external opportunity	Create a strategy that uses the power to seize opportunities	Create a strategy that minimizes weaknesses to take advantage of opportunities
Threats (T)	**Strategy (ST)**	**Strategy (WT)**
Determine the factors of ancama external threat	Create a strategy that uses the power to overcome threats	Create strategies that minimize weaknesses and avoid threats

Table 9. Strategy formulation of matrix SWOT

Internal Factors \ External Factors	Strength (S)	Weaknesses (W)
	1. Flexible top up (mBanking, eBanking, ATM, Merchants) 2. Many promos (discount / cashback) 3. Instant direct payment with QR Code at Merchants 4. Achieves ISO 27001:2013 accreditation, the international standard in the application of Security Management Systems (ISMS) 5. Transaction history is recorded 6. Balance refund guarantee 7. Cooperate with more than 500.000 merchants	1. Top up fee 1.000 IDR per transaction except via Sea Bank, Gojek's driver 2. Gopay application can't stand alone without Gojek application 3. The shares of PT GoTo Gojek Tokopedia Tbk (GOTO) dropped when started their IPO at the level of Rp 338 on April 11, 2022 (35.5%)
Opportunities (O)	**S-O Strategy**	**W-O Strategy**
1. Cashless" trend is increasing 2. Currently Gojek has only served 167 cities, and in Indonesia there are 514 cities 3. Support the MSME (UMKM) all around Indonesia 4. The largest shareholders are foreign business entities as many as 81,43% until April 2022	1. Maintain and improve service quality and features (S1, S3, S4, S5, S6, S7, O1, O2,) 2. Market development at all consumer levels (S2, O1, O2, O3, O4, O5)	1. Separating the gojek and gopay applications to make user more easier to access, widening market coverage and lowering administrative costs (W1, W2, O1, O2, O3, O5) 2. Expanding and prioritizing domestic stakeholders (W3,

5. Customer with Paylater account tend to utilize more Gopay services as they have additional credit line to support it		O4)
Threats (T)	**S-T Strategy**	**W-T Strategy**
1. Many similar competitors (OVO, Shopee Pay, DANA, Link Aja, etc.) 2. Cyber crime 3. There is a possibility that Government will impose a tax on e-wallet 4. There are more banks in Indonesia are using QR techniques for payments, shifting the Gopay function as instant payments	1. Expanding multi top-up facilities from other banks, increasing discounts and improving services (S1, S2, S3, S4, S5, S6, T1, T3, T4) 2. Memperkuat sistem keamanan (S7, T2)	1. Comparative studies with competitors regarding the application development process (W1, W2, T1, T2, T4) 2. Discussing and planning budget costs for developing applications regularly (W3, T3)

4. CONCLUSION

According to the findings of this study, perceived security, perceived ease of use, and perceived usefulness can all increase interest in using GoPay. GoPay has a mission to help millions of Indonesian families have access to various services and financial service products. GoPay is the preferred payment application for male users between the ages of 18-24. The results of the SWOT analysis also reveal that there are four groups of strategic alternatives that corporate managers can choose from when dealing with an intensifying level of competition based on internal strengths and weaknesses, external opportunities, and threats.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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APPENDIX

Appendix 1. Preliminary research and state of the art

No	Journal	Method	Object	Results
1.	Consumers' Behavioural Intention to Accept of the Mobile Wallet in Malaysia [10]. Journal of Southwest Jiaotong University (2020)	Regression	E-wallet	The results implied that perceived usefulness, perceived ease of use, social influence, and brand image have a significant relationship on the consumers' behavioural to accept of the mobile wallet, and also the consumers' behavioural has a significant relationship on the intention to accept mobile wallet.
2.	Perceived Usage of E-Wallet among the Y Generation in Surabaya Based on Technology Acceptance Model [12] Jurnal Teknik Industri (2020)	PLS-SEM	E-Wallet	The results show that perceived usefulness and perceived ease of use have significant positive impacts on behavioural intention to use. The behavioural intention to use brings a significant positive impact on perceived usage. However, a direct result from perceived usefulness to perceived usage shows a negative and no significant impact, meanwhile an unintended consequence from perceived usefulness to perceived usage through behavioural intention to use shows a significant positive impact. Finally, a direct effect from perceived ease of use to perceived usage shows a lower t-statistic value than an indirect effect from perceived ease of use to perceived usage through behavioural intention.
3.	Does the reputation of the provider matter? A model explaining the continuance intention of mobile wallet applications [6] Journal of Decision Systems (2021)	PLS-SEM	E-Wallet	Our results confirm the impact of the provider's reputation on trust and perceived security; both verified as antecedents of the continuance intention. Besides, the provider's profession moderates the impact of reputation on trust. The study suggests that mobile wallet application providers focus on reputation in their communication strategy to build and maintain trust. In addition to the moderating role of the providers' profession, verifying provider's reputation as a factor enhancing the trust and perceived security of the mobile wallet application constitutes the main originality of this paper.
4.	The Effect of Perceived Security, Ease of Use and Perceived Usefulness on Intention to Use	PLS-SEM	Mobile Payment	Based on the results of the data analysis, it could be concluded that perceived usefulness, perceived ease of use, and perceived security had a positive impact on consumers'

No	Journal	Method	Object	Results
	Towards Mobile Payment Services in Indonesia [9] Advances in Social Science, Education and Humanities Research, (478)			intention to use e-payment services in Indonesia. The results of this study could be implemented in order to raise and increase e-payment companies' awareness and understanding toward the importance role of perceived usefulness, perceived security and perceived ease of use in stimulating people's intention to use e-payment services in daily purchasing activities.
5.	Perceived Usefulness, Perceived Ease of Use, and Social Influence: Intention to Use e-Wallet [11] Advances in Economics, Business and Management Research, volume 187	Regression	E-Wallet	The results showed a positive and significant influence on perceived usefulness and perceived ease of use on intention. However, it turned out that social influence did not have a significant effect. This study's results serve as a guideline or reference for companies developing e-wallet applications in the future. The company expects to make a more comfortable and easier to use applications and always be consistent in providing users.
6.	An investigation of Generation Z's Intention to use Electronic Wallet in Vietnam [16] Journal of Distribution Science (2020)	PLS-SEM	E-Wallet	The results indicate an indirect effect between Compatibility, Perceived Ease of Use, Perceived Trust and Social Influence toward intention to adopt Electronic wallet, or both of those factors are mediated by Perceived Convenience, Perceived Usefulness, and Reputation. Moreover, research finding highlights the role of Perceived Usefulness as Generation Z's intention determinant to use E-Wallet.
7.	Factors Influencing the Use of E-wallet as a Payment Method among Malaysian Young Adults [8] Journal of International Business and Management (2020)	PLS-SEM	E-Wallet	This study reveal that perceived usefulness, perceived ease of use and privacy and security have positive and significant relationship with behavioral intention to use e-wallet. This study helps the service providers of the digital marketplace further to have better understanding of the usefulness of using e-wallet for transaction purposes.
8.	From Physical To Digital: Investigating Consumer Behaviour of Switching to Mobile Wallet [15] Polish Journal of Management Studies (2018)	PLS-SEM	E-Wallet	The results showed that perceived usefulness and perceived ease of use are effective factors into consumer attitude towards switching. Moreover, the relation between the attitude and the intention is significant while the perceived risk pull down the level of this effect.

No	Journal	Method	Object	Results
9.	Cashless Transactions: A Study on Intention and Adoption of e-Wallets [13] Sustainability (Switzerland) (2021)	PLS-SEM	E-Wallet	Perceived usefulness, perceived ease of use, social influence, lifestyle compatibility, and perceived trust displayed a significant positive effect on both intentions to use an e-wallet and adoption of an e-wallet. This study evidenced the mediating effect of the intention to use an e-wallet on the correlations between the predictors and adoption of an e-wallet. Both the age and gender of the respondents moderated the effect of lifestyle compatibility on intention to use an e-wallet. The
10.	LinkAja Business Models Strategy Development Using BMC Approaches[32] International Journal of Innovation in Enterprise System (2020)	BMC and SWOT	LinkAja	This result of this study proposed business model in the form of improvement for each element of its business model including: elements (1) Customer segments: Adding target customers to e-marketplaces and e-commerce, (2) Customer relationships: Developing cooperation with LinkAja competitors, (3) Value Proposition: Developing customer consulting services by providing training for using the LinkAja application, (4) Key Activities: Developing collaboration with partners and competitors, (5) Key Partners: Collaborating with the competitors such as Gopay, OVO, FUND, etc., (6) Key Resources: Using digital budget information systems to facilitate transparency of company budgets, (7) Revenue streams: Upgrading fees for premium services, and (8) Cost Structure: Research costs.
11.	Implementasi Business Model Canvas Pada CV. Media (Penerbit dan Distributor Buku Pelajaran PAUD) [33] Proseding Seminar Nasional Kewirausahaan (2019) 1(1)	BMC	Company	The data analysis technique uses the Miles and Huberman interactive analysis model. The results showed that CV. The media has succeeded in running the business by implementing the nine elements of BMC, this can be seen from the company's increasing income every year.
12.	Pengembangan Model Bisnis Pada Serantau Coffee Dengan Menggunakan Pendekatan Business	BMC	Food and beverage	The initial step in this research is to map Serantau Coffee's existing business model, then create a customer profile and conduct a business environment analysis. Next is to carry out a SWOT analysis

No	Journal	Method	Object	Results
	Model Canvas [34] eProceedings Eng., (2019)			obtained from internal Serantau Coffee to develop a strategy as a consideration for designing a business model. These results will then be included in the proposed Business Model Canvas and will then be evaluated using seven business model questions to determine its strengths and weaknesses. After conducting an evaluation, further improvements were made and additional proposals were developed to increase Serantau Coffee's competitiveness in the food and beverage industry, especially coffee shops.
13.	Analisis Bisnis Model Canvas Pada Operator Jasa Online Ride-Sharing Noompang [35] Majalah Bisnis & IPTEK (2020) 14(1)	BMC	Business Sharing Economy	Data obtained from interviews with partners, both drivers and passengers Noompang in Bandung - Jakarta and the results of studies of supporting literature. The results obtained from this study are that Noompang benefits from profit sharing with partner companies, profit sharing with driver partners, benefits from the Ovo e-wallet, and benefits from Google / Apple on application downloads.
14	Analisis Usaha Mikro dengan Pendekatan Business Model Canvas (BMC) [36] Ekonomi dan Bisnis (2020) 6(2)	BMC	Enterprise	The strategy matrix generates strengths including product novelty, online marketing through social media, and providing testers for shop visitors. Weaknesses that can be observed are that there is no service to retain customers, products are easy to imitate, and the use of machines and tools is still simple. In addition, opportunities that can be created include, among other things, there are no competitors in the same product line in one city, making packaging even more attractive, and creating a website to expand marketing. Threats that can arise include easy-to-move customers and products made by factories outside the city that produce the latest technology and more attractive packaging. The results of the SWOT analysis matrix are mapped back into the BMK. The final results of the BMK mapping show several additional strategies for elements that can be used as alternative new strategies to be implemented. These elements include: elements of Value Proposition, Channels, Relationship

No	Journal	Method	Object	Results
				with Customers, Key Resources, and Cost Structure.
15	The Case for a Socially Oriented Business Model Canvas: The Social Enterprise Model Canvas [37] Journal of Social Entrepreneurship (2019) 10(2)	BMC	Enterprise	The SEMC and the analysis that explains its features are of interest to academics concerned with the study of social entrepreneurship because they offer a new analytical tool that is particularly useful for untangling and comparing different forms of social enterprises. Also, it is of interest to social entrepreneurs, because the SEMC is a platform that can be used to prevent 'mission drifts' that might result from problems emerging from the mismanagement of such challenges. The arguments presented are grounded on scientific literature from multiple disciplines and fields, on a critical review of the BMC, and on a case study. The main features of SEMC that makes it an alternative to the BMC are attention to social value and building blocks that take into consideration non-targeted stakeholders, principles of governance, the involvement of customers and targeted beneficiaries, mission values, short-term objectives, impact and output measures.

Appendix 2. Item scales

Constructs	Items
Perceived Security [7]	I perceive Gopay system as secure [PS1] I perceive the information relating to user and e-payment transactions as secure [PS2] I believe inappropriate parties will not be able to view the information I provide during a transaction on Gopay system [PS3] I would be free to give out my personal information when transacting online [PS4] The risk of credit card fraud for online transactions is low for me [PS5] I will continue using Gopay even when I hear there was a breach in security [PS6] I trust in the ability of an online bank to protect my privacy on Gopay [PS7] I am not worried about the security of Gopay [PS8]
Perceived Usefulness [21]; Lee et al., 2011; Moon and Kim, 2001; Venkatesh and Davis, 2000; [15]	Using Gopay would improve my performance in conducting payments [PU1] Using Gopay would increase my productivity [PU2] Using Gopay would enhance my payment effectiveness [PU3] I would find Gopay useful [PU4] Gopay gives me greater control over payment activities [PU5]
Perceived Ease of Use ([21]; Lee et al., 2011; Moon and Kim, 2001; Venkatesh and Davis, 2000; [15]	It is easy for me to learn how to utilize Gopay [PEOU1] I find it easy to get Gopay do what I want to do [PEOU2] It is easy to remember how to use Gopay [PEOU3] My interaction with the digital Gopay is understandable [PEOU4] I find Gopay useful for my payment activities [PEOU5]
Intention to Use [7]	I would use the Gopay for any purchase in the future [ITU1] Using the Gopay for handling my online shopping is something I would do [ITU2] I would see myself using Gopay for handling my point of sale purchases [ITU3] I intend to use Gopay to make payments for my purchases in the near future if I have access to it [ITU4] I intend to make use of all different kinds of Gopay in the future [ITU5] I intend to use Gopay more frequently in the future [ITU6] I intend to try out the latest Gopay in the future [ITU7] I intend to recommend Gopay to my family and friends in the future [ITU8]

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