Integrating Perceived Enjoyment within the UTAUT Model for Enhanced Distribution Management Strategies

Putu Yudi SETIAWAN[1], Ni Putu Cempaka Dharmadewi ATMAJA[2], I Gusti Ayu TIRTAYANI[3]

Abstract

Purpose: Within the ever-changing realm of modern e-commerce, this study delves into the complex effects of factors like performance expectations, ease of use, social influence, favorable conditions, and enjoyment perception on users' intentions and usage patterns in online marketplace apps. The research centres on Tokopedia app users in Denpasar City, encompassing a wide and varied demographic. **Methods:** Utilizing a non-probability sampling method, 200 participants were selected for extensive data collection through surveys. Subsequent rigorous analysis of the gathered data was performed using Structural Equation Modeling-Partial Least Squares (SEM-PLS) techniques. **Results:** This study aims to contribute substantially to theoretical and practical knowledge regarding marketplace app usage. Theoretical contributions involve enhancing the marketing domain, especially in digital marketing, by revealing the intricate factors influencing user conduct in online marketplaces. From a practical standpoint, this research provides valuable insights for entrepreneurs aspiring to join or improve their positions in the Tokopedia app market. **Conclusion:** Based on the study, we suggest optimising online shopping apps for a more appealing and user-friendly interface. Enhancing the enjoyment and simplicity of finding desired products can prompt heightened usage of online shopping services, thereby reinforcing distribution management strategies and overall market presence.

Keywords: Distribution Strategic, Distribution Management, Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions, Perceived Enjoyment, Behavioural Intention, Use Behaviour, Online Marketplace

JEL Classification Code: M31, O32

1. Introduction

The development of information and communication technology (ICT) has penetrated all fields, one of which is marketing activities. There are several approaches to technology acceptance, which are defined as technology acceptance (Davis, 1989); other studies are considered technological innovation adaptation (Moore & Benbasar,

1991) and innovation diffusion (Roger, 1983). The development of model characteristics regarding technology acceptance has impacted the development of an integrated model that brings together alternative views regarding users and innovative use, known as The Unified Theory of Acceptance and Use of Technology (UTAUT) (Williams et al., 2015). Although UTAUT is a model with several constructs that explain technology adoption, it still requires

1 First Author, Lecturer, Udayana University, Indonesia,
  Email: yudisetiawan@unud.ac.id
2 Second Author, Lecturer, Universitas Mahasaraswati, Indonesia,
  Email: cempakadewi@unmas.ac.id
3 Fourth Author, Lecturer, Universitas Pendidikan Nasional,
  Indonesia, Email: ayutirtayani@undiknas.ac.id

investigating the critical factors for the customer context (Venkatesh et al., 2012). Perceived enjoyment is a level of satisfaction that users feel when making online purchases on a particular website, even though it is only limited to making someone feel happy and not including the results that users get from the experience (Ulan, 2016). During a pandemic, this digital-based trading business is projected to grow 33.2 per cent from 2020, reaching IDR 253 trillion to IDR 337 trillion this year (https://www.indonesia.go.id). Information and communication technology development supported by adequate internet services has also increased e-commerce activities. One of the reasons for the increase in e-commerce is the increase in online shopping applications. Currently, online marketplaces are mushrooming in Indonesia. Consumers widely use several online applications to fulfil their shopping needs because of their convenience and safety, one of which is Tokopedia. Since its establishment in 2009, Tokopedia has become an influential unicorn in Indonesia and Southeast Asia. However, Tokopedia still needs to beat its rival Shoppe in facing its competition.

Meanwhile, Tokopedia, an application that was first established, could only survive in third place in Southeast Asia and second in Indonesia. Tokopedia's unrivalled ranking as the favourite application used for online shopping is related to individual decisions in using technology. The decision to use technology in UTAUT found seven constructs that appear to be significant direct determinants of behavioural intention or use behaviour in one or more of each model. These constructs are performance expectancy, effort expectancy, social influence, facilitating conditions, attitude toward using technology, and self-efficacy. After further testing, four primary constructs were found that play an essential role as direct determinants of behavioural intention and use behaviour: performance expectancy, effort expectancy, social influence, and facilitating conditions. Adding perceived enjoyment is essential to studying and influencing someone to use an online shopping application.

The gaps in this research are considered from a theoretical basis (Venkatesh & Morris, 2013). Integrating theories such as UTAUT combines the successful features of eight leading technology acceptance theories into one theory. The eight prominent theories unified in UTAUT are the theory of reasoned action (TRA) (AbuShanab & Pearson, 2007), the technology acceptance model (TAM) (Davis, 1989), the motivational model (MM) (Davis et al., 1992), theory of planned behavior (MM) (Davis et al., 1992), and theory of behavioral change (Davis & Morris, 2013), 1992), theory of planned behavior (TPB) (Ajzen, 1991), combined TAM and TPB (Taylor & Todd, 1995), model of PC utilization (MPTU) (Venkatesh et al., 2003), innovation diffusion theory (IDT) (Karahanna et al., 1999), and social cognitive theory (SCT) (Bandura, 1986).

UTAUT is ontologically an integration of several of these theories developed to explain individual attitudes towards systems that have shown cumulative development (Rondan-Cataluna et al., 2015; Donmez, 2019). UTAUT serves as a comprehensive model that can be applied across a wide range of applications and has proven to be a valid tool for predicting adoption behavior across various technology-based systems (Tarhini, et al., 2016). UTAUT is a widely used model to predict the acceptance and use of technology (Yuen et al., 2010; Venkatesh et al., 2012; Tarhini et al., 2016) and has proven to be a more robust model compared to other models (Venkatesh et al., 2003). UTAUT consists of several elements, namely effort expectancy (EE), 'performance expectancy' (PE), 'social influence' (SI) and 'facilitating conditions (FC); two endogenous variables, namely, 'behavioral intention to use technology' and 'use behavior'; and four moderators namely gender, age, experience and voluntariness (Venkatesh et al., 2003; Gupta et al., 2019).

Although UTAUT is a model with several constructs that explain technology adoption, there is still a need to investigate factors that are important for the customer context (Venkatesh et al., 2012). UTAUT was originally to investigate technology acceptance in the organizational context, so it still needs to be improved in investigating the scope of technology use in the voluntary context (Tarhini et al., 2016; Oliveira et al., 2016).

The development of the UTAUT model in the adoption of individual technology use is significant. Convenience is the main thing for individuals to try new technology. This perceived enjoyment is a level of satisfaction that users feel when making online purchases on a particular website, even though it is only limited to making someone feel happy and does not include the results that users get from the experience (Ulan, 2016).

Amid a pandemic, this digital-based trading business is projected to grow 33.2 per cent from 2020, reaching IDR 253 trillion to IDR 337 trillion this year (https://www.indonesia.go.id). The increase in the number of transactions through e-commerce is the impact of government policies that encourage digital acceptance to the public, in addition to the development of fintech and digital marketing.

Information and communication technology development supported by adequate internet services has also increased e-commerce activities. The increase in e-commerce is partly due to the increase in online shopping applications. Currently, online marketplaces are mushrooming in Indonesia. Several online applications are widely used by consumers to fulfil their shopping needs because of their convenience and security, one of which is Tokopedia.

The primary objective of this research is to comprehensively investigate and analyze the key factors

influencing users' behavioral intention and actual use of the Tokopedia application. Specifically, we aim to examine the individual impacts of performance expectancy, effort expectancy, social influence, perceived enjoyment, and facilitating conditions on users' behavioral intention towards the application. Additionally, we seek to explore how facilitating conditions influence behavioral intention and the actual use of the Tokopedia application. By addressing these objectives, this study contributes to a deeper understanding of the determinants that drive user engagement with the Tokopedia application, offering valuable insights for both academic research and practical application development.

The Unified Theory of Acceptance and Use of Technology (UTAUT) is a comprehensive model that integrates eight prominent technology acceptance theories into a single framework (Venkatesh & Morris, 2013). These theories include the Theory of Reasoned Action (TRA), the Technology Acceptance Model (TAM), the Motivational Model (MM), the Theory of Planned Behavior (TPB), the Model of PC Utilization (MPTU), the Innovation Diffusion Theory (IDT), and the Social Cognitive Theory (SCT). UTAUT is highly regarded for its ability to predict technology adoption behavior in various contexts (Tarhini et al., 2016). It includes critical components such as effort expectancy (EE), performance expectancy (PE), social influence (SI), and facilitating conditions (FC), as well as endogenous variables like behavioral intention and uses behavior, along with moderators such as gender, age, experience, and voluntariness (Venkatesh et al., 2003; Gupta et al., 2019). Initially designed for organizational contexts, UTAUT is now recognized for its versatility across different settings, including voluntary technology adoption (Tarhini et al., 2016; Oliveira et al., 2016). In the contemporary digital landscape, UTAUT remains crucial for understanding individual technology adoption, emphasising convenience as a motivating factor (Venkatesh & Morris, 2013). UTAUT integrates multiple technology acceptance theories, offers a comprehensive framework for understanding technology adoption, and is applicable across various contexts, including voluntary technology use.

Technology acceptance research is marked by its complexity, as consumer acceptance of new technology involves many variables and factors. Scholars such as Shen et al. (2010) and Jackson et al. (2013) contend that more than a single theoretical model may be needed to capture the intricacies of this multifaceted phenomenon. An integrative approach becomes imperative to navigate this complexity effectively and gain unique insights that transcend the confines of individual theories. Technology acceptance research has been significantly bolstered by models like the Unified Theory of Acceptance and Use of Technology (UTAUT), which amalgamates diverse theoretical perspectives (Venkatesh et al., 2003). UTAUT's integration

of various technology acceptance theories empowers researchers to explore the domain comprehensively, transcending the limitations of individual models (AbuShanab & Pearson, 2007). An integrative approach in technology acceptance research allows us to understand the multifaceted nature of technology adoption better, providing a more holistic view that captures the myriad factors influencing individuals' attitudes and behaviors toward technology.

Within the Unified Theory of Acceptance and Use of Technology (UTAUT), several specific dimensions are pivotal in shaping individuals' technology acceptance and usage behavior. These dimensions are intricately interwoven, providing a nuanced understanding of technology adoption. Performance expectancy, a critical dimension, gauges the extent to which technology usage is perceived to benefit individuals in their activities (Venkatesh et al., 2012). It is closely linked to an individual's desire to adopt a technology (Rahi & Abd. Ghani, 2018). In parallel, effort expectancy assesses the ease with which a particular system can be used, influencing the effort a user must exert (Venkatesh et al., 2012). This perception of simplicity significantly impacts user acceptance (Jati & Laksito, 2012). Social influence, another dimension, hinges on how individuals perceive others' beliefs regarding implementing a new system. The influence exerted by peers, family members, colleagues, and superiors can significantly affect an individual's awareness of adopting technology (Zhou et al., 2010; Yu, 2012; Oliveira et al., 2016; Alalwan et al., 2017). Finally, facilitating conditions encapsulate the supportive factors that ease technology adoption, including the availability of training and support. Together, these dimensions provide a comprehensive framework for comprehending the intricate interplay of factors in technology acceptance and utilization.

Performance Expectancy is a pivotal dimension within the Unified Theory of Acceptance and Use of Technology (UTAUT) framework, crucial for understanding technology adoption. It refers to how individuals believe using a particular technology will enhance their performance in various activities (Venkatesh et al., 2012). The significance of this dimension lies in its close connection to an individual's desire to embrace technology (Rahi & Abd. Ghani, 2018). When individuals perceive that using a specific technology will improve task performance, they are more inclined to accept and adopt it. Performance Expectancy goes beyond mere functionality; it delves into the user's subjective assessment of how technology can positively impact their daily tasks and activities. Research has consistently shown that the perceived benefits of technology in enhancing performance play a pivotal role in shaping technology adoption decisions, making Performance Expectancy a critical element to consider in understanding and predicting technology acceptance.

Effort Expectancy, a fundamental dimension within the Unified Theory of Acceptance and Use of Technology (UTAUT), centres on the perceived simplicity and ease of using a particular technology (Venkatesh et al., 2012). It represents the degree to which individuals believe that employing a specific system or technology requires minimal effort (Venkatesh et al., 2012). This dimension is vital in technology acceptance, as it directly influences users' willingness to embrace new technologies (Jati & Laksito, 2012). When individuals perceive a technology as user-friendly and requiring minimal cognitive or physical effort, they are more inclined to adopt it. The concept extends beyond mere ease of use; it encompasses the overall user experience and the extent to which the technology facilitates rather than hinders their tasks and activities. Effort Expectancy reflects the user's subjective assessment of the system's simplicity, making it a critical determinant of technology acceptance and adoption.

In the Unified Theory of Acceptance and Use of Technology (UTAUT) context, social influence is vital in shaping individuals' attitudes and intentions regarding adopting technology. It pertains to the extent to which individuals perceive that others, including friends, family members, colleagues, and superiors, believe they should implement a new system or technology (Zhou et al., 2010; Yu, 2012; Oliveira et al., 2016; Alalwan et al., 2017). Social influence acknowledges the powerful impact of interpersonal interactions and societal pressures on one's awareness of and willingness to adopt technology. When individuals perceive that their peers and social networks endorse using a particular technology, it can significantly contribute to their acceptance of it. It underscores the role of social dynamics in technology adoption, highlighting that the influence of those around us can either facilitate or hinder the process. Understanding social influence is essential for understanding how external factors and interpersonal relationships shape individuals' adoption decisions.

Facilitating Conditions, a core dimension within the Unified Theory of Acceptance and Use of Technology (UTAUT), encompasses the external factors and conditions that can significantly influence technology adoption. These conditions, as posited by Triandis (52), include the level and type of support provided to individuals, ultimately impacting their use of technology. In a workplace context, Facilitating Conditions may encompass the availability of training, technical support, infrastructure, and resources to aid individuals in utilizing technology effectively. This dimension is pivotal in understanding how the environment in which individuals operate can either facilitate or impede their technology adoption efforts. Research has consistently shown that favourable conditions, such as comprehensive training and readily available support, have a positive and

significant relationship with both the desire to use internet technology and the actual utilization of such technology. In essence, Facilitating Conditions underscore the importance of creating an environment that empowers individuals to adopt and make optimal use of technology, making it a critical element in studying technology acceptance.

Perceived Enjoyment, while not explicitly mentioned within the Unified Theory of Acceptance and Use of Technology (UTAUT), is substantially relevant to technology acceptance. It refers to an individual's awareness of the sensations and pleasure experienced using a particular technology or system. This dimension holds particular importance in contemporary contexts, where technology often serves as a source of leisure and recreation. Perceived Enjoyment extends to physical and digital environments, with online shopping, for instance, being an area where it comes to the forefront. As such, online businesses must consider and enhance consumers' enjoyment when interacting with their digital platforms. While not explicitly incorporated into UTAUT, Perceived Enjoyment reflects the growing recognition of technology acceptance's emotional and experiential dimensions, providing valuable insights into why individuals choose to engage with and embrace technology.

Based on the findings in the relevant literature, a conceptual framework and hypotheses that describe the relationship between variables were developed as below:
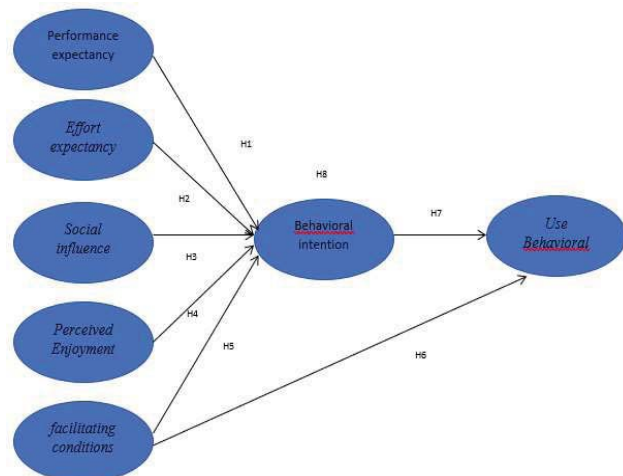

Figure 1: Research Conceptual Framework

From the conceptual framework and discussion of previous research, the hypothesis proposed in this study is as follows.

H1: Performance expectancy has a positive and significant effect on the behavioral intention of the Tokopedia application.

H2: Effort expectancy has a positive and significant effect on the behavioral intention of the Tokopedia application.

H3: Social Influence has a positive and significant effect on the behavioral intention of the Tokopedia application.

H4: Perceived enjoyment has a positive and significant effect on the behavioral intention of the Tokopedia application.

H5: Facilitating conditions have a positive and significant effect on the behavioral intention of the Tokopedia application.

H6: Facilitating conditions have a positive and significant effect on the actual use of the Tokopedia application.

H7: Behavioral intention has a positive and significant effect on the actual use of the Tokopedia application.

H8: Behavioral intention mediates the effect of performance expectancy, effort expectancy, social influence, and facilitating conditions on the actual use of the Tokopedia application.

2. Research Methods and Materials

This research is explanatory research, which intends to analyze and explain the relationship that occurs between the variables "performance expectancy", "effort expectancy", "social influence", and "facilitating conditions", as well as enjoyment perception as an antecedent of behavioural intention towards actual behaviour to use the Tokopedia application. This research was conducted in several provinces in Indonesia to obtain broader generalizations. Meanwhile, the time allotted for this research was one year, from the beginning of January 2021 to the end of December 2022. The population in this study is the Indonesian people. The sampling method in this study is non-probability sampling, which is a judgmental sampling technique. The sample size is determined based on the rules of thumb of the analytical tool used. Since the analytical tool used in this study is Structural Equation Modeling (SEM), the minimum sample size in this study is determined by the complexity of the model and the maximum likelihood, and the model consists of five constructs or less, the recommended minimum sample size is 100-200 (Ferdinand, 2002). With these considerations, the number of samples in this study was set at 200 people—data collection techniques using a questionnaire. Statistical analysis of the data in this study was carried out using Partial Least Squares (PLS) Analysis with tools in the form of the SmartPLS 3.0 program. PLS is a powerful analytical method because it can be applied to all data scales, does not require many assumptions, and the sample size does not have to be significant.

Table 1: Research Indicators

No	Construct	Indicator
1	*Perceived Enjoyment*	The Tokopedia application is interesting to visit
		The process of finding the items needed on the Tokopedia application is enjoyable.
		Interacting with sellers online provides convenience when shopping.
		Consumers enjoy the online shopping experience at Tokopedia.
2	*Performance Expectancy*	Hope that the shopping app is beneficial to life.
		Using the Tokopedia application allows the consumer to shop more quickly.
		Using the Tokopedia application allows the consumer to shop more quickly.
		Using the Tokopedia Application allows consumers to save on shopping expenses
3	*Effort Expectancy*	Hope that interaction with the Tokopedia application is understandable
		Hope it is easy to use the Tokopedia application
		Hope to be skilled at using the Tokopedia application
		hope that learning the Tokopedia application is an easy activity
4	*Social Influence*	Surrounding people influence the use of the Tokopedia application.
		The people closest to me thought that I should be able to use the Tokopedia application.
		Colleagues/ friends/ family help using the Tokopedia application
		In general, the closest people support using the Tokopedia application
5	*facilitating conditions*	Consumers have sufficient knowledge to use the Tokopedia application
		Consumers have adequate facilities to operate the Tokopedia application.
		Some people can help if you have difficulty operating the Tokopedia application.
		Internet facilities are well available in the consumer environment
6	*Behavioural Intention*	Intention to use the Tokopedia application again
		Intention to use the Tokopedia application every time you shop online
		The prediction will use the Tokopedia application next

No	Construct	Indicator
7	Use behavioral	Frequency of using the Tokopedia application to shop online
		Tokopedia Application Recommendations to Others
		I prefer shopping on Tokopedia compared to other similar shopping applications.
		Tell positive things to others about Tokopedia.

3. Results and Discussion

The results of the questionnaire distribution showed that 49% of the respondents came from the Bali area, 26.50% came from the Jakarta area, 9% came from the West Java area, and 5.50% came from the Banten area. In addition, only about 1% to 2% of respondents come from other regions. Of all consumers, 52.5% of respondents were female. As many as 47.5% of respondents had an average shopping frequency at Tokopedia less than two times. In comparison, 25% said they shopped an average of 3-4 times, and another 27.5% said they shopped an average of more than four times at Tokopedia. Most respondents are within the age range of 20-25 years (46.5%). As many as 67.5% of respondents had an undergraduate degree, and only one had a doctoral degree. Most of the respondents are private employees. Most respondents' monthly income is more than 8,000,000, with 81 respondents (40.50%).

Table 2: Standardised Loading Factor Results in Latent Variable Indicators

Variables	Indicator	SLC	Information
Perceived Enjoyment	x1.1	0.829	Valid
	x1.2	0.870	Valid
	x1.3	0.581	Valid
	x1.4	0.865	Valid
Performance Expectancy	x2.1	0.666	Valid
	x2.2	0.846	Valid
	x2.3	0.727	Valid
	x2.4	0.546	Valid
Effort Expectancy	x3.1	0.793	Valid
	x3.2	0.898	Valid
	x3.3	0.778	Valid
	x3.4	0.827	Valid
Social Influence	x4.1	0.640	Valid
	x4.2	0.867	Valid
	x4.3	0.856	Valid
	x4.4	0.890	Valid
facilitating condition	x5.1	0.824	Valid
	x5.2	0.510	Valid
	x5.3	0.825	Valid
	x5.4	0.722	Valid
Behavioural Intention	Y1.1	0.891	Valid
	Y1.2	0.952	Valid
	Y1.3	0.883	Valid

Variables	Indicator	SLC	Information
Use Behavioural	Y2.1	0.862	Valid
	Y2.2	0.858	Valid
	Y2.3	0.857	Valid
	Y2.4	0.811	Valid

Source: Data processing, 2023.

The results of Table 2 show that all indicators used as latent variable indicators have a standardized loading factor (SLF) value above 0.5, so all indicators are valid or that the indicators used can measure each latent variable optimally. Furthermore, the construct validity test of all latent variables used is carried out using the criteria for the value of the AVE root and the correlation between latent variables. The results of measuring the root value of AVE and the correlation of latent variables are as follows.

Table 3: Results of the root value of AVE for each latent variable

Latent Variables	√AVE
Behavioral Intention	0.909
Effort Expectancy	0.825
Facilitating Condition	0.731
Perceived Enjoyment	0.795
Performance Expectancy	0.705
Social Influence	0.819
Use Behavioral	0.847

Source: Data processing, 2023.

Based on the root AVE value in Table 3 and the correlation value between latent variables, it can be seen that the root AVE value of all variables is higher than the correlation value of the latent variable itself with other latent variables. For example, the behavioral intention variable has an AVE root value of 0.909 while the correlation value of the behavioral intention variable with other latent variables such as effort expectancy, facilitating conditions, perceived enjoyment, performance expectancy, social influence, and use behavioral has a correlation value below 0.909. It can be concluded that all construct variables in the model fulfil discriminant validity. Furthermore, composite reliability or convergent validity (AVE) measurements are carried out. This measurement aims to evaluate the outer model. The following are the results of the calculation of composite reliability (CR) and convergent validity (AVE).

Table 4: Correlations between Latent Variables

Variables	Behavioral Intention	Effort Expectancy	Facilitating Condition	Perceived Enjoyment	Performance Expectancy	Social Influence	Use Behavioral
Behavioral Intention	1						
Effort Expectancy	0.415	1					
Facilitating Condition	0.564	0.545	1				
Perceived Enjoyment	0.656	0.497	0.579	1			
Performance Expectancy	0.558	0.652	0.484	0.56	1		
Social Influence	0.384	0.296	0.176	0.327	0.299	1	
Use Behavioral	0.784	0.395	0.466	0.615	0.491	0.463	1

Source: Data processing, 2023.

Table 5: CR and AVE Values of Latent Variables

Variables	CR	AVE
Behavioral Intention	0.935	0.826
Effort Expectancy	0.893	0.681
Facilitating Condition	0.815	0.535
Perceived Enjoyment	0.870	0.632
Performance Expectancy	0.791	0.496
Social Influence	0.886	0.671
Use Behavioral	0.909	0.718

Source: Data processing, 2023.

Based on the analysis results in Table 5, latent variables have AVE values above the minimum criterion of 0.5 except for the performance expectancy variable. All latent variables except the performance expectancy variable in this study can be said to meet the criteria for convergent validity because they have an AVE value above 0.5. In addition, based on the CR value presented in the table, it can be obtained that all latent variables have a CR value above 0.6, which means that the indicators used are said to be able to measure latent variables well, or it can also be said that the

entire measurement model is reliable.

The results for measuring the outer model of all indicators used as indicators of latent variables have a standardized loading factor (SLF) value above 0.5. The AVE root value of all variables is higher than the correlation value of the latent variable with other latent variables. After measuring the outer model, measurements are taken for the complete structural model (inner model). The R-square value in this study for each endogenous variable in the table shows that the behavioral variable has an R-square of 0.568, which means that the model can only explain the behavioral intention construct of 56.8%. The use behavioral variable has an R squared value of 0.620, which means that the model can only explain the use behavioral construct by 62%. All R-square values in the table indicate that each model that forms the construct variable is included in the moderate or medium category. F square is used to measure the relationship between exogenous variables and endogenous variables. The following is the result of the calculation of the f-square model.

Table 6: F-square Value

	f-square	Category
Behavioral intention -> Use Behavioral	1.060	Strong
Effort Expectancy -> Behavioral Intention	0.027	Small
Facilitating Condition -> Behavioral Intention	0.105	Small
Facilitating Condition -> Use Behavioral	0.008	Small
Perceived Enjoyment -> Behavioral Intention	0.162	Medium
Performance Expectancy -> Behavioral Intention	0.082	Small
Social influence -> Behavioral Intention	0.070	Small

Source: Data processing, 2023.

The results of the f-square calculation in Table 6 show that the behavioral intention variable significantly influences the use of behavioral variables. Meanwhile, other variables such as effort expectancy, facilitation conditions, performance expectancy, and social influence are weak in explaining the behavioral intention variable. The perceived enjoyment variable has a moderate effect on the behavioral intention variable. Apart from using R-squared and F-

squared, the goodness of the model can also be calculated by the Q2 value. If the Q2 value is more than zero, it indicates that the model has relevant predictions, while if the Q2 value is less than 0, it is proven that the model does not have predictive relevance. The following is the calculation for Q2.

$$Q^2 = 1-((1-0,568)(1-0,620)) = 0,836$$

The Q2 value obtained in this study is 0.836, so the model compiled already has relevant and reasonably good predictions.

The results of the value of the loading factor and the t-statistic value obtained from the results of the bootstrapping process with a sample size of 200 with 1000 repetitions are as follows.

Table 7: Hypothesis Test Results

	Hypothesis	Coef.	T-value	P-value	Information
H1	Performance expectancy has a positive and significant effect on the behavioral intention of the Tokopedia application.	0 .263	3 .469	0 .001	accepted
H2	Effort expectancy has a positive and significant effect on the behavioral intention of the Tokopedia application.	-0 .132	1 .891	0 .059	Rejected
H3	Social influence has a positive and significant effect on the behavioral intention of the Tokopedia application	0 .181	3 .222	0 .001	accepted
H4	Perceived enjoyment has a positive and significant effect on the behavioral intention of the Tokopedia application.	0 .354	4 .43	0 .000	accepted
H5	Facilitating conditions have a positive and significant effect on the behavioral intention of the Tokopedia application.	0 .273	3 .439	0 .001	accepted
H6	Facilitating conditions have a positive and significant effect on the actual use of the Tokopedia application.	0 .038	0 .687	0 .492	rejected
H7	Behavioral intention has a positive and significant effect on the actual use of the Tokopedia application.	0 .764	18 .143	0 .000	accepted

Source: Processed data, 2023.

Table 8: Sobel Test Results for Mediation Variables

Path	T-value	P-value
Performance expectancy -> Behavioral intention -> Use behavioral	3.407	0.001
Effort expectancy -> Behavioral intention -> use behavioral	1.881	0.060
Social influence -> Behavioral intention -> use behavioral	3.172	0.002
Perceived enjoyment -> Behavioral intention -> Use behavioral	4.304	0.000
Facilitating conditions -> Behavioral intention -> Use behavioral	3.379	0.001

Source: Processed data, 2023.

The performance expectancy variable that affects the behavioural intention variable has a t-value of 3.469 with a p-value of 0.000. Thus, the performance expectancy variable significantly influences the behavioural intention variable. The coefficient value of 0.263 indicates that performance expectancy positively influences the behavioural intention of the Tokopedia application. Thus, increasing public expectations regarding the use of technology will increase people's intention to use the Tokopedia application. Someone who hopes a shopping application can provide faster and easier shopping benefits will increase one's intention to shop online at Tokopedia. Not only is it fast and easy, but the expected savings through online shopping will also increase one's intention to always shop at Tokopedia. The results of this study are from the research by Zhou et al. (2010), who concluded that customer intention to use a technology is significantly predicted by performance expectancy. These results are also those of Gupta et al. (2019), who state that performance expectancy can increase a person's intention to use technology.

The effort expectancy variable has no significant effect on behavioural intention. This is known from the t-value obtained at 1.891 with a p-value of 0.059, where the p-value is more than the significance level of 0.05. In addition, a coefficient of -0.132 indicates a negative relationship between effort expectancy and behavioural intention variables, so the hypothesis in this study was rejected. The results show that the effort expectancy level does not affect customers' intentions in using the Tokopedia application. In this study, consumers' demand to be skilled at a shopping application is independent of a person's intention to use the Tokopedia application to shop online. Likewise, a person's intention to use the Tokopedia application is independent of the effort consumers make to understand all the features provided by Tokopedia. The level of effort someone perceives cannot determine one's intention to use the Tokopedia application. The results of this study are by several authors who validate the impact of effort expectancy on customer intentions in using communication technology (Riquelme & Rios, 2010; Oliveira et al., 2014; Alawan et al., 2017).

Social influence on behavioral intention has a value of 0.181, while the resulting t-value is 3.222 with a p-value of 0.001, so the social influence variable has a positive and significant effect on the behavioral intention variable. So, the increasing social influence in using the Tokopedia

application will increase people's desire to use it. Someone with a high intention of using the Tokopedia application to shop online is influenced by the people closest to the consumer. Usually, the closest people often recommend the benefits of the application. Colleagues or family relations are usually social references in a product. The closer people use the application and state the perceived benefits, the more they intend to use the Tokopedia application. The results of this study are consistent with previous studies (Foon & Fah, 2011; Zhou et al., 2010), which state that social influence has a significant effect on behavioral intention.

Perceived enjoyment that affects the behavioral intention variable has a t-value of 4.430 with a p-value of 0.000. Thus, the perceived enjoyment variable influences the behavioral intention variable significantly. The coefficient value of 0.354 indicates that perceived enjoyment positively influences the Tokopedia application's behavioral intention. Thus, increasing people's pleasure in using the Tokopedia application will increase people's intention to use the Tokopedia application. This means that people will use online shopping applications if the application displays exciting features so that searching for goods becomes very enjoyable. Interaction with online sellers is also essential because consumers can have a pleasant shopping experience. The results of this study are consistent with previous research, which stated that Perceived enjoyment has a positive and significant effect on behavioral intention (Ulan et al., 2016; Junitawati, 2015).

Facilitating conditions have a significant effect on behavioral intention. This is known from the t-value obtained at 3.439 with a p-value of 0.001, where the p-value is less than the significant level value of 0.05. In addition, a coefficient of 0.273 indicates a positive relationship between facilitating conditions and behavioral intention variables. This shows that increasing facilitating conditions will increase customers' intentions to use the Tokopedia application. Adequate facilities must support someone's intention to use the Tokopedia application. Adequate internet facilities determine a person's intention to use the application. Adequate facilities, knowledge and the help of other people will increase the desire for someone to use the Tokopedia application. When someone has good facilities to access the application, someone will intend to use the application. The results of this study are consistent with the findings of Venkatesh et al. (2003).

Facilitating conditions have no significant effect on user behavior. This is known from the t-value obtained at 0.687 with a p-value of 0.492, where the p-value is more than the significant level value of 0.05. The results show that facilitating conditions cannot influence someone to use the Tokopedia application directly. Even though other people have the skills to help someone, they may only sometimes proceed to online shopping through the application. The

results of this study are inconsistent with previous studies (Zhou et al., 2010; Oliveira et al., 2014; Alalwan et al., 2016; Alalwan et al., 2017; Yu, 2012;) which state that facilitating conditions will increase the actual use of technology.

Behavioral intention, which affects the behavioral use variable, has a t-count value of 18.143 with a p-value of 0.000. Thus, the behavioral intention variable significantly influences the behavioral use variable. The coefficient value of 0.764 indicates that behavioral intention positively influences the Tokopedia application's user behavior. Thus, the increasing public intention to use the Tokopedia application will increase the actual use of the Tokopedia application. Someone who already intends to use the Tokopedia application will choose Tokopedia as an application that can fulfil their online shopping needs.

The results of the Sobel test show that the t-value of the Sobel test is greater than the significant level of 1.96. In contrast, the effort expectancy is less than 1.96, and the p-value is less than 0.05, apart from the effort expectancy variable. The behavioral intention variable can partially mediate the variables of performance expectancy, social influence, and perceived enjoyment on the actual use of the Tokopedia application. Meanwhile, behavioral intention can fully mediate the facilitating condition variable on the actual use of the Tokopedia application.

H2 posited that "Effort expectancy has a positive and significant effect on the behavioral intention of the Tokopedia application." Still, this hypothesis was rejected due to a p-value exceeding the conventional significance level of 0.05 (p = 0.059). The rejection of this hypothesis is grounded in practical considerations related to the application's real-world usage and user preferences.

Several factors may account for this rejection. Firstly, the Tokopedia application's features and navigation complexity may make users perceive it as more challenging to use than initially expected. This heightened complexity can diminish users' positive behavioral intentions towards the application. Secondly, individual users exhibit varying preferences and tolerance levels for complexity. Some users may be more patient and willing to surmount technical challenges, while others may opt for simpler alternatives, influencing the relationship between Effort Expectancy and behavioral intentions. Thirdly, prior experiences with the Tokopedia application or similar ones can color users' perceptions of Effort Expectancy. Negative experiences or past difficulties may reduce users' intentions to utilize Tokopedia, even if they find the application relatively user-friendly. Fourthly, user expectations may evolve. Initially expecting ease of use, users' expectations may shift due to technological advancements or changes in similar applications, resulting in disparities between initial expectations and actual experiences. External factors like policy alterations or market trends can impact users' behavioral intentions. For

instance, shifts in privacy or security policies may alter users' perceptions of the application and consequently affect their intent to use it.

Similarly, H6 proposed, "Facilitating conditions have a positive and significant effect on the actual use of the Tokopedia application." Still, this hypothesis was rejected based on a p-value of 0.492, exceeding the 0.05 threshold. Rejecting this hypothesis can be elucidated by examining various practical factors related to the actual usage of the Tokopedia application.

The incompatibility of facilitating conditions, such as internet connection speed, device availability, or platform stability, with user needs may contribute to the hypothesis's rejection. Users might possess a reliable internet connection but not actively require or have a strong interest in the services offered by the Tokopedia application, diminishing the positive impact of facilitating conditions on actual usage. Secondly, within the competitive landscape of applications, Tokopedia faces alternatives that may offer more enticing features or promotions. Even if the facilitating conditions for Tokopedia are favorable, users may opt for competing applications, thereby reducing Tokopedia's actual usage. Thirdly, application user preferences can change over time, independent of stable facilitating conditions. Users may switch to other applications that better align with their evolving preferences or needs, leading to a decrease in the actual use of Tokopedia. Fourthly, changes in the business environment, such as pricing, promotions, or policies, may influence Tokopedia's actual usage. These external factors can also shape how facilitating conditions contribute to the overall use of the application. Lastly, psychological factors, including motivation, satisfaction, and engagement, are pivotal in determining usage. Users may experience decreased motivation or satisfaction when using the Tokopedia application, even if the facilitating conditions are optimal, thereby impacting the extent of its actual usage.

The rejection of these two hypotheses underscores the multifaceted nature of user behavior within the context of the Tokopedia application, reflecting the interplay of usability, individual preferences, external factors, and psychological aspects in shaping user intentions and actual usage. These findings contribute to a more nuanced understanding of user dynamics in mobile applications and offer valuable insights for application developers and marketers.

4. Conclusions

In summary, this study has yielded significant insights into the factors influencing user behavior in the context of the Tokopedia application. We have found that user's perception of the app's performance directly impacts their behavioral intention to use it. This underscores the importance of ensuring that users believe the application effectively meets their needs. Moreover, for the Tokopedia Social Influence application, the ease of use, or effort expectancy, plays a pivotal role in shaping users' behavioral intentions. This highlights the need for a seamless and user-friendly experience in promoting engagement with this particular app version.

The study has revealed that users' perceived enjoyment of using the Tokopedia application significantly influences their behavioral intention to continue using it. This emotional aspect of the user experience cannot be underestimated, as it directly affects their willingness to engage with the platform. The presence of facilitating conditions, such as technical support and access to resources, has positively impacted both the behavioral intention and the actual use of the Tokopedia application. This underscores the importance of creating an environment that enables users to make the most of the app's features. Behavioral intention emerges as a critical mediator in our research. It partially mediates the relationships between factors like performance expectancy, social influence, perceived enjoyment and the actual use of the Tokopedia application. This implies that users' intent to use the application plays a crucial role in translating these factors into real-world usage. The study underscores the indirect influence of perceived enjoyment on using the Tokopedia application through its impact on behavioral intention. This suggests that users' overall enjoyment of the app contributes significantly to their intent to use it, which drives increased usage.

In conclusion, these findings offer valuable insights into the complex interplay between user perceptions, intentions, and actual behaviors in the context of the Tokopedia application. The implications of this research extend beyond this specific case, providing broader insights into the dynamics of technology adoption and application usage. These findings can inform strategies to enhance user engagement and satisfaction, ultimately contributing to the success of technology platforms like Tokopedia. Further exploration of these factors in various contexts will continue to advance our understanding of user behavior in the digital age.

References

AbuShanab. E., & Pearson, J. M. (2007). Internet Banking In Jordan. *The Electronic Library*, *9*(1), 78-97.

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, *50*, 179-211.

Alalwan, A. A., Dwivedi, Y. K., & Williams, M. D. (2016). Customers' intention and adoption of telebanking in Jordan. *Information Systems Management*, *33*(2), 154-178.

Bandura, A. (1986). *Social foundations of thought and action.* Englewood Cliffs, NJ: Prentice Hall.

Davis, F.D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*. 13(5), 319-339.

Davis, F.D., Bagozzi, R.P., & Warshaw, P.R. (1992). Extrinsic and Intrinsic Motivation to Use Computers in the Workplace. *Journal of Applied Social Psychology*, 22(14), 1111-1132.

Donmez-Turan, A. (2019). Does the unified theory of acceptance and use of technology (UTAUT) reduce the resistance and anxiety of individuals towards a new system?. *Kybernetes, 49*(5), 1381-1405. doi:10.1108/k-08-2018-0450.

Gupta, K. P., Manrai, R., & Goel, U. (2019). Factors influencing adoption of payments banks by Indian customers: Extending UTAUT with perceived credibility. *Journal of Asia Business Studies, 13*(2)*.* doi:10.1108/jabs-07-2017-0111.

Jackson, J. D., Yi, M. Y., & Park, J. S. (2013). An empirical test of three mediation models for the relationship between personal innovativeness and user acceptance of technology. *Information and Management, 50*(4), 154-161

Oliveira, T., Fariaa, M., & Thomas, M. A., (2014). Extending the understanding of mobile banking adoption: When UTAUT meets TTF and ITM International. *Journal of Information Management, 34*, 689-703.

Oliveira, T., Thomas, M., & Baptista, G., (2016). Mobile payment: Understanding the determinants of customer adoption and intention to recommend the technology. *Computers in Human Behavior, 61*, 404-414.

Rahi, S., Ghani, M., Alnaser, F., & Ngah, A. (2018). Investigating the role of a unified theory of acceptance and use of technology (UTAUT) in internet banking adoption context. *Management Science Letters, 8*(3), 173-186.

Riquelme, H. E., & Rios, R. E. (2010). The moderating effect of gender in the adoption of Mobile banking. *International Journal of Bank Marketing*, *28*(5), 328-341.

Rondan-Cataluña, F. J., Arenas-Gaitán, J., & Ramírez-Correa, P. E. (2015). A comparison of the different versions of popular technology acceptance models: A non-linear perspective. *Kybernetes, 44*(5), 788-805.

Shen, Y.-C., Huang, C.-Y., Chu, C.-H., & Hsu, C.-T. (2010). A benefit-cost perspective of the consumer adoption of the mobile banking system. *Behavior and Information Technology,* 29(5), 497-511.

Tarhini, A., El-Masri, M., Ali, M., & Serrano, A. (2016). Extending the UTAUT model to understand the customers' acceptance and use of internet banking in Lebanon: A structural equation modelling approach. *Information Technology & People*, *29*(4), 830-849.

Venkatesh, V. (2000). Determinants of perceived ease of use: Integrating control, intrinsic motivation, and emotion into the technology acceptance model. *Information systems research, 11*(4), 342-365.

Venkatesh, V., & Davis, F. D. (1996). A model of the antecedents of perceived ease of use: Development and test. *Decision Sciences, 27*(3), 451-481.

Venkatesh, V., Morris, M.G., Davis, G.B., & Davis, F.D. (2003). User Acceptance of Information Technology: Toward A Unified View. *MIS Quarterly*, *27*(3), 425-478.

Venkatesh, V., Thong, J. Y., & Xu, X. (2012). Consumer acceptance and use of information technology: extending the unified theory of acceptance and use of technology. *MIS Quarterly, 36*(1), 157-178.

Venkatesh., V., Michael G. Morris, G. B. D., & F. D. D. (2013). User Acceptance of Information Technology: Toward a Unified View. *Inorganic Chemistry Communications*, *27*(3), 425-478. https://doi.org/https://doi.org/10.2307/30036540

Williams, M. D., Rana, N. P., & Dwivedi, Y. K. (2015). The unified theory of acceptance and use of technology (UTAUT): A literature review. *Journal of Enterprise Information Management*, *28*(3), 443-448. https://doi.org/10.1108/JEIM-09-2014-0088

Yu, C. S. (2012). Factors affecting individuals to adopt Mobile banking: Empirical evidence from the UTAUT model. *Journal of Electronic Commerce Research, 13*(2), 104-121.

Yuen, Y. Y., Yeow, P. H. P., Lim, N., & Najib S. (2010). Internet banking adoption: Comparing developed and developing countries. *The Journal of Computer Information Systems*, *51*(1), 52-61.

Zhou, T., (2012). Examining mobile banking user adoption from the perspectives of trust and flow experience. *Information Technology and Management*, *13*, 27-37.

Zhou, T., Lu, Y., & Wang, B. (2010). Integrating TTF and UTAUT to explain Mobile banking user adoption. *Computers in Human Behavior*, *26*(4), 760-767.