

Digital Economics in Motion: Analyzing UTAUT Factors Driving Payment Gateway Adoption Among Bali's MSMEs

Ni Nyoman Vera Yulianingsih ¹, Putu Dyah Permata Korry ²

Abstract:

This study discusses the digital transformation of Micro, Small, and Medium Enterprises (MSMEs) in Bali, focusing on the influence of the UTAUT concept on the interest in using payment gateways among entrepreneurs. The background of this study emphasizes the importance of adopting digital technology to support the economic growth of MSMEs, using the UTAUT concept as a theoretical framework. The research method used is a survey of MSME actors in Denpasar City, using a questionnaire as a data collection tool involving 110 respondents. The sample in this study was determined by a non-probability method using a purposive sampling technique, with the criteria of implementing at least one payment gateway application. This sample was targeted at MSME actors in Endek, Denpasar City, who utilize the payment gateway system. The findings show that performance expectancy, effort expectancy, and social influence have a significant positive impact on the intention of MSME actors to use payment gateways. Trust, as a mediating variable, also shows a significant contribution in influencing the decision to adopt this technology. The digital ecosystem moderates the influence of trust on the intention to use. This study concludes that to increase the use of payment gateways among MSMEs, it is important for stakeholders to provide adequate education and support, as well as optimize existing digital infrastructure.

Keywords: Digital Economisc; Performance Expectancy; Effort Expectancy; Social Influence; Trust; Intention to Use.

Sumbitted: February 2, 2025, Accepted: March 10, 2025, Published: March 31, 2025

1. Introduction

Indonesia's current economic conditions reflect a developing country, so that its economic development leads to economic growth. Based on(BPS Indonesia, 2024)Indonesia's economy in Q2-2024 compared to Q2-2023 (y-on-y) grew by 5.05 percent. This growth occurred in all business sectors. The business sectors that experienced significant growth were: Provision of Accommodation and Food and Beverage by 10.17 percent, Transportation and Warehousing by 9.56 percent.

The role of Micro, Small and Medium Enterprises (MSMEs) in the development of the economy in Indonesia is already very large and can be categorized as one of the

¹ Universitas Pendidikan Nasional, Bali, Indonesia, Verayulianingsih60@gmail.com

² Universitas Pendidikan Nasional, Bali, Indonesia, Mithakory@undiknas.ac.id

main industries, MSMEs have a strategic role in national economic development (Coordinating Ministry for Economic Affairs of the Republic of Indonesia, 2023). Currently, MSMEs are in a good direction with their numbers continuing to increase every year. This good direction will have a positive effect on the Indonesian economy (KemenKeu, 2023). Based on data (KemenKop & UKM, 2023) the contribution of MSMEs to National GDP is 60.5%. This shows that MSMEs in Indonesia have great potential to be developed so that they can make a greater contribution to the economy. This can be seen from the increasing development of micro and medium enterprises by Indonesian entrepreneurs (Halim, 2020). Micro, Small and Medium Enterprises (MSMEs) are an important part of the economy in Indonesia because they contribute greatly to economic growth and employment. MSMEs are businesses owned by individuals or business entities that have met the requirements set by Law of the Republic of Indonesia Number 20 of 2008 concerning Micro, Small and Medium Enterprises. MSMEs in Indonesia have a major role in overcoming the economic crisis and are a source of livelihood for many people in Indonesia.

The financial sector plays a vital role in the functioning of the economy and helps in smooth transactions and monitoring of resources. A stable financial system is essential for efficient distribution of funds and making economic activities more productive, leading to better economic growth (Shahbaz et al., 2013). The results of research conducted by (Tegar, 2023)shows that the financial sector also plays an important role in accelerating a country's economic growth through technological innovation. Before technological advances, financial transactions were carried out in a traditional way. Customers need to go to the bank to make transactions, and sellers and buyers must meet in person when making transactions. However, along with the development of the era and technology, transactions can now be done via ATMs, SMS Banking, and E-Banking. In this way, the financial transaction process becomes easier, faster, and more enjoyable. All human activities in all fields, one of which is financial activities, have become easier after the development of technology (Kholis, 2022).

In today's digital era, the development of information technology has brought significant changes in various aspects of life, including the economy. This encourages business people to innovate, especially in the financial sector (Yadi et al., 2023). The Indonesian government is actively encouraging Micro, Small, and Medium Enterprises (MSMEs) to adapt to digitalization. In 2022, as many as 20.76 million MSMEs have joined the digital ecosystem, an increase of 26.6% from the previous year, bringing the total to 32.44% of the 64 million MSME units in Indonesia. The government is targeting 30 million MSMEs to enter the digital ecosystem by 2024 (KemenKop&UMKM, 2023). The growth of MSMEs in the digital ecosystem has great potential to support the country's economy. Technological advances must be supported by adequate facilities, such as internet network access. One of the innovations that has emerged is Financial Technology (Fintech), which accelerates digitalization in the financial sector (Kurniasari et al., 2022).

Financial Technology (Fintech) is a combination of financial systems and technology. The growth of fintech in Indonesia has resulted in various application innovations, especially in financial services such as tools for payment transactions, saving money,

and lending money. The increasing use of fintech in Indonesia shows a shift in society from the traditional financial system to fintech. This shift is driven by the speed and ease of fintech in accessing various needs related to the financial system (Choiriyah & Purwanto, 2022), This financial technology (fintech) supports financial services. The development of fintech has created innovations in several applications in financial services. These services include payment instruments, loan instruments, and others that are increasingly well-known in this digital era (Astohar et al., 2022). In the current era of rapid technology, MSMEs are required to change their transaction patterns from previously manual to now digital.

Online-based fintech makes financial access closer and makes it easier for MSMEs to operate. Performance Expectancy shows that fintech support can integrate all financial matters efficiently, improving MSME performance. Effort Expectancy shows that MSME players are increasingly open and consider the use of technology as easy. In addition, Social Influence plays a role in strengthening the relationship between MSMEs and customers, allowing MSMEs to focus more on other issues, such as products and delivery. These three factors contribute to increasing MSME players' confidence in adopting fintech, especially in the use of Payment Gateways. Reported from the Visa.co.id page, the Visa Consumer Attitude Study 2023 found that the cashless wave continues in Indonesia, where cash usage has dropped to 80% and cashless usage has increased to 92%, the same as last year.

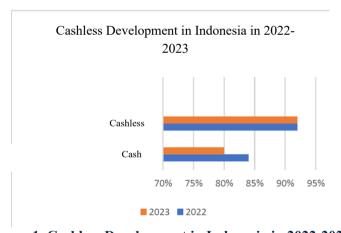


Figure 1. Cashless Development in Indonesia in 2022-2023

This shows that Indonesian people are increasingly accustomed to cashless payments, which indicates a shift towards a society that prioritizes digital transactions. This change is driven by the increasing acceptance of various digital payment methods in various types of merchants. Payment Gateway is a tool that makes it easier for users to make transactions between sellers and buyers. This tool is usually used in e-commerce to approve payment methods online (Khafidloh et al., 2021).

In research on the analysis of payment transactions using payment gateways for MSMEs in Indonesia, it states that convenience, security, transaction suitability and ease of transaction are supporting factors to further reassure the interest of MSME

actors. Other supporting factors also cannot be ignored, such as ease of recording, ease of transaction processes. and increasing sales (Savitri et al., 2022). Increased sales can be felt directly conventionally to online and even more so to foreign countries (Mukti & Ilhamsyah, 2022). In addition to supporting factors, there are inhibiting factors for MSMEs in using Payment Gateways such as lack of understanding of technology, minimal levels of trust in security and education, social influence between MSMEs and limited digital infrastructure. With these inhibiting factors, solutions that can be implemented are diligently conducting education, increasing trust, improving the digital ecosystem and improving digital infrastructure.

Efforts to overcome these factors by implementing Financial Technology (Fintech). Where Fintech is supported by UTAUT theory because it can determine the behavioral intentions of users in using a technology. By using this UTAUT theory, the variables adopted by researchers are the independent variables of Performance Expectations, Effort Expectations and Social Influence on the dependent variable of Intention to Use Payment Gateway which is mediated by Trust and Moderated by the Digital Ecosystem. Where the Trust and Digital Ecosystem variables are a novelty of this research later.

Table 1. Denpasar City MSME Performance Data 2023

DENPASAR CITY	CLASSIFICATION				
2023	MICRO	SMALL	INTERMEDIATE	TOTAL	
CULINARY	7568	248	49	7865	
FASHION	10487	243	84	10814	
EDUCATION	293	111	39	443	
AUTOMOTIVE	2511	123	47	2681	
AGROBUSINESS	5883	142	28	6053	
INTERNET TECHNOLOGY	898	133	28	1059	
OTHER FIELDS	3497	188	26	3711	

Source: DISKOPUKM Bali Province, 2023

From the data table above, the UMKM with the highest population in Denpasar City is in the fashion sector. Fashion is a human clothing need which is a basic need, this is what makes the development of fashion very rapid because with fashion people will be free to express themselves. The development of the fashion industry itself has a cultural phenomenon that continues to grow, and also reflects values, norms, and social aspirations in society (Steele, 2022).

Fashion consists of several aspects such as clothes, pants, shoes, sandals and many more. From the cultural elements themselves, there are various cultures that are collaborated with fashion, one of which is endek, a traditional Balinese clothing that has a long historical value. Government support through the Circular of the Governor of Bali No. 04 of 2021 concerning the use of Balinese endek woven cloth / traditional Balinese woven cloth. This support makes the endek fashion industry in Bali have a large space for MSMEs to sell products from endek itself.

This phenomenon is supported by several studies that have been conducted by (Hardika & Ermawati, 2020) with the research results found that the variables of performance expectations, business expectations, social factors and facilitating conditions have a significant positive influence on the interest in using e-Filing. While other research conducted by (Chairia et al., 2020) states that the variables of performance expectations, social influence, and supportive conditions do not have a positive influence in determining behavioral intentions to use Itqan Mobile. In addition, previous research found that perceptions of trust have a positive effect on interest in using e-wallets (Tirta, 2023). However, there are different findings from the research conducted (Pambudi et al., 2022), namely finding that the perception of trust does not affect the interest in using Bank Syariah Indonesia mobile banking.

Payment Gateway provides so many services and conveniences along with its benefits, so it should have a positive impact on UMKM actors to implement the system. So that the internal work environment will be more positive. And the existence of external factors such as the government has created regulations in terms of security, where this is a form of government support for UMKM and also supports the acceleration of UMKM to be more advanced. In addition, the government has also supported the expansion of the internet network to remote areas in Indonesia. With the legal support and facilities provided by the state, the novelty of this research is to raise the progress of the digital ecosystem and the trust of the implementation of the intention to use the payment gateway.

Based on the phenomenon of the problems that have been described above and also the results of empirical studies of previous studies that have not been consistent, this study wants to examine more deeply the factors that influence the intention of MSME entrepreneurs, especially the fashion sector, to use Payment Gateway. This study wants to see how the relationship between the independent variables of Performance Expectations, Business Expectations and Social Influences is related to the dependent variable of Intention to Use Payment Gateway which is mediated by Trust and Moderated by the Digital Ecosystem.

2. Theoretical Bakground

Technology Acceptance Model (TAM): A model developed by (Venkatesh et al., 2003) to determine the behavioral intention of users in using a technology. UTAUT theory has been widely used by someone who wants to conduct research related to user acceptance of an information technology (Beautiful & Agustin, 2019). UTAUT illustrates that the intention to use (behavior intention) and actual behavior of users (use behavior) of a system are influenced by performance expectancy, effort expectancy, social influence, and facilitating conditions (Venkatesh et al., 2003).

Performance Expectancy:Performance Expectancy is the level of confidence a person has in the use of a system to improve their performance. Performance expectancy plays a major role in a business because it is related to efficiency and effectiveness in processing transaction data. Performance expectancy helps and benefits in increasing work productivity (Fithri Meuthia et al., 2020). Performance

Expectancy Indicator based on research (Handayani & Sudiana, 2017)includes the perception of ease in managing work activities, speed in completing tasks that increase productivity, performance benefits that bring real benefits in productivity and efficiency, and motivation that drives users to adopt technology because of the belief in the added value it provides.

Effort Expectancy: The degree to which a person believes that using technology will reduce excessive effort (Nugraha & Yadnyana, 2018). Effort Expectancy is how much someone perceives the ease provided by a technology used. The easier the technology is to use, namely the website or application is easy to access and understand, the greater the motivation for someone to continue using the website or application. Conversely, if the website or application is difficult to understand and operate, people will be lazy to use it (Venkatesh et al., 2003).

Social Influence: The form of support from co-workers, managers, organizations and superiors of users who find the suitability of the innovation in an individual. In certain environments, system users will increase a person's position in the social system. If members of a group in the workplace believe that they need to use a system, then an individual who does so will tend to use the system (Salamah & Kusumanto, 2017).

Trust: A belief in something that is believed that what has been done can provide useful benefits and advantages (Bakhtiar et al., 2022). This trust refers to the belief that payment gateway services are reliable, safe, and able to protect users' personal and financial information.

Behavioral Intention: The extent to which a person will use technology in the future. The interest in using a system is the user's intention to use the system continuously with the assumption that they have access to the system (Venkatesh et al., 2003).

Digital ecosystem: A collection of digital components that are interconnected and work together to provide services, share information, and create value for users and businesses. A digital ecosystem can be defined as an open and adaptive sociotechnical system, characterized by self-organization and sustainability (Nachira et al., 2007). More simply, a digital ecosystem is a network of people and organizations, connected by digital technologies, often with a core, called a platform (Baldwin, 2009).

Financial Technology: The development of digital technology is something that is inevitable and cannot be avoided. The industrial revolution in the 18th century in England, always caused changes in the industrial order that affected almost every field, both negatively and positively. The next industry that will be disrupted is the financial services industry, which is then known as Financial Technology (Fintech) or financial technology (Tekfin) (Ilman et al., 2019).

Payment Gateway: A technology that functions to forward authorization in transaction processing between merchants and banks so that customers can pay using

credit cards, debit cards, or other digital payments. Without a Payment Gateway, customers must make transfers through banks or other online payment services manually.

Conceptual Framework

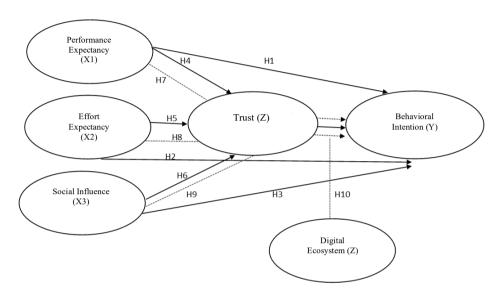


Figure 1. Conceptual Framework

Research Hypothesis

The Influence of Performance Expectations on Intention to Use Payment Gateways

The Unified Theory of Acceptance and Use of Technology (UTAUT) is useful to explain how performance expectations affect the interest of users to use Payment Gateway. Performance expectations are a user's beliefs regarding the use of technology which in its use can provide assistance and benefits in completing work (Venkatesh et al., 2003). According to research(Wulandari, 2023) shows that performance expectations have a positive effect on interest in using OVO. According to Faris's research (2021), performance expectations have a positive effect on people's interest in using smartphone technology. In the study (Sembiring et al., 2019) states that performance expectations have a positive effect on interest in using e-filling.

H1: Performance Expectations Have a Positive Influence on Intention to Use Payment Gateway.

The Influence of Business Expectations on Intention to Use Payment Gateways

Business expectations according to (Awanto et al., 2020) is the ease of using a system that can minimize the energy and time spent by an individual when doing activities. (Sasmita, 2022) states that business expectations are the convenience and benefits felt by a system user in using a system which can help individuals complete their work effectively and efficiently. In Cahyani's research (2022) found that business

expectations have a positive effect on the interest in using and the behavior of using digital banking.

H2: Business Expectations Have a Positive Influence on Intention to Use Payment Gateway.

Social Influence on Intention to Use Payment Gateway

(Venkatesh et al., 2003) states that social influence is the level of a user who can influence the surrounding environment, be it family, friends, and society to use the same technology as he has used. In the study (Suparyati, 2019) shows that social influence has a positive effect on the intention to utilize and use E-Performance. Based on research conducted by (Putri et al., 2022) stated that social influence has a positive effect on the intention to use the BIBIT application.

H3: Social Influence Has a Positive Influence on the Intention to Use Payment Gateway.

The Influence of Performance Expectations on Trust in Using Payment Gateways

Performance expectancy or performance expectations are a person's belief that using the system will help the person gain benefits in their work (Venkatesh et al., 2003). Research conducted (Jiang et al., 2019) And (Nindya, 2021) states that performance expectancy influences trust.

H4: Performance Expectations Have a Positive Influence on Trust in Using Payment Gateways.

The Influence of Business Expectations on Trust in Using Payment Gateways

Effort Expectancy is the extent to which a person believes that using a system will be free from effort (Davis, 1989). Trust is a person's attitude of trust towards the use of a system or technology (Davis, 1989). According to UTAUT theory, effort expectations have a positive effect on trust, meaning that the easier a system is to use, the more users trust the system (Setyawan, 2020).

H5: Business Expectations Have a Positive Influence on Trust in Using Payment Gateways.

Social Influence on Trust Using Payment Gateway

Social influence is defined as the level of consumer concern about the opinions they will receive and their impact on the consumer's intention to use a technology (Saumell et al., 2019). This variable also functions to measure the level of consumer trust after the influence of the surrounding environment to use a technology that is implemented (Aprianto, 2022). Research written by Lim (2022) states the impact of the environment on consumer trust, perspective, values, attitudes, intentions, and behavior as a picture of social influence. Social influence is the level of a person's perception of the interests that are believed by others to influence them in using a new system or technology (Venkatesh et al., 2003).

H6: Social Influence Has a Positive Impact on Trust in Using Payment Gateway.

The Influence of Performance Expectancy on Intention to Use Mediated by Trust

Trust will be a valuable component to create a successful relationship. It also reduces the risk in partnering and building long-term relationships and increases commitment in relationships (Rofiq, 2011)states that trust is the trust of a particular party towards another in carrying out a transaction relationship based on a belief that the system they trust has all its obligations properly as expected.

H7: Trust is able to mediate the influence of Performance Expectations on Intentions to Use Payment Gateways.

The Influence of Effort Expectancy on Intention to Use Mediated by Trust

Trust is an absolute requirement for business development, especially in the banking business in this case digital banks. Without consumer trust, digital banks will not be able to run a profitable business, because consumer trust is all the knowledge possessed by consumers and all the conclusions made by consumers about objects, attributes, and their benefits (Mowen & Minor, 2002). According to (Yolandha, 2023) that the reasons consumers trust in using digital banks consist of, providing convenience in one application, practical because it consists of various features, services that are ready 24 hours, cheap or even free transfer fees and more promos are given.

H8: Trust is able to mediate the influence of Business Expectations on Intention to Use Payment Gateway.

Social Influence on Intention to Use Mediated by Trust

According to (Yan & Pan, 2015) In commercial transactions, especially in the online or mobile context, trust plays a significant role due to the high level of uncertainty and risk involved. Due to its significant role, trust has received great attention in information systems research. Trust will affect usage intention. Trust helps reduce the uncertainty and risk associated with the use of mobile payments, and will promote user behavior. Research Results (Taufan & Yuwono, 2019) stated that the use of technology is influenced by environmental factors such as the opinions of friends and family who use it, when they have positive or supportive opinions, it can encourage users to adopt mobile payment services (Nugroho et al., 2017).

H9: Trust is able to mediate social influence on the intention to use a payment gateway.

The Influence of Trust on Intention to Use Moderated by Digital Ecosystem

The use of the Unified Theory of Acceptance and Use of Technology (UTAUT) aims to explain how perceptions of trust affect the interest in using Payment Gateway. Trust is a belief from one party to another party that the party can fulfill everything expected by the party who trusts it (Nurdin et al., 2020). It is important for a company to convince consumers to have trust in the company, so that it can attract individuals to use something that has been offered. A digital ecosystem is a collection of information technology resources that interact with each other as a whole with the same goal. The digital ecosystem consists of: suppliers, customers, partners, applications, data service providers, third parties, and all related technologies. The Digital Ecosystem builds the connectivity of the Human-Technology work system and the connectivity of the Organization-Work System.

H10: Digital Ecosystem is able to moderate the influence of Trust on Intention to Use Payment Gateway.

3. Methodology

The type of approach used in this research is quantitative. Quantitative methods are research data in the form of numbers and analysis using statistics (Sugiyono, 2020), utilizing primary data sources collected through distributing questionnaires to MSME entrepreneurs in Bali who have used Payment Gateway, as well as secondary data from literature and related reports. The sampling technique applied was purposive sampling, with 110 respondents selected based on criteria such as, implementing at least 1 Payment Gateway application, the use of this sample is intended for MSME actors in Endek in Denpasar City who use the Payment Gateway System, MSMEs Located in Denpasar City. The use of this sample is intended for MSME actors in Endek in Denpasar City who have implemented the payment gateway application. The questionnaire consisting of structured questions will be tested for validity and reliability before being distributed. Data analysis was carried out using multiple regression analysis techniques to test the effect of independent variables (Performance Expectations, Business Expectations, and Social Influence) on the dependent variable (Intention to Use Payment Gateway), by considering mediating variables (Trust) and moderating (Digital Ecosystem). The results of the analysis will be processed using statistical software and presented in the form of tables and graphs to facilitate data interpretation. With this methodology, it is expected that the research can provide comprehensive insight into the influence of the UTAUT concept on the interest in using Payment Gateway by MSMEs in Bali.

4. Empirical Findings/Result

Respondent Characteristics

The distribution of the questionnaire produced characteristics with explanations presented as follows.

Table 2. Respondents by Gender

Information	Frequency	Percent	
	Man	26	23.6
Gender	Woman	84	76.4
	Total	110	100%

Source: Processed data, 2024

Based on the data obtained, as many as 110 respondents participated in this study. Of that number, the majority of respondents were women, namely 84 people or 76.4% of the total sample. Meanwhile, male respondents numbered 26 people or 23.6%. This shows that most of the MSME actors who use the Payment Gateway System in Denpasar City in this study are dominated by women because especially in the fashion sector, women have various trends and developments in fashion models that are relatively very fast, so this makes the majority of fashion MSME actors women.

Information Frequency Percent < 25 Years 22 20.0 25-35 Years 43 39.1 36-50 Years 32.7 Age 36 > 50 Years 9 8.2 Total 110 100%

Table 3. Respondents by Age

Source: Processed data, 2024

Based on the respondents' age data, the majority are in the 25-35 years age range, which is 43 people or 39.1% of the total respondents. Furthermore, the 36-50 years age group is in second place with 36 respondents or 32.7%. Respondents under the age of 25 are 22 people or 20.0%, while respondents over the age of 50 are the group with the smallest number, which is 9 people or 8.2%. This data shows that MSME actors who use the Payment Gateway System in Denpasar City are dominated by individuals in the productive age range, especially 25-50 years. Where this age range is still productive, meaning they are active and easy to accept new technology compared to the older generation (baby boomers), besides that they are more aware of the current fintech developments.

Table 4. Respondents Based on Domicile

Info	Information		
	West Denpasar	28	25.5
Domicile	South Denpasar	28	25.5
	East Denpasar	27	24.5
	North Denpasar	27	24.5
	Total	110	100%

Source: Processed data, 2024

Based on the respondents' domicile data, the distribution of residence is relatively even in the four areas of Denpasar City. Respondents from West Denpasar and South Denpasar each numbered 28 people or 25.5% of the total respondents. Meanwhile, respondents from East Denpasar and North Denpasar each numbered 27 people or 24.5%. This data shows that respondent participation in this study is quite balanced throughout the Denpasar City area. Where this shows that participation in West Denpasar and South Denpasar could be higher because the West Denpasar and South Denpasar areas tend to be the City Center and the community economy where as we know the location of offices and shops are mostly located in these areas.

Measurement Model Testing (Outer Model)

This measurement model explains how each indicator block has a relationship with other latent variables. This analysis is carried out to ensure that the measurements carried out are appropriate for measuring, due to their reliability and validity.

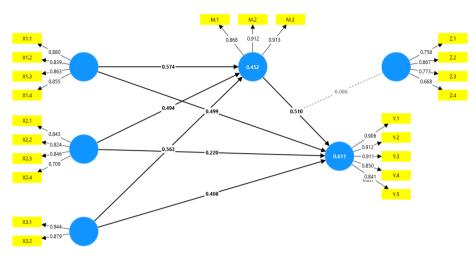


Figure 2. Outer Model Testing Source: SmartPLS Output, (2024)

Convergent Validity

The Convergent validity test for each construct indicator is calculated using PLS (Partial Least Square). Referring to the description of the statement put forward (Chan et al., 2009) explains that an indicator can be declared valid if the factor loading value is 0.5 or higher, and ideally is 0.7.

Table 5. Outer Loading Value, Average Variance Extraction, Composite Reliability

Indicator	Outer Loading Value		Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
M.1	0.868	Digital Ecosystem	0.772	0.803	0.852	0.592
M.2	0.912	Performance Expectations	0.882	0.890	0.919	0.739
M.3	0.913	Business Expectations	0.824	0.851	0.882	0.652
X1.1	0.880	Trust	0.880	0.885	0.926	0.806
X1.2	0.839	Intention To Use	0.931	0.938	0.947	0.782
X1.3	0.863	Social Influence	0.804	0.883	0.908	0.832
X1.4	0.855					
X2.1	0.843					
X2.2	0.824					
X2.3	0.846					
X2.4	0.709					
X3.1	0.944					
X3.2	0.879					
Y.1	0.906					
Y.2	0.912					
Y.3	0.911					

Indicator	Outer Loading Value	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Y.4	0.850				
Y.5	0.841				
Z.1	0.758				
Z.2	0.867				
Z.3	0.773				
Z.4	0.668				
Digital Ecosyste m x Trust	1,000				

Source: Processed data, 2024

Based on the data presentation in the table above, it is known that each indicator of the research variable has an outer loading value of >0.7. However, there is one indicator <0.7, this is still declared valid because the factor loading value must be 0.5 or> 0.5. This means that the correlation between the research item/indicator scores and the construct has a high reflective size. So that the indicators in this study can be declared valid as a measure of the latent variable. Furthermore, the convergent validity test is carried out by looking at the AVE (Average Variance Extracted) value. The AVE value is good if it has a value greater than 0.50 (Ghozali & Latan, 2015). The following are the values from the AVE table. The table above also shows the Average Variance Extracted (AVE) value above 0.5 for all constructs in the research model. So it can be concluded that all variables used in the study are valid. Based on the Composite Reliability value in the table above, it can be concluded that all variables used in this study are Reliable. The recommended value for Cronbach's Alpha is above 0.7 (Hartono, 2011), and in Cronbach's Alpha above, it shows that the Cronbach's Alpha value for all constructs is above 0.7. Based on the Cronbach's Alpha value above, it can be concluded that all variables used in this study are Reliable.

Discriminant validity

The discriminant validity of a model is considered good if each loading value of each indicator of a latent variable has the largest loading value with other loading values against other latent variables. The results of the discriminant validity test are obtained as follows.

Digital Performance Business Social Digital Ecosystem x trust Intention To Use Ecosystem Expectations Expectations Influence Trust M.1 0.188 0.514 0.285 0.868 0.462 0.424 -0.2120.201 0.502 0.912 0.469 -0.208 M.2 0.540 0.534 M.3 0.080 0.531 0.488 0.913 0.445 0.549 -0.157 X1.1 0.264 0.880 0.312 0.451 0.455 0.480 -0.277X1.2 0.128 0.839 0.294 0.505 0.430 0.507 -0.146X1.3 0.300 0.863 0.372 0.557 0.487 0.516 -0.282X1.4 0.231 0.855 0.268 0.440 0.314 0.450 -0.293

Table 6. Cross Loading Value

	Digital Ecosystem	Performance Expectations	Business Expectations	trust	Intention To Use	Social Influence	Digital Ecosystem x Trust
X2.1	0.194	0.255	0.843	0.448	0.200	0.418	-0.238
X2.2	0.136	0.330	0.824	0.355	0.206	0.443	-0.137
X2.3	0.144	0.330	0.846	0.462	0.210	0.503	-0.257
X2.4	0.066	0.278	0.709	0.295	0.054	0.337	-0.152
X3.1	0.091	0.518	0.559	0.598	0.419	0.944	-0.209
X3.2	-0.055	0.534	0.389	0.398	0.310	0.879	-0.070
Y.1	0.572	0.432	0.322	0.550	0.906	0.420	-0.054
Y.2	0.606	0.464	0.203	0.448	0.912	0.372	-0.059
Y.3	0.540	0.433	0.142	0.427	0.911	0.299	-0.055
Y.4	0.403	0.454	0.181	0.432	0.850	0.393	-0.112
Y.5	0.398	0.425	0.098	0.385	0.841	0.316	-0.113
Z.1	0.758	0.146	0.244	0.109	0.500	0.063	-0.172
Z.2	0.867	0.237	0.105	0.078	0.539	-0.024	-0.208
Z.3	0.773	0.225	0.059	0.195	0.357	0.029	-0.356
Z.4	0.668	0.250	0.107	0.201	0.324	0.053	-0.336
Digital Ecosystem Trust	-0.324	-0.289	-0.251	-0.213	-0.086	-0.166	1,000

Source: Processed data, 2024

Based on the table above, it can be seen that each indicator has a cross loading greater than 0.7 and the correlation value obtained by the indicator against its own construct is higher compared to the cross loading value on other latent variables. So it can be concluded that the indicators on each construct are declared valid.

Structural Model Testing (Inner Model)

The structural model or inner model is evaluated by looking at the percentage of explained variance, namely by looking at R2 for the dependent latent construct using the Stone-Geisser Q Square test measures and also looking at its structural path coefficient. The stability of the estimate is tested with t-statistics through the bootstrapping procedure. Inner model analysis is also known as structural model analysis, which aims to predict the relationship between latent variables (Ghozali, 2015).

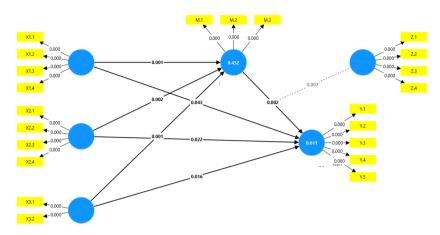


Figure3. Inner Model PLS Source: SmartPls Output, (2024)

R-Square (R2)

R-square (R2) shows the strength of the influence caused by exogenous variables on endogenous variables and can show the strength of a research model. Used to determine how much influence exogenous variables have on endogenous variables. An R2 value of 0.75 is said to be good, 0.50 is said to be moderate, and 0.25 is said to be weak.

Table 7. R Square Value

	R-square	R-square adjusted
Trust	0.452	0.437
Intention To Use	0.611	0.589

Source: SmartPls Output, (2024)

Based on the table above, the R Square value of the trust variable is 0.452. This value indicates that 45.2% of the trust variable can be explained by the performance expectation variable, effort expectation and social influence. While the rest is influenced by other variables outside the variables in this study of 54.8%. The R Square value of the intention to use variable is 0.611. This value indicates that 61.1% of the intention to use variable can be explained by the trust variable, performance expectation, effort expectation and social influence. While the rest is influenced by other variables outside the variables in this study of 28.9%.

Q-square (Q2)

Q-square(Q^2) is conducted to measure how good the observation value is produced by the model, and is intended to analyze the diversity value of the research data. The Q^2 value or predictive relevance value of 0.02 can be categorized as weak, 0.15 is categorized as moderate, and 0.35 is said to be strong (Ghozali & Latan, 2015). The Q^2 results can be seen in the calculation below:

$$Q2 = 1 - (1 - R12) (1 - R22)$$

$$Q2 = 1 - (1 - 0.452)(1 - 0.611)$$

$$Q2 = 1 - (0.548)(0.389)$$

Q2 = 1 - 0.213

Q2 = 0.787Q2 = 78.7%

The results of the Q2 calculation show that the predictive relevance value obtained in the research model is 0.787 or 78.7%. The results obtained confirm that the research model can be said to be feasible because it has a diversity of data that can be explained by the model of 78.7% which is included in the strong category because it has exceeded 0.35. Furthermore, the results of the Q2 calculation demonstrate that the variation of the intention to use variable can be explained by the variables of trust, performance expectations, business expectations and social influence by 78.7% while 21.3% can be explained by other factors such as promotion and price.

Model Testing

Hypothesis is a temporary answer to the formulation of research problems, where the formulation of research problems has been stated in the form of question sentences. So the hypothesis can also be stated as a theoretical answer to the formulation of research problems (Sugiyono, 2017).

Original Standard Sample T statistics sample Connection Information deviation P values (IO/STDEVI) mean (M) (0)(STDEV) Digital Ecosystem -> Intention to Use 0.574 0.569 0.099 5,820 0.000Performance 0.001 Expectations -> Trust 0.352 0.356 0.099 3,572 Performance Expectations Intention to Use 0.137 0.134 0.067 2.050 0.043 Business Expectation -> Trust 0.241 0.243 0.074 3.248 0.002 Direct Business Expectations -Influence 0.075 2,329 0.022 > Intention to Use 0.174 0.167 Trust -> Intention To 0.309 0.101 Use 0.317 3.152 0.002 Social Influence 0.001 0.233 0.228 0.067 3.494 Trust Social Influence 0.259 0.255 0.106 Intention to Use 2.443 0.016 Digital Ecosystem x Trust -> Intent To Use 0.141 0.135 0.051 2,748 0.007 Performance Expectation -> Trust -> 0.109 0.047 0.019 Intention to Use 0.112 2,378 Business Expectations -Indirect > Trust -> Intention to Influence Use 0.076 0.076 0.038 1.997 0.048 Social Influence Trust -> Intention to 0.0740.071 0.033 2.242 0.027 Use

Table 8. Path coefficient

Source: SmartPls Output, (2024)

The results of testing each hypothesis based on the results of t-statistics and path coefficients in the table above are explained as follows:

1. The Influence of Performance Expectations on Intention to Use Payment Gateway

- Based on the table above, it shows that the influence of Performance Expectations on the Intention to Use Payment Gateway has an original sample value of 0.137 with a T-statistic of 2.050 which is greater than 1.96 with a p value of 0.043 <0.050.
- 2. The Influence of Business Expectations on Intention to Use Payment Gateways Based on the table above, it shows that the Influence of Business Expectations on the Intention to Use Payment Gateway shows an original sample value of 0.174 with a T-statistic of 2.329, greater than 1.96, and a P-value of 0.022, which is smaller than 0.050.
- 3. Social Influence on Intention to Use Payment Gateway
 Based on the table above, it shows that Social Influence on Intention to Use
 Payment Gateway has an original sample value of 0.259 with a T-statistic of
 2.443 and a P-value of 0.016, which is smaller than 0.050.
- 4. The Influence of Performance Expectations on Trust in Using Payment Gateways Based on the table above, it shows that the Influence of Performance Expectations on Trust has an original sample value of 0.352 with a T-statistic of 3.572 and a P-value of 0.001, which is smaller than 0.050.
- 5. The Influence of Business Expectations on Trust in Using Payment Gateways Based on the table above, it shows that the Influence of Business Expectations on Trust has an original sample value of 0.241 with a T-statistic of 3.248 and a P-value of 0.002, which is smaller than 0.050.
- 6. Social Influence on Trust Using Payment Gateway
 Based on the table above, it shows that Social Influence on Trust shows an
 original sample value of 0.233 with a T-statistic of 3.494 and a P-value of 0.001,
 which is smaller than 0.050.
- 7. The Influence of Performance Expectancy on Intention to Use Mediated by Trust Based on the table above, it shows that the Influence of Performance Expectations on Intention to Use through Trust shows an original sample value of 0.112 with a T-statistic of 2.378 and a P-value of 0.019, which is smaller than 0.050.
- 8. The Influence of Effort Expectancy on Intention to Use Mediated by Trust Based on the table above, it shows that the Influence of Business Expectations on Intention to Use through Trust shows an original sample value of 0.076 with a T-statistic of 1.997 and a P-value of 0.048, which is smaller than 0.050.
- 9. Social Influence on Intention to Use Mediated by Trust Based on the table above, it shows that Social Influence on Intention to Use through Trust shows an original sample value of 0.074 with a T-statistic of 2.242 and a P-value of 0.027, which is smaller than 0.050.
- 10. The Influence of Trust on Intention to Use Moderated by Digital Ecosystem Based on the table above, it shows that the Influence of the Digital Ecosystem x Trust interaction on the Intention to Use Payment Gateway shows an original sample value of 0.141 with a T-statistic of 2.748 and a P-value of 0.007, which is smaller than 0.050.

5. Discussion

Performance Expectancy has a positive and significant effect on the Intention to Use Payment Gateway, which means H1 is accepted. The Unified Theory of Acceptance and Use of Technology (UTAUT), developed by (Venkatesh et al., 2020), identifies performance expectancy as one of the key factors influencing the intention to use technology. In this case, performance expectancy refers to the extent to which a person believes that using a technology will improve their performance in a particular task. The results of this study, which show a positive effect of performance expectancy on the intention to use Payment Gateway, are in line with UTAUT, where high performance expectancy encourages individuals to be more interested and more likely to use the technology.

The influence of effort expectancy has a positive and significant effect on the Intention to Use Payment Gateway, which means that H2 is accepted. This finding is consistent with the results of previous studies showing that ease of use (related to Effort Expectancy) is one of the important factors in an individual's decision to use technology, including digital payment systems such as Payment Gateway. For example, (Venkatesh et al., 2020) stated that if users feel that technology does not require much effort to use, they will be more enthusiastic about adopting and continuing to use the technology.

Social Influence has a positive and significant effect on Intention to Use Payment Gateway, which means H3 is accepted. Previous studies also support this finding. (Wang et al., 2021) found that social norms influence technology decisions, because individuals tend to adopt technologies that are used or recommended by people around them. (Alalwan et al., 2021) showed that social pressure or recommendations from trusted people have a major impact on the adoption of technologies such as digital payment systems. (Lin et al., 2021) stated that social influence encourages individuals to adopt technology because of social encouragement from friends and family.

Performance Expectancy has a positive and significant effect on Trust in using Payment Gateway, which means H4 is accepted. Research by (Davis, 2020) supports this finding by stating that performance expectancy influences trust in new technology. If users believe that the technology can provide the expected results, they will be more confident in using it. (Hsu & Lin, 2020) also showed that performance expectancy in a digital payment system increases the level of user trust in the system. (Lin et al., 2020) revealed that expectations of optimal system performance are directly related to user trust in the system.

Effort Expectancy has a positive and significant effect on Trust in using Payment Gateway, which means H5 is accepted. In this study, the effect of effort expectancy on trust shows that the lower the perceived effort required to use the technology, the higher the level of trust in the technology. (Venkatesh et al., 2020) noted that perceived ease of use has a significant effect on trust, because users are more likely to feel comfortable with technology that they perceive as not complicated or difficult to learn. These results indicate that the lower the perceived effort required to use the

Payment Gateway, the greater the individual's trust in the technology. The easier the technology is to use, the greater the trust given by users.

Social Influence has a positive and significant effect on Trust in using Payment Gateway, which means H6 is accepted. Significant social influence on trust indicates that external factors, such as recommendations or adoption of technology by others, can influence an individual's level of trust in the technology. Research by (Venkatesh et al., 2020) explains that social influence plays an important role in shaping trust in technology, especially in the context of digital payments. (Alalwan et al., 2021) also state that social influence increases trust, because individuals feel more confident using technology that has been widely accepted by society.

Trust acts as a mediator in the influence of Performance Expectancy on Intention to Use Payment Gateway. In other words, the positive influence of Performance Expectancy on Intention to Use Payment Gateway becomes stronger through increased Trust, which means H7 is accepted. (Venkatesh et al., 2020) in UTAUT shows that performance expectancy has a direct effect on technology use, because individuals are more likely to adopt technology that they believe can improve their performance. (Davis, 2020) also states that performance expectancy is a major predictor in technology use decisions.

Trust also functions as a mediator in the influence of Effort Expectancy on Intention to Use Payment Gateway. The influence of Effort Expectancy on Intention to Use will be more significant when driven by increased Trust, which means that H8 is accepted. These results indicate that the higher the perception of effort required to use the system, the lower the user's intention to use Payment Gateway. (Venkatesh & Bala, 2021) found that the perception of difficulty in using technology can inhibit the use of that technology. (Davis, 2020) also suggested that high effort expectations tend to reduce the intention to use new technologies, because users avoid technologies that are considered complicated.

Trust also plays a role in mediating Social influence on Intention to Use Payment Gateway. Social Influence on Intention to Use becomes stronger when driven by increased Trust, which means H9 is accepted. This shows that social influence has a significant impact on increasing the use of Payment Gateway. Previous research by (Wang et al., 2021) showed that social norms can increase technology use because individuals are more likely to adopt technology that is recommended or used by people around them.

Digital Ecosystem with Trust has a positive effect on Intention to Use Payment Gateway, which means H10 is accepted. Trust is proven to have a significant positive effect on the use of Payment Gateway. The greater the level of trust in the security and reliability of the system, the more likely users are to use it. Research by (Davis, 2020) shows that trust in technology plays an important role in the adoption of new technologies.

6. Conclusions

Performance Expectancy has a positive and significant effect on the Intention to Use Payment Gateway, which means H1 is accepted. The influence of business expectancy has a positive and significant effect on the Intention to Use Payment Gateway, which means H2 is accepted. Social Influence has a positive and significant effect on the Intention to Use Payment Gateway, which means H3 is accepted. Performance Expectancy has a positive and significant effect on Trust in using Payment Gateway, which means H4 is accepted. Business Expectancy has a positive and significant effect on Trust in using Payment Gateway, which means H5 is accepted. Social Influence has a positive and significant effect on Trust in using Payment Gateway, which means H6 is accepted. The positive effect of Performance Expectancy on the Intention to Use Payment Gateway becomes stronger through increased Trust, which means H7 is accepted. The effect of Business Expectancy on the Intention to Use will be more significant when driven by increased Trust, which means H8 is accepted. Social Influence on the Intention to Use becomes stronger when driven by increased Trust, which means H9 is accepted. Digital Ecosystem with Trust has a positive effect on the Intention to Use Payment Gateway, which means H10 is accepted. Theoretically, this research is expected to add to the development of UTAUT theoretical studies because it can be used as an additional reference and strengthen existing theories, which are related to the use of payment gateways in MSMEs supported by UTAUT Theory and can be used as a reference in conducting similar research in the future. And practically, this research is expected to be an evaluation material by MSME actors related to the use of Payment Gateway, and it is hoped that the Payment Gateway system will be more effective in MSME actors and can provide information to users about Payment Gateway.

References:

- Astohar, A., Praptitorini, M. D., & Shobandiyah, S. (2022). The effect of financial literacy and technology-based financial services on financial inclusion (Case study on MSMEs in Demak Regency). *The Academy of Management and Business, 1*(2), 69–79. https://doi.org/10.55824/tamb.v1i2.147
- Awanto, A. N., Ardianto, Y. T., & Prasetya, A. (2020). UTAUT model implementation on user behavior in use of information technology. *Jurnal Teknologi Dan Manajemen Informatika*, 6(1), 53–59. https://doi.org/10.26905/jtmi.v6i1.4156
- Baldwin, C. Y. (2009). *The architecture of platforms: A unified view*. Platforms, Markets and Innovation/Edward Elgar Publishing Limited.
- BPS Indonesia, S. I. (2024). Statistics Indonesia 2024. Statistik Indonesia 2024, 1101001, 790.
- Chairia, C., Sukmadilaga, C., & Yuliafitri, I. (2020). The role of performance expectations, effort expectations, social influence, and facilitating conditions on user behavior of Itqan Mobile mediated by behavioral intention. *Jurnal Maksipreneur: Manajemen, Koperasi, Dan Entrepreneurship, 10*(1), 48. https://doi.org/10.30588/jmp.v10i1.655

- Choiriyah, N., & Purwanto, E. (2022). Analysis of financial knowledge and transaction interest towards the use of fintech peer-to-peer lending in Surabaya. *Ekonomis: Journal of Economics and Business*, 6(2), 511. https://doi.org/10.33087/ekonomis.v6i2.598
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 319–340.
- Fithri Meuthia, R., Putra Ananto, R., & Afni, Z. (2020). Analysis of factors influencing MSME interest in using electronic money in Padang City. *Akuntansi Dan Manajemen, 15*(1), 143–155. https://doi.org/10.30630/jam.v15i1.113
- Halim, A. (2020). The effect of micro, small, and medium enterprise growth on the economic growth of Mamuju Regency. *Jurnal Ilmiah Ekonomi Pembangunan, 1*(2), 157–172.
- Handayani, T., & Sudiana, S. (2017). Analysis of the application of the UTAUT model to user behavior of information systems (Case study: Academic information system at STTNAS Yogyakarta). *Angkasa: Jurnal Ilmiah Bidang Teknologi*, 7(2), 165.
- Hardika, N. S., & Ermawati, N. K. (2020). The effect of performance expectations, effort expectations, and social factors on taxpayer behavior using effling. *Account*, 5(2), 858–868.
- Ilman, A. H., Noviskandariani, G., & Nurjihadi, M. (2019). The role of fintech on the economy of developing countries. *Jurnal Ekonomi Dan Bisnis Indonesia*, 4(1), 563379.
- Indah, M., & Agustin, H. (2019). Application of the UTAUT (Unified Theory of Acceptance and Use of Technology) model to understand the intention and actual behavior of Go-Pay users in Padang City. *Jurnal Eksplorasi Akuntansi*, *1*(4), 1949–1967.
- Jiang, S., Liu, X., Liu, N., & Xiang, F. (2019). Online life insurance purchasing intention: Applying the unified theory of acceptance and use of technology. *Social Behavior and Personality: An International Journal*, 47(7), 1–13.
- Khafidloh, S. N., Hermuningsih, S., & Maulida, A. (2021). The role of fintech in the development of MSMEs in Yogyakarta. *Jurnal Manajemen*, 10(2), 93–99.
- Kholis, N. (2022). Transactions in Islamic economics. *Economica: Jurnal Ekonomi Islam*.
- Kurniasari, F., Tajul Urus, S., & Utomo. (2022). Determinant factors of adoption of fintech payment services in Indonesia using the UTAUT approach. *Asia-Pacific Management Accounting Journal*, 17(1), 97–125. https://doi.org/10.24191/apmaj.v17i1-04
- Mukti, A., & Ilhamsyah, P. (2022). Optimization of e-payments for MSMEs. *Jurnal Pengabdian Masyarakat INOTEC UUI*, 4(2), 31–35.
- Nachira, F., Nicolai, A., Dini, P., Louarn, M. L., & Leon, L. R. (2007). Business evolution ecosystems.
- Nindya, D. R. (2021). Factors influencing individual decisions in purchasing insurance products online. *Jurnal Profita: Kajian Ilmu Akuntansi*, 9(6), 65–82.

- Nugraha, S., & Yadnyana, K. (2018). Application of the UTAUT model in explaining interest and use factors of regional management information systems. *E-Jurnal Akuntansi Universitas Udayana*, 24(2), 959–987.
- Putri, A. R., Waluyo, B., & Farhani, N. H. (2022). The effect of knowledge and trust of MSMEs in Bogor on financing interest through sharia fintech lending. *Jurnal Syarikah: Jurnal Ekonomi Islam*, 8(1), 131–139. https://doi.org/10.30997/jsei.v8i1.4879
- Rofiq, A. (2011). The effect of trust dimensions on e-commerce customer participation (Study on e-commerce customers in Indonesia). *Universitas Brawijaya*, 157.
- Salamah, I., & Kusumanto, R. D. (2017). Measurement of mobile internet acceptance among Sriwijaya State Polytechnic students. *Khazanah Informatika: Jurnal Ilmu Komputer Dan Informatika*, 3(2), 95–99.
- Saumell, R., Forgas-Coll, S., Sánchez-García, J., & Robres, E. (2019). User acceptance of mobile apps for restaurants: An expanded and extended UTAUT-2. *Sustainability*, 11(4), 1210.
- Savitri, D. A. M., Ristianawati, Y., & Nugroho, P. S. (2022). Financial inclusion in MSMEs in Demak Regency. *Among Makarti*, 15(2), 276–288. https://doi.org/10.52353/ama.v15i2.334
- Sembiring, S. B., H., Pardede, M. I., & Rajagukguk, T. (2019). Analysis of factors influencing e-filing acceptance using the UTAUT model in Balige District. *Jurnal SIFO Mikroskil*, 20(2), 147–158. https://doi.org/10.55601/jsm.v20i2.677
- Setyawati, R. E. (2020). The influence of perceived usefulness and perceived ease of use on behavioral intention to use with attitude towards using as an intervening variable (Case study on Gopay in Yogyakarta City). *Jurnal Ekobis Dewantara*, 3(1), 39–51.
- Shahbaz, M., Khan, S., & Tahir, M. I. (2013). The dynamic links between energy consumption, economic growth, financial development, and trade in China: Fresh evidence from multivariate framework analysis. *Energy Economics*, 40, 8–21.
- Steele, V. (2022). Fashion exhibitions: The power of communication. *ZoneModa Journal*, 12(1).
- Sugiyono, P. D. (2020). Educational research methods (quantitative, qualitative, combination, R&D, and educational research).
- Suparyati, S. (2019). Analysis of e-performance user behavior using the UTAUT model. *Kilat*, 8(2), 208–218. https://doi.org/10.33322/kilat.v8i2.588
- Taufan, A., & Yuwono, R. T. (2019). Analysis of factors that affect intention to use e-wallet through the technology acceptance model approach (Case study: GO-PAY). *International Journal of Science and Research (IJSR)*, 8(August), 413–419.
- Tegar, W. W. (2023). The effect of financial literacy and financial attitudes on student financial management. *Journal of Economics and Business UBS*, 12(2), 1036–1048.
- Tirta, M. R. (2023). The effect of perceived benefits, ease of use, trust, and security on interest in using e-wallets. *At-Tawassuth: Jurnal Ekonomi Islam*, 8(1), 1–19.

- Venkatesh, V., Thong, J. Y. L., Chan, F. K. Y., Hu, P. J., & Brown, S. A. (2003). Extending the two-stage information systems continuance model: Incorporating UTAUT predictors and the role of context. *Information Systems Journal*, 21(6), 527–555.
- Wulandari, U. C. I. (2023). A review of fiqh muamalah on digital payments in transaction services using the DANA and OVO applications in Belopa District, Luwu Regency. *Institut Agama Islam Negeri Palopo*.
- Yadi, A. P., Hartanto, A. D., Ayatillah, M. S., & Wicaksono, F. N. (2023). Entrepreneurial transformation in the QRIS era: Dynamics and solutions of contactless payment systems from a merchant's perspective. *Jurnal Informatika Ekonomi Bisnis*, 5, 1172–1179. https://doi.org/10.37034/infeb.v5i4.734
- Yan, H., & Pan, K. (2015). Examine user adoption of mobile payment using the TAM. Wuhan International Conference on E-Business, 402–409.