JURNAL AKUNTANSI BISNIS DAN EKONOMI
Volume 10 Nomor 01, 2024 (Maret)

e-ISSN
4684-6756

Analysis of Factors That Influence Interest in Transaction Payments Using QRIS

Author:
Tri Ayu Astari[1], Nuraini Sari[2], Oliver Hasan Padmanegara[3]

[1]Accounting, Economy, Universitas Bina Nusantara, Jakarta, Indonesia, tri.ayu@binus.ac.id
[2]Accounting, Economy, Universitas Bina Nusantara, Jakarta, Indonesia, nsari@binus.ac.id
[3]Management, Economics & Business, Universitas Widyatama, Bandung, Indonesia, oliver.hasan@widyatama.ac.id

History of article: Received: 28 Februari 2024, Revision: 16 Januari 2024, Published: 30 Maret 2024
DOI: https://doi.org/10.33197/jabe.v10i1.1900

ABSTRACT
Quick Response Code Indonesian Standard (QRIS) is a non-cash payment method that makes transactions easier for consumers. The aim of this research is to determine the interest in using QRIS as a non-cash transaction medium. This research is descriptive research with a quantitative approach. The sample in this study was taken through convenience sampling with a total of 191 respondents. The data analysis technique uses the Structural Equation Model (SEM) using the Partial Least Square (PLS) method. The independent variables examined in this research are Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions and Use Behavior. The results of this research show that Performance Expectancy, Social Influence, and Facilitating Conditions have a positive influence on Behavior Intention to Use. Meanwhile, Effort Expectancy has no influence on Behavior Intention to Use.

Keywords: ***payment technology; quick response code Indonesia standard (QRIS); SEM-PLS; unified theory of acceptance and use technology***

INTRODUCTION
Current technological developments are very influential in terms of social, cultural, educational and economic aspects. This technological development has helped people in carrying out their daily activities, and also affects competition in the business world, companies must continue to innovate and be creative to maintain the company's credibility. One of the technological developments that we experience in the economic sector is Financial Technology or Fintech. As reported on the Binus website, based on the National Digital Research Center (NDRC), Fintech is a term used to refer to innovation in the finance sector (Bina Nusantara, n.d.).

Quick Response Code (QR Code) is a financial technology innovation that is generally used as a payment method in digital wallet Made Karmawan, Fernandoand & Gui (2019). QR Code was first developed in 1994 by the Denso Wave Incorporated company in Japan. Since then, QR Codes have been used as identification marks for all types of commercial products, advertisements and other public announcements. The QR Code functions in the payment method by connecting the user with the payment transaction service, by scanning the QR Code using a smartphone camera that is connected to the user's account.

On August 17 2019, Bank Indonesia officially launched standards for the use of the Indonesian QR Code or Quick Response Code Indonesia Standard (QRIS) (Bank Indonesia, n.d.-a). QRIS is a payment standardization using the QR code method from Bank Indonesia so that the transaction process becomes easier, faster and more secure (Bank Indonesia, n.d.-b). The use of QRIS aims to

e-ISSN
4684-6756

make it easier for consumers to choose payment applications using QR codes when making transactions. Consumers who were previously faced with various QR codes from various application providers, now only use one QR code, namely QRIS, which can be paid via any QR payment application. According to sources from ASPI (Indonesian Payment System Association) the use of QRIS increases every year, because it is easy to use, practical, fast and efficient.

Based on the description above, this provides our motivation to conduct research on the relationship between interest in using QRIS as a non-cash transaction medium. The types of acceptance methods used by previous researchers to calculate the level of public acceptance of technology using QR-codes are the Theory Acceptance Model (TAM) (Musyaffi & Kayati, 2020; Novi Arianti, Sri Darma, Fredy Maradona, & Mahyuni, 2019) and the Unified Theory of Acceptance and Use Technology (UTAUT) (Andre, Baptista, & Setiowati, 2019; Soviah, 2019). UTAUT is formulated with four determinants of intention and usage, namely performance expectancy, effort expectancy, social influence, and facilitating conditions. These four factors are moderated by the factors gender, age, experience and voluntariness of use.

Previous research conducted by Febriani, Utami, & Putri (2023) concluded that the ease of use and facilities obtained when using mobile banking influence a person's interest in using this technology. According to research conducted by Gultom & Safitry (2021) and Gusni, Hurriyati, & Dirgantari (2020) perceived usefulness and perceived ease of use have a positive influence on interest in using Digital Payment Services.

This research aims to determine the level of public interest in using QRIS as a non-cash payment method by using the factors contained in the UTAUT model, namely performance expectancy, effort expectancy, social influence and facilitating conditions. The research objects used in this research are millennial generation QRIS users spread across the Jabodetabek area.

LITERATURE REVIEW

Unified Theory of Acceptance and Use of Technology (UTAUT)

Unified Theory of Acceptance and Use of Technology (UTAUT) is a technology acceptance model that explains user behavior towards information technology (Venkatesh, Morris, Davis, & Davis, 2003). UTAUT is a development from several leading theories, one of which is the Technology Acceptance Model (TAM), where UTAUT method is currently the most often used in research on technology acceptance.

The UTAUT model is formulated with four core determinants of intention and usage:

a. Performance Expectancy is the level of benefit or advantage obtained by consumers in using technology to carry out daily activities.
b. Effort Expectancy is the level of effort or effort associated with the use of a system or technology by users.
c. Social Influence describes the extent to which an individual feels that it is important for other people (for example, family and friends) to believe that they use a particular system or technology.
d. Facilitating Conditions describe the extent to which a person believes that organizational resources and support as well as technical infrastructure are available to support the use of the system.

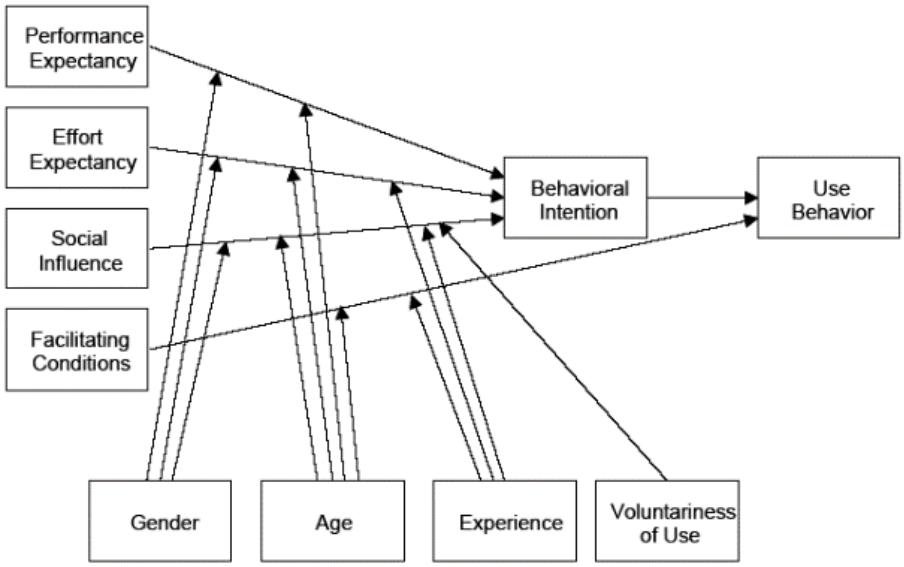

Figure 1. UTAUT Model

Hypothesis

Performance expectancy is the level of trust an individual has in the system, where the system will help him to obtain benefits or more optimal performance in carrying out tasks. Because the level of trust has an influence on the use of technology, the higher the performance expectations then the higher the desire to use the technology. Other research also shows that there are various technologies whose interest in using them is supported by trust, for example mobile payments (Mufingatun & Prijanto, 2020). From this description the author obtains a hypothesis:
H01: Performance expectancy influences interest in using non-cash transactions via QRIS

Effort expectancy is the level of comfort that users expect in using a system or technology. Every user when using technology hopes that it requires little effort in using the system, so that users do not find it difficult to carry out operations on the system used. Previous research also stated that there is an influence between effort expectancy and interest in using M-Banking (Andini & Hariyanti, 2021). From this explanation the author obtained the hypothesis:
H02: Effort expectancy influences interest in using non-cash transactions via QRIS

Social influence is defined as the degree to which an individual feels that it is important for others (e.g., family and friends) to believe that they use a particular system or technology. The more the system is used by many people, the easier it will be for other individuals to trust the technology. This statement is in line with research conducted by Amelia & Hidayatullah (2020) and Mayanti (2020) where the influence variable has a positive effect on behavioral intentions to use information technology. From this description the author obtains a hypothesis:
H03: Social influence influences interest in using non-cash transactions via QRIS

Facilitating Conditions is a belief in the extent to which these resources support the use of technology. The more supporting facilities available, the more interested a user will be in using existing technology. In previous research, facilitating conditions had a positive influence on user behavior in using the BNI mobile banking application (Ferghyna, Rachmadi, & Herlambang, 2020). From this explanation the author obtained the hypothesis:
H04: Facilitating Conditions influence interest in using non-cash transactions via QRIS

e-ISSN
4684-6756

RESEARCH METHODS

This research uses quantitative methods, which the data was obtained by using a survey method where researchers distributed online questionnaires to respondents via Google Form. The sample size was taken using calculations based on the Hair, Hult, Ringle, & Sarstedt (2022) formula. The minimum sample that needs to be used is 180 respondents, by using a side random sampling technique.

The independent variables for this research are performance expectancy (PE), effort expectancy (EE), social influence (SI), facilitating conditions (FC), Behavioral Intention to Use (BIU). Based on previous research, the variables experience of gender, age, and price value were not included in the research model (Andre et al., 2019; Soviah, 2019). Based on the measurement model created, there are four hypotheses to be proven in this research, as explained in the literature review section.

Data was collected using an online questionnaire (Google form) which was then distributed to respondents and used in the next stage for statistical tests. There were 18 questions given to respondents. The questions distributed consisted of four questions reflecting indicators on the PE variable, three questions reflecting EE indicators, three questions reflecting SI indicators, four questions reflecting FC indicators, and four questions reflecting BIU indicators.

At the statistical testing stage, the collected data is then processed, tested, analyzed to carry out hypothesis testing. The analysis tool used is a component-based Structural Equation Model (SEM) or a variant called Partial Least Square (PLS) using the smartPLS v4.0 application. The statistical tests carried out are divided into three, namely testing the inner model, outer model and t-statistical test. Inner model testing is carried out by carrying out the R-Square test. Meanwhile, outer model testing is carried out using three types of testing, namely convergent validity test, discriminant validity test, and reliability test.

RESEARCH RESULTS AND DISCUSSION

The number of primary data collected was 191 respondents. Where the data is grouped into two categories, the first category is for personal data and the second category is for technical data. The respondent's personal data consists of gender, age, last education, domicile and occupation of the respondent, while technical data consists of data related to research indicators and variables. Data analysis was carried out using smartPLS 4.0 software which divides the test analysis into three parts, namely evaluation of the inner model, evaluation of the outer model and statistical t-test.

Structural Model Evaluation (Inner Model)

Structural model analysis in this research was carried out using a bootstrapping test using SmartPLS v.4 software. Apart from that, evaluation of the structural model (inner model) is carried out by testing the R-square value. As the test results can be seen in Figure 2 and Table 1 below.

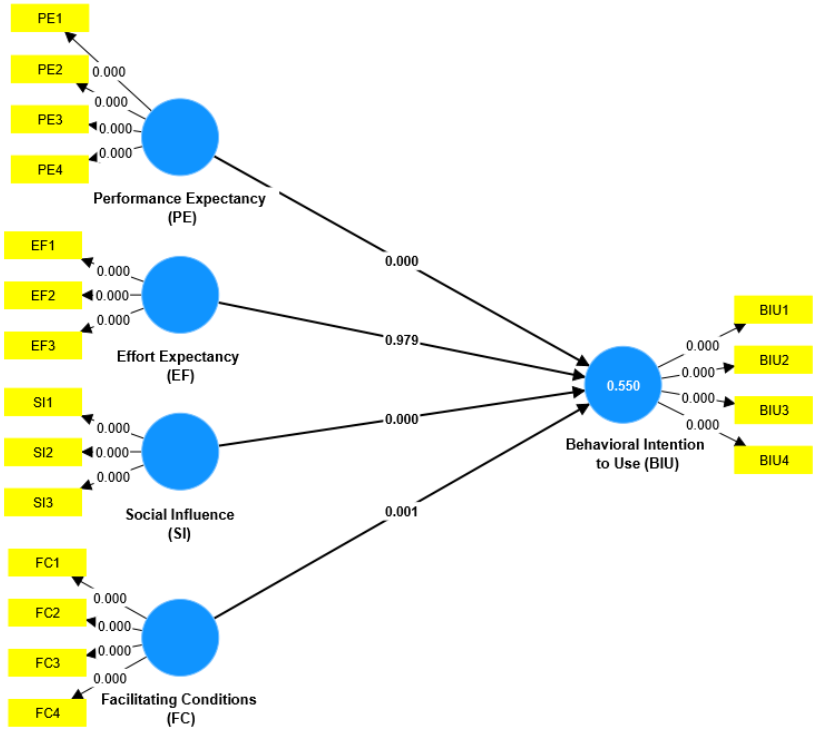

Figure 2. Structural Model Analysis with Bootstrapping

Table 1. R-Square Test Result

	R-*Square*	R-*Square Adjusted*
BIU	0.550	0.541

Based on the results in table 1, the R-Square value for the Behavioral Intention to Use variable is 0.550, indicating that the Behavioral Intention to Use variable is able to explain 55% of the variation in Behavioral Intention to Use, so it can be categorized as a moderate variable.

Evaluation of the Measurement Model (Outer Model)
Convergent Validity Test

Table 2. Average Variance Extracted (AVE) Result

Variabel	***Average Variance Extracted (AVE)***	**Keterangan**
BIU	0.702	Valid
EF	0.622	Valid
SI	0.616	Valid
FC	0.614	Valid
PE	0.558	Valid

Based on table 2, all latent variables have an AVE value above 0.5, so it can be concluded that all latent variables in this study meet the requirements for convergent validity. Meanwhile, the loading factor values produced in this research all indicators have loading factor values above 0.7, so it can be said that the data is considered valid.

Discriminant Validity Test

Discriminant validity has three criteria, namely Fornell Lacker Criterion, Cross Loading, and Heterotrait-Monotrait Ratio (HTMT). In this research, two criteria were used, namely Heterotrait-Monotrait Ratio (HTMT) and Cross Loading as in table 3 below.

Table 3. Heterotrait-Monotrait Ratio (HTMT)

	BIU	EF	SI	FC	PE
BIU					
EF	0.729				
SI	0.673	0.684			
FC	0.755	0.902	0.637		
PE	0.803	1.022	0.528	0.885	

Based on the results in table 3, it can be obtained from each latent variable that there are variables that have results of more than 0.90, namely EF against FC and EF against PE, for other variables the value is less than 0.90. Meanwhile, the cross loading values produced in this study all indicators have cross loading values above 0.7.

Reliability Test

The reliability test in this research was measured using two methods, namely Cronbach's alpha and Composite reliability which can be seen in tables 4 and 5 below.

Table 4. Chronbach's Alpha

Variabel	*Cronbach's Alpha*
BIU	0.858
EF	0.698
SI	0.696
FC	0.791
PE	0.737

Table 5. Composite Reliability Result

Variabel	*Composite Reliability (rho_a)*
BIU	0.871
EF	0.705
SI	0.738
FC	0.802
PE	0.744

Based on the results in table 4 and table 5, the following latent variables have a Chronbach's Alpha value and a Composite Reliability value above 0.6, indicating that each variable tested can be said to be reliable and consistent.

T-statistical test

The significant test of individual parameters (t-test) will show the influence of each independent variable on the dependent variable partially. Bootstrapping in this test was carried out using a subsample with a significance level of 0.1. The bootstrapping test results table can be seen in Table 6 and the bootstrapping output can be seen in Figure 1.

Table 6. Bootstrapping Test Result

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T Statistic (O/STDEV)	P values	Keterangan
PE > BIU	0.383	0.374	0.091	4.184	0.000	H1 – Accepted
EF > BIU	-0.003	0.013	0.107	0.027	0.979	H2 – Rejected
SI > BIU	0.262	0.262	0.060	4.389	0.000	H3 – Accepted
FC > BIU	0.252	0.254	0.079	3.193	0.001	H4 - Accepted

Hypothesis testing is carried out by comparing the p-value and the T-statistic value. The hypothesis is declared accepted if the p-value of the hypothesized variable is less than 0.05, and the value of the T-statistic is greater than 1.96. Based on these rules, the accepted hypotheses are hypothesis one (H1), three (H2), and four (H4). Conclusions from hypothesis testing can be seen in Table 6.
The explanation of the hypothesis conclusions in Table 6 is as follows:

H1: Performance Expectancy influences Behavior Intention to Use
This shows that Performance Expectancy on Behavior Intention to Use has a significant effect on the use of QRIS as a non-cash transaction medium. The results of this research are able to provide support for the research results of (Alalwan, Dwivedi, & Rana, 2017) who obtained hypothesis test results which proved that performance expectancy has a positive and significant effect on behavioral intention to use. This shows that the better the performance expectancy, the better the behavioral intention to use will also be and is also supported by research result (Gupta, Dogra, & George, 2018) that there are various technologies whose interest in use is supported by trust, for example mobile payment.

H2: Effort Expectancy has no effect on Behavior Intention to Use
The conclusion of the hypothesis is rejected, this shows that Effort Expectancy has no effect on Behavior Intention to Use. This is the basis that someone does not have the intention to use a technology because they are used to using existing information technology, so they have no expectations regarding ease of use. The results of this research support previous research that effort expectancy has no effect on interest in using technology, such as research conducted by (. & Nurkhin, 2020)

H3: Social Influence influences Behavior Intention to Use
This shows that the performance of Social Influence on Behavior Intention to Use has a significant effect on the use of QRIS as a non-cash transaction medium. The results of this research are able to provide support for the research results of Amelia & Hidayatullah (2020) which obtained hypothesis test results which proved that social influence has a positive and significant effect on behavioral intention to use, this shows that the better the social influence, the better the behavioral intention to use, it is also supported by research result of Taiwo & Downe (2013) where the influence variable has a positive effect on behavioral intentions to use information technology.

H4: Facilitating Conditions influence Behavioral Intention to Use
This shows that the performance of Facilitating Conditions on Behavior Intention to Use has a significant effect on the use of QRIS as a non-cash transaction medium. The results of this research are able to provide support for the research results (Ferghyna et al., 2020) that facilitating conditions have a positive influence on user behavior in using applications. This shows that the better the facilitating conditions, the better the behavioral intention to use. Users already feel the convenience and have sufficient knowledge in operating QRIS on various types of smartphones and applications.

e-ISSN
4684-6756

CONCLUSION AND RECOMMENDATION

Based on research that has been conducted, the application of Quick Response Indonesian Standard (QRIS) as a non-cash transaction medium can be accepted by the public, with the results that Performance Expectancy, Social Influence, and Facilitating Conditions have a positive influence on Behavioral Intention to Use. Meanwhile, Effort Expentancy has no influence on Behavior Intention to Use. The advice for companies that have payment facilities using QRIS is to continue to improve the facilities they have, such as using minimal internet networks, because there are still many areas with poor internet facilities . Suggestions for future researchers include adding or combining other variables not discussed in the research, such as hedonic motivation and habit, as well as using a qualitative approach, in order to increase the accuracy of the data from this quantitative approach to get better results. In the process of conducting this research, there are limitations that may influence the research results, namely limitations in research time, energy and researcher abilities. Apart from that, the number of respondents, which amounted to 190 respondents, is certainly still insufficient to describe the actual situation.

REFERENCES

Alalwan, A. A., Dwivedi, Y. K., & Rana, N. P. (2017). Factors influencing adoption of mobile banking by Jordanian bank customers: Extending UTAUT2 with trust. *International Journal of Information Management*, *37*(3), 99–110. https://doi.org/10.1016/j.ijinfomgt.2017.01.002

Amelia, R., & Hidayatullah, S. (2020). The Effect of Instagram Engagement to Purchase Intention and Consumers ' Luxury Value Perception as the mediator in the Skylounge Restaurant. *International Journal of Innovative Science and Research Technology*, *5*(4).

Andini, F., & Hariyanti, I. (2021). Penerapan Model UTAUT 2 untuk Memahami Perilaku Penggunaan OASIS di Sekolah Tinggi Teknologi Bandung. *Naratif Jurnal Nasional Riset Aplikasi Dan Teknik Informatika*, *3*(02), 1–10. https://doi.org/10.53580/naratif.v3i02.127

Andre, G. V., Baptista, P. T., & Setiowati, R. (2019). The Determinants Factors of Mobile Payment Adoption in DKI Jakarta. *Journal of Research in Marketing*, 823–831.

Bank Indonesia. (n.d.-a). QR Code Indonesian Standard (QRIS). Retrieved February 27, 2024, from Bank Indonesia website: https://www.bi.go.id/id/edukasi/Documents/Bahan-Sosialisasi-QRIS.pdf

Bank Indonesia. (n.d.-b). Sistem Pembayaran & Pengelolaan Uang Rupiah. Retrieved February 27, 2024, from Bank Indonesia website: https://www.bi.go.id/QRIS/default.aspx

Bina Nusantara. (n.d.). Perkembangan Financial Technology di Indonesia. Retrieved February 27, 2024, from Bina Nusantara website: https://accounting.binus.ac.id/2020/07/02/perkembangan-financial-technology-di-indonesia/

Febriani, N. K. D., Utami, N. W., & Putri, I. G. A. P. D. (2023). Analisis Behavioral Intention dan Use Behavior Quick Response Code Indonesian Standard (QRIS) Pada UMKM Dengan Metode UTAUT 2 di Kota Denpasar. *Jurnal Ilmiah Teknologi Informasi Asia*, *17*(8).

Ferghyna, F., Rachmadi, A., & Herlambang, A. D. (2020). Pengaruh Facilitating Conditions dan Behavioral Intention terhadap Use Behavior pada Pengguna Aplikasi BNI Mobile Banking. *Jurnal Pengembangan Teknologi Informasi Dan Ilmu Komputer*, *4*(9).

Gultom, M. S., & Safitry, N. (2021). Analisis Pengaruh Persepsi Kemanfaatan, Persepsi Kemudahan Penggunaan, dan Kepercayaan terhadap Minat Menggunakan Alat Pembayaran Non Tunai dengan JAKONE Mobile. *Ekonomi Islam*, *12*(2), 241–261. https://doi.org/10.22236/jei.v12i2.7950

Gupta, A., Dogra, N., & George, B. (2018). What determines tourist adoption of smartphone apps? *Journal of Hospitality and Tourism Technology*, *9*(1), 50–64. https://doi.org/10.1108/JHTT-02-2017-0013

Gusni, G., Hurriyati, R., & Dirgantari, P. D. (2020). Pengaruh Perceived Usefulness dan Perceived Ease of Use terhadap Attitude dan Actual Usage Go-Pay. *JURNAL MANAJEMEN DAN KEWIRAUSAHAAN*, *8*(1). https://doi.org/10.26905/jmdk.v8i1.3892

Hair, Jr. , J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)* (3rd ed.). Thousand Oaks: Sage.

Mayanti, R. (2020). Faktor-faktor yang Mempengaruhi Penerimaan User terhadap Penerapan Quick Response Indonesia Standard sebagai Teknologi Pembayaran pada Dompet Digital. *Jurnal Ilmiah Ekonomi Bisnis*, *25*(2), 123–135.https://doi.org/10.35760/eb.2020.v25i2.2413

Mufingatun, M., & Prijanto, B. (2020). Analysis of Factors Affecting Adoption of Mobile Banking Application in Indonesia. *Jurnal Bisnis Dan Manajemen*, *10*(1).

Musyaffi, A. M., & Kayati, K. (2020). Dampak Kemudahan dan Risiko Sistem Pembayaran QR Code: Technology Acceptance Model (TAM) Extension. *Jurnal Inspirasi Bisnis Dan Manajemen*, *3*(2), 161. https://doi.org/10.33603/jibm.v3i2.2635

Novi Arianti, N. L., Sri Darma, G., Fredy Maradona, A., & Mahyuni, L. P. (2019). Menakar Keraguan Penggunaan QR Code Dalam Transaksi Bisnis. *Jurnal Manajemen Bisnis*, *16*(2), 67. https://doi.org/10.38043/jmb.v16i2.2041

R., Made Karmawan, G., . S., Fernandoand, Y., & Gui, A. (2019). QR Code Payment in Indonesia and Its Application on Mobile Banking. *KnE Social Sciences*. https://doi.org/10.18502/kss.v3i22.5073

R., & Nurkhin, A. (2020). Analysis of Factors Affecting Behavioral Intention to Use E-Learning Uses the Unified Theory of Acceptance and Use of Technology Approach. *KnE Social Sciences*. https://doi.org/10.18502/kss.v4i6.6658

Soviah, S. (2019). *Analisa pengaruh performance expectancy, Effort Expectancy, Social Influence, dan Facilitating Condition terhadap Intensitas Penggunaan Layanan QR Code Sister For Student (SFS) Universitas Jember*. Universitas Jember.

Taiwo, A. A., & Downe, A. G. (2013). The theory of user acceptance and use of technology (UTAUT): a meta-analytic review of empirical findings. *Journal of Theoretical and Applied Information Technology*, *49*(1), 48–58.

Venkatesh, Morris, Davis, & Davis. (2003). User Acceptance of Information Technology: Toward a Unified View. *MIS Quarterly*, *27*(3), 425. https://doi.org/10.2307/300365401