



**SHOPEEPAY MOBILE PAYMENT ADOPTION ANALYSIS
USING THE UTAUT MODEL APPROACH
(CASE STUDY AT AMIKOM UNIVERSITY YOGYAKARTA)**

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Abstract

Along with the development of time, fintech companies issued mobile payment products such as QR Code, NFC, and OTP codes. The use of payment facilities that are currently rampant causes users to choose according to their wishes, based on the description, the purpose of this study is to analyze the use of ShopeePay mobile payments using the UTAUT approach. The variables analyzed are Perceived Risk, Perceived Trust, Perceived Cost, Self-efficacy, Effort expectancy, performance expectancy, and Social Influence on mobile payment adoption at ShopeePay. The research method used in this case is a descriptive method, using statistical data processing tools. Data collection was carried out at Amikom University Yogyakarta using the sampling method. The results showed that the factors perceived risk (perceived risk), self-efficacy (self-efficacy), and effort expectancy (business expectations) had a positive and significant effect on interest in mobile payment adoption in Indonesia. Furthermore, the factors of perceived trust (perceived trust), performance expectancy (performance expectations), and social influence (social influence) do not have a positive effect on interest in mobile payment adoption in Indonesia.

Introduction

Today, payment technology has undergone a change from cash payments to non-cash known as the cashless system. Based on [1], the percentage of non-cash transactions in several developed countries has exceeded 50% of all transactions. However, in reality in Indonesia, the use of non-cash transactions is still very low compared to other countries. Indonesia has populations in more than 264.16 million, but no more part of people used digital payment. This opportunity is very helpful for the financial

industry in Indonesia to develop financial services by conducting transactions. Mobile payment really allows users to carry out transactions for a product with their smartphone [3]. Fintech companies issued mobile payment products such as QR Code, NFC, and OTP code. In making digital payments using a smartphone, users must first have digital money or an e-wallet. An E-wallet or electronic wallet is an application device or feature that is innovated to make it easier for users to make transactions. based on research conducted by cash finance, it states that

ShopeePay is listed as a mobile wallet that is often used for transactions [4]. ShopeePay has a mobile wallet feature that can be used as an online payment method on the Shopee platform, offline at ShopeePay merchants, and to accommodate refunds. [5]. ShopeePay is a product of PT. Airpay International Indonesia. ShopeePay has been registered and obtained four permits from Bank Indonesia as one of the issuers of electronic money, electronic wallets, digital financial institutions, and fund transfer service licenses [6]. ShopeePay is used to pay for purchases through the Shopee platform, as Shopee claims that 45% of its transactions on the Shopee platform are paid for using ShopeePay [7]. The survey shows that ShopeePay holds the largest share (48%), competing with OVO (46%). Further data in October 2020, ShopeePay became the most used mobile payment during October with 34%, followed by OVO with 28% then GoPay with 17%, with Dana 14%, and Link Aja with 7%, this is presented in Figure 1.

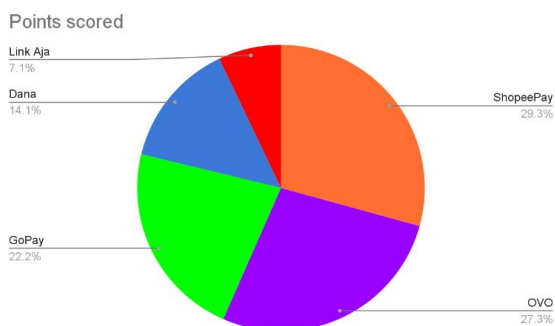


Fig 1. Data mobile payment ShopeePay (IPSOS, 2020)

ShopeePay users are growing much faster than other mobile payments in Indonesia. The data shows that there is a possible change in consumer preferences in using mobile payments, from other mobile payments to ShopeePay. Research on UTAUT has been widely used in the acceptance of E-commerce and M-commerce. Compared to previous SI theories/models, UTAUT provides a better understanding of the variance in behavioral intention to adopt a particular technology [8]. In addition, UTAUT is also widely used as a basis for research to find out what factors can

affect the acceptance of various technologies in various countries. First, the perceived risk factor (perceived risk), according to [9] in her research, it is stated that behavioral intention (interest in use) is positively influenced by perceived risk, besides that Fitriani's (2017) in her research states that perceived risk does not significantly affect behavioral intention.

Furthermore, the perceived cost factor (perceived cost), [10] in his research states that the perceived cost factor affects behavioral intention significantly, besides that [11] states that perceived cost has no significant effect on behavioral intention. Third, is the factor of perceived trust or perception of trust [12] while stating that perceived trust significantly affects behavioral intention. Fourth, self-efficacy or self-efficacy has a positive influence on the adoption of mobile payments and that self-efficacy has a negative influence on the adoption of mobile payments. The fifth factor is that effort expectancy significantly [12] affects behavioral intention.

Based on the description above, the purpose of this study is to analyze the use of mobile payments at Amikom University Yogyakarta, especially ShopeePay based on the variable, perceived risk or perceived risk, perceived cost or perceived cost, perceived trust or the perception of trust, effort expectancy or business expectations, performance expectancy or performance expectations, and social influence or social influences that affect behavioral intention or interest in using the UTAUT approach.

Research Methods

1. Mobile payments

A mobile payment system or mobile payment is defined as a financial activity service performed using a cellular telephone (for example, cellular telephone, radio frequency, personal digital assistant, packet assembler/disassembler, and Near-field Communication (NFC). Mobile payment systems facilitate business transactions and allow users to pay for their

goods and services wherever and whenever they want. The advantages of mobile payments are ease of use, no need to be plugged into a power line or telephone line, portable, and do not require paper. It allows users to pay bills and other payments easily and conveniently anytime and anywhere. The mobile payment provides certain loyalty initiatives, thereby creating a marketing strategy by documenting sales and thereby increasing business. However, mobile payment has drawbacks, one of which users need to have access to a cell phone with a modem or wireless internet connection [13]

2. Unified Theory of Acceptance and Use of Technology (UTAUT)

User acceptance and use of information technology are very important for the success of companies implementing new technologies. To explain user acceptance of information technology, researchers propose many theories such as TAM (Technology Acceptance Model), IDT (Innovation Diffusion Theory), and DTPB (Decomposed Theory of Planned Behavior). These theories have examined the factors that influence user acceptance of new technologies from different angles and research on technology acceptance is highly enriched. At the same time, it is very difficult for us to compare these different results.

UTAUT argues that user performance expectancy, effort expectancy, social influence, and facilitating conditions, as four main factors, will significantly affect the acceptance of information technology users. Since UTAUT refers to eight theories, these four factors are not completely new and are adapted from existing factors. More specifically, performance expectations are similar to the perceived usefulness of TAM and the relative advantages of IDT. The perceived ease of use is similar to the perceived ease of use of TAM and the complexity of IDT. Social influence is similar to the subjective norms of TRA and TPB. The facilitation conditions were similar to the perceived behavioral control of the TPB.

3. Perceived Risk (PR)

Perceived risk is defined as a mobile payment consumer believing that he or she is exposed to certain types of risk, such as financial, social, psychological, physical, or time risk [15].

4. Perceived Trust

Trust is the level of individual confidence in an individual's sense of security in using mobile payments. The research instrument is taken from the research [16]and [17]by presenting four questions as indicators of trust.

5. Perceived Cost

The price value is the level of the gap between the benefits that individuals receive when using mobile payments and the costs incurred to adoption (Venkatesh et al., n.d.).

6. Self-efficacy

Self-efficacy refers to an individual's belief in his ability to succeed in doing something [19]. Self-efficacy is a person's belief in his ability to master the situation and produce something profitable [20].

7. Effort expectancy

Business expectations are defined as the level of ease when using technology, the scale or attribute used to measure business expectations in this study is based on previous research, which is an individual's perception of the level of ease of learning to use technology, the level of ease of understanding technology clearly, the level of ease of use of technology, and the level of ease in mastering technology [14].

8. Performance expectancy

Performance expectations can be defined as the expected benefits that technology provides to consumers when using it to perform activities (Venkatesh et al., n.d. 2012). The scale or attribute used to measure performance expectations in this study is based on a study of the use of technology to help individuals increase productivity [14].

9. Social Influence

Social influence is the degree to which the environment and people around individuals use technology to support their activities.

Hypothesis

The hypothesis of this study are:

- H1. Risk perception has a negative effect on the intention to adopt using mobile payment.
- H2. Perceived Trust has a positive effect on the adoption of using mobile payment.
- H3. Perceived Cost has a negative effect on adoption using mobile payment.
- H4. Self-efficacy has a positive effect on mobile payment adoption
- H5. Performance expectations have a positive effect on behavioral tendencies in adopting mobile payments
- H6. Business expectations have a positive effect on behavioral tendencies in adopting mobile payments
- H7. Social influence has a positive effect on behavioral tendencies in adopting mobile payment

Research Framework

The proposed framework for this research is presented in Figure 2.

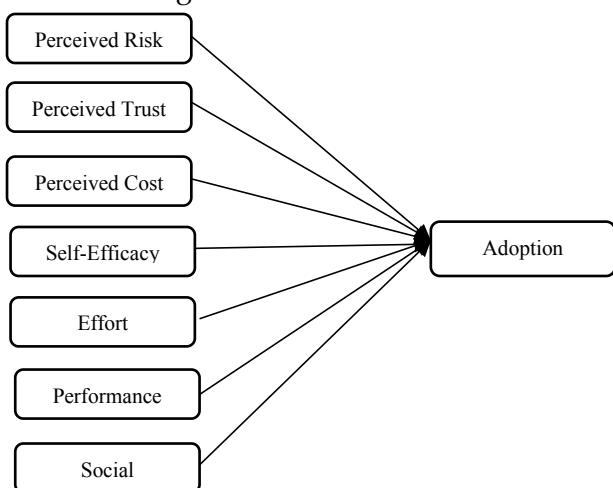


Fig 2. Research framework[14]

Results and Discussion

1. Data collection

The data collecting in this study is used descriptive quantitative methods and processing using SPSS software. This study uses purposive sampling, namely all mobile payment users who use Shopee products. The determination of the sample using PLS-SEM is equal to or larger than the condition: (1) ten times the total largest indicator formative which uses for measuring a constructor (2) ten times number of paths largest structure which leads to a construct certain. Sampling in this study used the approach Cohen Yang considers statistical power and effect size when determining the size sample minimum [22] [23]. The data statistics are shown in Table 1.

Table 1. Statistics data

Information	Amount	Percentage (%)
Data received	252	100.0
Unqualified data	2	1.5
Eligible data	250	98.5%

Based on Table 1, the distribution of data is obtained in Table 2.

Table 2. Distribution of data

Gender	Frequency	Percentage
Man	90	35.9
Woman	160	64.1
Amount	250	100.0

Based on Table 2, samples were obtained as many as 250 samples with the proportion of 160 being female and 90 being male, and the distribution of the data is presented in Table 3.

Table 3. Characteristics of Respondents by Age

Age Type	Frequency	Percentage
< 24	229	91.2
24 years - 39 years	21	8.4
40 years - 55 years	0	0
> 56 Years	0	0

Table 3 describes the characteristics of ShopeePay users at Amikom University Yogyakarta. Where users are more dominated by the age of under 24 years.

2. Data Validity Test

A validity test is used with the aim of ensuring that the indicators on each construct used in the

research are valid or not. So as not to trigger conflict, the results obtained from this observation are shown as follows:

a. Convergent validity of the measurement model along with the reflection indicator can be seen from the correlation of the indicator value with the constructed value.

b. The discriminant validity of the reflection indicator can be seen in the value of the cross-loading between the indicator and its construction and different constructs should not correlate with high.

Table 4. Outer Loading

Variable	Question Items	Outer Loading	Cronbach's Alpha	Composite Reliability	AVE
Perceived Risk (PR)	PR1	0,911	0.118	0.557	0.349
	PR2	0,351			
	PR3	0,307			
Perceived Cost (PC)	PC1	-0,567	0.370	0.005	0.343
	PC2	-0,545			
	PC3	0,620			
	PC4	0,606			
Self-Efficacy	SE1	0,877	0.663	0.807	0.592
	SE2	0,849			
	SE3	0,535			
Perceived Trust	PT1	0,787	0.835	0.889	0.666
	PT2	0,821			
	PT3	0,829			
	PT4	0,826			
Effort Expectancy	EE1	0,884	0.802	0.881	0.712
	EE2	0,823			
	EE3	0,823			
Performance Expectancy	PE1	0,910	0.890	0.932	0.820
	PE2	0,935			
	PE3	0,870			
Social Influence (SI)	SI1	0,878	0.820	0.893	0.736
	SI2	0,858			
	SI3	0,837			
Behavioral Intention (BI)	BI1	0,833	0.839	0.903	0.757
	BI2	0			
	BI3	0			
		0,872			

Based on Table 4 above, several factor loading values above 0.7, namely PR2, PR3, PC1, PC2, PC3, PC4, and SE3. The AVE value for each variable has one instrument that has not yet reached 0.50, namely the PC instrument. On the other hand, the value of composite reliability and Cronbach's omission has one instrument which is still below 0.70. So, it can be concluded

that the research instrument is not yet valid and not reliable. The solution to this problem is to remove instruments that have an outer loading value below 0.70 and retest them.

3. Reliability Test Results

The purpose of the reliability test is to prove the accuracy, consistency, and accuracy of

indicators in measuring constructs. The reliability test is measured by two criteria, namely composite reliability and Cronbach alpha of the indicator block that measures the construct. The test results are shown in Table 5.

Table 5. Composite Reliability & Cronbach Alpha values

Question Items	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
EE	0.802	0.881	0.712
PE	0.890	0.932	0.820
PR	1,000	1,000	1,000
PT	0.835	0.889	0.666
SE	0.715	0.874	0.776
BI	0.839	0.903	0.757

4. Model Test Results

The model test result show on Table 6. The structural model test is carried out by looking at the R-square value which is the goodness-fit test of the model.

Table 6. R-Square

Variable	R Square
Interest in using mobile payment adoption	0.422

The value of R Square on mobile payment adoption is 0.422. The explain of the result is the influence on mobile payment adoption at Amikom University Yogyakarta just 42.2%.

5. Hypothesis Test

The results of hypothesis testing are shown in Table 7 below.

Table 7. Hypothesis test results

Hypothesis	Original Sample	T Statistics	P Value	Information
Perceived risk → Adoption of mobile payment	0.133	2.181	0.030	Accepted
Self-Efficacy → Adopt mobile payment	0.179	2,773	0.006	Accepted
Perceived trust → Adoption of mobile payment	0.013	0.206	0.837	Not accepted
Effort expectancy → Adoption of mobile payment	0.350	3.357	0.001	Accepted
Performance expectancy → Adoption of mobile payment	0.117	1.375	0.170	Not accepted
Social influence → Adopt mobile payment	0.065	0.814	0.476	Not accepted

The test results in Table 7 are defined by looking at the original sample values to determine the relationship between the variables studied. The results of the inner model test show that there are three accepted hypotheses at t-statistics > 1.660, this means the relational all parameters are very strong.

Perceived Risk has a positive influence on mobile payment adoption

Based on the results of path coefficients, it shows the effect of perceived risk on mobile payment adoption has a parameter coefficient value of 0.133. These results indicate that risk perception has a significant positive effect on behavioral intention to use mobile payment. The lower the risk of using mobile payment, the

higher the intention to use mobile payment. So mobile payment users at Amikom University Yogyakarta must be aware of the risk that the system could affect their transactions.

Perceived Trust has a negative influence on mobile payment adoption

Based on the results of path coefficients, it shows that the effect of price perception on mobile payment adoption has a parameter coefficient value of 0.013. The results show that the perception of trust has an insignificant negative effect on behavioral intentions to use mobile payments. This proves that perceived trust proves to be another factor influencing people's intention to adopt payment services. This research shows that consumers will not adopt mobile payment if they feel a lack of trust in entities related to the provision of mobile payment services. This lack of trust will potentially affect fundamental issues such as consumers refusing to provide personal information to mobile payment providers.

Self-Efficacy has a negative influence on mobile payment adoption in Universitas Amikom Yogyakarta

Based on the results of the path coefficients, it shows that the effect of self-efficacy on mobile payment adoption has a parameter coefficient value of 0.133. there is able to accomplish its tasks effectively, the more likely users will adopt it.

Effort expectancy has a positive influence on mobile payment adoption in Indonesia

Based on the results of path coefficients showing the effect of effort expectancy on mobile payment adoption, the result of parameter coefficient value is 0.350, is higher the convenience of the mobile payment system, the greater the behavioral intention to use the system.

Performance expectancy has a negative effect on the adoption of mobile payments in Indonesia

Based on the results of path coefficients, it shows the effect of performance expectations on the interest in using e-money has a parameter coefficient value of 0.117. this shows that the perception of performance expectations has an insignificant negative effect on behavioral intentions to use mobile payments [24].

Social Influence has a negative influence on mobile payment adoption

Based on the results of path coefficients, it shows that the effect of social influence on mobile payment adoption has a parameter coefficient value of 0.065. This shows that social influence has no effect on mobile payment adoption because ShopeePay users at Amikom University Yogyakarta are not interested in recommendations from the closest people (friends, friends, and family).

Conclusion

Based on the testing process and data analysis that has been carried out, the conclusions that can be drawn in this study include that the factors perceived risk (perception of risk), self-efficacy (self-efficacy), and effort expectancy (business expectations) have a positive and significant effect on interest adoption of mobile payments in Indonesia. Furthermore, the factors of perceived trust (perceived trust), performance expectancy (performance expectations), and social influence (social influence) do not have a positive effect on interest in mobile payment adoption in Indonesia. So that in future research. These factors that do not have a positive effect will also be corrected in order to influence and attract users to adopt mobile payments, especially ShopeePay so that they can expand the market.

References

- [1] H. Thomas, A. Jain, And M. Angus, "The Global Journey From Cash To Cashless," *Advancing Insights, Advancing Commerce*, Vol. 1, No. 3rd, p. 15, 2013.
- [2] Untoro, Ra Trenggana, And K. Dewi, "Mapping Of Mobile Payment Products And Risks In Payment Systems In Indonesia," *Bank Indonesia Working Paper*, Pp. 1-74, 2013.
- [3] C. Phonthanukitithaworn, C. Sellitto, And Mwl Fong, *Asia-Pacific Journal Of Business*, Vol. 5, No. 2. 2016.
- [4] "Latest Finance And Banking News - Kontan."
<https://Keuangan.Kontan.Co.Id/>
(Accessed Mar. 28, 2022).
- [5] A. Angela, "Factors That Influence The Attitude To Use Electronic Wallets And Their Implications For Behavioral Intention Are Studied In Shopeepay Users," *Scientific Journal Of Management And Business*.
- [6] "3001 @ Shopee.Co.Id."
- [7] F. Bagas, "Shopeepay Officially Presents As a Digital Wallet, Offers a Rp 1 Shopping Voucher Promo," *Scientific Journal Of Management And Business*, 2020.
- [8] V. Venkatesh, Jyl Thong, And X. Xu, "Venkatesh_Thong_Xu_Misq_Forthcoming (Gender Age Experience)," *Mis Quarterly*, Vol. 36, No. 1, Pp. 157-178, 2012.
- [9] N. Sobti, "Impact Of Demonetization On Diffusion Of Mobile Payment Service In India: Antecedents Of Behavioral Intention And Adoption Using Extended Utaut Model," *Journal Of Advances In Management Research*, Vol. 16, No. 4, Pp. 472-497, Oct. 2019, Doi: 10.1108/Jamr-09-2018-0086/Full/Html.
- [10] D. Valencia, C. L.-U. M. J. Ilmu, And Undefined 2021, "E-Wallet Service Innovation, Service Delivery, And Customer Satisfaction On Customer Loyalty Within Shopeepay In Indonesia," *Ejournals.Umn.Ac.Id*, Vol. 13, No. 1, 2021, Accessed: Mar. 28, 2022. [Online]. Available: <https://Ejournals.Umn.Ac.Id/Index.Php/Manajemen/Article/View/1929>
- [11] M. T. T. Tenk, ... H. Y.-I. J. Of, And Undefined 2020, "E-Wallet Adoption: A Case In Malaysia," *Ubipayroll.Com*, Vol. 2, No. 02, 2020, Accessed: Mar. 30, 2022. [Online]. Available: <https://Ubipayroll.Com/Ijrcms/Index.Php/Ijrcms/Article/View/64>
- [12] K. Al-Saedi, M. Al-Emran, E. Abusham, And S. A. El-Rahman, "Mobile Payment Adoption: A Systematic Review Of The Utaut Model," 2019 *International Conference On Fourth Industrial Revolution, Icfir 2019*, Feb. 2019, Doi: 10.1109/Icfir.2019.8894794.
- [13] S. Roy, M. Balaji, ... A. K.-J. Of S., And Undefined 2017, "Predicting Internet Banking Adoption In India: A Perceived Risk Perspective," *Taylor & Francis*, Vol. 25, No. 6, Pp. 418-438, Sep. 2016, Doi: 10.1080/0965254X.2016.1148771.
- [14] V. Venkatesh, M. Morris, G. Davis, F. D.-M. Quarterly, And Undefined 2003, "User Acceptance Of Information Technology: Toward a Unified View," *Jstor*, Accessed: Mar. 30, 2022. [Online]. Available: <https://Www.Jstor.Org/Stable/30036540>
- [15] Z. Xuehua, "Changes Of Accounting Firm Organizational Form, Accounting Firm Size And Audit Quality," *Proceedings Of The 2014 International Conference On Economic Management And Social Science*. Atlantis Press, 2014. Doi: 10.2991/Emss-14.2014.65.
- [16] D. Gefen, E. Karahanna, D. S.-M. Quarterly, And Undefined 2003, "Trust And Tam In Online Shopping: An Integrated Model," *Jstor*, Accessed: Mar. 30, 2022. [Online]. Available: <https://Www.Jstor.Org/Stable/30036519>
- [17] D. Urumsah, ... M. Q.-P. Of The 19th, And Undefined 2011, "An Investigation Into The Factors Influencing Consumers To

- Use e-Services Of Indonesian Airlines: The Role Of Motivation," *Espace.Curtin.Edu.Au*, Accessed: Mar. 30, 2022. [Online]. Available: <https://Espace.Curtin.Edu.Au/Handle/20.500.11937/48280>
- [18] V. Venkatesh, J. Thong, X. X.-M. Quarterly, And Undefined 2012, "Consumer Acceptance And Use Of Information Technology: Extending The Unified Theory Of Acceptance And Use Of Technology," *Jstor*, Accessed: Mar. 30, 2022. [Online]. Available: <https://Www.Jstor.Org/Stable/41410412>
- [19] Fp-A. In Motivation And Achievement And Undefined 1997, "Current Directions In Self-Efficacy Research," *Dynaread.Com*, Accessed: Mar. 30, 2022. [Online]. Available: <https://Www.Dynaread.Com/Current-Directions-In-Self-Efficacy-Research>
- [20] J. Santrock And J. Santrock, "Educational Psychology Second Edition," 2007, Accessed: Mar. 30, 2022. [Online]. Available: <http://Difarepositories.Uin-Suka.Ac.Id/35/>
- [21] I. Nauli, "'Quantitative Research Methods Equipped With Comparison Of Manual & Spss Calculations'. Date. Jakarta. Sugiyono. 2015. Business Research Methods ...," 2021, Accessed: Mar. 30, 2022. [Online]. Available: <https://Eprints.Umk.Ac.Id/14814>
- [22] C. Chuan, J. P.-J. P. Ipbl, And Undefined 2006, "Sample Size Estimation Using Krejcie And Morgan And Cohen Statistical Power Analysis: A Comparison," *Researchgate.Net*, Accessed: Mar. 30, 2022. [Online]. Available: https://Www.Researchgate.Net/Profile/Christie-Entika/Post/Between_Krejcie_And_Morgan_1970_Tables_Cohen_1992_In_Deciding_Sample_Size_Which_One_Do_You_Prefer_As_Both_Approaches_Have_Its_Own_Critics/Attachment/59d626526cda7b8083a22f13/As%3A489574523772930%401493735070267/Download/Sample+Size+Estimation+Using+Krejcie+And+Morgan+And.Pdf
- [23] J. C.-P. Bulletin And Undefined 1992, "A Power Primer," *Psycnet.Apa.Org*, Vol. 112, p. 155, 1992, Accessed: Mar. 30, 2022. [Online]. Available: <https://Psycnet.Apa.Org/Doilanding?Doi=10.1037/0033-2909.112.1.155>
- [24] R. Yadav, G. P.-J. Of C. Production, And Undefined 2016, "Young Consumers' Intention Towards Buying Green Products In a Developing Nation: Extending The Theory Of Planned Behavior," *Elsevier*, Accessed: Mar. 30, 2022. [Online]. Available: <https://Www.Sciencedirect.Com/Science/Article/Pii/S0959652616307971>